Greater Strawberry Point Supplemental Soil and Groundwater Characterization Report Martin State Airport 701 Wilson Point Road Middle River, Maryland

Prepared for:

Lockheed Martin Corporation

Prepared by:

Tetra Tech, Inc.

December 2013

Michael Martin, P.G.
Regional Manager

Anthony Apanavage, P.G.
Project Manager

TABLE OF CONTENTS

Section **Page**

ACRONYMS iv

1 INTRODUCTION 1-1

2 SITE BACKGROUND 2-1

2.1 LOCATION AND HISTORY 2-1

2.1.1 Martin State Airport 2-1

2.1.2 Strawberry Point and Greater Strawberry Point Facility 2-2

2.2 PHYSICAL FEATURES 2-4

2.2.1 Land Use 2-4

2.2.2 Climate 2-5

2.2.3 Physiography 2-5

2.2.4 Topography 2-5

2.2.5 Surface Water Hydrology 2-6

2.2.6 Regional Geologic and Hydrogeologic Conditions 2-7

2.2.7 Vicinity Subsurface Conditions 2-7

2.3 SUMMARY OF PREVIOUS INVESTIGATIONS 2-10

2.3.1 Phase I Environmental Assessment Conclusions 2-12

2.3.2 Phase II Investigations at REC #1 2-12

2.3.3 2010 Phase II Site Investigation 2-14

2.3.4 2011 Additional Phase II Site Investigation 2-17

2.4 CURRENT SITE CONDITIONS AND OPERATIONS 2-18

3 INVESTIGATION APPROACH AND METHODOLOGY 3-1

3.1 MOBILIZATION/DEMOBILIZATION 3-2

3.2 SITE ACCESS, PERMITS, AND UTILITY CLEARANCE 3-3

3.3 FIELD METHODOLOGY 3-5

3.3.1 Membrane-Interface-Probe Investigation 3-5

3.3.2 DPT Investigation 3-6

3.3.3 Monitoring Well Installation 3-7

3.3.4 Monitoring Well Development 3-8

3.3.5 Groundwater Monitoring Well Purging and Sampling 3-9

TABLE OF CONTENTS (continued)

Section **Page**

3.3.6 Soil and Groundwater Sampling Analyses 3-10
3.3.7 Sample Nomenclature 3-12
3.3.8 Surveying 3-12
3.3.9 Synopic Water Level Measurements 3-12
3.3.10 Documentation 3-13
3.3.11 Equipment Decontamination 3-13
3.4 WASTE MANAGEMEMT 3-14
3.5 SITE RESTORATION 3-14
3.6 DATA VALIDATION 3-14
4 RESULTS 4-1
4.1 GEOLOGY AND HYDROLOGY 4-1
4.1.1 Geology 4-1
4.1.2 Hydrology 4-2
4.2 MEMBRANE-INTERFACE PROBE INVESTIGATION RESULTS 4-3
4.2.1 MIPs Advanced in RECs #7, #8 and #9 4-3
4.2.2 MIPs Advanced in REC #11 4-3
4.3 SOIL BORINGS AND SOIL SAMPLING RESULTS 4-4
4.3.1 Borings in REC #7, #8, and #9 Areas 4-4
4.3.2 Borings in REC #11 Area 4-7
4.4 GROUNDWATER RESULTS 4-9
4.4.1 RECs #7, #8, and #9 Groundwater Results 4-10
4.4.2 REC #10 Groundwater Results 4-11
4.4.3 REC #11 Groundwater Results 4-11
5 SUMMARY 5-1
6 REFERENCES 6-1

TABLE OF CONTENTS (continued)

APPENDICES

APPENDIX A— DIGGING PERMITS AND UTILITY CLEARANCE REPORTS

APPENDIX B— MEMBRANE-INTERFACE-PROBE INVESTIGATION REPORT

APPENDIX C— BORING LOGS AND SOIL SAMPLING LOG SHEETS

APPENDIX D— MONITORING-WELL DEVELOPMENT RECORDS, BORING LOGS, AND WELL CONSTRUCTION LOGS

APPENDIX E— GROUNDWATER LEVEL MEASUREMENT FORMS, GROUNDWATER SAMPLE LOGS, AND LOW-FLOW-PURGE DATA SHEETS

APPENDIX F— CHEMICAL DATA TABLES

APPENDIX G— WELL SURVEY REPORT

APPENDIX H— DATA VALIDATION REPORTS (ON CD)

APPENDIX I— INVESTIGATION-DERIVED-WASTE DOCUMENTATION

APPENDIX J— CALCULATION OF BENZO(A)PYRENE EQUIVALENT CONCENTRATIONS

LIST OF FIGURES

Page

Figure 1-1 Greater Strawberry Point Location Map 1-3

Figure 2-1 Location of Strawberry Point and Greater Strawberry Point 2-21

Figure 2-2 Index Map for Current and Historical Structures as Existing in 1968 2-22

Figure 3-1 Membrane Interface Probe and Soil Boring Locations (RECs #7, #8, and #9) 3-21

Figure 3-2 Membrane Interface Probe and Soil Boring Locations (REC #11) 3-22

Figure 3-3 Groundwater Monitoring Well Locations (RECs #7, #8, #9, and #10) 3-23

Figure 3-4 Groundwater Monitoring Well Locations (REC #11) 3-24

Figure 4-1 Groundwater Elevation Contour Map, RECs #7 through #10—October 2012 4-48

Figure 4-2 Groundwater Elevation Contour Map, REC #11—October 2012 4-49

Figure 4-3 Elevated Membrane-Interface-Probe Readings (RECs #8 and #9) 4-50

TABLE OF CONTENTS (continued)

LIST OF FIGURES (continued)

Page

Figure 4-4 Elevated Membrane-Interface-Probe Readings (REC #11) 4-51

Figure 4-5 Volatile Organic Compound and Semivolatile Organic Compound Exceedances in Soil Samples (RECs #7, #8, and #9) 4-52

Figure 4-6 Volatile Organic Compound and Semivolatile Organic Compound Exceedances in Soil Samples (REC #11) 4-53

Figure 4-7 Metals Exceedances in Soil Samples (RECs #7, #8, and #9) 4-54

Figure 4-8 Metals Exceedances in Soil Samples (REC #11) 4-55

Figure 4-9 Volatile Organic Compound, Semivolatile Organic Compound, and Total Petroleum Hydrocarbon Diesel-Range Organics Exceedances in Groundwater Monitoring Wells (RECs #7, #8, #9, and #10) 4-56

Figure 4-10 Volatile Organic Compound, Semivolatile Organic Compound, and Total Petroleum Hydrocarbon Diesel-Range Organics Exceedances in Groundwater Monitoring Wells (REC #11) 4-57

Figure 4-11 Metals Exceedances in Groundwater Monitoring Wells (RECs #7, #8, #9, and #10) 4-58

Figure 4-12 Metals Exceedances in Groundwater Monitoring Wells (REC #11) 4-59

LIST OF TABLES

Page

Table 3-1 Membrane-Interface Probe Locations and Rationales 3-17

Table 3-2 Summary of Soil Sampling, Chemical Analyses, and Sampling Rationales 3-18

Table 3-3 Groundwater Monitoring Well Rationales 3-20

Table 4-1 Groundwater Levels and Elevations–October 2012 4-13

Table 4-2 Membrane Interface Probe Results, August–September 2012 4-14

Table 4-3 Statistical Summary of Soil Chemical Results 4-16

Table 4-4 Summary of Positive Detections in Soil Samples 4-19

Table 4-5 Statistical Summary of Groundwater Chemical Results 4-35

Table 4-6 Summary of Positive Detections in Groundwater Samples 4-39

ACRONYMS

AST	aboveground storage tank
ASTM	ASTM International
ATC	anticipated typical concentration
BaPEq	benzo(a)pyrene equivalent
BWI	Baltimore-Washington International Thurgood Marshall Airport
COC	chain of custody
COPC	chemical(s) of potential concern
cpm	counts per minute
DO	dissolved oxygen
DPT	direct-push technology
DRO	diesel-range organics
ECD	electron-capture detector
EESH	energy, environment, safety, and heath
EGIS	environmental geographic information system
EM	electromagnetic
FAA	Federal Aviation Administration
FID	flame-ionization detector
ft/day	foot or feet per day
GPR	ground-penetrating radar
GPS	global positioning system
GRO	gasoline-range organics
GSP	Greater Strawberry Point
HASP	health and safety plan
Hz	Hertz
IAQ	indoor air quality
IDW	investigation-derived waste
Lockheed Martin	Lockheed Martin Corporation
MAA	Maryland Aviation Administration
MDANG	Maryland Air National Guard
MDE	Maryland Department of the Environment
MDOT	Maryland Department of Transportation
µg/L	microgram(s) per liter
µV	microvolt(s)

MIP	membrane-interface probe
mmho/m	millimho(s) per meter
MRC	Middle River Complex
MSA	Martin State Airport
msl	mean sea level
mV	millivolt(s)
MW	monitoring well
NaI	sodium iodide
NAVD88	North American Vertical Datum 1988
NPDES	National Pollutant Discharge Elimination System
NRC	(federal) Nuclear Regulatory Commission
ORP	oxidation-reduction potential
PAH	polycyclic aromatic hydrocarbon
PCBs	polychlorinated biphenyls
PCE	tetrachloroethene
pCi/g	picocurie(s)/gram
PDF	portable document format
PID	photo-ionization detector
PVC	polyvinyl chloride
QA/QC	quality assurance/quality control
REC	recognized environmental condition
RSL	regional screening levels
SB	soil boring
SG	soil gas
SP	Strawberry Point
SPCCP	*Spill Prevention, Control, and Countermeasures Plan*
SPLP	synthetic precipitation leaching procedure
SVOC	semi-volatile organic compound
TCE	trichloroethene
TCLP	toxicity characteristic leaching procedure
TEF	toxicity equivalency factor
TPH	total petroleum hydrocarbons
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
UST	underground storage tank
UXO	unexploded ordnance

VCP	Voluntary Cleanup Program
VOC	volatile organic compound

This page intentionally left blank.

Section 1
Introduction

On behalf of Lockheed Martin Corporation (Lockheed Martin), Tetra Tech, Inc. (Tetra Tech) has prepared the following report for the third-round Phase II site investigation in the Greater Strawberry Point (GSP) portion of Martin State Airport (MSA), formerly known as Glenn L. Martin Airport, in Baltimore County, Maryland. This study supplements the second round of Phase II investigations at Greater Strawberry Point completed in December 2011. The Greater Strawberry Point study area, comprising approximately 75 acres, is defined as the area extending from the southern end of the peninsula to the northern end, bordering Taxiway J, and eastward from Stansbury Creek to Taxiway F. Figure 1-1 depicts the location of Greater Strawberry Point.

The objective of this work was to further evaluate the nature and extent of hazardous constituents, specifically volatile organic compounds (VOCs), previously detected in soil and groundwater in the northern area of Greater Strawberry Point during the first two rounds of the Phase II site investigation. These efforts further characterize previously identified soil and groundwater contamination through membrane-interface probe (MIP) profiling and the collection of soil and groundwater samples. This investigation included the following activities:

- obtained utility clearances, any necessary access agreements, and associated permits for intrusive investigations (as applicable) from Lockheed Martin Corporation, Martin State Airport, Maryland Aviation Administration (MAA), Maryland Department of the Environment (MDE), and the Federal Aviation Administration (FAA), if required
- completed membrane-interface-probe subsurface explorations at 25 locations (depths ranging from approximately 25 to 40 feet below grade) to screen for and delineate the extent of volatile organic compounds in the subsurface near previous soil and groundwater sampling locations
- advanced 25 soil borings to approximately 40 feet below grade, in selected locations based upon membrane-interface-probe screening results. This includes 10 soil borings in recognized environmental condition (REC) #8 downgradient of elevated trichloroethene (TCE) concentrations detected in soil at GSP-SB-92 and groundwater at GSP-MW-07

(REC #9); and 15 soil borings in REC #11 near elevated trichloroethene concentrations detected in groundwater at GSP-MW-01, GSP-SB/WP-89, and GSP-MW-04

- installed 12 new two-inch-diameter groundwater monitoring wells, including three wells near GSP-MW-07 (in REC #9, and downgradient into REC #8); five wells near the maintenance building (REC #7); and four wells in the downgradient portion of REC #11. Monitoring wells were installed using a low-profile mini-sonic rig to depths of approximately 30 feet below ground surface (bgs)

- collected two soil samples from each soil and monitoring-well boring for laboratory analysis of volatile organic compounds by SW846 Method 8260B, semivolatile organic compounds (SVOCs) including 1,4-dioxane by SW846 Method 8270D, total petroleum hydrocarbons (TPH) as gasoline-range organics (GRO) and diesel-range organics (DRO) by SW846 Method 8015D, and Priority Pollutant metals by SW846 Method 6010C. Also analyzed three soil boring samples using toxicity characteristic leaching procedure (TCLP) according to USEPA Method 1311

- collected groundwater samples for laboratory analysis from the 12 newly installed groundwater monitoring wells and eight existing monitoring wells. Analyzed for volatile organic compounds by SW846 Method 8260B, for semivolatile organic compounds including 1,4-dioxane by SW846 Method 8270D, for total petroleum hydrocarbon gasoline-range organics and diesel-range organics by SW846 Method 8015D, and for total and dissolved Priority Pollutant metals by SW846 Method 6010C.

- surveyed locations of new monitoring wells by a Maryland-licensed surveyor

- collected synoptic groundwater level measurements of the 12 new and 17 existing monitoring wells at the Greater Strawberry Point site

- collected, stored, and characterized investigation-derived waste (IDW) and disposed of it at an off-site Lockheed Martin-approved treatment and disposal facility

- performed chemical data validation on soil and groundwater analytical results

- evaluated environmental sampling data

This report is organized as follows:

Section 2—Site Background: Briefly describes the site's history, current conditions, and previous investigations.

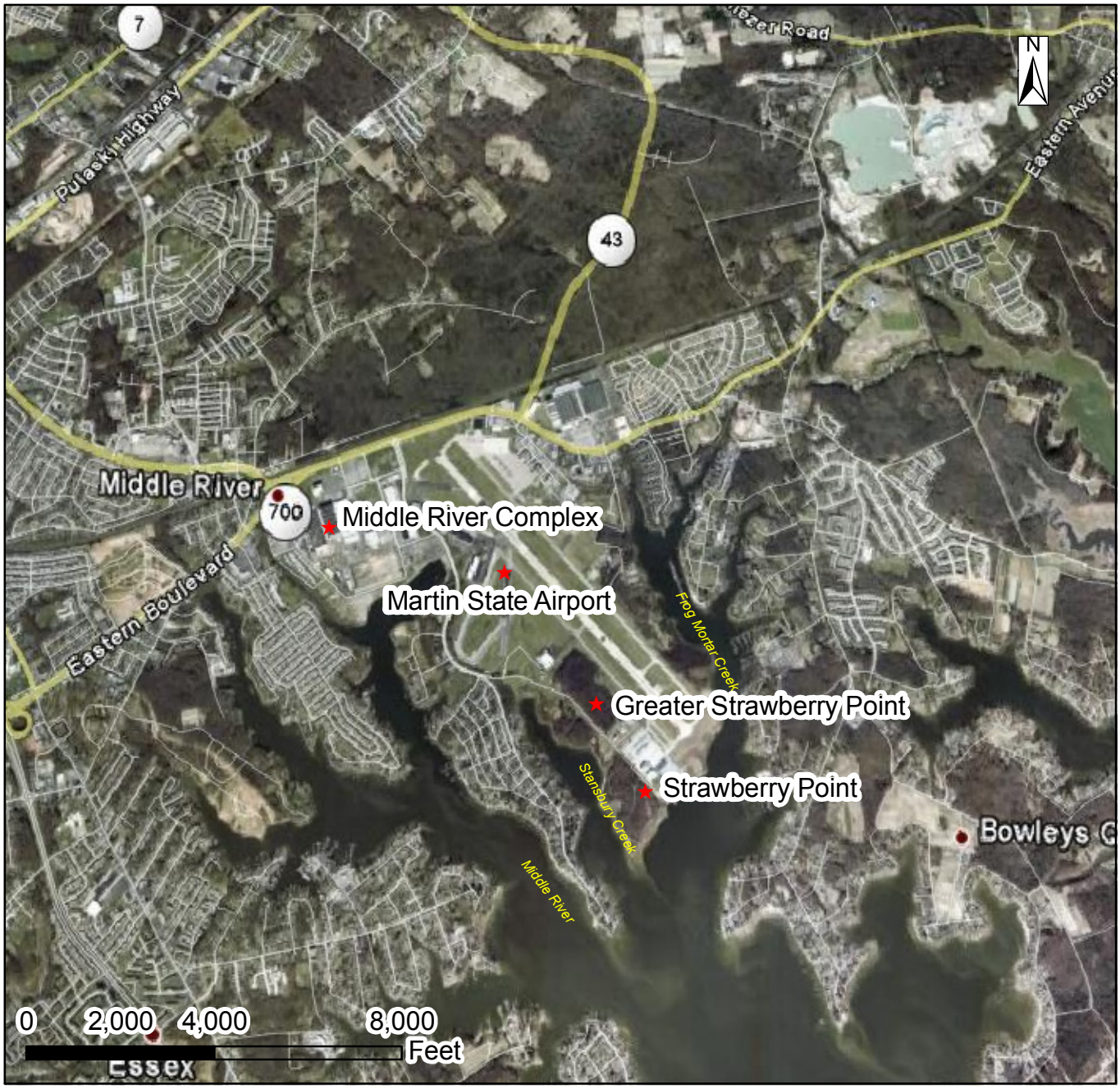
Section 3—Investigation Approach and Field Methodology: Presents the investigation's technical approach and field methodologies.

Section 4—Results: Presents the field program results.

Section 5—Summary: Summarizes the investigation findings

Section 6—References: Cites references used to compile this report.

Map Document: (K:\GProject\middle_river\Maps\MiddleRiver_StrawberryPt_LocationMap Fig 1-1.mxd)
2/24/2010 -- 2:47:47 PM



Source: Google Earth Pro, 2008

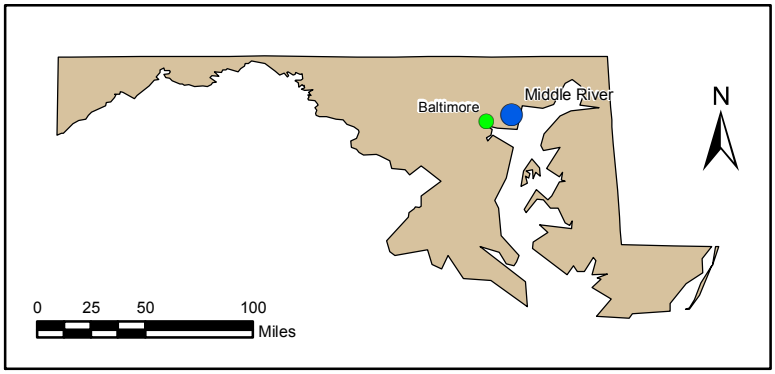


Figure 1-1

Greater Strawberry Point Location Map

Lockheed Martin, Martin State Airport
Middle River, Maryland

DATE MODIFIED:	CREATED BY:
11/14/11	MP

Tetra Tech, Inc.

Section 2
Site Background

2.1 LOCATION AND HISTORY

2.1.1 Martin State Airport

Martin State Airport (MSA) is in eastern Baltimore County on the peninsula between Frog Mortar Creek and Stansbury Creek, which are tributaries of Middle River. Eastern Boulevard (Route 150) bounds the site to the north and Lockheed Martin Corporation's (Lockheed Martin's) Middle River Complex (MRC) borders the site to the west. Figure 2-1 shows the site location (longitude 76°24'83" west and latitude 39°19'4" north). MSA is a regional airport, home to private and corporate aircraft, a flight training school, and the Maryland Air National Guard (MDANG). MDANG occupies the northeastern corner of the airport property.

The MSA Main Terminal facility (west of the MDANG facility and north of Greater Strawberry Point [GSP]) is at 701 Wilson Point Road, Middle River, Maryland. The current MSA property (approximately 775 acres) was part of the Glenn L. Martin Company's approximately 1,260-acre property, which included manufacturing facilities. A search of Maryland land records and deeds indicates that the Glenn L. Martin Company purchased six parcels of land from private landowners during the spring and summer of 1929, identified as 701 Wilson Point Road. During the 1940s and 1950s, nine additional parcels at this location were acquired from private landowners. The Glenn L. Martin Company and American-Marietta Corporation merged to become Martin Marietta Corporation in 1961. In 1969, Martin Marietta Corporation transferred the properties to Chesapeake Park, Inc., a subsidiary, which then transferred the property to the State of Maryland in 1975.

Historical aerial photographs indicate that many of the original MSA main terminal facilities (three runways, Hangars 1 through 6, and the administration building) were developed between 1939 and 1941. When the property was transferred to the State of Maryland in 1975, the Maryland Aviation Administration (MAA) assumed ownership and operations of MSA and the

Main Terminal. Since that time, MDANG has continued to lease 175-acres in the northeastern quadrant of the MSA property; MDANG also continues to use some of the taxiway and runway facilities on the main terminal property. See Figure 2-1 for the location of the MSA Main Terminal facility.

In 1955, the MDANG facilities were first occupied by the 104th Tactical Fighting Group, later reorganized as the 175th Wing of the Air National Guard. In the 1960s and 1970s, the 135th Tactical Air Group occupied an area southwest of the MDANG facility; it was relocated to the current MDANG facilities in October 1980. The MDANG facility currently leases 175 acres from the MAA in the northeastern quadrant of the approximately 775-acre property known today as MSA. The facility, now owned by the Maryland Department of Transportation (MDOT), is fenced and has a separate entrance from Eastern Boulevard. The MDANG facility includes runways, parking aprons, operations and training buildings, general supply and ammunition storage facilities, fuel storage structures, maintenance shops and sheds, and aircraft hangars.

2.1.2 Strawberry Point and Greater Strawberry Point Facility

Strawberry Point (SP) is within the confines of MSA at the southern tip of the peninsula, between the confluence of Stansbury and Frog Mortar Creeks. From Eastern Avenue, SP can be accessed through a secured unattended gate via Wilson Point Road. The previously investigated SP wooded area is at the south end of the peninsula and covers approximately 25 acres. The wooded area is bounded by earthen berms near the water line, with thick brush and trees covering the entire area. Much of the SP wooded area was reportedly filled by dredge spoils from Stansbury and Frog Mortar Creeks during the 1940s. A locked gate controls the entrance to the wooded area. GSP, the area now under investigation, is a cleared and partially developed 75-acre site comprised of a former seaplane ramp, hangar, tank farm, police building, and maintenance buildings. It extends from the southern end of the peninsula to the northern end, bordering Taxiway J, and eastward from Stansbury Creek to Taxiway F. The airport runway is northeast of GSP.

The United States Navy leased GSP from the Glenn L. Martin Company from December 23, 1943 until 1963. During that time, the Navy used the facility and supporting structures, including a large hangar used for seaplane maintenance, launching, and recovery operations. During Navy occupancy, the former hangar and surrounding GSP area was known as Naval Weapons Industrial Reserve Plant No. 148. The United States Air Force occupied the facility (permit

No. 1-N-MD-714) from December 16, 1963 until 1967. During Navy and Air Force use, the southern portion of the GSP near the wooded portion of the site contained 10 buildings. These included the beach house (Building No. 3), the pumping station (Building No. 4), the chlorination station (Building No. 5), two power-fence service houses (Building Nos. 6 and 9), solvent storage (Building No. 7), the equipment storage building (Building No. 8), the power-fence switch house (Building No. 10), the delivery hangar (Building ND/No. 11), and a general storage building (Building No. 12). A tank farm containing aboveground storage tanks (ASTs) used to store aircraft fuels was adjacent to the wooded area, near the southernmost tip of the developed area. Figure 2-2 contains the index map of current and historical building numbers in the area.

During the same period (1940s–1960s), the northern portion of GSP was developed with several improvements related to Naval weapons research. These structures included the induction test building (Building No. 13), the control house (Building No. 14), the noise suppression building (Building No. 15), the jet test shed (Building No. 16), the storage building (Building No. 17), the propulsion test building (Building No. 22), the compressor shed (Building No. 23), the engine test building (Building No. 24), and the vibration slosh test building (near the location of current ground surface mounding). A missile testing area along a straight road northwest of the propulsion test building included the hyper-therm test facility (Building No. 25), the propellant storage shed (Building No. 18), the furnace building (Building No. 19), the acetylene storage shed (Building No. 20), the vanguard tower (Building No. 21), the block house (Building No. 26), and three coupon test sheds (Buildings No. 27, No. 28, and No. 29).

Several buildings dedicated to nuclear research and testing were along a former dirt road connecting Strawberry Point Road to the historical airfield maintenance storage building (Building No. 37). Two main research buildings were designated as the critical test buildings (Building No. 36/Building KC) and the radioisotope lab (Building No. 35/Building KJ). These research labs operated under federal Nuclear Regulatory Commission (NRC) permits until the buildings were decontaminated in the late 1980s; NRC terminated the licenses in 1995. A third building known as the liquid metal test facility (Building No. 34) was just south of the labs. Several sheds were near the nuclear labs, including an organic material storage shed. These sheds were removed by Martin Marietta Corporation to construct Taxiway J.

Historical records indicate that two underground storage tanks (USTs) were installed when the Navy and Air Force used the southern GSP facilities. A 10,000-gallon heating oil UST was adjacent to the hangar (Building ND) and provided fuel for the hangar's heating system. This UST was closed in place in 1987 (post-Navy and Air Force occupancy) when the hangar's heating system was converted from fuel oil to natural gas. Both the lease and permit for the Air Force expired on November 30, 1967.

Just before that date, the Glenn L. Martin Company merged with Marietta Corporation to form Martin-Marietta Corporation. On June 30, 1975, MSA was conveyed to the MDOT. The State of Maryland currently uses MSA to house and maintain medevac units. The southern portion of GSP is occupied by the Baltimore County Marine Police.

Eleven USTs have been removed from MSA since 1983, and no evidence of leakage was reported. The large hangar designated as Building ND was demolished in 1989, and two adjacent hangars that currently house the Maryland State Police were constructed in 1989 and 1990. GSP currently contains a tank farm consisting of 12 ASTs (for jet fuel, fuel oil, and gasoline), along with a pump house and other ancillary buildings currently used by the airport. As many as six ASTs at the tank farm are used by other tenants. An oil spill was reported during construction of the new hangar in 1989–1990, when a fuel oil return and receiving line to two 12,000-gallon ASTs in the tank farm was severed. No additional information about this spill has been found in Maryland Department of the Environment (MDE) records (DERP-FUDS, 1991).

2.2 PHYSICAL FEATURES

2.2.1 Land Use

MSA is generally characterized as a moderately developed tract in a largely suburban, moderate density, populated setting. Land use surrounding MSA is, to a significant degree, a combination of mixed suburban, industrial, and light-to-moderate commercially developed and woodland tracts. MSA is bordered to the north by Eastern Boulevard (Maryland Route 150) and Amtrak railroad lines. Undeveloped woodland tracts and low-density residential properties are north of MSA and the Amtrak lines. The eastern, southern, and western boundaries of MSA are bordered by Frog Mortar and Stansbury Creeks, which are wide, brackish, tidal tributaries of the Chesapeake Bay. Lockheed Martin's MRC facility, along MSA's northwestern boundary,

currently assembles missile launching systems and aircraft parts. Low-to-medium-density residential land use and light commercial land use (e.g., shopping centers, convenience stores, restaurants, etc.) lie beyond the creeks north, east, and west of MSA. Farther east and west of MSA are the high-density residential communities of Bengies Corner and Hawthorne Park.

2.2.2 Climate

The climate at MSA is characterized as humid temperate, with hot, humid summers and relatively mild winters. The Middle River, Maryland area receives an annual average of 42 inches of precipitation, distributed evenly throughout the entire year. Rainfall occurs normally in spring, summer, and fall in the form of showers and thunderstorms. During winter, precipitation is in the form of light to heavy rain or snow. Tropical storms in late summer and fall, and occluded, meso-scale frontal systems (i.e., coastal low pressure systems) occasionally provide short-term, above-average precipitation to the area.

2.2.3 Physiography

MSA is in the western shore of the Coastal Plain physiographic province. The Coastal Plain comprises sediments composed of alluvium from the Pleistocene Epoch and the Potomac Group from the Cretaceous Period. Coastal Plain sediments begin at the fall line and follow a regional dip to the southeast at approximately 110 feet per mile (Hansen and Edwards, 1986). The fall line is the division between the Piedmont and Atlantic Coastal physiographic provinces, and refers to an imaginary line connecting waterfalls or changes in stream flow between the hard-rock upland areas of the Piedmont province and the soft-sediment lowland areas of the Coastal Plain. The Coastal Plain province is generally characterized by low topographic relief. However, steep embankments and hills are found along stream channels, rivers, and the Chesapeake Bay.

2.2.4 Topography

Most of the land surface at MSA is generally flat to gently sloping in the areas of the airport runway, taxiways, and surrounding support operations. The airport runway forms a northwest to southeast-trending topographic ridge (or drainage divide) that gently slopes from the northwest end down to the southeast end. Runway elevations range from slightly over 20 feet above mean sea level (msl) at the northern end of the runway to slightly over 10 feet above msl at the

southern end. The land also slopes northeastward and southwestward, away from the runway toward Frog Mortar Creek and Stansbury Creek.

GSP is southwest and south of the runway. Site topography ranges from flat to gently sloping to the southwest toward Stansbury Creek. In the northern portion of GSP, land elevations range from approximately 11 feet above msl near the runway to nearly mean sea level along the Stansbury Creek shoreline. In the southern wooded area of SP, land elevations are approximately eight to nine feet above msl. At the southern wooded area, an embankment slopes steeply along the western shoreline of Frog Mortar Creek and along the eastern shoreline of Stansbury Creek. The top of the Frog Mortar Creek embankment is slightly over 20 feet above msl; the top of the Stansbury Creek embankment is approximately eight feet above msl.

2.2.5 Surface Water Hydrology

MSA's eastern, southern, and western boundaries are bordered by Frog Mortar and Stansbury Creeks, which are wide, brackish, tidal tributaries of the middle Chesapeake Bay. Surface water runoff from MSA enters these creeks via localized gullies in the eastern and western undeveloped portions, or by storm sewers that drain the airport runway, taxiways, and developed portions of the facility. MSA encompasses 47 drainage areas within three watersheds—Frog Mortar Creek, Stansbury Creek, and Dark Head Cove—forming a total drainage area of approximately 700 acres. The airport drainage areas range in size from seven to more than 170 acres. A variety of owner-occupied and commercial-tenant hangars and buildings lie within several drainage areas.

Surface drainage from GSP discharges via multiple outfalls along Stansbury and Frog Mortar Creeks (Figure 2-2). Stansbury Creek receives drainage from outfalls 07, 12, and 06, and Frog Mortar Creek receives drainage from outfalls 05 and 03. Outfall 07 drains a 30-acre area and receives drainage from runway access, parking, commercial tenant buildings, private tenant hangars, and a wetland-mitigation site, as well as grassy surfaces along Wilson Point Road and Strawberry Point Road. Impervious areas include Taxilane B and aircraft and vehicle parking areas. This drainage area is covered by the airport's wetland-mitigation site and bordering vegetated areas. Surface drainage at REC #11 and the surrounding paved and wooded areas converges into a vegetated drainage swale (or drainage detention basin) in the central portion of REC #11 that extends to the southwest. This drainage swale includes two concrete stormwater

discharge structures that carry surface runoff from nearby paved areas adjacent to Taxiway J and northeast of REC #11 into the swale. This drainage swale also diverts surface water runoff away from the Chesapeake Bay Critical Area south of REC #11. The swale appears to serve as a stormwater detention area, with no apparent discharge to nearby stormwater conveyance systems.

2.2.6 Regional Geologic and Hydrogeologic Conditions

As stated earlier, MSA is in the western shore of the Coastal Plain physiographic province. Regional and local studies (Vroblesky and Fleck, 1991; Chapelle, 1985) indicate that MSA lies on the Patapsco Formation, which consists of complex and interbedded mixtures of gray, brown, and red sands, silts, and clays originating from deposition of sediment by the low-gradient meandering streams found in the low coastal plain. Below the Patapsco Formation lies the regionally extensive, thick layer of clay known as the Arundel Formation. This massive layer underlies the site and surrounding area, outcrops northwest of the site and dips and thickens to the southeast. The Arundel Formation extends as far east as Cambridge, Maryland, where it is more than 600 feet thick; beneath MSA, the Arundel Formation may be as thick as 150 feet. Throughout the MRC, this formation acts as an impermeable barrier to the downward movement of any constituents found in the surface aquifer. These same geologic studies indicate that the base of the Arundel Formation (which sits atop the deeper Patuxent Formation) is approximately 225 feet below msl near MSA and may range from 235 to 255 feet below grade at MSA.

The Patuxent Formation, a multi-aquifer unit, comprises various interstratified layers of sand, silt, and clay with abrupt changes in deposited material types over short distances. Permeable, sand-rich units range from bounded sand sheets to isolated sand bodies (Glaser, 1969). In the MSA area, groundwater flows to the south and southwest; this flow direction is caused by industrial wells withdrawing water southwest and west of the site (Chapelle, 1985 and Curtin, 2006).

2.2.7 Vicinity Subsurface Conditions

An extensive and ongoing subsurface investigation has been conducted at MSA's Dump Road site, east of the GSP and adjacent to Frog Mortar Creek. As part of the Dump Road investigation, numerous shallow and deep soil borings were advanced to collect soil samples for subsurface lithologic information. Various tests were conducted to characterize subsurface hydraulic conditions.

Early studies at the Dump Road site indicate that the subsurface hydrogeology consists of a surficial aquifer (i.e., the Patapsco Formation) containing highly heterogeneous mixtures of unconsolidated sand, silt, gravel sand mixtures, and clay. A layer of fill, consisting of heterogeneous sand, silt, and clay, overlies these native sediments. For data evaluation and correlation, the surficial aquifer was divided into upper, intermediate, and lower surficial-aquifer zones. The lower surficial-aquifer zone is approximately 45 to 73 feet below msl, and overlies at least several feet of stiff, dense clay. A study using data from four deep wells investigated the lithology beneath the lower surficial aquifer in the Dump Road area and identified a clay layer six to 40 feet thick, as well as alternating sand and silt aquifers and clay aquitards beneath the lower surficial aquifer (Tetra Tech, 2010a). These sandy units are referred to as the deep confined-aquifer zones.

2.2.7.1 Hydrostratigraphic Model

Information from Dump Road area soil borings, well borings, and aquifer hydraulics tests were used along with lithologic descriptions to construct three hydrostratigraphic models of the subsurface hydrogeological environment. The models allow for materials with low, medium, and high hydraulic permeabilities:

- Low permeability units are generally composed of clay and silty clay with general hydraulic permeabilities of less than 0.1 foot per day (ft/day).
- Medium permeability units are composed of silty sand and sand and generally have permeabilities ranging from greater than 0.1 ft/day to one foot/day.
- High permeability units are generally composed of coarser sand and gravel-rich materials, with permeabilities ranging from greater than one- to 10-ft/day.

This information was used to construct three-dimensional groundwater flow and solute transport computer models for MSA, which are being used to simulate groundwater flow beneath the Dump Road Area, as well as to model the movement and chemical reactions (e.g., degradation) of volatile organic compounds (VOCs) in groundwater. GSP is included within the model domain.

2.2.7.2 Surficial Aquifer

At the Dump Road Area, all but four wells are screened in the surficial aquifer system. Wells are screened at different elevations in order to provide hydrologic and chemical data across the entire water-bearing zone. Excluding several abandoned small-diameter wells, 35 groundwater

monitoring wells are screened in the upper surficial aquifer, defined as the portion of the aquifer from the ground surface to an elevation of approximately 15 feet below msl. Generally, the upper surficial aquifer consists of fill historically placed in the uppermost 10–20 feet below grade; native soils are beneath the fill materials. Thirty-two wells are screened in the intermediate surficial aquifer, defined as the portion of the aquifer system found between 15 and 45 feet below msl. Twenty wells are screened in the lower surficial aquifer (approximately 45–73 feet below msl).

2.2.7.3 Deep Confined Aquifers

Four wells at MSA are screened in an area of alternating sand and silt aquifers and clay aquitards found in the deep confined aquifers underlying the lower surficial aquifer. Lithologic data from the four deep wells indicate six to 40 feet of clay beneath the lower surficial aquifer. Beneath this clay bed is a series of alternating sand and clay layers, with top surfaces occurring at approximate elevations of 120–130 feet below msl (sand), 140–160 feet below msl (clay), 190 feet below msl (sand), 197–205 feet below msl (clay), and 245 feet below msl (sand).

2.2.7.4 Groundwater Levels

Static groundwater levels measured in Dump Road Area wells are reported at depths of five to 18 feet below grade for the upper surficial aquifer wells, three to 18 feet for the intermediate surficial aquifer wells, and four to 18 feet for the lower surficial aquifer wells. Shallow groundwater is encountered in the recharge areas of the western portion of Dump Road near the runway, and deeper groundwater is found in the high topographic areas at the top of the embankment along the shoreline (i.e., wells DMW2, DMW4, DMW5, etc.). Groundwater flow in the surficial aquifer generally follows surface topography. At the Dump Road Area, groundwater flows northeast from the airport runway and taxiway toward Frog Mortar Creek. Groundwater in the intermediate surficial aquifer also flows northeast from the runway and taxiway toward Frog Mortar Creek. Groundwater flows south in the southern portion of the Dump Road Area. Groundwater potentiometric levels in the lower surficial aquifer are similar to those of the intermediate surficial aquifer.

Both the intermediate and lower surficial aquifers have northern components of flow in the northern portion of the site, and southern groundwater flow in the southern portion of the site. Groundwater flows from the northwest to the southeast in the deep confined aquifer. Groundwater

in the GSP area is expected to occur at depths of three to 18 feet, similar to the depths encountered in the Dump Road Area. At GSP, groundwater flow in the surficial aquifer is also expected to follow the surface topography: from the watershed divide near the airport runway area to the southwest and west toward Stansbury Creek, and to the southeast toward Frog Mortar Creek.

2.3 SUMMARY OF PREVIOUS INVESTIGATIONS

Studies of Strawberry Point to date include a Phase I environmental assessment and two rounds of a Phase II intrusive investigation. The Phase I environmental assessment in the winter of 2007–2008 evaluated historical site activities pertaining to the wooded area, tank farm, the former hangar area (Building ND), the facility maintenance yard, and the nuclear research buildings (Tetra Tech, 2008). This investigation reviewed historical facility documents, drawings, photographs, aerial photographs, and government records (e.g., NRC, United States Environmental Protection Agency [USEPA], MDE, and Baltimore County records), as well as interviewing former and current employees and conducting a visual site inspection and geophysical investigations of the wooded area.

A subsurface geophysical survey in September 2008 included electromagnetic (EM) and surface gamma surveys. EM mapping of the SP facility was performed using a Geonics EM-31 instrument. The EM-31 is sensitive to buried metal, but is also sensitive to minor changes in electrical conductivity of subsurface materials in the absence of metal (due to non-metallic debris and/or anomalous ionic content of any soil moisture). The EM-31 employs an electromagnetic transmitter coil to induce an electric current in the earth. This current creates a secondary electromagnetic field that is measured by a receiver coil at a fixed separation of 3.7 meters from the transmitter coil.

The secondary electromagnetic field has two components:

- the *quadrature component*, which is proportional to the bulk electrical conductivity or terrain conductivity (in millimhos per meter [mmho/m]) of the subsurface materials
- the *in-phase component* (in parts per thousand), which is primarily a measure of the relative concentration of metallic material in the subsurface.

In the presence of extremely high terrain conductivity material, the dynamic range of the EM-31 can be exceeded (or “saturated”), and the instrument will register spurious negative

conductivities (a physical impossibility). These negative conductivities therefore represent very high positive conductivities. Similar saturation in the presence of significant metal can cause a spurious negative in-phase response that should also be interpreted as a very high positive value.

For this survey, an EM-31 was employed in vertical dipole mode. The instrument is insensitive to material at the ground surface, and has peak sensitivity to material at a depth of approximately five feet; below five feet, the sensitivity diminishes logarithmically. The EM-31 in vertical dipole mode measures terrain conductivity or the in-phase response of subsurface electrical properties at five-foot (plus or minus) depths, with little contribution from material at the ground surface, and moderate (and diminishing) contribution from materials to approximately 25 feet. The vertical dipole mode was selected to screen out the potentially time-varying effects of surficial variations in ground cover (noted above), while maintaining a significant effective survey depth. The EM survey was completed by collecting vertical dipole-mode terrain conductivity and in-phase data along profiles spaced approximately 20–30 feet (and in some cases, 50 feet) apart.

Surficial gamma mapping of the site was performed using a Ludlum Model 2221 scalar/rate meter combined with a Ludlum Model 44-10 gamma-scintillator probe. The 44-10 probe is a sodium iodide (NaI) gamma scintillator used to detect high-energy gamma radiation (ranging from 60 kiloelectron volts to 2 megaelectron volts). The probe consists of a two-inch-diameter, two-inch-thick NaI crystal coupled to a photomultiplier tube housed in an aluminum canister.

The scintillator or photomultiplier sends a constant stream of data to the Ludlum 2221 instrument. The instrument electronics then display/output the gross-count rate in counts per minute (cpm) at a rate of 1 Hertz (Hz). Results are achieved by applying an onboard multiplication factor of 60 to the scintillator data. To ensure proper responses, the sensor was tested via signal fall-off tests with a cesium-137 spike-source placed in the ground surface. Testing indicates that readings returned to background levels at a distance of nine feet (horizontally) from the spike source.

For this survey, gamma data were collected within identified anomalous EM areas. The survey line spacing was set to match the EM survey line spacing. In some locations open to the sky, and where the GPS signal was consistent, the traverse spacing was tightened to 10 feet. Optimal results for this survey were obtained by carrying the 44-10 probe 18-inches above the ground

surface. The 2221 scalar/rate meter, linked to the 44-10 probe, output readings at a 1 Hz frequency via a serial connection to a Trimble TSC1 data logger. The TSC1 received positioning data from a Trimble Pro XRS global positioning system (GPS) in contact with four to eight position-fixing satellites. The gross-gamma cpm output was merged with the coincident positional data in real time. During base station readings, local background gamma counts were noted.

2.3.1 Phase I Environmental Assessment Conclusions

As stated earlier, the Phase I assessment was conducted in winter 2007–2008; results and conclusions are as follows:

- A review of historical aerial photographs from 1938 to the present identified evidence of ground disturbances throughout SP, including possible dredging and filling to prevent shoreline erosion or increase usable land space. Shoreline smoothing changes via dredge-spoil filling are evident on all sides of SP.
- Tetra Tech's historical investigation identified 11 recognized environmental conditions (RECs) in the GSP area, including the wooded area. Some operations were combined into a single REC if they were close by.
- Two buildings dedicated to nuclear research and testing during the 1950s and 1960s were decontaminated in the late 1980s. NRC terminated the licenses for these facilities in 1995. The buildings were later demolished.
- Violations have been reported in the handling of hazardous and nonhazardous substances at SP since its transfer to the State of Maryland in 1975. Most significantly, a July 1985 inspection by MDE found approximately two hundred 55-gallon drums containing hazardous and nonhazardous materials that were improperly stored at the facility maintenance yard area.
- Reports have been made of minor spills from overfills and line ruptures related to petroleum constituents from site ASTs.
- Most of the historical structures that existed in the 1960s have been demolished. Several older buildings remain, but in dilapidated condition. Figure 2-2 presents a map of historical and current structures.

2.3.2 Phase II Investigations at REC #1

REC #1 (SP wooded area), identified during the Phase I study, was investigated during the Phase II study to characterize subsurface soils and groundwater quality. According to historical records, dredge spoils may have been deposited in this area in the past. During August and September 2008, 20 test pits were excavated to depths of 10 feet below surface in the SP area of

MSA. Twenty soil samples were collected for chemical analysis of VOCs, semivolatile organic compounds (SVOCs), metals, and polychlorinated biphenyls (PCBs). Five of the 20 samples were also analyzed for radionuclides.

Eleven soil borings were advanced to 15 feet below surface via direct-push technology (DPT). Soil samples were collected and analyzed for VOCs, SVOCs, metals, and PCBs. Five temporary well points were installed in DPT soil borings; groundwater samples were collected and analyzed for VOCs, SVOCs, metals, and PCBs. Additional tasks involved well gauging; surveying soil borings, test pits, and well points; and subsequent waste characterization and disposal at a Lockheed Martin-approved waste facility.

The results of these activities follow:

- Soil borings indicate that the top 10 feet of site soils consist of varying amounts of sand, silt, and clay, underlain by fine to medium sand from a depth of 10 to approximately 16 feet.

- The water table at the site is between 2.83 and 3.86 feet below grade.

- Groundwater elevations indicate that groundwater beneath SP flows in a southwestern direction toward Stansbury Creek.

- Evidence of contaminated fill was not found during test pit excavation; no visual discolorations were encountered in test pit and soil boring soils.

- Analysis of test pit soil samples indicates low levels of VOCs; however, both of the VOCs detected (2-butanone and acetone) are common laboratory contaminants.

- Low levels of SVOCs, including polycyclic aromatic hydrocarbons (PAHs), were detected in test pit soil samples.

- Metals are present at all 20 test-pit locations. Detected concentrations of aluminum, arsenic, chromium, iron, manganese, and vanadium exceed MDE residential criteria. In general, however, metals concentrations appear consistent with local background concentrations and do not indicate a release at the SP wooded site.

- Five test-pit soil samples were analyzed to confirm gamma anomalies. Gross alpha anomalies (maximum concentration of 24.5 picocuries/gram [pCi/g]) and gross beta anomalies (maximum concentration of 28.5 pCi/g) were detected in all five samples. The radionuclide concentrations are distributed evenly across the site and all concentrations are similar.

- Geophysical investigations revealed conductivity, in-phase, and natural gamma anomalies at the SP wooded area.

- The EM in-phase data show one linear anomaly suspected of being an abandoned utility.
- The survey delineated three areas of coincident, elevated in-phase and terrain conductivity readings.
- Five areas of terrain-conductivity-only anomalies were identified on the southern end of the survey area.
- The surface gamma survey results show two areas of above background, gross-count gamma readings.
- Metals were also in soil samples collected from the 11 soil borings. Detected concentrations of aluminum, arsenic, chromium, iron, manganese, and vanadium exceed MDE residential criteria. In general, metals concentrations in soil borings appear consistent with local background concentrations and do not indicate a release at the SP wooded site.
- Several PAHs were detected at low concentrations in the groundwater sample from an upgradient well (WP2/SB2); concentrations range from 0.55 to 2.9 micrograms per liter (µg/L), with some exceeding MDE groundwater criteria.
- Metals were detected in groundwater samples from all wells. Specifically, detected concentrations of aluminum, arsenic, beryllium, cadmium, iron, manganese, nickel, vanadium, and zinc exceed MDE groundwater criteria for both total and dissolved metals. In general, concentrations of these metals increase downgradient, consistent with decreasing pH and dissolved oxygen concentrations in groundwater. Metals at the site may be dissolving due to these geochemical conditions. In general, soil in the wooded area has lower pH levels (higher acidity) as compared to upgradient open areas. Elevated concentrations of aluminum, iron, and manganese in wells correspond to what is generally found in the low pH, acidic environment common to shady, moist, peat soils.

2.3.3 2010 Phase II Site Investigation

A Phase II environmental investigation of the GSP area in April and May 2010 helped determine the nature and extent of environmental contamination in soil and groundwater at 10 RECs (RECs #2 through #11) found in three main areas of GSP (Tetra Tech, 2010b). The study provided definitive chemical data for identified constituent concentrations in soil and groundwater using field-screening techniques and fixed-laboratory analyses. The chemical analytical results were screened against State of Maryland human health soil and groundwater standards to assess the need for additional sampling or to support no further action. The following field investigations were completed in 2010:

- EM geophysical surveys were conducted across approximately 10 acres of RECs #7–#10, to detect and delineate possible subsurface metallic objects and buried building remnants.

Site history suggests that items such as demolition debris from razed buildings, abandoned-in-place underground storage tanks (USTs), buried drums, abandoned utilities, active utilities, and remnants of concrete pads may be found in subsurface soils.

- At 20 locations in RECs #2–#4, soil and groundwater were screened to a maximum depth of 43 feet below grade via membrane-interface probe (MIP) readings to help locate and delineate possible areas of subsurface contamination. Horizontal and vertical coordinates were surveyed for the MIP borings.

- Eighty-nine soil borings were advanced to a depth of 25 feet each, soil lithologic information was collected, and soil was screened in the field for VOCs using a portable photo-ionization detector (PID). Soil samples were collected for fixed-laboratory chemical analyses of VOCs, SVOCs, PCBs, metals, total petroleum hydrocarbons (TPH)-diesel-range organics (DRO), and TPH-gasoline-range organics (GRO).

- DPT-probe groundwater samples were collected at seven locations and submitted to a fixed laboratory for chemical analyses of VOCs, SVOCs, PCBs, metals, TPH-DRO and TPH-GRO.

- Temporary wells were installed at 16 DPT soil-boring locations. Groundwater samples were collected from these 16 temporary wells and submitted to a fixed laboratory for chemical analyses of VOCs, SVOCs, PCBs, metals, TPH-DRO and TPH-GRO.

- From June to August 2010, static groundwater levels were measured at the 16 newly installed temporary wells. These levels were used to develop groundwater elevation contour maps for both rounds.

- Horizontal and vertical coordinates were surveyed for the MIP borings.

A summary of the results of the 2010 field investigations follows:

- Lithology encountered in the soil borings varies across the RECs. On the eastern side of REC #2, the top 10 feet consisted of clayey silt and clay with fine sandy silt at depths of 10–25 feet. From the central portion of REC #2 to REC #6, the subsurface lithology consists of gray and brown clay and silty clay to a depth of 25 feet, with occasional thin, silty sand and sandy silt layers/lenses. In REC #7, gray and brown silty sand and sandy silt with occasional clay lenses were encountered to depths of 25 feet. Subsurface lithology at RECs #8 and #9 was similar to REC #7, except for a thick clay layer from approximately 14 to 22 feet below grade. This clay layer thickened somewhat to the west at REC #10. Subsurface lithology at REC #11 also varies somewhat; the lithology encountered is nearly all silty clay to a depth of 25 feet in the north portion of the REC. The center of REC #11 consists of 12 feet of silty sand and sandy silt overlying 13 feet of clay; the southern area is comprised mostly of sandy silt and few clay layers.

- The water table at the site ranges from just below the ground surface to nearly eight feet below grade. Groundwater levels are shallower along the eastern portion of GSP in areas with higher ground elevations (9–11 feet msl) and where near-surface sandy or gravelly materials overlie shallow clay (e.g., SB/WP66, SB/WP-44, SB/WP-13, SB/WP-33,

SB/WP-39, and SB/WP-40). Deepest groundwater levels are reported at wells to the west (SB/WP-54, SB/WP-61, and SB/WP-71) and south (SB/WP-02).

- Groundwater elevations indicate that groundwater beneath the GSP generally flows in a southerly direction toward Stansbury Creek and Frog Mortar Creek. Groundwater mounding due to shallow clays at REC #7 appears to create localized radial flow.

- MIP screening indicates the possible presence of chlorinated VOCs in soil at limited locations in RECs #2–#4. MIP screening results do not indicate petroleum-related VOCs.

- Trace-to-low concentrations of VOCs were detected in soil samples collected at all RECs; however, detected concentrations are less than Maryland residential and nonresidential soil standards. In addition, many of the detections appear to be artifacts of the laboratory analyses. Trichloroethene (TCE), a chlorinated solvent detected at the Dump Road Area of MSA, was detected at low concentrations in shallow soil samples at REC #4 and in deep soil samples at RECs #9 and #11. The maximum TCE concentration was 1,100 micrograms per kilogram (µg/kg) at 20–22 feet, detected in a REC #9 soil sample.

- SVOCs were detected in soil at several RECs; many SVOC concentrations were less than residential and nonresidential standards. SVOC concentrations slightly exceeded residential standards at several RECs and exceeded nonresidential standards at RECs #9 and #11. RECs #9 and #11 had the highest SVOC concentrations and the greatest number of nonresidential exceedances. However, these exceedances are limited to surface and shallow soil at maximum depth of seven feet below grade.

- PCB concentrations range from 3,100 to 12,000 µg/kg in three shallow-soil samples from REC #11 and exceed both Maryland residential and nonresidential soil standards of 320 and 1,400 µg/kg (respectively). A fourth shallow sample from REC #11, with a PCB concentration of 1,200 µg/kg, exceeded the residential standard only.

- Concentrations of arsenic, total chromium, iron, manganese, nickel, and vanadium in soil exceed standards in most of the RECs in GSP. Iron and manganese concentrations vary greatly; elevated concentrations of these constituents may be from metals in fill material or former building or other ground structures. Although arsenic and vanadium frequently exceeded their risk-based standards, their concentrations are generally similar to MDE's anticipated typical concentrations (ATCs) (or "regional background" concentrations) for the eastern region of Maryland. Therefore, concentrations of these metals appear consistent with local background and are not indicative of a release at GSP.

- Concentrations of arsenic, beryllium, iron, manganese, nickel, and vanadium exceeded groundwater standards in one or more groundwater samples. Several exceedances appear to be the result of high turbidity in the samples. VOCs and SVOCs detected in groundwater samples do not exceed standards, and are typical of common laboratory contaminants and artifacts of laboratory analyses.

2.3.4 2011 Additional Phase II Site Investigation

Between May and July 2011, an additional Phase II site investigation was conducted to further characterize those areas of soil and groundwater contamination initially identified during the first round of the Phase II site investigation completed in October 2010. The *Additional Phase II Site Investigation Report* (Tetra Tech, 2012a) summarizes the results of the test pit explorations, soil borings and soil sampling, and groundwater monitoring well installation and sampling performed in RECs #8, #9, #10, and #11 at GSP. Fieldwork included advancing soil borings, excavating 12 test pits, installing eight monitoring wells, and collecting soil and groundwater samples for chemical analyses. In addition, human health and ecological risk assessments were prepared to quantify potential risks to human receptors and evaluate ecological impacts from chemicals detected at GSP (Tetra Tech, 2012a).

The findings of the 2011 additional Phase II site investigation and risk assessment are summarized below:

- TCE was detected at low concentrations in one or more deep soil samples in the areas of RECs #8/9 and #11. All but one detected TCE concentration was less than MDE residential and nonresidential soil standards; the maximum TCE concentration in soil (2,900 µg/kg) was detected in a soil sample collected below the water table (at 22 to 25 feet below grade) in boring GSP-SB-92 near the northern border of REC #8, near REC #9. This TCE result is consistent with soil chemical data collected from this area during the 2010 investigation at GSP.

- The maximum TCE concentration in groundwater (450 µg/L) was detected at GSP-MW-07 in the southeast portion of REC #9; this concentration exceeds the MDE groundwater standard and the federal maximum contaminant level (both are 5 µg/L). TCE concentrations also exceed the state and federal groundwater criteria in three REC #11 wells (GSP-MW-01, GSP-MW-04, and GSP-SB/WP-89).

- Detected concentrations of TPH-GRO in groundwater exceed the MDE standard of 47 µg/L at GSP-MW-07. TPH-DRO was detected in groundwater at concentrations exceeding the MDE standard in five wells: GSP-MW-01, GSP-MW-02, GSP-MW-03, GSP-MW-05, and GSP-MW-06.

- TPH-DRO concentrations exceed MDE residential soil standards in four shallow soil samples at REC #10, in five soil samples at REC #11, and exceed both the residential (230 mg/kg) and nonresidential (620 mg/kg) standards in two surface soil samples from REC #11.

- PCBs (primarily Aroclor 1260) were detected in 16 soil boring samples at concentrations ranging from 19 to 3,400 µg/kg. Aroclor 1260 concentrations in four shallow soil samples

at REC #11 exceed both residential (0.32 mg/kg) and nonresidential (1.4 mg/kg) Maryland soil standards.

- The highest concentrations of SVOCs in soils and greatest occurrence of concentrations exceeding residential and nonresidential soil criteria were identified in subsurface soil samples from two borings in REC #10 (GSP-SB-102-6-8 and GSP-SB-109-6-8) and two borings in REC #11 (GSP-SB-120-18-20 and GSP-SB-121-6-8).

- Detected concentrations of arsenic and vanadium exceed their eastern Maryland ATCs (3.6 mg/kg and 30 mg/kg, respectively) in soil sample GSP-SB-111-6-8 (located southeast of REC #11), and exceeded the MDE residential criteria (0.43 mg/kg and 7.8 mg/kg, respectively). Total chromium concentrations in two soil samples (GSP-SB-91-8-10 at the REC #9 boundary and GSP-SB-109-6-8 in the northwestern area of REC #10) also exceeded the ATC (28 mg/kg) as well as the MDE residential standard (23 mg/kg). Detected concentrations of metals in other soil samples, particularly arsenic and vanadium, exceed their respective MDE criteria in most samples, but are less than the eastern Maryland ATCs.

- The human health risk assessment identified regulatorily unacceptable risks for hypothetical child trespassers, lifelong recreational users, and lifelong residents exposed to PAHs in surface and subsurface soils at REC #9, #10, and #11 via ingestion, dermal contact, and inhalation. In addition, potential exposure to manganese in surface and subsurface soil by future construction workers was also associated with regulatorily unacceptable risks. TCE was retained as a chemical of concern at RECs #9, #10, and #11 based on potential exposure to groundwater by hypothetical future residents due to direct contact, ingestion, and inhalation, and for the soil to groundwater migration pathway. TCE was also identified as a potential vapor-intrusion risk for a hypothetical future resident or worker based on the qualitative risk analysis of groundwater chemical results.

- Note that human health risk estimates are calculated in a conservative manner to assist risk managers tasked with making risk management decisions for RECs #9, #10, and #11. These sites are currently active within the airport area and are not used for residential or recreational purposes. Furthermore, the potential for trespass is very limited. Groundwater at the site is not currently used as a domestic water supply source. These conservative risk estimates will likely be recalculated based on additional data collected during the subject (2012) investigation.

- The streamlined ecological risk assessment identified potential risks to invertebrates and plants based on exposure to manganese in surface soil at RECs #9 and #10. Potential risks were also identified for birds and mammals based on exposure to Aroclor-1260 in surface soil at REC #11.

2.4 CURRENT SITE CONDITIONS AND OPERATIONS

GSP currently includes the SP wooded area, an airport maintenance area, hangars, a fuel storage tank farm, and the southern termini of the MSA runways and associated aprons. GSP is part of the larger MSA property owned by the Maryland Department of Transportation (MDOT). The

Maryland State Police lease the large hangar near the SP wooded area and use it for light aircraft and helicopters. This hangar was constructed in the early 1990s near the former delivery hangar (Building No. 11), which was demolished in 1989. Farther south, a small building (Building No. 003) near Frog Mortar Creek is occupied by the Baltimore County Marine Police.

The MSA maintenance area is approximately 700 feet northwest of the police hangar. Buildings currently in use in the maintenance area include a salt dome (Building No. 049), a sand dome (Building No. 050), and a maintenance building (Building No. 022). These structures were built in the early 1990s. Immediately north of GSP is the new Lockheed Martin hangar (Building No. 051) and the Black and Decker hangar (Building No. 052). These buildings were constructed near the former nuclear research labs in the late 1990s. Their locations are shown in Figure 2-2.

The MSA fuel storage tank farm is on the southern edge of the airport, close to Frog Mortar Creek. Thirteen ASTs, with a total capacity of nearly 95,000 gallons, store Jet A fuel, aviation gasoline, unleaded gasoline, diesel fuel, and waste oil. Secondary containment at the tank farm consists of concrete containment dikes with ancillary oil/water separators that discharge into a nearby drainage ditch leading to a monitored outfall (National Pollutant Discharge Elimination System [NPDES] Monitoring Outfall 005) into Frog Mortar Creek. The oil/water separators (maintained through periodic inspections and cleaning) remove petroleum from any runoff generated during storms.

The tank farm is divided into east and west sides as shown in Figure 2-2. The east side is further subdivided into north and south containment areas. Tanks MAA 1 through MAA 3 store Jet A fuel or aviation gasoline in the north containment area, and tanks MAA 4 through MAA 6 are in the south containment area. Each tank has a 12,000-gallon capacity (MAA, 2008). The *Spill Prevention, Control, and Countermeasures Plan* [SPCCP] (MAA, 2008) contains details regarding the MSA tanks. Tanks in this area are used by both MAA and the Maryland State Police. Buried pipes from the containment areas deliver fuel to the Maryland State Police fuel rack. The fuel tanks are filled under contract with Exxon Mobil.

The southern subdivision of the eastern tank farm contains two 6,000-gallon unleaded gasoline tanks (MAA 7 and MAA 8) and one 6,000-gallon diesel fuel tank (MAA 9), all owned by MAA. These tanks provide fuel for state-owned vehicles and for tank trucks used to transport fuel to

airplanes throughout the airport. A 4,000-gallon AST (MAA 21) storing aviation gasoline is also in the southern containment areas.

Two waste oil tanks (MAA 22 and MAA 23) are in two different containment areas of the tank farm: a 275-gallon AST is in the containment dike with ASTs MAA 4 through MAA 6, and a 350-gallon AST is in the containment dike with ASTs MAA 7 through MAA 9. An additional 275-gallon tank (MAA 26), in the containment dike with ASTs MAA 1 through MAA 3, captures vapor from the pressure-release valve on filter vessels. Used fuel does not enter this tank.

Several tenant-owned ASTs are also at the tank farm: two 30,000-gallon and two 12,000-gallon Jet A fuel tanks, one 500-gallon waste oil tank, and two 275-gallon waste oil tanks. All tanks in the tank farm are within secondary containment dikes. Five remaining fixed-storage containers are located throughout the facility: three 500-gallon diesel fuel tanks (MAA 18 through MAA 20) inside the fire pump house; an out-of-service 500-gallon tank near the maintenance shop; and an out-of-service 55-gallon drum inside the storage shed. Except for the unused ASTs, all tanks reportedly have adequate secondary containment.

Drums are routinely stored at the airport in designated storage areas. Two such areas are located in the maintenance and auto shop (MAA 15 and MAA 16); a third is inside the maintenance shed southeast of the maintenance and auto shop (MAA 17). Unopened stocks of motor oil, transmission fluid, and hydraulic fluid are stored at MAA 17; stock currently in use is stored in MAA 15. Small drums of waste oil are stored in MAA 16. All other drum storage areas typically store no more than five drums, although the number of drums stored in each area may vary depending on operational needs. All drum storage areas have secondary containment pallets on which the drums are stored.

Figure 2-1
Location of Strawberry Point and Greater Strawberry Point

Legend

- Dump Road Site
- Greater Strawberry Point
- Strawberry Point
- Maryland Air National Guard (MDANG)
- Martin State Airport Main Terminal

MRC - Middle River Complex

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 300 600 1,200 Feet

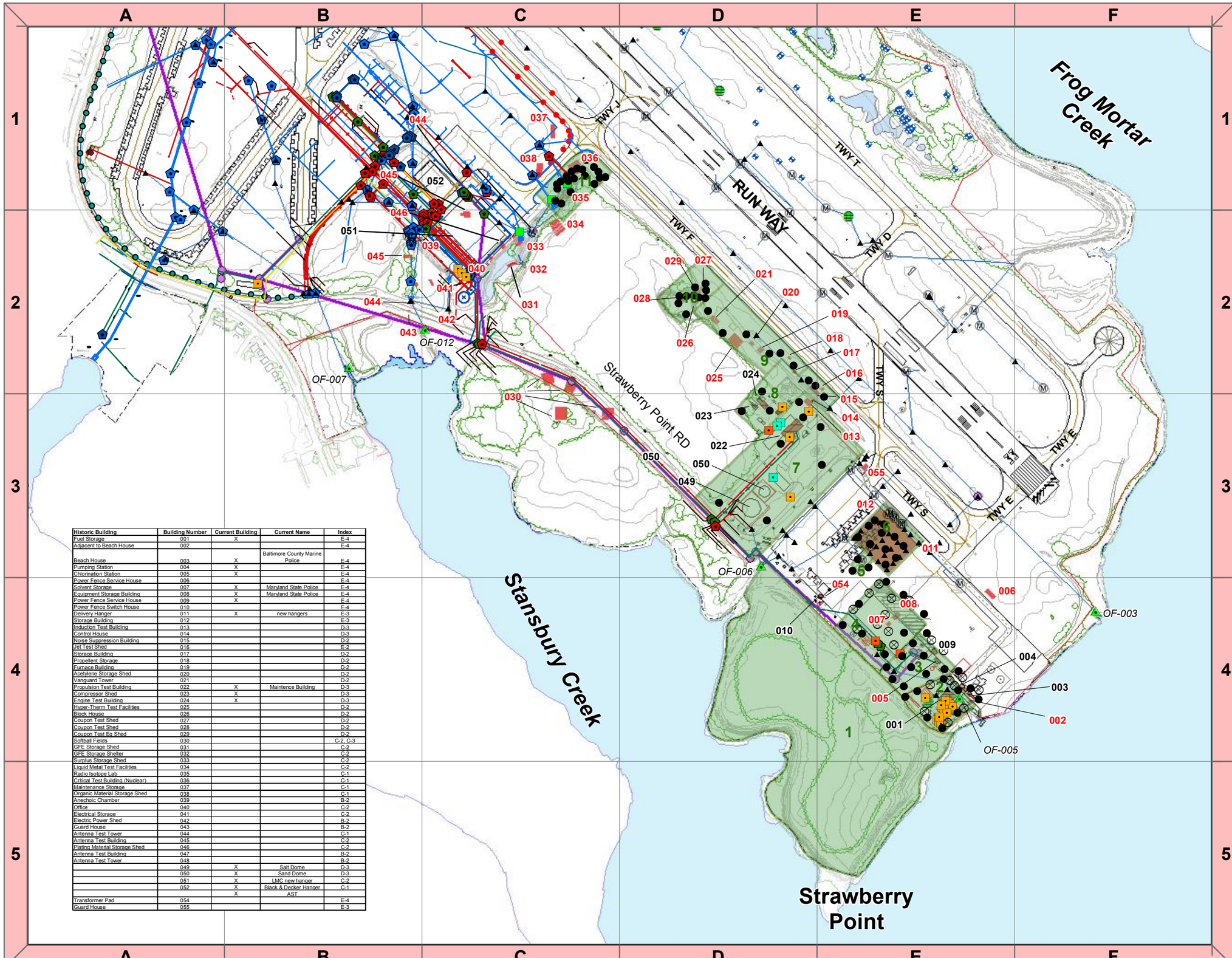
N

DATE MODIFIED: 11/14/11

CREATED BY: MP

Tetra Tech, Inc.

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\historic Aerials\Site_Location_Map_revised 11 14 11.mxd)
11/14/2011 -- 4:32:03 PM



Historic Building	Building Number	Current Building	Current Name	Index
Fuel Storage	001	X		E-4
Adjacent to Beach House	002			E-4
Beach House	003	X	Baltimore County Marine Police	E-4
Pumping Station	004	X		E-4
Chlorination Station	005	X		E-4
Power Fence Service House	006			E-4
Solvent Storage	007	X	Maryland State Police	E-4
Equipment Storage Building	008	X	Maryland State Police	E-4
Power Fence Service House	009	X		E-4
Power Fence Switch House	010			E-4
Delivery Hanger	011	X	new hangers	E-3
Storage Building	012			E-3
Induction Test Building	013			D-3
Control House	014			D-3
Noise Suppression Building	015			D-2
Jet Test Shed	016			E-2
Storage Building	017			D-2
Propellent Storage	018			D-2
Furnace Building	019			D-2
Acetylene Storage Shed	020			D-2
Vanguard Tower	021			D-2
Propulsion Test Building	022	X	Maintence Building	D-3
Compressor Shed	023	X		D-3
Engine Test Building	024	X		D-3
Hyper-Therm Test Facilities	025			D-2
Block House	026			D-2
Coupon Test Shed	027			D-2
Coupon Test Shed	028			D-2
Coupon Test Eq Shed	029			D-2
Softball Fields	030			C-2, C-3
GFE Storage Shed	031			C-2
GFE Storage Shelter	032			C-2
Surplus Storage Shed	033			C-2
Liquid Metal Test Facilities	034			C-2
Radio Isotope Lab	035			C-1
Critical Test Building (Nuclear)	036			C-1
Maintenance Storage	037			C-1
Organic Material Storage Shed	038			C-1
Anechoic Chamber	039			B-2
Office	040			C-2
Electrical Storage	041			C-2
Electric Power Shed	042			B-2
Guard House	043			B-2
Antenna Test Tower	044			C-1
Antenna Test Building	045			C-2
Plating Material Storage Shed	046			C-2
Antenna Test Building	047			B-2
Antenna Test Tower	048			B-2
	049	X	Salt Dome	D-3
	050	X	Sand Dome	D-3
	051	X	LMC new hanger	C-2
	052	X	Black & Decker Hanger	C-1
		X	AST	
Transformer Pad	054			E-4
Guard House	055			E-3

Figure 2-2
Index Map for Current and Historical Structures as Existed in 1968, Greater Strawberry Point

Legend

- Membrane Interface probe (MIP)
- Soil Borings (SB)
- Oil Filled Operational Equipment
- Drum Storage
- MTN Tanks
- MSA GW Wells
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- REC
- Current Structures
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Sanitary Pipes
- Storm Pipes
- Historic Structures
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities

MSA – Martin State Airport
NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole

REC # REC Name
REC 1 Strawberry Point Wooded Areas
REC 2 Fuel Storage Tank Farm
REC 3 Old Wastewater Treatment Plant
REC 4 Former Solvent Storage Area
REC 5 Transformer Pad
REC 6 Former Hangar (Building ND) Former Storage Building
REC 7 Facility Maintenance Area
REC 8 Former Induction Test, Former Engine Test, Former Jet Test Shed, Former Storage Building Former Propulsion Test and Former Compressor Shed Buildings
REC 9 Former Propellant Storage, Former Acetylene Storage Shed, Former Furnace Building, Former Hyper-Therm Test Facilities, and Former Vanguard Tower
REC 10 Former Coupon Test Shed and Former Block House
REC 11 Former Critical Test Building (KC), Former Radioisotope Lab (KJ) and Former Transformer Pad

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 150 300 600 Feet

N

DATE MODIFIED: 3/26/12

CREATED BY: MP

Tetra Tech, Inc.

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\historic Aerials\Current Structures Index_1113_revised 11 14 11.mxd)
3/26/2012 -- 4:44:08 PM

Section 3
Investigation Approach and Field Methodology

A soil and groundwater investigation was conducted in August–October 2012 to further characterize contaminants that had been detected in soils and groundwater in the northern area of Greater Strawberry Point (GSP) near recognized environmental conditions (RECs) #7 through REC #11. Fieldwork was performed to assess downgradient impacts from trichloroethene (TCE) and total petroleum hydrocarbon (TPH)-gasoline-range organics (GRO) that had been detected in the 2010 and 2011 Phase II site investigations. The following activities were conducted in accordance with the project work plan (Tetra Tech, 2012b):

- obtained utility clearances and an access agreement and associated permits for intrusive investigations, as applicable, from Lockheed Martin Corporation (Lockheed Martin), Martin State Airport (MSA), Maryland Aviation Administration (MAA), Maryland Department of the Environment (MDE), and Federal Aviation Administration (FAA) (if required)
- performed membrane-interface-probe (MIP) subsurface profiling at 25 locations (RECs #8, #9, and #11)
- advanced 25 soil borings (in RECs #8, #9 and #11) via direct-push technology (DPT) at select locations (based on the MIP results) and documented boring locations using a global positioning system (GPS) device
- installed and developed 12 new groundwater monitoring wells
- collected two soil samples from each soil boring and monitoring well location for chemical analyses (one additional sample was collected from three soil borings)
- surveyed new well locations using a Maryland-licensed surveyor
- sampled groundwater in 20 monitoring wells (12 new wells, plus the eight existing monitoring wells installed in 2011: GSP-MW-01 through GSP-MW-08)
- analyzed soil and groundwater samples for volatile organic compounds (VOCs) by SW846 Method 8260B, for semivolatile organic compounds (SVOCs) including

1,4-dioxane by SW846 Method 8270D, for TPH as GRO and diesel-range organics (DRO) by SW846 Method 8015D, and priority pollutant metals plus hexavalent chromium by SW846 Method 6010C (including total and dissolved metals analysis, for groundwater samples), and analysis of three soil samples via the toxicity characteristic leaching procedure (TCLP) USEPA Method 1311

- collected, stored, and characterized investigation-derived waste (IDW) and disposed of the waste at an off-site, Lockheed Martin-approved, treatment or disposal facility
- performed data validation on soil and groundwater sample laboratory chemical data
- evaluated environmental sampling data

3.1 MOBILIZATION/DEMOBILIZATION

Tetra Tech, Inc. (Tetra Tech) procured the required subcontractors and coordinated mobilization and demobilization (including locating the appropriate equipment required for all field tasks), purchased and leased equipment as required, and staged equipment for efficient loading and transportation to the site for all field activities. Mobilization began in August 2012 and included the following:

- coordinated with Lockheed Martin, MAA, and MSA facilities personnel
- obtained utility clearance for the MIPs, soil borings, and monitoring wells using both Miss Utility and a private utility-locating firm, as described in Section 3.2
- mobilized subcontractors, equipment, and materials to the site
- implemented the following:
    - a site-specific health and safety plan (HASP)
    - emergency response plan
    - sampling and analysis plan
    - waste management plan conforming to *Energy, Environment, Safety, and Health (EESH) Remediation Waste Management Procedure No: EROP-03, Revision 4* (effective April 17, 2009)
    - quality assurance/quality control (QA/QC) plan
    - data management plan
- arranged a decontamination area

Demobilization began after all fieldwork was completed and consisted of the following:

- demobilized equipment and materials from the site
- performed general site cleanup and trash removal
- performed surface restoration/landscaping repair as necessary
- managed IDW as described in Section 3.4

Before beginning field operations, appropriate Tetra Tech personnel became familiar with the site-specific HASP and the "Safe Work" permits in the HASP. Tetra Tech conducted a daily mandatory health and safety tailgate meeting before any fieldwork. Subcontractors present for that day's field activities were included in these meetings. The Tetra Tech field operations leader documented the topics covered and personnel in attendance. At the end of every field day, the drill rig, field vehicles, and associated equipment were relocated to a secure location away from airport operations. The previously installed GSP monitoring wells were sampled in April 2012 as part of the annual Martin State Airport monitoring event. Although the sampling results for these wells are reported herein, the annual sampling program is considered a separate event and was not part of the mobilization related to the activities described above.

3.2 SITE ACCESS, PERMITS, AND UTILITY CLEARANCE

All required access agreements and permits necessary to conduct the proposed field activities were secured before beginning work. Tetra Tech performed the steps outlined below to obtain all required clearances and permits before beginning any intrusive field activities related to the soil and groundwater investigation:

- notified "Miss Utility," the underground-utility-location center (1-800-257-7777; www.missutility.net)
- reviewed the facility and site utility maps
- followed Enterprise Order-28 (Lockheed Martin, 2008) and Lockheed Martin's *Minimum Requirements for Invasive Fieldwork Work Plans* (Lockheed Martin, 2009), completed the digging project form, and obtained the required signatures
- completed the "Airport Zoning Permit," the "Building Inspection" form, and the "Digging Authorization" permit through MAA

- contacted Maryland Air National Guard (MDANG) and received approval based on current military air operations
- obtained monitoring well permits
- used a private utility-locating firm to identify any subsurface utilities/anomalies

Tetra Tech obtained the required permits (Lockheed Martin, MSA, and MAA) for the fieldwork before starting any intrusive activities. Following the same procedures as for all previous environmental projects at MSA, Tetra Tech worked closely with MSA, MAA, and their tenants to inform all parties of the field schedule.

Before starting any intrusive field activities, each test pit, soil boring, and monitoring well location was assessed for subsurface utilities. Utility maps were reviewed for the presence of utilities and boring locations were offset to avoid possible subsurface utilities. In addition to calling in a Miss Utility ticket, Tetra Tech contracted with Enviroscan, Inc. to screen for and mark any possible utilities and other possible subsurface metallic and nonmetallic geophysical anomalies.

Enviroscan, Inc. used conventional utility locating equipment representing the best available technology. This equipment included a Radiodetection RD8000 multi-frequency pipe and cable tracer, a Radiodetection C.A.T. and Genny pipe and cable locator/tracer, a Fisher TW-6 EM pipe and cable locator/tracer, and a Geophysical Survey Systems Inc. Subsurface-Interface Radar System ground-penetrating radar (GPR) system. Utilities within a 30-foot radius of each designated boring and test pit location were located using the appropriate technology and the ground surface was marked with an appropriate paint color. Where necessary, test pit, soil boring, and monitoring well locations were offset from the proposed location based on the subsurface utility mark-out. The utility clearance report is in Appendix A.

Before starting field activities, site access arrangements were coordinated through MSA operations. An access code to enter the GSP work area through the Wilson Point Gate was also obtained through MSA operations. Tetra Tech maintained constant radio communication with the MSA air traffic control tower during field activities.

3.3 FIELD METHODOLOGY

3.3.1 Membrane-Interface Probe Investigation

Previously at MSA, MIP technology has been an efficient and effective screening tool for identifying possible areas of chlorinated VOCs (e.g., solvents) or petroleum VOCs (e.g., fuels, oils, and lubricants) in soil and groundwater. MIP screening can provide detailed vertical profiles of VOCs in the shallow subsurface to depths exceeding 100 feet at a given location, and can provide three-dimensional representations of subsurface VOC distributions when multiple MIPs are advanced in an area. In this case, MIP profiling was used to further investigate VOCs in subsurface soil and groundwater. Specifically, MIP borings were advanced near GSP-MW-01, GSP-MW-04, and GSP-SB/WP-89 in REC # 11, and GSP-MW-07 in REC #9 (e.g., those locations in which elevated TCE concentrations were detected in 2010 and 2011 groundwater samples) to further assess the extent of VOCs (including TCE) in soils and groundwater. MIP results were interpreted in the field and used as a screening tool to help determine the locations of soil borings and monitoring wells.

3.3.1.1 MIP Technology Overview

The MIP is a field screening-tool used to rapidly assess VOCs in subsurface soil and groundwater. The MIP is a 1.5-inch-diameter steel soil probe comprised of a hydrophobic semipermeable membrane and several electronic detectors. The probe is installed at the end of threaded steel pipe and driven into the soil column below the ground surface at a recorded rate using a standard DPT rig. As the probe advances through the soil column, VOC constituents are measured using an electron-capture detector (ECD), a photo-ionization detector (PID), and a flame-ionization detector (FID). The PID and FID detect petroleum VOCs such as benzene, toluene, ethylbenzene, and xylenes, whereas the ECD is better suited for detecting chlorinated VOCs, including common industrial solvents, such as tetrachloroethene (PCE), TCE, carbon tetrachloride and their volatile breakdown products.

The MIP membrane is set within a block that is heated to temperatures exceeding 100 degrees Celsius. When the MIP encounters VOCs in soil or groundwater, the VOCs are heated to create a pressure gradient, volatilizing the VOCs across the membrane. The VOCs are then delivered by an inert carrier gas (nitrogen), which circulates in a semi-closed loop system through the probe to an organic vapor analyzer equipped with the PID, FID, and ECD. These screening instruments,

in combination, typically detect and report concentrations of total VOCs to a minimum concentration of 50 parts per billion by volume.

The MIP electrical conductivity data can be analyzed to determine the depth to water and changes in lithology with depth. The combination of the contaminant concentration data and the lithologic data provides important information for site characterization, as the results illustrate and document the horizontal location and depth of the VOCs. This information can then be used to determine locations of subsequent MIP borings, soil samples for source concentration determination, or groundwater monitoring wells.

3.3.1.2 MIP Investigation

As shown in Figures 3-1 and 3-2, MIPs were advanced at 25 locations, including 10 MIPs near GSP-MW-07 in REC #9 and downgradient into REC #8, eight MIPs near GSP-MW-04 in REC #11, and seven MIPs near GSP-MW-01 and GSP-SB/WP-89 in REC #11. The MIPs were advanced at each location using a standard DPT rig to depths ranging from 24.95 to 44.6 feet below grade. Further MIP advancement, beyond the initially pursued depth of 25 feet, was conducted if elevated instrument readings indicated VOCs in soil or groundwater at that depth. Advancement continued until readings returned to their established baseline. Table 3-1 provides additional details and location-specific rationales for the MIP investigation.

MIPs data were plotted and made available to Tetra Techs field staff and project team almost in real-time. This information allowed team members in the office and the field to collaborate in determining the location and depth for subsequent MIP, soil boring, or monitoring well advancement. MIP boring locations were recorded using a handheld global positioning system (GPS) device and entered in the field documentation. The MIP investigation report is in Appendix B.

3.3.2 DPT INVESTIGATION

From September 6, 2012 to October 2, 2012, soil samples were collected from 25 soil borings using DPT drilling methodology. Table 3-2 summarizes the locations and rationale for each DPT soil boring location. Soil boring locations are presented in Figures 3-1 through 3-2. DPT soil boring locations were distributed as follows:

- 10 borings in the area of existing monitoring well GSP-MW-07 (beginning east of REC #9, then spanning south and west into REC #8; see Figure 3-1)
- 15 borings in the area of REC #11 (former Buildings KC, KJ, and the transformer pad; see Figure 3-2)

Before starting subsurface drilling, soil borings in concrete-covered locations were cored to provide access to the soils beneath the concrete. Soil samples were collected using DPT to an approximate depth of 40 feet below grade. Soil was collected continuously at each boring using a 1.5-inch-diameter, four-foot long stainless steel macro-core sampler fitted with a disposable acetate liner. The sampler was advanced in four-foot increments and the retrieved soil samples were evaluated for field screening and lithologic and visual characteristics.

Soil samples were placed in a zip-top bag and screened with a PID. As shown in Table 3-2, soil samples were collected at two different depths from each of the borings and submitted for laboratory analyses. Certain depth intervals were targeted (e.g., 0–2 feet, 6–8 feet, and 20–22 feet below grade) based on the observations and findings from MIP locations and borings advanced nearby in the same area during previous investigations. A qualified Tetra Tech field geologist performed lithologic logging. All pertinent information, including soil boring location, soil/lithology description, sample designation and depth, PID readings, sample collection time, etc., was recorded on a sample log sheet and the boring log form; these forms are in Appendix C.

If concrete coring was required for sampling, those locations were restored with low shrinkage concrete after backfilling. Backfill consisted of granular bentonite that was hydrated to provide a seal. Patch material was finished smooth and flush with existing grade.

3.3.3 MONITORING WELL INSTALLATION

From September 11–27, 2012, groundwater monitoring wells were installed by a Maryland-licensed well driller at 12 locations (GSP-MW9 to GSP-MW-20) in the study area. The soil boring for each well was drilled using a RotaSonic drill-rig. A four-inch by six-inch drill rod/override casing was advanced, along with temporary casing, to install the well to the desired terminal depth. Soil cores were collected in each monitoring well borehole using a 10-foot core-barrel. During borehole advancement, soil was continuously sampled for lithologic characterization (recorded on the boring logs in Appendix D) and PID screening. Soil samples from two different depths in each monitoring-well soil boring were submitted for laboratory

analysis. Table 3-3 summarizes the rationales for groundwater monitoring well locations; Figures 3-3 and 3-4 show the locations of the new monitoring wells.

The monitoring wells were constructed of 0.010-inch-slot, Schedule-40, polyvinyl chloride (PVC) well screen. Screen lengths were adjusted in the field to address the depth to groundwater and to ensure proper installation of a surface seal. A minimum five-foot section of well screen was installed beneath the water table. A sand pack (#1 filter sand) was packed around the well screen to extend a minimum of two feet above the top of the well screen. A 0.010-inch-slot well screen and #1 filter sand pack were used because of the site's fine-grained subsurface formations.

Following placement of the sand pack, the well was pre-developed using a surging technique to settle the sand pack around the well screen. The depth to sand was measured using a weighted tape. If settlement of the sand pack was noticed, additional sand was used to bring the sand pack back up to the desired depth. A two-foot thick bentonite seal was installed above the sand pack and allowed to hydrate during installation. Grout, consisting of Type II Portland cement and powdered bentonite, was placed above the bentonite seal to approximately one-foot below the ground surface. Grout was mixed using a 94-pound bag of Type II Portland cement, nine pounds of powdered sodium bentonite, and no more than eight gallons of water. The relative thicknesses of the bentonite seals and surface seals and grout were adjusted to accommodate the well depth relative to the ground surface. All soil cuttings were collected in United States Department of Transportation (USDOT)-approved 55-gallon steel drums placed in a facility-approved location.

Protective eight-inch steel flush-mounted well covers were secured over the well casings to protect each well. Before installing the flush-mounted well covers, well casings were cut below grade and fitted with a watertight expandable sanitary seal. Concrete was installed above the grout in the annular space between the borehole and outer well casing to approximately six-inches below grade, to provide a surface seal. The wells were surface completed with a high-strength concrete pad.

3.3.4 Monitoring Well Development

Each monitoring well was developed as soon as possible following well installation, but not before a minimum of 24 hours had elapsed to allow the grout to set up. The wells were developed by hand bailing to remove heavy sediments, then by gentle surging and purging with a

submersible pump, or equivalent, to remove fines and sediment from the sand pack and well screen. Development began at the bottom of the well, working up to the top of the screened interval, and then back down to the bottom of the well incrementally.

During well development, water-level drawdown measurements and groundwater parameters (including pH, temperature, specific conductance, dissolved oxygen [DO], and oxidation-reduction potential [ORP]) were collected every three to five minutes until pumping was completed and recorded in the appropriate site-specific logbook and on a well development record. Water quality parameters were measured using a water quality meter. Turbidity readings were also collected using a separate turbidity meter and recorded in the field logbook and well development record sheets (provided in Appendix D). Development was considered complete when the monitored water quality parameters had stabilized, when three saturated well-casing volumes had been removed, or when the well was purged dry. The purging time was capped at a two-hour maximum.

Stabilization was considered achieved when three consecutive readings, taken at five-minute intervals, were within ±0.1 standard units for pH, ±3% for specific conductance and temperature, ±10% for DO and ORP, and less than 50 nephalometric-turbidity units for turbidity. If a well point was purged dry, the water level was allowed to recover a minimum of 80% of its initial static water level before groundwater sampling. All development water was collected in USDOT-approved 55-gallon steel drums and placed in a facility-approved location.

3.3.5 Groundwater Monitoring Well Purging and Sampling

The eight existing groundwater monitoring wells and the 12 newly installed wells were sampled in two separate events. The first event included the eight existing wells and was conducted from April 26–30, 2012. Newly installed monitoring wells were sampled in a second event that took place from October 5–11, 2012, after they had been allowed to equilibrate with the aquifer for a minimum of one week following development.

The monitoring wells were purged with a peristaltic pump using disposable polyethylene tubing. The pumping rate ranged between 100–300 milliliters per minute to minimize drawdown in the well points. During groundwater purging in all wells, water-level drawdown measurements and groundwater parameters (including pH, temperature, specific conductance, dissolved oxygen,

and oxidation-reduction potential) were collected every three to five minutes until purging was completed. Purging was considered complete when the monitored water quality parameters stabilized, when three saturated well-casing volumes had been removed, or when the well had been purged dry. Water quality parameters were measured using an inline water quality meter, and turbidity measurements were collected using a separate turbidity meter. Stabilization was considered achieved when three consecutive readings, taken at five-minute intervals, were within ±0.1 for pH, ±3% for specific conductance and temperature, ±10% for dissolved oxygen and oxidation-reduction potential, and less than 50 nephalometric turbidity units for turbidity. If a well point was purged dry, the water level was allowed to recover a minimum of 80% of its initial static water level before groundwater sampling.

The data were recorded in the appropriate site-specific logbook and on the "Groundwater Sample Log" and "Low-Flow Purge Data" sheets; the log and data sheets are in Appendix E. All purged water was collected in USDOT-approved 55-gallon steel drums in a facility-approved location. IDW disposal is discussed further in Section 3.4.

3.3.6 Soil and Groundwater Sample Analyses

Soil samples from two different depths in each of the soil borings and new monitoring well borings were submitted for laboratory analysis. The laboratory analytical parameters for the soil samples included the following:

- VOCs by SW846 Method 8260C
- SVOCs by SW846 Method 8270D
- polychlorinated biphenyls (PCBs) by SW846 Method 8082A
- total petroleum hydrocarbons (TPH)-gasoline-range organics (GRO) and -diesel-range organics (DRO) by Method 8015
- priority pollutant metals by SW846 Methods 6010C/7471A
- toxicity characteristic leaching procedure (TCLP) United States Environmental Protection Agency (USEPA) Method 1311 analysis was conducted on three soil samples.

Groundwater samples from the new and existing wells were analyzed for the following parameters:

- VOCs by SW846 Method 8260C
- SVOCs and 1,4-dioxane by SW846 Method 8270D
- TPH-GRO and TPH-DRO by SW846 Method 8015
- total and dissolved priority pollutant metals by SW846 Method 6010C/7471A
- perchlorate by USEPA Method 314
- hexavalent chromium by USEPA Method 218.6

Each groundwater sample analyzed for dissolved metals was filtered in the field before sample preservation using a dedicated, disposable 0.45-micron filter and a peristaltic pump.

Laboratory analysis of soil and groundwater samples was performed by TestAmerica Inc. laboratories (TestAmerica) in Canton, Ohio. TestAmerica holds National Environmental Laboratory Accreditation Program accreditation at its facilities in fifty states, including the Canton, Ohio laboratory.

Maryland Department of the Environment (MDE) chemical-specific soil and groundwater standards (MDE, 2008) were used to evaluate concentrations of constituents detected in soil and groundwater. MDE uses these standards to screen sites, and they are useful benchmarks for evaluating site data and potential cleanup goals. The screening objectives are to: (1) gauge the degree of observed contamination in relation to regulatory standards and potential adverse effects on human health or the environment, and (2) to evaluate the need for further sampling or remedial action. Therefore, regulatory risk-based standards are used whenever possible. Chemical data tables are in Appendix F.

Soil results were compared to both residential and nonresidential land use standards. Residential standards are used to provide a relative evaluation for hypothetical future property use. Nonresidential screening of the results was conducted because the site is restricted and the facility is likely to remain a state-government facility for the indefinite future. Nonresidential standards are considered more applicable for current and likely future use of the property.

Soil results for particular metals were also compared to MDE anticipated typical concentration (ATC) values (MDE, 2008). ATCs were derived by MDE to represent reference levels or “background” concentrations for seven metals in three geologic regions of Maryland. ATCs

commonly exceed risk-based screening levels; MDE allows for the proposed use of an ATC concentration as an alternative to the residential-risk derived soil standard if the ATC exceeds the risk-derived standard. For example, the arsenic ATC for the eastern region of Maryland (the location of Martin State Airport [MSA]) of 3.6 milligrams per kilogram (mg/kg) was used to screen arsenic concentrations.

3.3.7 Sample Nomenclature

Each soil sample collected during the study is identified with a unique sample identification tag. For the GSP study, all sample numbers are prefaced with "GSP." MIP borings have the prefix "MIP" followed by the sequential number of the MIP exploration. For soil samples obtained through DPT, the sample identification tag carries the designation "SB;" oil samples collected during monitoring well installation contain the "MW" prefix. The location identification number follows, and the sample tag terminates in a two-number range indicating the depth range of the sample. For example, GSP-SB-91-8-10 is a soil sample collected at GSP during DPT advancement of boring location 91 from eight to 10 feet below grade. Groundwater samples are designated with the prefix "MW," followed by the unique numerical identifier of the specific monitoring well, followed by the sample collection date. Tables 3-1 through 3-3 include sample nomenclature. Figures 3-1 to 3-4 show sampling locations.

3.3.8 Surveying

On October 9, 2012, following completion of the fieldwork, a Maryland-licensed professional surveyor (Enviroscan, Inc.) provided horizontal and vertical coordinates for the soil borings and monitoring wells. The locations were surveyed with accuracy (at the top of the well casings) to the nearest 0.01 foot for vertical elevations in the North American Vertical Datum 1988 and to the nearest 0.1 foot horizontal coordinates in the North American Datum 1983. The well survey report is in Appendix G.

3.3.9 Synoptic Water Level Measurements

Before groundwater sampling, one round of water level data was collected from the 12 new groundwater monitoring wells (GSP-MW-9 through GSP-MW-20) and from seven existing GSP monitoring wells (GSP-MW-1, and GSP-MW-3 through GSP-MW-8). Water level data provide information on groundwater flow characteristics. The static water level was determined by

lowering the meter's probe into the well until the liquid-level indicator emitted an audible tone, indicating the air/water interface. The water level was read from the probe cable and recorded to the nearest 0.01 foot as the depth to water. Water level measurements were recorded on the groundwater-level measurement field forms in Appendix E. along with the groundwater sample logs and low-flow purge data sheets.

3.3.10 Documentation

A master site logbook was maintained for the site and served as an overall record of field activities. Sample documentation consisted of completed chain of custody (COC) reports and matrix-specific sample log sheets. The COC report is a standardized form summarizing and documenting pertinent sample information (e.g., sample identification and type, matrix, date, time of collection, preservation, and requested analysis). Sample custody procedures are designed to document sample acquisition and integrity. COC generated during this investigation are in Appendix H with the data validation reports.

3.3.11 Equipment Decontamination

A decontamination area and a clean zone were established at the perimeter of the restricted work zone to prepare and break down sampling equipment and hold decontamination-rinsate solution for subsequent disposal. Dedicated or disposable equipment was used whenever possible. Reusable equipment (i.e., soil samplers, DPT drill rods, drill rods, and water level meters) was decontaminated before and after each use. Decontamination of reusable small equipment consisted of the following steps:

- Alconox® and potable-water wash
- potable-water rinse
- analyte-free water rinse
- air drying
- collection of decontamination solutions for disposal

All downhole drilling equipment, including the rear of the DPT rig, drill rig, and other equipment, was high-pressure cleaned before arriving on-site. The equipment was cleaned before work, between drilling locations, at any time the rig left and returned to a hole before completing

a boring, at any time the drill rig left the site, and at the conclusion of the drilling program. All decontamination of large pieces of equipment was conducted on and within a temporary decontamination pad. The decontamination pad was disassembled and removed at the end of field activities.

3.4 WASTE MANAGEMENT

Waste management procedures established in Lockheed Martin guidance document EROP-03 were followed when handling and managing waste generated at the GSP site. All IDW (e.g., drill cuttings, excess soil from sampling, well development water, well purge water, and decontamination fluids) was collected in new or reconditioned United States Department of Transportation-approved 55-gallon steel drums. All drums were moved to a central staging area on the MSA site for waste characterization, profiling and proper disposal.

Samples of the IDW were collected and submitted for toxicity characteristic leaching procedure (TCLP) analysis for organic and inorganic constituents, including corrosivity, ignitability, reactive sulfide, and reactive cyanide. Upon receipt of the IDW analytical data, the generated IDW was removed from GSP by Environmental Quality Company and disposed of at their state licensed and Lockheed Martin-approved York, Pennsylvania facility in accordance with federal, state, and local regulations. Personal protective equipment was brushed off, placed in trash bags, and disposed of in a facility trash receptacle. IDW disposal documentation is in Appendix I.

3.5 SITE RESTORATION

Site restoration was completed as necessary and as required by Lockheed Martin, MAA, or MSA following completion of the field investigation. The site was restored to match the site conditions at the time the field investigation started.

3.6 DATA VALIDATION

Data validation entails having a party independent of the analytical laboratory review the analytical data to ensure that specific criteria have been met. These criteria are concerned with specifications that are not sample dependent; they specify performance requirements that should be fully under a laboratory's control. For organic-data analyses, specific validation areas include blanks, performance-evaluation standard materials, and instrument performance checks. For

inorganic data analyses, specific validation areas include blanks, calibration standards, calibration verification standards, laboratory control standards, and interference check standards.

Chemical data were supplied by the laboratory in electronic databases as well as hard-copy reports. Following the investigation, chemical data were validated by independent chemists in Tetra Tech's Pittsburgh, Pennsylvania quality control department. Validation was performed in accordance with established United States Environmental Protection Agency (USEPA) protocols to assess data reliability and accuracy. This review was based on the USEPA Region 3 *Modifications to the National Functional Guidelines for Data Review* (USEPA, 1993 and 1994) and the specifics of the analytical method employed. Data validation reports, including complete COC documentation, are in Appendix H (on compact disc).

Collectively, these data are acceptable for their intended use, except for data that have been qualified as unreliable. For this validation, the following data qualifiers (i.e., flags) were applied to the chemical results presented in this report. These qualifiers appear on the chemical result tables in Section 4 and Appendix G.

B The analyte was not detected substantially above (10 times or above) the level reported in the laboratory or field blank (i.e., the result is considered an artifact of the laboratory analysis and is not considered a site contaminant).

U The analyte is considered not detected at the reported value.

J The analyte is considered present in the sample, but the value is estimated and may not be accurate or precise.

K The analyte is considered present in the sample but the value is biased high and the actual value is expected to be lower than the reported value.

L The analyte is considered present in the sample but the value is biased low and the actual value is expected to be higher than the reported value.

UJ The analyte was not detected. However, the quantitation or detection limit may be inaccurate or imprecise.

UL The analyte was not detected. However, the quantitation or detection limit is likely greater than the reported value.

Common laboratory or field contaminants may occasionally be detected in samples. Quality control blanks and other internal laboratory blanks (e.g., method blanks, etc.) are analyzed to

determine the significance of analytical results versus possible laboratory or field contaminants. Common laboratory contaminants for VOCs include acetone, methylene chloride, and 2-butanone. According to USEPA national functional laboratory guidelines, any compound detected in both the sample and its associated blank must be qualified (i.e., flagged with a "*B*") when the sample concentration is less than five times the concentration detected in the blank. In this investigation, results were qualified with a "*B*" flag when the sample concentration of common laboratory contaminants was less than 10 times the blank concentration. Metals were also reported as blank contamination in several instances (e.g., antimony and molybdenum in several soil samples, and molybdenum, thallium, and zinc in all groundwater samples).

Table 3-1

Membrane-Interface Probe Locations and Rationales
Supplemental Soil and Groundwater Characterization
Greater Strawberry Point, Martin State Airport, Middle River, Maryland

MIP number(1)	MIP location(2)	Initial depth(3)	Rationale/purpose
GSP-MIP-21 to GSP-MIP-23	Upgradient (north/northeast) of GSP-MW-7; at REC #9 intersection with taxiway (MIP-22 and MIP-23); and further upgradient (MIP-21).	25 feet	Assess possible upgradient source of VOCs at GSP-MW-7. Further investigate the extent of TCE detected in 2011 at concentrations exceeding regulatory criteria in groundwater at GSP-MW-7 and in soil at GSP-SB-92.
GSP-MIP-24 to GSP-MIP-30	Southeastern portion of REC #9 and downgradient into REC #8, near GSP-MW-7 and the former propellant storage building.	25 feet	Assess the source and distribution of VOCs in the subsurface in the southeast portion of REC #9, and in the southerly direction into REC #8. Further investigate TCE detected in 2011 at concentrations exceeding regulatory criteria in groundwater at GSP-MW-7 and in soil at GSP-SB-92.
GSP-MIP-31 to GSP-MIP-38	Northeastern portion of REC #11, near GSP-MW-1 and GSP-WP-89.	25 feet	Assess the source and distribution of VOCs in the subsurface in the northeast portion of REC #11, near the former critical test building. Further investigate TCE detected in 2011 at concentrations exceeding regulatory criteria in groundwater at GSP-MW-1 and in 2010 in GSP-WP-89.
GSP-MIP-39 to GSP-MIP-45	Southwest portion of REC #11, near GSP-MW-4.	25 feet	Assess the source and distribution of VOCs in the subsurface in the southwest portion of REC #11 near the former radioisotope building. Further investigate TCE detected in 2011 at concentrations exceeding regulatory criteria in groundwater at GSP-MW-4.

(1) The ID numbers for MIP-borings were assigned in the field based on the order completed.
(2) The sequence of MIP borings began with the locations nearest to the monitoring wells with elevated VOCs concentrations (e.g., GSP-MW-07), and then proceeded outward and in a downgradient direction.
(3) MIP exploratory borings were initially planned to a depth of 25 feet below grade. However, if groundwater contamination was indicated based on real-time on-site MIP output, then profiling continued deeper until readings returned to baseline conditions.

Abbreviations:
GSP = Greater Strawberry Point
ID = identification
MIP = membrane-interface probe
MW = monitoring well
REC = recognized environmental condition
TCE = trichloroethene
VOCs = volatile organic compounds

Table 3-2

Summary of Soil Sampling, Chemical Analyses, and Sampling Rationales
Supplemental Soil and Groundwater Characterization—Soil Borings
Greater Strawberry Point, Martin State Airport, Middle River, Maryland
Page 1 of 2

Soil-boring number	Soil-boring location	Boring depth	Soil sample analysis (laboratory method)	Rationale/purpose
GSP-SB-131 through GSP-SB-140	Southeastern portion of REC #9 and downgradient into REC #8, near GSP-MW-7 and the former propellant storage building.	40 feet (except in GSP-SB-135, GSP-SB-136, GSP-SB-137, refusal between 31.5 and 36 feet)	VOCs (8260B) SVOCs (8270D) priority pollutant metals (6010C/ 7471A) TPH-GRO/DRO (8015D) TCLP (USEPA 1311)(1)	Assess the source and distribution of VOCs in the subsurface in the southeast portion of REC #9, and in the southerly direction into REC #8. Investigate TCE detected in 2011 at concentrations exceeding regulatory criteria in groundwater at GSP-MW-7 and in soil at GSP-SB-92, including a possible upgradient source (specifically, at SB-131 to SB-133).
GSP-SB-141 through GSP-SB-148	Eastern portion of REC #11, near GSP-MW-1 and the former critical test building.	40 feet (except in GSP-SB-141, GSP-SB-144, GSP-SB-145, refusal between 32 and 35 feet)	VOCs (8260B) SVOCs (8270D) priority pollutant metals (6010C/ 7471A) TPH-GRO/DRO (8015D) TCLP (USEPA 1311)(1)	Assess the source and distribution of VOCs in the subsurface in the east portion of REC #11, near the former Critical Test Building. Further investigate TCE detected in 2011 at concentrations exceeding regulatory criteria in groundwater at GSP-MW-1 and in 2010 at GSP-WP-89.
GSP-SB-149 through GSP-SB-155	Southwest portion of REC #11, near GSP-MW-4 and the former radioisotope building.	40 feet (except in GSP-SB-151, refusal at 35 feet)	VOCs (8260B) SVOCs (8270D) priority pollutant metals (6010C/7471A) TPH-GRO/DRO (8015D) TCLP (USEPA 1311)(1	Assess the source and distribution of VOCs in the subsurface in the southwest portion of REC #11 near the former Radioisotope Building. Further investigate TCE detected in 2011 at concentrations exceeding regulatory criteria in groundwater at GSP-MW-4.

Table 3-2

Summary of Soil Sampling, Chemical Analyses, and Sampling Rationales
Supplemental Soil and Groundwater Characterization—Monitoring Wells
Greater Strawberry Point, Martin State Airport, Middle River, Maryland
Page 2 of 2

Soil-boring number	Soil-boring location	Boring depth	Soil sample analysis (laboratory method)	Rationale/purpose
GSP-SB-MW-09 to GSP-SB-MW-12	In REC #8, downgradient of GSP-MW-7	30 feet	VOCs (8260B) SVOCs (8270D) priority pollutant metals (6010C/7471A) TPH-GRO/DRO (8015D) TCLP (USEPA 1311)(1)	Collect up to two soil samples for laboratory analysis during advancement of each new monitoring well(2)
GSP-SB-MW-13 to GSP-SB-MW-16	In REC #7, near the maintenance building	30 feet	VOCs (8260B) SVOCs (8270D) priority pollutant metals (6010C/7471A) TPH-GRO/DRO (8015D) TCLP (USEPA 1311)(1)	Collect up to two soil samples for laboratory analysis during advancement of each new monitoring well(2)
GSP-SB-MW-17 to GSP-SB-MW-20	Downgradient portion of REC #11, near former critical test building and radio-isotope lab	30 feet	VOCs (8260B) SVOCs (8270D) priority pollutant metals (6010C/7471A) TPH-GRO/DRO (8015D) TCLP (USEPA 1311)(1)	Collect up to two soil samples for laboratory analysis during advancement of each new monitoring well(2)

Abbreviations:

DRO = diesel-range organics
GRO = gasoline-range organics
GSP = Greater Strawberry Point
MW = monitoring well
TCLP = toxicity characteristic leaching procedure
TPH = total petroleum hydrocarbon
USEPA = United States Environmental Protection Agency
VOCs = volatile organic compounds

(1) TCLP analysis was performed on only three select soil samples. Soil samples for TCLP were obtained and placed in containers from each boring. Three soil samples exhibiting the greatest evidence of contamination (based on field observations [e.g., staining, odors, etc.]) from three different borings (GSP-SB-139, GSP-SB-144 and GSP-SB-145) were selected and submitted for TCLP analysis.

(2) Sampling depth was determined based on field photo-ionization detector (PID) readings or other indicators of contamination (staining, odor, etc.). If no indications of contamination were encountered, then the first sample (0–2 foot depth) and the sample corresponding to the groundwater interface were submitted for analysis.

Table 3-3

Groundwater Monitoring Well Rationales
Supplemental Soil and Groundwater Characterization
Greater Strawberry Point, Martin State Airport, Middle River, Maryland

Well number[(1)]	Location	Approximate well-screen depth	Groundwater sample analysis (method)[(1)]	Rationale/purpose
GSP-MW-9 to GSP-MW-12	In REC #8, downgradient of GSP-MW-7	30 feet	VOCs (8260B) SVOCs (8270D) priority pollutant metals - total and dissolved (6010C/7471A) TPH GRO/DRO (8015D)	Assess extent of VOCs detected in 2011 at concentrations exceeding regulatory criteria in groundwater at GSP-MW-7 (TCE and TPH-GRO) and in soil at GSP-SB-92 (TCE). Also provide for future groundwater sampling and estimation of potentiometric surface in the vicinity of GSP-MW-7.
GSP-MW-13 to GSP-MW-16	In REC #7, near the maintenance building	30 feet	VOCs (8260B) SVOCs (8270D) priority pollutant metals—total and dissolved (6010C/7471A) TPH GRO/DRO (8015D)	Provide future groundwater monitoring points near the maintenance building at REC #7, downgradient of GSP-MW-7. Also, to provide for soil sample collection in area not extensively characterized during previous investigations.[(2)]
GSP-MW-17 and GSP-MW-18	Downgradient portion of REC #11, near former radioisotope lab	30 feet	VOCs (8260B) SVOCs (8270D) priority pollutant metals—total and dissolved (6010C/7471A) TPH GRO/DRO (8015D)	Assess extent of VOCs detected in 2011 at concentrations exceeding regulatory criteria in groundwater at GSP-MW-4 (TCE). Also, to provide for future groundwater sampling and estimation of potentiometric surface near GSP-MW-4.
GSP-MW-19 and GSP-MW-20	Downgradient portion of REC #11 near former critical test building	30 feet	VOCs (8260B) SVOCs (8270D) priority pollutant metals – total and dissolved (6010C/7471A) TPH GRO/DRO (8015D)	Assess extent of VOCs (TCE) detected at concentrations exceeding regulatory criteria in groundwater at GSP-MW-1 in 2011 and in GSP-SB/WP-89 in 2010. Also provide for future groundwater sampling and estimation of potentiometric surface in the vicinity of GSP-MW-1.

Abbreviations:
DRO = diesel-range organics
GRO = gasoline-range organics
GSP= Greater Strawberry Point
MW= monitoring well
REC = recognized environmental condition
SVOCs = semivolatile organic compounds
TCE = trichloroethene
TCLP = toxicity characteristic leaching procedure
TPH = total petroleum hydrocarbons
USEPA = United States Environmental Protection Agency
VOCs = volatile organic compounds

(1) Previously installed wells GSP-MW-1 through GSP-MW-8 were also sampled for analysis of the listed parameters.

(2) Two soil samples were collected in each soil boring advanced for the monitoring wells. Soil sample analyses for the new monitoring well locations are summarized in Table 3-2.

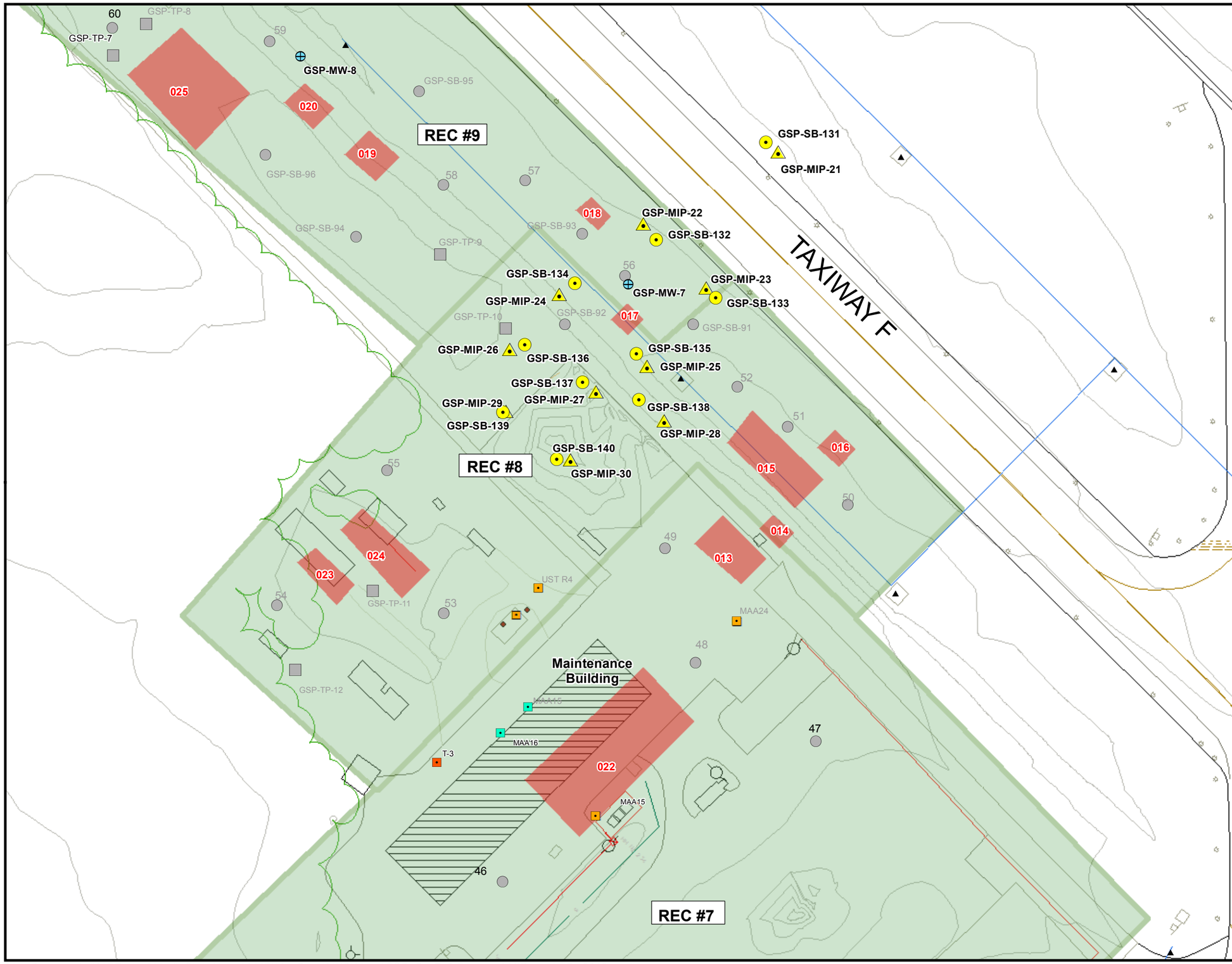


Figure 3-1

Membrane Interface Probe and Soil Boring Locations (REC #7, #8 and #9)

Legend

- MIP Location- 2012
- Soil Boring Location- 2012
- Existing Monitoring Well (2011)
- Previous Soil Boring (SB) 2010- 2011
- Test Pit (2011)
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES Outfalls
- Sediment Basin
- MTN Tanks
- Historic Structures
- REC
- Current Structures
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- REC #8 REC Number

MSA – Martin State Airport
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
NPDES - National Pollutant Discharge Elimination System

Note:
Refer to Figure 2-2 for details of historic structures

Strawberry Point
Middle River, Maryland

0 12.5 25 50 Feet

N

DATE MODIFIED: 12/24/12

CREATED BY: MP

Tetra Tech, Inc.

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP_Rec7_9 Surveyed MIPs and SBs 2012.mxd)
12/24/2012 -- 2:48:46 PM

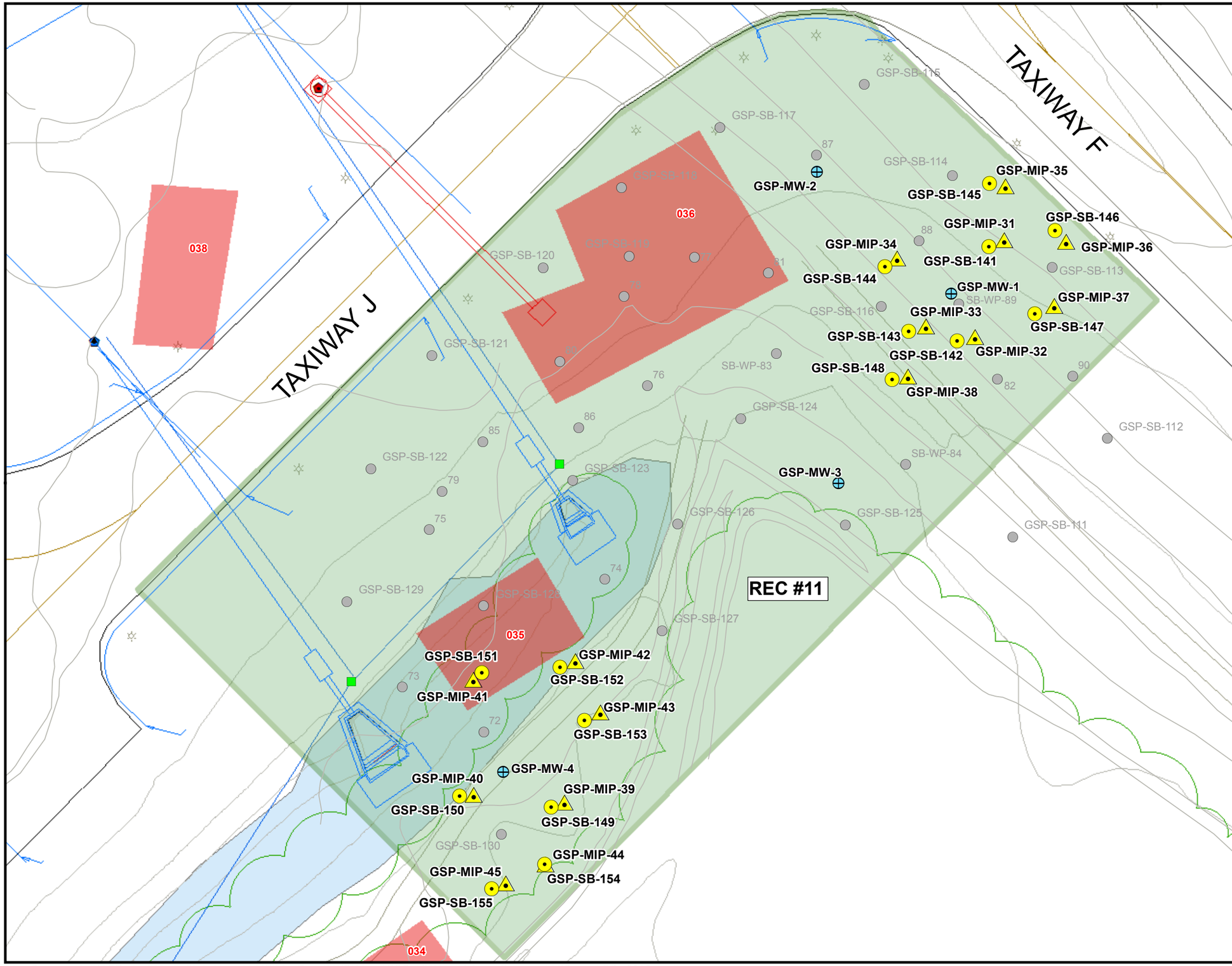


Figure 3-2

Membrane Interface Probe and Soil Boring Locations (REC #11)

Legend

- MIP Location- 2012
- Soil Boring Location- 2012
- Existing Monitoring Well (2011)
- Previous Soil Boring (SB) 2010- 2011
- Oil Filled Operational Equipment
- Drum Storage
- MSA GW Wells
- MSA Inlets
- MSA Manholes
- NPDES Outfalls
- Sediment Basin
- Historic Structures
- MTN Tanks
- REC
- Current Structures
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Sanitary Pipes
- Storm Pipes
- Stormwater Holding Area
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- REC #8 REC Number

MSA – Martin State Airport
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
NPDES - National Pollutant Discharge Elimination System

Note:
Refer to Figure 2-2 for details of historic structures

Strawberry Point
Middle River, Maryland

0 10 20 40 Feet

N

DATE MODIFIED: 11/5/12

CREATED BY: MP

Tetra Tech, Inc.

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP_MW1and4 Area_Surveyed MIPs and SBs 2012.mxd)
11/5/2012 -- 1:38:05 PM

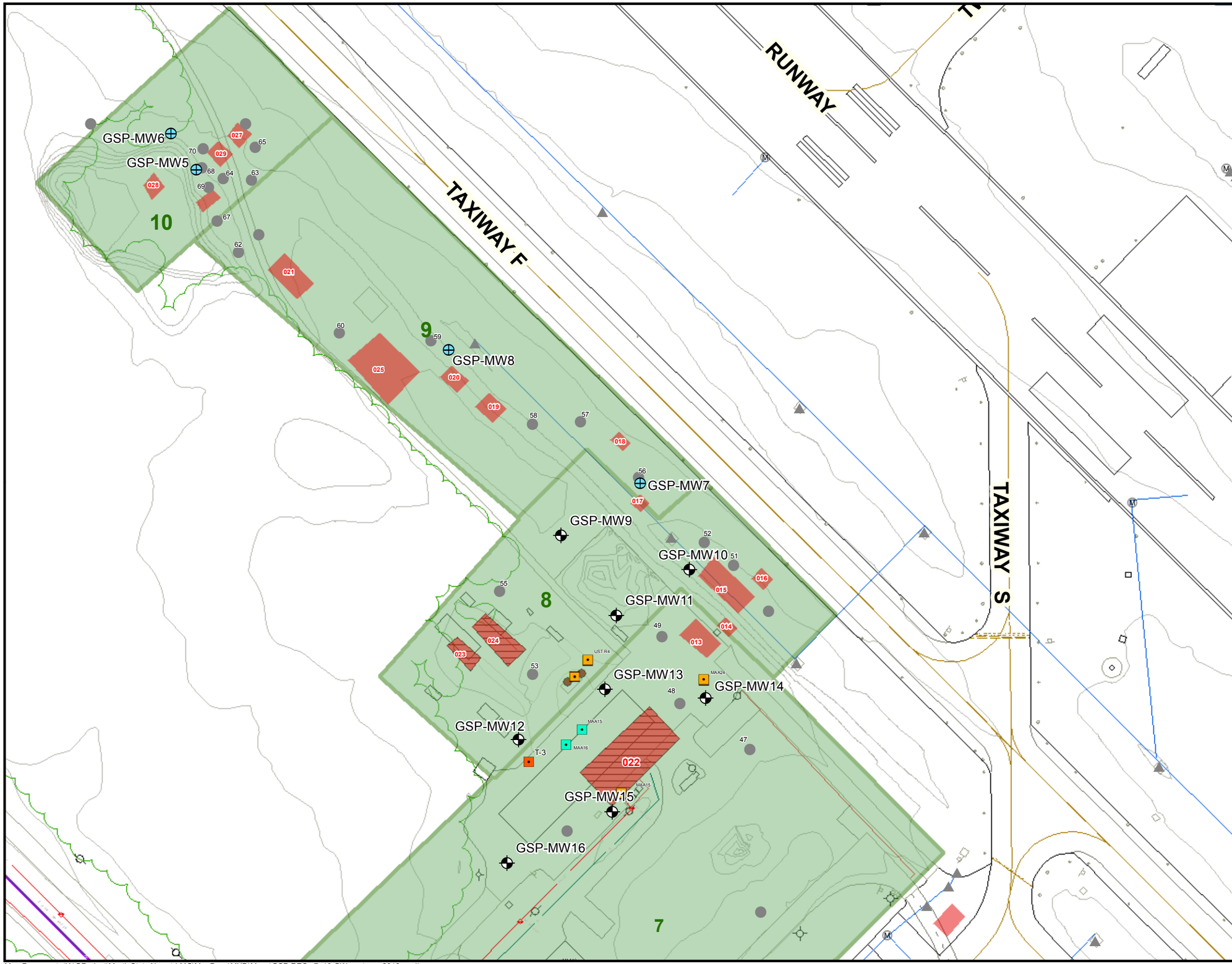


Figure 3-3

Groundwater Monitoring Well Locations (RECs #7, #8, #9 and #10)

LEGEND

- Monitoring Well Locations (2012)
- Existing Monitoring Well (2011)
- Soil Boring (2010)
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES Outfalls
- Sediment Basin
- MTN Tanks
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- 9 REC Number

MSA – Martin State Airport
NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
TWY - Taxiway

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 37.5 75 150 Feet

N

DATE MODIFIED: 12/24/12

CREATED BY: MP

TETRA TECH

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP RECs 7_10 GW contours 2012.mxd)
12/24/2012 -- 10:34:02 AM

Figure 3-4

Groundwater Monitoring Well Locations (REC #11)

Legend

- Monitoring Well Locations 2012
- Existing Monitoring Well (2011)
- Previous Soil Boring (SB) - 2010-2011
- MSA Inlets
- MSA Manholes
- NPDES Outfalls
- Sediment Basin
- Trench Drain
- Sanitary MH
- MTN Tanks
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Stormwater Holding Area
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- REC #10 REC Number

MSA – Martin State Airport
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
NPDES - National Pollutant Discharge Elimination System

Note:
Refer to Figure 2-2 for details of historic structures

Strawberry Point
Middle River, Maryland

0 10 20 40 Feet

N

DATE MODIFIED: 11/5/12

CREATED BY: MP

Tetra Tech, Inc.

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\Rec 11_Surveyed MW Locations 2012.mxd)
11/5/2012 -- 9:54:18 AM

Section 4
Results

The results of this supplemental soil and groundwater characterization are described in this section. Section 4.1 briefly discusses the geologic and hydrologic results obtained from the soil boring and groundwater gauging programs at Greater Strawberry Point (GSP). The results from the advancement of membrane–interface probes (MIPs) and soil borings, and the chemical analyses of soil and groundwater in the areas of recognized environmental conditions (RECs) #7, #8, #9, #10, and #11, are discussed in Sections 4.2 through 4.4.

The chemical analytical results are summarized in the following sections. A statistical summary table details the number of detections, minimum and maximum concentrations, and average concentrations for each analyte detected. A complete listing of concentrations detected in all soil samples collected is also presented, including data validation qualifiers. Shaded cells in these tables represent constituents with concentrations exceeding Maryland Department of the Environment (MDE) screening criteria. Data tables presenting all sampling analytical results, along with laboratory reporting limits or method detection limits, are in Appendix G. Data validation reports are in Appendix H.

4.1 GEOLOGY AND HYDROLOGY

4.1.1 Geology

The lithology encountered in the soil borings varies across Greater Strawberry Point. In RECs #7, #8, and #9, intermittent sand and clay layers of moderate thickness predominate the relatively shallow subsurface, and are often associated with varying amounts of silt. This lithology overlays a thick northwesterly dipping layer of stiff clay that is encountered at depths ranging from approximately six feet below grade (in the southeastern portion of the area) to 25 feet below grade (in the western portion). This thick clay layer may be contiguous with the clay layer encountered in REC #10 in previous investigations. Borings in the northwestern portion of REC #10 contain a thick clay layer underlain by sandy lithology. REC #11 lithology is

comprised of layers of sand, clay, and occasionally silt, which vary throughout the area in thickness and frequency. Below these materials, a layer of dense, intermingled sand, silt, and clay lenses is encountered at depths ranging from about 15 to 30 feet below grade.

4.1.2 Hydrology

Groundwater level measurements were converted to elevations using vertical survey-coordinates, as shown in Table 4-1. Groundwater depths (measured from the top of the well casings) ranged from 3.94 feet (GSP-MW-18) to 10.46 feet (GSP-MW-20) at REC #11, and from 4.71 (GSP-MW-10) to 10.1 feet (GSP-MW-9) at RECs #7 to #10. Groundwater elevations range from 1.75 feet (GSP-MW-3) to 4.1 feet (GSP-MW-2) feet at REC #11, and 1.14 feet (GSP-MW-5) to 7.96 feet (GSP-MW-14) at RECs #7 to #10. Groundwater elevations are reported in feet North American Vertical Datum 1988 (NAVD88).

Figures 4-1 and 4-2 show the groundwater elevation contours of RECs #7 through #10 and REC #11, respectively, using the October 2012 measurements in Table 4-1. Groundwater flows from areas of higher groundwater elevations (i.e., higher groundwater potential) to areas of lower groundwater elevations. As shown in Figure 4-1, groundwater elevations in the southeastern portion of the study area (i.e., RECs #7 and #8) reflect a radial flow pattern extending outward from the east portion of REC #7. As described in Section 4.1.1, shallow, stiff clays were observed throughout this area, particularly at GSP-MW-14. During the installation of well GSP-MW-14, this clay layer was observed to extend from six feet below ground surface to at least 30 feet below grade (i.e., the bottom of the well). North of REC #8, groundwater flow continues to exhibit an apparent radial flow northward along the dipping clay layer; groundwater also appears to flow both easterly (toward Frog Mortar Creek) and westerly (toward Stansbury Creek).

Figure 4-2 illustrates the groundwater flow in the REC #11 area. At REC #11, groundwater flow is generally to the southeast, consistent with regional groundwater flow toward the southeast tip of MSA where Frog Mortar and Stansbury Creeks converge. Groundwater flow in the southwestern portion of REC #11 is locally influenced by the large drainage swale between the wooded area and Taxiway J.

4.2 MEMBRANE-INTERFACE PROBE INVESTIGATION RESULTS

The detailed results of the MIP investigation are in Appendix B and summarized in Table 4-2. Figure 4-3 illustrates the elevated readings collected in the area of RECs #7, #8, and #9. Figure 4-4 illustrates the elevated readings collected from REC #11. MIP screening results indicate that soil conductivity generally correlates with soil type in the subsurface (e.g., high soil conductivity indicates fine-grained sediments/soils such as silt and clay). The MIP can detect volatile organic compounds (VOCs) at concentrations greater than 250 parts per billion. The criteria for determining elevated responses are based on the typical baseline responses of the site; criteria were set at levels beyond those produced by unaffected soil, while still incorporating readings that indicate possible contamination. An electron-capture detector (ECD) response greater than 1×10^6 microvolt (µV) signifies chlorinated VOCs, and a photoionization detector (PID) reading greater than 2×10^5 µV possibly indicates petroleum hydrocarbons. MIP readings via direct-push technology (DPT) were collected from soils at four locations in REC #9, seven locations in REC #8, and 15 locations in REC #11, as shown in Table 4-2.

4.2.1 MIPs Advanced in RECs #7, #8, and #9

ECD responses at MIP-21, MIP-22B, and MIP-24 indicated possible zones of chlorinated VOCs. The peak responses from MIP 21 were only slightly elevated, while those from MIP-22B and MIP-24 greatly exceeded the established criterion, with readings greater than 1.4×10^7 µV. ECD readings were elevated at 26–38 feet below grade at MIP-22B, and from 12 to 28 feet below grade at MIP-24. Elevated PID readings were also recorded at these MIP locations. A response equal to the established criterion of 2×10^5 µV was detected at MIP-22B, 28 feet below grade, and readings up to 7×10^5 µV were recorded at MIP-24 from 17 to 23 feet below grade.

4.2.2 MIPs Advanced in REC #11

In REC #11, MIP-38, MIP-39, MIP-40, MIP-42, and MIP-43 produced ECD responses indicating possible zones of chlorinated VOCs. Elevated ECD readings (up to 1.4×10^6 µV) were recorded from MIP-38 at 10 to 14 feet below grade. Elevated readings (over 1.6×10^6 µV) were recorded at intermittent depths in MIP-39 from 15 to 31 feet below grade. MIP-40 had one elevated ECD response at 23 feet below grade, equal to the established criterion. Elevated ECD readings up to 1.6×10^6 µV were recorded at depths of 15, 16, and 20 feet below grade at MIP-42,

while MIP-43 produced elevated readings (up to 1.2×10^6 µV) at 27 and 32 feet below grade. The only elevated PID readings (up to 9×10^5 µV) in REC #11 were collected from four to six feet below grade in MIP-34.

4.3 SOIL BORINGS AND SOIL SAMPLING RESULTS

As described in Section 3.3 and Table 3-2, 37 soil borings were advanced in the study area. Twelve of 37 soil borings were converted to monitoring wells. In each boring, soil samples were collected at depth intervals ranging from zero to two feet to 35–36.5 feet below grade. Seventy-seven soil samples were collected during this investigation for laboratory analyses.

Four soil borings were advanced in REC #7 (GSP-MW-13 through GSP-MW-16), 11 in REC #8 (GSP-SB-134 through GSP-SB-140, and GSP-MW-9 through GSP-MW-12), three in REC #9 (GSP-SB-131 through GSP-SB-133), and 19 in REC #11 (GSP-SB-141 through GSP-SB-155, and GSP-MW-17 through GSP-MW-20). The observations and results from the soil sampling program are separated below according to the area of investigation (i.e., by REC), as are Figures 4-5 through 4-8. Table 4-3 shows the statistical summary of contaminants detected in the soil samples collected during this investigation. Table 4-4 highlights analyte concentrations that exceed Maryland residential and nonresidential land use standards for soils. In Figures 4-5 and 4-6, benzo(a)pyrene equivalents (BaPEq) are used to represent individual polycyclic aromatic hydrocarbon (PAH) compounds[1] (see Appendix J). Metals exceedances of the anticipated typical concentrations (ATCs) for Eastern Maryland soils are shown in Figures 4-6 and 4-8.

4.3.1 Borings in REC #7, REC #8, and REC #9 Areas

Northern area of REC #7: Soil samples were collected during installation of four new monitoring wells (GSP-MW-13 through GSP-MW-16) in the northern portion of REC #7. Table 4-4 shows the sampling results from these four borings and indicates analytes with

[1]*Per United States Environmental Protection Agency (USEPA) guidance (USEPA, 1993), the concentrations of benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-c,d)pyrene can be combined in an adjusted risk-weighted concentration expressed in terms of benzo(a)pyrene toxicity. This calculated value, called the benzo(a)pyrene equivalent concentration (BaPEq), uses USEPA-recommended toxicity equivalency factors (TEFs) to estimate the potency of these PAH compounds relative to benzo(a)pyrene. TEFs are then used to convert individual PAH concentrations into equivalent concentrations of benzo(a)pyrene; these values are then summed to arrive at the calculated BaPEq. BaPEq values were calculated by using half the laboratory detection limit to represent non-detect ("ND," or below laboratory detection limits) results, in combination with actual concentrations of detected PAHs. Appendix J provides details regarding the calculation of benzo(a)pyrene equivalent concentrations used in this analysis.*

detected concentrations exceeding comparison criteria. No VOCs, semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), total petroleum hydrocarbon (TPH)-gasoline-range organics (GRO), or TPH-diesel-range organics (DRO) were detected at concentrations exceeding MDE comparison criteria in any soil sample analyzed from these four borings. However, some metals concentrations in these soil samples exceed eastern Maryland ATCs; the locations of these exceedances are in Figure 4-7.

Sixteen metals were detected in soil samples collected from REC #7, including arsenic, chromium, and vanadium, which exceed their respective screening criteria in several samples. Arsenic exceeds its residential screening criteria (0.43 mg/kg) in seven of the eight samples, excluding GSP-MW-13-2-4. Three samples (GSP-MW-14-8-10 [2.5 mg/kg], GSP-MW-14-10-12 [12 mg/kg], and GSP-MW-16-2-4 [2.2 mg/kg]) contain concentrations of arsenic that exceed the nonresidential screening criterion of 1.9 mg/kg, but only one sample (GSP-MW-14-10-12) also exceeds the arsenic ATC of 3.6 mg/kg. Chromium and vanadium also exceed their ATC (28 mg/kg and 30 mg/kg, respectively) in that sample, with respective concentrations of 120 mg/kg and 160*J* mg/kg (the "*J*" qualifier represents an estimated concentration). Sample GSP-MW-14-10-12 is the only one from this REC with chromium concentrations exceeding ATC screening criteria. Vanadium was detected in samples GSP-MW-13-0-2 (8.7*J* mg/kg), GSP-MW-14-8-10 (11*J* mg/kg), GSP-MW-15-6-8 (14 mg/kg), and GSP-MW-16-2-4 (12*J* mg/kg) at concentrations exceeding the residential screening criterion (7.8 mg/kg), but not exceeding its ATC (30 mg/kg).

Northern REC #8 and Southern REC #9 areas: Twenty-eight soil samples were collected from 10 soil borings (GSP-SB-131 through GSP-SB-140) and four new monitoring well locations (GSP-MW-9 through GSP-MW-12) in northern REC #8 and the southern REC #9 areas. Samples were collected from two different depths in each boring and submitted for the full list of laboratory analysis specified in Section 3.3.6. In addition, one sample (GSP-SB-139-02) was collected and submitted for toxicity characteristic leaching procedure (TCLP) via USEPA Method 1311. Table 4-4 contains sampling results from these 14 borings and indicates analytes with exceedances of comparison criteria. VOC and SVOC exceedances are shown in Figure 4-5; Figure 4-7 displays exceedances of metals.

No exceedances of PCBs, TPH-GRO, or TPH-DRO were detected in any soil sample from RECs #8 and #9, and only one detected VOC concentration exceeds MDE comparison criteria. Trichloroethene (TCE) exceeds its residential screening criterion (1,600 micrograms per kilogram [µg/kg]) in sample GSP-SB-134-25-27 (3,900 µg/kg), collected from a boring near the northern border of REC #8. This location is near TCE exceedances detected during the 2011 investigation.

Calculated BaPEq concentrations exceed the residential screening criterion (22 µg/kg) in four soil samples from new monitoring well locations: GSP-MW-9-0-2 (610 µg/kg), GSP-MW-10-2-4 (61 µg/kg), GSP-MW-11-0-2 (110 µg/kg), and GSP-MW-11-2-4 (2,200 µg/kg). Two samples from the DPT soil borings also have exceedances: GSP-SB-136-02 (120 µg/kg) and GSP-SB-140-02 (150 µg/kg). Coincident with the BaPEq exceedances, benzo(a)pyrene was detected at concentrations exceeding its residential criterion (22 µg/kg) in samples GSP-MW-9-0-2 (460 µg/kg), GSP-MW-10-2-4 (46 µg/kg), GSP-MW-11-0-2 (84 µg/kg), GSP-MW-11-2-4 (1,600*J* µg/kg), GSP-SB-136-02 (94 µg/kg), and GSP-SB-140-02 (100 µg/kg). BaPEq and benzo(a)pyrene concentrations also exceed the nonresidential screening criterion (390 µg/kg) in samples GSP-MW-9-0-2 and GSP-MW-11-2-4. Residential screening criteria for individual PAHs benzo(a)anthracene (220 µg/kg), benzo(b)fluoranthene (220 µg/kg), and indeno(1,2,3-cd)pyrene (220 µg/kg) are also exceeded in sample GSP-MW-9-0-2, with detected concentrations of 400 µg/kg, 740 µg/kg, and 270 µg/kg, respectively, and in sample GSP-MW-11-2-4, at concentrations of 2,700*J* µg/kg, 2,600*J* µg/kg, and 630*J* µg/kg, respectively.

Seventeen metals were detected in soil samples collected from the soil borings advanced in REC #8 and REC #9. Arsenic, chromium, and vanadium exceed their screening criteria in many samples. Arsenic exceeds its residential screening criterion (0.43 mg/kg) in 27 of 28 samples (excluding GSP-SB-147-24), with 11 samples (GSP-MW-9-0-2 [1.9 mg/kg], GSP-MW-11-0-2 [3 mg/kg], GSP-MW-12-2-4 [3.4 mg/kg], GSP-MW-12-10-12 [6.2 mg/kg], GSP-SB-131-12-14 [2.9 mg/kg], GSP-SB-133-8-10.5 [4.4 mg/kg], GSP-SB-135-10.5-12 [21 mg/kg], GSP-SB-136-02 [2 mg/kg], GSP-SB-137-18 [2.5 mg/kg], GSP-SB-138-24-26 [3.9 mg/kg], and GSP-SB-139-32-34.5 [3 mg/kg]) equal to or exceeding the nonresidential screening criterion of 1.9 mg/kg. Four arsenic concentrations (GSP-MW-12-10-12, GSP-SB-133-8-10.5, GSP-SB-135-10.5-12, and GSP-SB-138-24-26) also exceeded the ATC (3.6 mg/kg). Chromium exceeds its residential screening criterion (23 mg/kg) in samples GSP-MW-12-10-12 (25 mg/kg),

GSP-SB-133-8-10.5 (36 mg/kg), GSP-SB-135-10.5-12 (35 mg/kg), and GSP-SB-138-24-26 (44*J* mg/kg), with the latter three samples also exceeding the ATC of 28 mg/kg. Vanadium detected in samples GSP-SB-133-8-10.5 (45*J* mg/kg), GSP-SB-135-10.5-12 (61*J* mg/kg), and GSP-SB-138-24-26 (77*J* mg/kg) are the only vanadium concentrations in these borings exceeding the ATC (30 mg/kg); 15 other samples in RECs #8 and #9 had vanadium concentrations exceeding only the residential screening criterion (7.8 mg/kg).

Arsenic (0.0034*J* milligrams per liter [mg/L]), barium (0.2 mg/L), cadmium (0.0012 mg/L), and chromium (0.0049 mg/L) were detected in the soil sample (GSP-SB-139-02) submitted for TCLP analysis. All TCLP concentrations are less than the regulatory levels for arsenic (5 mg/L), barium (100 mg/L), cadmium (1 mg/L), and chromium (5 mg/L). No other compounds were detected in the TCLP analysis sample.

4.3.2 Borings in REC #11 Area

Thirty-nine soil samples were collected from 15 DPT soil borings (GSP-SB-141 through GSP-SB-155) and four new monitoring well locations (GSP-MW-17 through GSP-MW-20) in REC #11 and submitted for the full list of laboratory analysis specified in Section 3.3.6. In addition, two samples (GSP-SB-144-05 and GSP-SB-145-06) were collected and submitted for TCLP analysis via USEPA Method 1311. A statistical summary of these sampling results is in Table 4-4. Table 4-5 identifies analytes with detected concentrations exceeding screening criteria. Exceedances of screening criteria in REC #11 are shown in Figure 4-6 (VOC and SVOC exceedances) and Figure 4-8 (metals exceedances).

No VOCs, PCBs, TPH-GRO, or TPH-DRO were detected at concentrations exceeding MDE comparison criteria in any of the soil samples analyzed from REC #11; BaPEq concentrations exceeding screening criteria are shown in Figure 4-6. Calculated BaPEq concentrations exceed the residential screening criterion (22 µg/kg) in two soil samples collected from one new monitoring well location and in 11 soil boring samples. Except for sample GSP-SB-155-10, benzo(a)pyrene exceedances are coincident with BaPEq exceedances, as shown below:

Sample ID	BaPEq (µg/kg)	Benzo(a)pyrene (µg/kg)
GSP-MW-20-0-2	780	550
GSP-MW-20-4-6	930	700
GSP-SB-141-02	1,100	810
GSP-SB-141-10	41	32
GSP-SB-142-20	460	360
GSP-SB-143-02	420	330
GSP-SB-145-06	1,300	1,000
GSP-SB-148-02	170	130
GSP-SB-150-02	58	44
GSP-SB-153-02	200	150
GSP-SB-154-02	300	210
GSP-SB-155-02	1,000	710

Concentrations of benzo(a)pyrene also exceeded the nonresidential screening criteria (390 µg/kg) in five samples: GSP-MW-20-0-2 (550 µg/kg), GSP-MW-20-4-6 (700 µg/kg), GSP-SB-141-02 (810 µg/kg), GSP-SB-145-06 (1,000 µg/kg), and GSP-SB-155-02 (710 µg/kg). Several of these samples also have residential screening criteria exceedances for the following SVOCs:

- benzo(a)anthracene (residential screening criterion 220 µg/kg): GSP-MW-20-0-2 (570 µg/kg), GSP-MW-20-4-6 (840 µg/kg), GSP-SB-141-02 (880 µg/kg), GSP-SB-142-20 (340 µg/kg), GSP-SB-143-02 (320 µg/kg), GSP-SB-145-06 (1200 µg/kg), and GSP-SB-155-0-2 (650 µg/kg)

- benzo(b)fluoranthene (residential screening criterion 220 µg/kg): GSP-MW-20-0-2 (820 µg/kg), GSP-MW-20-4-6 (1,100 µg/kg), GSP-SB-141-02 (1,300 µg/kg), GSP-SB-142-20 (460 µg/kg), GSP-SB-143-02 (420 µg/kg), GSP-SB-145-06 (1,100 µg/kg), GSP-SB-154-02 (310 µg/kg), and GSP-SB-155-0-2 (720 µg/kg)

- dibenzo(a,h)anthracene (residential screening criterion 22 µg/kg): GSP-MW-20-0-2 (69*J* µg/kg), GSP-SB-154-02 (30 µg/kg), and GSP-SB-155-0-2 (130 µg/kg)

- indeno(1,2,3-cd)pyrene (residential screening criterion 220 µg/kg): GSP-MW-20-4-6 (230 µg/kg), GSP-SB-141-02 (290 µg/kg), GSP-SB-145-06 (330 µg/kg), and GSP-SB-155-0-2 (420 µg/kg)

Seventeen different metals were detected in soil samples from REC #11, including four metals (arsenic, chromium, thallium, and vanadium) at concentrations exceeding their screening criteria.

Arsenic exceeds its residential screening criteria (0.43 mg/kg) in 34 of the 38 samples, excluding samples GSP-MW-17-14-16, GSP-SB-144-20, GSP-SB-147-24, and GSP-SB-151-20. Arsenic concentrations exceeding residential screening criteria range from 0.45*J* mg/kg in sample GSP-SB-150-18 to 11*J* mg/kg in sample GSP-SB-141-02, with an arithmetic average of 2.59 mg/kg. Arsenic concentrations also exceed the eastern Maryland ATC (3.6 mg/kg) in seven of these samples (GSP-MW-17-24-26 [5.1 mg/kg], GSP-MW-19-12-14 [4.9 mg/kg], GSP-MW-20-0-2 [3.9 mg/kg], GSP-SB-141-0-2 [11*J* mg/kg], GSP-SB-143-24-26 [5.9*J* mg/kg], GSP-SB-144-8-10 [4.7*J* mg/kg], and GSP-SB-145-18-20 [4.1*J* mg/kg]).

The residential screening criterion for chromium (23 mg/kg) was exceeded in samples GSP-MW-17-24-26 (27 mg/kg), GSP-SB-141-02 (39*J* mg/kg), and GSP-SB-144-20 (27 mg/kg), but only GSP-SB-141-02 has a chromium concentration that also exceeds the ATC (28 mg/kg). Thallium was detected at a concentration greater than the residential screening criterion (0.55 mg/kg) in only one sample (GSP-MW-19-14-16 [0.67*J* mg/kg]) collected in REC #11. All thallium concentrations are less than the ATC of 3.9 mg/kg. Vanadium was detected in 25 samples at concentrations exceeding the residential screening criterion of 7.8 mg/kg. Vanadium concentrations exceeding the residential screening criterion range from 7.9 mg/kg in sample GSP-SB-147-10 to 45 mg/kg in sample GSP-SB-146-06, with an arithmetic average of 21.52 mg/kg. The vanadium ATC (30 mg/kg) was exceeded in samples GSP-MW-19-14-16 (34 mg/kg) and GSP-SB-146-06 (45 mg/kg).

Samples GSP-SB-144-05 and GSP-SB-145-06 were submitted for TCLP analysis. In sample GSP-SB-144-05, concentrations of arsenic (0.014*J* mg/L), barium (0.13*J* mg/L), and chromium (0.0049*J* mg/L) were detected. In sample GSP-SB-145-06, estimated concentrations of the following TCLP metals were detected: arsenic (0.024*J* mg/L), barium (0.16*J* mg/L), and chromium (0.004*J* mg/L), and the TCLP SVOC 3&4-methylphenol (0.0014*J* mg/L). The regulatory levels of arsenic (5 mg/L), barium (100 mg/L), chromium (5 mg/L), and 3&4-methylphenol (400 mg/L) were not exceeded in either TCLP sample.

4.4 GROUNDWATER RESULTS

Eight existing monitoring wells (GSP-MW-01 through GSP-MW-08) were sampled in April 2012 and groundwater samples were submitted for the following analyses:

- VOCs by SW846 Method 8260C
- TPH-GRO and TPH-DRO by SW846 Method 8015
- total and dissolved priority pollutant metals by SW846 Method 6010C/7471A
- perchlorate by USEPA Method 314
- 1,4-dioxane by SW846 Method 8270D
- hexavalent chromium by USEPA Method 218.6

The 12 newly installed monitoring wells (GSP-MW-09 through GSP-MW-20) were sampled in September 2012 and analyzed for the following constituents:

- VOCs by SW846 Method 8260C
- SVOCs including 1,4-dioxane by SW846 Method 8270D
- TPH-GRO and TPH-DRO by SW846 Method 8015
- total and dissolved priority pollutant metals by SW846 Method 6010C/7471A

Table 4-5 shows the statistical summary for contaminants detected. Table 4-6 highlights analyte concentrations that exceed Maryland groundwater standards. Groundwater sampling results summarized below are presented according to RECs. Figures 4-9 and 4-11 show groundwater results for RECs #7, #8, #9 and #10, and Figures 4-10 and 4-12 show groundwater results for REC #11. All groundwater concentrations are reported in micrograms per liter (µg/L).

4.4.1 RECs #7, #8, and #9 Groundwater Results

Four newly installed wells were sampled in September 2012 in the REC #7 area (GSP-MW-13, GSP-MW-14, GSP-MW-15, and GSP-MW-16). These wells were installed to provide groundwater quality data for the maintenance building area and downgradient of existing well GSP-MW-07, where TCE and TPH-DRO were detected in 2011 at concentrations exceeding regulatory criteria. Four newly installed wells in the REC #8 were sampled in April 2012 (GSP-MW-09, GSP-MW-10, GSP-MW-11, and GSP-MW-12). These wells were installed to further delineate areas with elevated VOCs and TPH concentrations previously detected in groundwater at upgradient (REC #9) well GSP-MW-07. In the REC #9 area, groundwater samples were collected in April 2012 from two previously installed wells (GSP-MW-07 and GSP-MW-08).

As shown in Figure 4-9, exceedances of the MDE screening criterion for TCE (5 µg/L) were detected in two wells in RECs #7, #8, and #9: GSP-MW-16 (17 µg/L) and GSP-MW-7 (110 µg/L). The TCE result at GSP-MW-07 is similar to the previous (2011) TCE result (450 µg/L) at that location, in that it exceeded the screening criterion, although at a concentration four times lower than previously detected. Naphthalene was detected in GSP-MW-11 during analysis of both volatile organic and semivolatile organic fractions (3.0 and 1.4 µg/L, respectively); both concentrations exceed its MDE criterion (0.65 µg/L). TPH-DRO was detected at concentrations exceeding its MDE groundwater criterion (47 µg/L) in two wells: GSP-MW-11 (690 µg/L) and GSP-MW-14 (270*J* µg/L).

As shown in Figure 4-11, exceedances of the MDE groundwater criterion for vanadium (3.7 µg/L) were detected in both filtered and unfiltered samples from GSP-MW-11 (5.2*J* µg/L and 6.1*J* µg/L, respectively) and GSP-MW-12 (6.4*J* µg/L and 6.5*J* µg/L, respectively), and in the sample from GSP-MW-13 (23 µg/L). Arsenic exceedances of its MDE groundwater criterion (10 µg/L) were also detected in both filtered (21 µg/L) and unfiltered (22 µg/L) samples at GSP-MW-11.

4.4.2 REC #10 Groundwater Results

In REC #10 in 2012, groundwater was sampled only from two previously installed wells (GSP-MW-5 and GSP-MW-6). The TPH-DRO concentrations in GSP-MW-05 and GSP-MW-06 (1,200 µg/L and 490 µg/L, respectively) both exceed the MDE criterion (47 µg/L) for DRO (Figure 4-9). VOCs were not detected in GSP-MW-06, and only three VOCs (carbon disulfide, carbon tetrachloride, and chloroform) were detected in GSP-MW-05 at low or estimated concentrations, well below their respective MDE criteria. Several metals were detected in both REC #10 wells at concentrations less than MDE criteria. Vanadium is the only metal with exceedances (Figure 4-11); both total and dissolved (filtered) vanadium results exceed the screening criterion (3.7 µg/L) in GSP-MW-06 (concentrations of 8.5*J* µg/L and 6.5*J* µg/L, respectively), while only total vanadium (4.4*J* µg/L) exceeds the standard in GSP-MW-05.

4.4.3 REC #11 Groundwater Results

In the REC #11 area, four existing monitoring wells (GSP-MW-01 through GSP-MW-04) and four new monitoring wells (GSP-MW-17 through GSP-MW-20) were sampled. The organic

constituent results at REC #11 exceeding MDE criteria are shown in Figure 4-10; inorganic (metals) results are shown in Figure 4-12. TCE was detected in two of four previously installed wells, but only GSP-MW-04 (5.1 µg/L) had an exceedance of the MDE groundwater criterion of 5 µg/L. In GSP-MW-04, acetone and *cis*-1,2-dichloroethene were also detected, but at low concentrations, well below their respective MDE criteria. *cis*-1,2-Dichloroethene was also detected in GSP-MW-01 at a trace concentration, below its MDE criterion. No other VOCs were detected in 2012 in the groundwater samples collected from previously installed REC #11 wells (Figure 4-10); however, TPH-DRO exceedances of its MDE criterion (47 µg/L) were detected at estimated concentrations in existing wells GSP-MW-01 (240*J* µg/L) and GSP-MW-04 (330*J* µg/L) in 2012. Concentrations of metals in groundwater samples from existing wells GSP MW-01 through GSP-MW-04 are all below MDE screening criteria.

Exceedances were detected in three of four newly installed wells: GSP-MW-18, GSP-MW-19, and GSP-MW-20. In the groundwater sample from GSP-MW-18, TCE (170 µg/L), 1,2-dichloroethane (13 µg/L), and vinyl chloride (4.7*J* µg/L) exceed their respective MDE criteria (5 µg/L, 5 µg/L, and 2 µg/L, respectively). TPH-DRO concentrations in GSP-MW-18 and GSP-MW-20 (390*J* µg/L and 840 µg/L, respectively) also exceed the MDE criterion (47 µg/L). In addition, detected concentrations of naphthalene in GSP-MW-18 (3.3 µg/L) and bis(2-ethylhexyl)phthalate in GSP-MW-19 (10 µg/L) both exceed their MDE criteria (0.65 µg/L and 6 µg/L, respectively). All other concentrations of VOCs, SVOCs, and TPH detected in the four newly installed REC #11 wells are below MDE criteria.

Analytical results from GSP-MW-19 indicate that total and dissolved nickel concentrations (180 and 120 µg/L, respectively) both exceed the MDE criterion (73 µg/L), as shown in Figure 4-12. Elevated nickel concentrations were also detected in historical REC #11 groundwater samples collected in 2011. All other detected metals concentrations in samples from wells GSP-MW-17 to GSP-MW-20 are below applicable MDE criteria.

Table 4-1

Groundwater Levels and Elevations—October 2012
Greater Strawberry Point
Lockheed Martin Martin State Airport, Middle River, Maryland

Well ID	Aquifer level	Elevation[(1)] at top of well casing NAVD88 (feet)	Depth to groundwater[(2)] from top of well casing October 2012 (feet)	Groundwater elevation NAVD88 October 2012 (feet)
GSP-MW-1	S	11.13	8.00	3.13
GSP-MW-2	S	11.64	7.54	4.10
GSP-MW-3	S	7.01	5.26	1.75
GSP-MW-4	S	7.27	4.22	3.05
GSP-MW-5	S	9.58	8.44	1.14
GSP-MW-6	S	8.36	7.18	1.18
GSP-MW-7	S	8.74	6.25	2.49
GSP-MW-8	S	9.15	6.40	2.75
GSP-MW-9	S	14.17	10.10	4.07
GSP-MW-10	S	9.02	4.71	4.31
GSP-MW-11	S	13.64	6.76	6.88
GSP-MW-12	S	13.89	8.36	5.53
GSP-MW-13	S	13.7	6.49	7.21
GSP-MW-14	S	13.48	5.52	7.96
GSP-MW-15	S	13.71	7.89	5.82
GSP-MW-16	S	13.13	8.48	4.65
GSP-MW-17	S	7.78	5.80	1.98
GSP-MW-18	S	6.61	3.94	2.67
GSP-MW-19	S	9.85	9.74	0.11
GSP-MW-20	S	12.41	10.46	1.95

[(1)]Based on an October 2012 survey.

[(2)]Water levels measured in wells October 23–26, 2012

"—" = Not available or not measured

S = Upper surficial aquifer

NAVD88 = North American Vertical Datum of 1988.

Table 4-2

Membrane Interface Probe Results, August - September 2012
Greater Strawberry Point 2012 Supplemental Investigation
Martin State Airport, Middle River, Maryland

MIP Number	Approximate Location	Total Boring Depth	Depth Interval - Elevated ECD Response	Peak ECD Response (microvolts)	Depth Interval - Elevated PID Response	Peak PID Response (microvolts)
MIP-21	REC #9	44.6 feet	23-24 feet	1×10^6	--	$< 2 \times 10^5$
			28 feet	1.25×10^6		
MIP-22	REC #9	25.5 feet	--	$< 1 \times 10^6$	--	$< 2 \times 10^5$
MIP-22B	REC #9	39.7 feet	26-38 feet	$> 1.4 \times 10^7$	28 feet	2×10^5
MIP-23	REC #9	28.35 feet	--	$< 1 \times 10^6$	--	$< 2 \times 10^5$
MIP-24	REC #8	28.35 feet	12-28 feet	$> 1.4 \times 10^7$	17-23 feet	7×10^5
MIP-25	REC #8	25.05 feet	--	$< 1 \times 10^6$	--	$< 2 \times 10^5$
MIP-26	REC #8	29.2 feet	--	$< 1 \times 10^6$	--	$< 2 \times 10^5$
MIP-27	REC #8	40.6 feet	--	$< 1 \times 10^6$	--	$< 2 \times 10^5$
MIP-28	REC #8	25.75 feet	--	$< 1 \times 10^6$	--	$< 2 \times 10^5$
MIP-29	REC #8	29.9 feet	--	$< 1 \times 10^6$	--	$< 2 \times 10^5$
MW-30	REC #8	29.95 feet	--	$< 1 \times 10^6$	--	$< 2 \times 10^5$
MIP-31	REC #11 (northeast portion)	25.7 feet	--	$< 1 \times 10^6$	--	$< 2 \times 10^5$
MIP-32	REC #11 (northeast portion)	32 feet	--	$< 1 \times 10^6$	--	$< 2 \times 10^5$
MIP-33	REC #11 (northeast portion)	25.65 feet	--	$< 1 \times 10^6$	--	$< 2 \times 10^5$
MIP-34	REC #11 (northeast portion)	24.95 feet	--	$< 1 \times 10^6$	4-6 feet	9×10^5
MIP-35	REC #11 (northeast portion)	25.9 feet	--	$< 1 \times 10^6$	--	$< 2 \times 10^5$
MIP-36	REC #11 (northeast portion)	26.95 feet	--	$< 1 \times 10^6$	--	$< 2 \times 10^5$
MIP-37	REC #11 (northeast portion)	27.9 feet	--	$< 1 \times 10^6$	--	$< 2 \times 10^5$
MIP-38	REC #11 (northeast portion)	39.4 feet	10-14 feet	1.4×10^6	--	$< 2 \times 10^5$
MIP-39	REC #11 (southwest portion)	37.3 feet	15, 20, 24, 25, and 31 feet	$> 1.6 \times 10^6$	--	$< 2 \times 10^5$

Table 4-2

Membrane Interface Probe Results, August - September 2012
Greater Strawberry Point 2012 Supplemental Investigation
Martin State Airport, Middle River, Maryland

MIP Number	Approximate Location	Total Boring Depth	Depth Interval - Elevated ECD Response	Peak ECD Response (microvolts)	Depth Interval - Elevated PID Response	Peak PID Response (microvolts)
MIP-40	REC #11 (southwest portion)	37.2 feet	23 feet	1×10^6	--	$< 2 \times 10^5$
MIP-41	REC #11 (southwest portion)	38.8 feet	--	$< 1 \times 10^6$	--	$< 2 \times 10^5$
MIP-42	REC #11 (southwest portion)	42 feet	15, 16, and 20 feet	1.6×10^6	--	$< 2 \times 10^5$
MIP-43	REC #11 (southwest portion)	43.35 feet	27 and 32 feet	1.2×10^6	--	$< 2 \times 10^5$
MIP-44	REC #11 (southwest portion)	38.35 feet	--	$< 1 \times 10^6$	--	$< 2 \times 10^5$
MIP-45	REC #11 (southwest portion)	37.25 feet	--	$< 1 \times 10^6$	--	$< 2 \times 10^5$

ECD - electron capture device
MIP - membrane-interface probe
REC - recognized environmental condition

Table 4-3

Statistical Summary of Soil Chemical Results
Greater Strawberry Point 2012 Supplemental Investigation
Martin State Airport, Middle River, Maryland

Chemical	Frequency of Detection		Minimum Non Detected	Maximum Non Detected	Minimum Detected		Maximum Detected		Location of Maximum Detected	Mean of All Samples	Mean of Positive Detects	Standard Deviation
	Number	Percent										
Metals (mg/kg)												
BARIUM	74/74	100			1.1	J	100		GSP-SB-155	12.422	12.422	13.915
LEAD	74/74	100			0.43	J	30	J	GSP-SB-141	5.008	5.008	5.746
CHROMIUM	74/74	100			0.48	J	120		GSP-MW-14	12.331	12.331	15.482
VANADIUM	74/74	100			0.51	J	160	J	GSP-MW-14	16.891	16.891	21.407
COPPER	70/74	95	0.67	0.91	0.89	J	69		GSP-SB-145	8.306	8.757	12.818
ARSENIC	68/74	92	0.32	1.7	0.45	J	21		GSP-SB-135	2.503	2.689	3.020
ZINC	66/74	89	0.91	1.2	1.2	J	100		GSP-MW-19	10.759	11.997	17.309
COBALT	62/74	84	0.15	0.2	0.16	J	17		GSP-SB-143	1.927	2.283	3.369
NICKEL	62/74	84	0.25	0.33	0.26	J	53		GSP-SB-142	3.677	4.360	7.538
BERYLLIUM	35/74	47	0.037	0.24	0.045	J	1.4		GSP-SB-155	0.130	0.248	0.217
MERCURY	41/74	55	0.015	0.021	0.016	J	0.67		GSP-SB-155	0.050	0.083	0.106
CADMIUM	18/74	24	0.031	0.2	0.041	J	0.58	J	GSP-SB-143	0.054	0.137	0.088
MOLYBDENUM	13/74	18	0.23	1.5	0.25	J	1.1	J	GSP-MW-14	0.271	0.406	0.206
SELENIUM	6/74	8	0.35	2.6	0.41	J	1	J	GSP-SB-155	0.373	0.713	0.325
SELENIUM	6/74	8	0.35	2.6	0.41	J	1	J	GSP-SB-135	0.373	0.713	0.325
SILVER	6/74	8	0.079	0.56	0.12	J	1.3		GSP-MW-11	0.090	0.385	0.156
ANTIMONY	2/74	3	0.31	2.2	0.46	J	0.73	J	GSP-SB-138	0.324	0.595	0.270
THALLIUM	1/74	1	0.43	0.86	0.67	J	0.67	J	GSP-MW-19	0.289	0.670	0.055
Semivolatile Organic Compounds (µg/kg)												
PYRENE	27/74	36	3.5	4.4	4.5	J	5000		GSP-MW-11	233.996	637.911	738.077
FLUORANTHENE	25/74	34	3.5	4.4	9		6600		GSP-MW-11	250.189	736.720	866.412
BAP EQUIVALENT-HALFND	23/74	31	3.5	4.4	5.6		2200		GSP-MW-11	137.269	437.295	365.770
BAP EQUIVALENT-POS	23/74	31	3.5	4.4	1.4		2200		GSP-MW-11	136.481	434.758	364.467
BENZO(B)FLUORANTHENE	22/74	30	3.5	4.4	7.9	J	2600	J	GSP-MW-11	143.945	479.541	400.245
PHENANTHRENE	22/74	30	3.5	4.4	5.5	J	4500		GSP-SB-145	163.803	546.341	622.181
BENZO(A)ANTHRACENE	21/74	28	3.5	4.4	8.9		2700	J	GSP-MW-11	120.863	420.948	376.872
BENZO(A)PYRENE	21/74	28	3.5	4.4	13		1600	J	GSP-MW-11	102.175	355.095	269.593
CHRYSENE	21/74	28	1.2	1.5	7.4	J	2600	J	GSP-MW-11	126.719	444.876	379.713
ANTHRACENE	18/74	24	3.5	4.4	5.3	J	1100		GSP-SB-145	47.068	187.406	172.061
BENZO(G,H,I)PERYLENE	18/74	24	3.5	4.4	14		650	J	GSP-MW-11	46.808	186.333	118.124
BENZO(K)FLUORANTHENE	18/74	24	3.5	4.4	16		1000	J	GSP-MW-11	58.943	236.222	158.510
INDENO(1,2,3-CD)PYRENE	18/74	24	3.5	4.4	10		630	J	GSP-MW-11	43.186	171.444	108.365
NAPHTHALENE	16/74	22	3.5	4.4	4	J	4400		GSP-SB-145	66.320	299.663	510.895
ACENAPHTHENE	15/74	20	3.5	4.4	3.6	J	730		GSP-SB-145	21.421	97.980	92.078
BIS(2-ETHYLHEXYL)PHTHALATE	14/74	19	20	110	21	J	83		GSP-SB-155	17.243	36.929	13.639
FLUORENE	14/74	19	3.5	4.4	5.8	J	1500		GSP-SB-145	35.254	177.971	182.824
DIBENZOFURAN	12/74	16	3.5	4.4	3.8	J	230	J	GSP-SB-145	9.941	51.208	34.873
2-METHYLNAPHTHALENE	11/74	15	3.5	19	4	J	2900		GSP-SB-145	43.570	281.264	336.713
ACENAPHTHYLENE	9/74	12	3.5	19	4.8	J	110		GSP-SB-155	5.645	31.489	15.570
CARBAZOLE	5/74	7	29	60	45	J	290		GSP-MW-11	24.169	135.600	38.161
DIBENZO(A,H)ANTHRACENE	4/74	5	3.4	19	14		130		GSP-SB-155	5.352	60.750	16.988
BENZALDEHYDE	2/74	3	12	67	19	J	44	J	GSP-SB-153	8.527	31.500	5.967
DI-N-BUTYL PHTHALATE	2/74	3	16	84	27	J	46	J	GSP-SB-153	10.547	36.500	6.868

Table 4-3

Statistical Summary of Soil Chemical Results
Greater Strawberry Point 2012 Supplemental Investigation
Martin State Airport, Middle River, Maryland

Chemical	Frequency of Detection		Minimum Non Detected	Maximum Non Detected	Minimum Detected		Maximum Detected		Location of Maximum Detected	Mean of All Samples	Mean of Positive Detects	Standard Deviation
	Number	Percent										
Semivolatile Organic Compounds (µg/kg); continued												
1,1-BIPHENYL	1/74	1	28	150	330		330		GSP-SB-145	21.291	330.000	37.098
BUTYL BENZYL PHTHALATE	1/74	1	10	56	72	J	72	J	GSP-MW-19	7.412	72.000	8.327
CAPROLACTAM	1/74	1	38	210	77	J	77	J	GSP-SB-132	24.932	77.000	13.894
DIMETHYL PHTHALATE	1/74	1	18	96	190		190		GSP-MW-09	13.588	190.000	21.575
Volatile Organic Compounds (µg/kg)												
TERTIARY-BUTYL ALCOHOL	1/1	100			10	J	10	J	GSP-MW-19	10.000	10.000	
TOLUENE	65/74	88	0.23	21	0.23	J	580		GSP-SB-145	8.892	9.718	67.320
ACETONE	27/74	36	4.4	210	7.4	J	250		GSP-MW-19	29.555	56.870	44.773
TRICHLOROETHENE	27/74	36	0.3	14	0.4	J	3900		GSP-SB-134	74.799	204.206	468.728
2-BUTANONE	18/74	24	0.99	53	1.4	J	89	J	GSP-SB-145	3.413	8.533	11.026
CIS-1,2-DICHLOROETHENE	12/74	16	0.25	8.5	0.43	J	25		GSP-MW-18	1.288	6.014	3.560
1,1-DICHLOROETHENE	11/74	15	0.37	22	0.47	J	6		GSP-MW-14	0.829	1.182	2.026
1,2-DICHLOROETHANE	9/74	12	0.24	12	0.35	J	5.4		GSP-MW-18	0.635	2.008	1.313
BENZENE	8/74	11	0.16	15	0.2	J	2	J	GSP-MW-10	0.456	0.484	1.333
NAPHTHALENE	8/74	11	0.13	22	0.58	J	740	J	GSP-SB-146	17.316	156.378	101.154
VINYL CHLORIDE	6/74	8	0.27	22	0.86	J	4	J	GSP-MW-18	0.767	1.792	1.996
TETRACHLOROETHENE	4/74	5	0.37	16	0.53	J	1	J	GSP-MW-13	0.631	0.748	1.554
CARBON DISULFIDE	4/74	5	0.31	15	0.46	J	1.7	J	GSP-MW-19	0.541	0.845	1.307
1,2,3-TRIMETHYLBENZENE	2/74	3	0.12	0.21	0.15	J	5.5	J	GSP-SB-146	0.153	2.825	0.630
1,3-DICHLOROBENZENE	2/74	3	0.25	4.3	6.3	J	7.4	J	GSP-SB-134	0.392	6.850	1.130
CHLOROBENZENE	2/74	3	0.23	7.9	0.64	J	1.6	J	GSP-SB-135	0.338	1.120	0.702
CHLOROFORM	2/74	3	0.2	11	0.27	J	0.89	J	GSP-MW-18	0.370	0.580	0.963
M+P-XYLENES	2/74	3	0.84	6.4	6.5	J	8.2	J	GSP-SB-134	0.799	7.350	1.177
1,2,4-TRICHLOROBENZENE	1/74	1	0.19	7	17	J	17	J	GSP-SB-134	0.479	17.000	2.043
1,2,4-TRIMETHYLBENZENE	1/74	1	0.46	6.2	7.2	J	7.2	J	GSP-SB-146	0.485	7.200	0.916
4-ISOPROPYLTOLUENE	1/74	1	0.15	5.9	26	J	26	J	GSP-SB-145	0.540	26.000	3.036
4-METHYL-2-PENTANONE	1/74	1	0.38	59	0.71	J	0.71	J	GSP-SB-150	1.498	0.710	5.314
CHLOROMETHANE	1/74	1	0.29	17	1.4	J	1.4	J	GSP-MW-09	0.559	1.400	1.518
ETHYLBENZENE	1/74	1	0.18	6.6	11	J	11	J	GSP-SB-145	0.370	11.000	1.356
STYRENE	1/74	1	0.11	6.9	0.29	J	0.29	J	GSP-SB-131	0.216	0.290	0.614
TRANS-1,2-DICHLOROETHENE	1/74	1	0.29	11	0.79	J	0.79	J	GSP-MW-18	0.426	0.790	0.978
Petroleum Hydrocarbons (µg/kg)												
TPH (C06-C10)	12/74	16	47	190	51	J	300		GSP-SB-145	41.041	101.167	42.341
Petroleum Hydrocarbons (mg/kg)												
TPH (C10-C32)	17/74	23	9.9	27	17	J	230		GSP-SB-145	24.013	82.882	41.727
Toxicty Characteristics Leaching Procedure Metals (mg/L)												
ARSENIC	3/3	100			0.0034	J	0.024	J	GSP-SB-145	0.014	0.014	0.010
BARIUM	3/3	100			0.13	J	0.2	J	GSP-SB-139	0.163	0.163	0.035
CHROMIUM	3/3	100			0.004	J	0.0049	J	GSP-SB-139	0.004	0.004	0.000
CADMIUM	1/3	33	0.00066	0.00066	0.0012	J	0.0012	J	GSP-SB-139	0.001	0.001	0.001
Toxicty Characteristics Leaching Procedure Semivolatile Organic Compounds (mg/L)												
3&4-METHYLPHENOL	1/3	33	0.00075	0.00075	0.0014	J	0.0014	J	GSP-SB-145	0.001	0.001	0.001

Table 4-3

Statistical Summary of Soil Chemical Results
Greater Strawberry Point 2012 Supplemental Investigation
Martin State Airport, Middle River, Maryland

Chemical	Frequency of Detection		Minimum Non Detected	Maximum Non Detected	Minimum Detected		Maximum Detected		Location of Maximum Detected	Mean of All Samples	Mean of Positive Detects	Standard Deviation
	Number	Percent										
Tentatively Identified Ccompounds- Volatile Organic Compounds (µg/kg)												
1-METHYLNAPHTHALENE	1/1	100			4.4	NJ	4.4	NJ	GSP-MW-20	4.400	4.400	
1-PENTENE	1/1	100			7.4	NJ	7.4	NJ	GSP-MW-15	7.400	7.400	
2-METHYLNAPHTHALENE	4/4	100			4.7	NJ	270	NJ	GSP-SB-146	135.350	135.350	149.765
2-NITROPROPANE	2/2	100			6.8	NJ	100	NJ	GSP-SB-146	53.400	53.400	65.902
2-OCTENE, 2-METHYL-6-METHYLENE-	1/1	100			1000	NJ	1000	NJ	GSP-SB-145	1000.000	1000.000	
ACETONITRILE	1/1	100			180	NJ	180	NJ	GSP-SB-134	180.000	180.000	
BROMOETHENE	1/1	100			5.4	NJ	5.4	NJ	GSP-SB-139	5.400	5.400	
CYCLOPENTANE	2/2	100			11	NJ	21	NJ	GSP-MW-20	16.000	16.000	7.071
ETHYL ETHER	1/1	100			12	NJ	12	NJ	GSP-SB-146	12.000	12.000	
HEXANE	17/17	100			1.1	NJ	12	NJ	GSP-MW-19	3.971	3.971	3.549
ISOPROPANOL	1/1	100			5.9	NJ	5.9	NJ	GSP-MW-19	5.900	5.900	
METHYL ACETATE	20/20	100			1.3	NJ	410	NJ	GSP-SB-145	31.225	31.225	91.954
UNKNOWN	2/2	100			4.2	NJ	20	NJ	GSP-MW-14	12.100	12.100	11.172

Footnotes:
For non-detects, 1/2 sample quantitation limit was used as a proxy concentration.
1/2 the dtection limit was used for B qualified data.

J- estimated concentration
NJ- chemical is presumed present; concentration is estimated

µg/kg - micrograms per kilogram
mg/kg- milligrams per kilogram
mg/L- milligrams per liter

Associated Samples:

GSP-MW-9-0-2
GSP-MW-9-8-10
GSP-MW-10-20-22
GSP-MW-10-2-4
GSP-MW-11-0-2
GSP-MW-11-2-4
GSP-MW-12-10-12
GSP-MW-12-2-4
GSP-MW-13-0-2
GSP-MW-13-2-4
GSP-MW-14-10-12
GSP-MW-14-8-10
GSP-MW-15-10-11
GSP-MW-15-6-8
GSP-MW-16-16-18
GSP-MW-16-2-4
GSP-MW-17-14-16
GSP-MW-17-24-26
GSP-MW-18-22-24
GSP-MW-18-28-30
GSP-MW-19-12-14
GSP-MW-19-14-16
GSP-MW-20-0-2
GSP-MW-20-4-6
GSP-SB-131-12'-14'
GSP-SB-131-14'-18.5'
GSP-SB-132-30'-32'
GSP-SB-132-35'-36.5'
GSP-SB-133-16'-18.5'
GSP-SB-133-8'-10.5'
GSP-SB-134-25'-27'
GSP-SB-134-27'-31'
GSP-SB-135-0'-2.5'
GSP-SB-135-10.5'-12'
GSP-SB-136-02
GSP-SB-136-10
GSP-SB-137-04
GSP-SB-137-18
GSP-SB-138-20-22
GSP-SB-138-24-26
GSP-SB-139-02
GSP-SB-139-20-23
GSP-SB-139-32-34.5
GSP-SB-140-02
GSP-SB-140-08
GSP-SB-141-02
GSP-SB-141-10
GSP-SB-142-20
GSP-SB-142-28
GSP-SB-143-02
GSP-SB-143-26
GSP-SB-144-05
GSP-SB-144-10
GSP-SB-144-20
GSP-SB-145-06
GSP-SB-145-20
GSP-SB-146-06
GSP-SB-146-20
GSP-SB-147-10
GSP-SB-147-24
GSP-SB-148-02
GSP-SB-148-16
GSP-SB-149-08
GSP-SB-149-28
GSP-SB-150-02
GSP-SB-150-18
GSP-SB-151-10
GSP-SB-151-20
GSP-SB-152-10
GSP-SB-152-28
GSP-SB-153-02
GSP-SB-153-24
GSP-SB-154-02
GSP-SB-154-16
GSP-SB-155-02
GSP-SB-155-10

Table 4-4

Summary of Positive Detects for Soil Samples
Supplemental Site Characterization
Greater Strawberry Point, Martin State Airport, Middle River, Maryland

LOCATION	MDE Residential Soil Criteria	MDE Non-Residential Soil Criteria	Eastern Maryland Anticipated Typical Concentration	GSP-MW-09		GSP-MW-10		GSP-MW-11		GSP-MW-12		GSP-MW-13	
SAMPLE ID				GSP-MW-9-0-2	GSP-MW-9-8-10	GSP-MW-10-20-22	GSP-MW-10-2-4	GSP-MW-11-0-2	GSP-MW-11-2-4	GSP-MW-12-10-12	GSP-MW-12-2-4	GSP-MW-13-0-2	GSP-MW-13-2-4
SAMPLE DATE				20120912	20120912	20120913	20120913	20120913	20120913	20120917	20120917	20120913	20120913
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH				0	8	20	2	0	2	10	2	0	2
BOTTOM DEPTH				2	10	22	4	2	4	12	4	2	4
METALS (MG/KG)													
ANTIMONY	3.1	41	NA	--	--	--	--	--	--	--	--	--	--
ARSENIC	0.43	1.9	3.6	1.9	0.84 J	0.57 J	1.7	3	1.7	6.2 *	3.4	1.1 J	--
BARIUM	1600	20000	NA	25	5.1 J	7.3 J	7.7 J	21	24	4.6 J	5.5 J	12 J	1.1 J
BERYLLIUM	16	200	NA	0.064 J	--	0.06 J	--	0.048 J	0.073 J	--	--	--	--
CADMIUM	3.9	51	NA	0.36 J	--	--	--	--	--	--	--	--	--
CHROMIUM	23	310	28	9.1	3.5	8.4	4.3	8.9	5.9	25	12	5	0.48 J
COBALT	NA	NA	NA	1.5	0.16 J	0.17 J	0.64 J	2.6	2.1	0.34 J	0.35 J	0.74 J	--
COPPER	310	4100	NA	68	1.6 J	5	2 J	4.4 L	2.6 L	5.2 L	4.1 L	2.4 J	--
LEAD	400	1000	NA	24	1	2.2	1.8	4.8	3.7	2.2	2.2	7.7	0.43 J
MERCURY	2.3	31	NA	0.075 J	0.016 J	0.052 J	0.022 J	0.036 J	0.037 J	0.02 J	0.023 J	0.037 J	0.019 J
MOLYBDENUM	NA	NA	NA	0.67 B	0.25 B	--	--	0.52 B	0.34 B	0.55 B	0.72 B	0.39 B	--
NICKEL	160	2000	NA	4.3	0.44 J	0.72 J	0.92 J	4.2	3.3 J	--	0.79 J	2.1 J	--
SELENIUM	39	510	NA	0.41 J	--	--	--	--	0.55 J	--	--	--	--
SILVER	39	510	NA	--	--	--	--	1.3	--	--	--	--	--
THALLIUM	0.55	7.2	3.9	0.58 B	--	--	--	--	--	--	--	--	--
VANADIUM	7.8	100	30	12 J	4.8 J	11 J	7.5 J	15 J	9.9 J	18	22	8.7 J	0.51 J
ZINC	2300	31000	NA	63 K	1.7 J	2.7 J	6.3 K	15 K	12 K	2.4 J	3.6 J	12 K	--
PETROLEUM HYDROCARBONS (MG/KG)													
TPH (C10-C32)	230	620	NA	50	--	13 B	--	17 J	60	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)													
TPH (C06-C10)	230000	620000	NA	--	--	--	--	--	51 J	--	--	--	--
SEMIVOLATILES (UG/KG)													
1,1-BIPHENYL	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
2-METHYLNAPHTHALENE	31000	410000	NA	4.3 J	--	--	--	--	--	--	--	--	--
ACENAPHTHENE	470000	6100000	NA	22	--	--	--	13	290	--	--	--	--
ACENAPHTHYLENE	470000	6100000	NA	7.6	--	--	--	--	--	--	--	--	--
ANTHRACENE	2300000	31000000	NA	77	--	--	--	31	910 J	--	--	--	--
BAP EQUIVALENT-HALFND	22	390	NA	610	--	--	61	110	2200	--	--	--	--
BAP EQUIVALENT-POS	22	390	NA	600	--	--	59	110	2200	--	--	--	--
BENZALDEHYDE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
BENZO(A)ANTHRACENE	220	3900	NA	400	--	--	39	110	2700 J	--	--	--	--
BENZO(A)PYRENE	22	390	NA	460	--	--	46	84	1600 J	--	--	--	--
BENZO(B)FLUORANTHENE	220	3900	NA	740	--	--	55	110	2600 J	--	--	--	--
BENZO(G,H,I)PERYLENE	230000	3100000	NA	310	--	--	21	35	650 J	--	--	--	--
BENZO(K)FLUORANTHENE	2200	39000	NA	290	--	--	23	56	1000 J	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	46000	200000	NA	23 J	--	--	--	--	--	--	--	--	--
BUTYL BENZYL PHTHALATE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
CAPROLACTAM	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
CARBAZOLE	32000	140000	NA	45 J	--	--	--	--	290	--	--	--	--
CHRYSENE	22000	390000	NA	470	--	--	39	110	2600 J	--	--	--	--
DIBENZO(A,H)ANTHRACENE	22	390	NA	--	--	--	--	--	--	--	--	--	--
DIBENZOFURAN	7800	100000	NA	9.8 J	--	--	--	7 J	180 J	--	--	--	--
DIMETHYL PHTHALATE	NA	NA	NA	190	--	--	--	--	--	--	--	--	--
DI-N-BUTYL PHTHALATE	780000	10000000	NA	--	--	--	--	--	--	--	--	--	--
FLUORANTHENE	310000	4100000	NA	800	--	--	23	250	6600	--	--	--	--
FLUORENE	310000	4100000	NA	21	--	--	--	17	470	--	--	--	--
INDENO(1,2,3-CD)PYRENE	220	3900	NA	270	--	--	30	41	630 J	--	--	--	--
NAPHTHALENE	160000	2000000	NA	8.4	4 J	--	--	--	30 J	--	--	--	--
PHENANTHRENE	2300000	31000000	NA	300	--	--	--	80	2500 J	--	--	--	--
PYRENE	230000	3100000	NA	740	--	--	20	200	5000	--	--	--	--

Table 4-4

Summary of Positive Detects for Soil Samples
Supplemental Site Characterization
Greater Strawberry Point, Martin State Airport, Middle River, Maryland

LOCATION	MDE Residential Soil Criteria	MDE Non-Residential Soil Criteria	Eastern Maryland Anticipated Typical Concentration	GSP-MW-09		GSP-MW-10		GSP-MW-11		GSP-MW-12		GSP-MW-13	
SAMPLE ID				GSP-MW-9-0-2	GSP-MW-9-8-10	GSP-MW-10-20-22	GSP-MW-10-2-4	GSP-MW-11-0-2	GSP-MW-11-2-4	GSP-MW-12-10-12	GSP-MW-12-2-4	GSP-MW-13-0-2	GSP-MW-13-2-4
SAMPLE DATE				20120912	20120912	20120913	20120913	20120913	20120913	20120917	20120917	20120913	20120913
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH				0	8	20	2	0	2	10	2	0	2
BOTTOM DEPTH				2	10	22	4	2	4	12	4	2	4
TCLP METALS (MG/L)													
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)													
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)													
1,1-DICHLOROETHENE	390000	5100000	NA	0.71 J	--	0.55 J	--	--	0.82 J	0.85 J	0.63 J	--	--
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	78000	1000000	NA	--	--	--	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	7000	31000	NA	--	--	--	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	23000	310000	NA	--	--	--	--	--	--	--	--	--	--
2-BUTANONE	4700000	61000000	NA	--	--	1.5 J	--	2.6 J	11 J	--	--	--	--
4-ISOPROPYLTOLUENE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
ACETONE	7000000	92000000	NA	--	7.3 B	18 B	33	43	95	28 B	17 B	--	--
BENZENE	12000	52000	NA	--	--	2 J	--	--	--	--	--	--	--
CARBON DISULFIDE	780000	10000000	NA	--	--	--	--	0.46 J	0.53 J	--	--	--	--
CHLOROBENZENE	160000	2000000	NA	--	--	--	--	--	--	--	--	--	--
CHLOROFORM	78000	1000000	NA	--	--	--	--	--	--	--	--	--	--
CHLOROMETHANE	NA	NA	NA	--	1.4 J	--	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	78000	1000000	NA	--	--	0.64 J	--	--	--	--	--	--	--
ETHYLBENZENE	780000	10000000	NA	--	--	--	--	--	--	--	--	--	--
M+P-XYLENES	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
NAPHTHALENE	160000	2000000	NA	0.58 B	0.36 B	0.3 B	0.37 B	0.31 B	1.7 B	--	--	0.33 B	0.36 B
STYRENE	1600000	20000000	NA	--	--	--	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
TETRACHLOROETHENE	1200	5300	NA	--	--	--	--	--	--	0.72 J	--	1 J	--
TOLUENE	630000	8200000	NA	1.4 J	0.3 J	3.4 J	0.45 J	0.26 J	1 J	--	1.2 J	0.75 J	1.7 J
TRANS-1,2-DICHLOROETHENE	160000	2000000	NA	--	--	--	--	--	--	--	--	--	--
TRICHLOROETHENE	1600	7200	NA	--	--	--	--	--	--	0.56 J	--	0.49 J	0.89 J
VINYL CHLORIDE	90	4000	NA	--	--	--	--	--	--	--	--	--	--

Table 4-4

Summary of Positive Detects for Soil Samples
Supplemental Site Characterization
Greater Strawberry Point, Martin State Airport, Middle River, Maryland

LOCATION	MDE Residential Soil Criteria	MDE Non-Residential Soil Criteria	Eastern Maryland Anticipated Typical Concentration	GSP-MW-14		GSP-MW-15		GSP-MW-16		GSP-MW-17		GSP-MW-18	
SAMPLE ID				GSP-MW-14-10-12	GSP-MW-14-8-10	GSP-MW-15-10-11	GSP-MW-15-6-8	GSP-MW-16-16-18	GSP-MW-16-2-4	GSP-MW-17-14-16	GSP-MW-17-24-26	GSP-MW-18-22-24	GSP-MW-18-28-30
SAMPLE DATE				20120914	20120914	20120917	20120917	20120914	20120914	20120911	20120911	20120911	20120911
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH				10	8	10	6	16	2	14	24	22	28
BOTTOM DEPTH				12	10	11	8	18	4	16	26	24	30
METALS (MG/KG)													
ANTIMONY	3.1	41	NA	1.9 B	--	--	--	--	--	--	0.48 B	0.49 B	0.65 B
ARSENIC	0.43	1.9	3.6	12 *	2.5	0.61 J	1.8	0.54 J	2.2	--	5.1 *	0.61 J	1.6
BARIUM	1600	20000	NA	5.8 J	4.7 J	7.1 J	11 J	4.9 J	23	2.5 J	3.5 J	3.9 J	6.5 J
BERYLLIUM	16	200	NA	--	--	--	0.045 J	--	0.073 J	--	--	--	--
CADMIUM	3.9	51	NA	--	0.046 J	--	--	0.043 J	--	--	--	--	--
CHROMIUM	23	310	28	120 *	6.4	5.2	8.9	2.6	7.3	1.5 L	27	7.6	7.8
COBALT	NA	NA	NA	2.2	0.54 J	0.16 J	1	0.34 J	2	--	0.27 J	0.35 J	0.61 J
COPPER	310	4100	NA	5.3	7.3	1.1 J	3.6 L	1.3 J	2.1 J	--	6.8	1.5 J	2.7
LEAD	400	1000	NA	12	1.3	1.8	2.3	1.2	4.2	0.89 J	1.5	0.92 J	1.8
MERCURY	2.3	31	NA	0.022 J	0.026 J	--	0.017 J	--	0.028 J	0.02 J	--	--	0.05 J
MOLYBDENUM	NA	NA	NA	1.1 J	0.51 B	--	0.31 B	--	0.37 B	--	0.54 B	--	--
NICKEL	160	2000	NA	0.41 J	0.95 J	--	1.6 J	0.39 J	4.1	--	0.27 J	0.38 J	0.63 J
SELENIUM	39	510	NA	0.55 J	--	--	--	--	--	--	--	--	--
SILVER	39	510	NA	--	--	--	--	0.12 J	--	--	--	--	--
THALLIUM	0.55	7.2	3.9	--	--	--	--	--	--	--	--	--	--
VANADIUM	7.8	100	30	160 J*	11 J	4.6	14	3.4 J	12 J	2.6	19	9.1	29
ZINC	2300	31000	NA	3.1 J	3.9 J	1.2 J	4.5	--	9.5 K	--	1.2 J	1.9 J	3.5 J
PETROLEUM HYDROCARBONS (MG/KG)													
TPH (C10-C32)	230	620	NA	15 B	14 B	--	--	--	11 B	13 B	16 B	18 B	18 B
PETROLEUM HYDROCARBONS (UG/KG)													
TPH (C06-C10)	230000	620000	NA	--	--	--	--	--	--	63 B	59 B	--	--
SEMIVOLATILES (UG/KG)													
1,1-BIPHENYL	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
2-METHYLNAPHTHALENE	31000	410000	NA	--	--	--	--	--	--	--	--	--	--
ACENAPHTHENE	470000	6100000	NA	--	--	--	--	--	--	--	--	--	--
ACENAPHTHYLENE	470000	6100000	NA	--	--	--	--	--	--	--	--	--	--
ANTHRACENE	2300000	31000000	NA	--	--	--	--	--	--	--	--	--	--
BAP EQUIVALENT-HALFND	22	390	NA	19	15	--	--	--	--	--	--	--	--
BAP EQUIVALENT-POS	22	390	NA	17	13	--	--	--	--	--	--	--	--
BENZALDEHYDE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
BENZO(A)ANTHRACENE	220	3900	NA	8.9	--	--	--	--	--	--	--	--	--
BENZO(A)PYRENE	22	390	NA	15	13	--	--	--	--	--	--	--	--
BENZO(B)FLUORANTHENE	220	3900	NA	7.9 J	--	--	--	--	--	--	--	--	--
BENZO(G,H,I)PERYLENE	230000	3100000	NA	--	--	--	--	--	--	--	--	--	--
BENZO(K)FLUORANTHENE	2200	39000	NA	--	--	--	--	--	--	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	46000	200000	NA	--	--	--	--	42 J	--	--	--	--	--
BUTYL BENZYL PHTHALATE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
CAPROLACTAM	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
CARBAZOLE	32000	140000	NA	--	--	--	--	--	--	--	--	--	--
CHRYSENE	22000	390000	NA	7.4 J	--	--	--	--	--	--	--	--	--
DIBENZO(A,H)ANTHRACENE	22	390	NA	--	--	--	--	--	--	--	--	--	--
DIBENZOFURAN	7800	100000	NA	--	--	--	--	--	--	--	--	--	--
DIMETHYL PHTHALATE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
DI-N-BUTYL PHTHALATE	780000	10000000	NA	--	--	--	--	--	--	--	--	--	--
FLUORANTHENE	310000	4100000	NA	19	9	--	--	--	--	--	--	--	--
FLUORENE	310000	4100000	NA	--	--	--	--	--	--	--	--	--	--
INDENO(1,2,3-CD)PYRENE	220	3900	NA	--	--	--	--	--	--	--	--	--	--
NAPHTHALENE	160000	2000000	NA	--	--	--	--	--	--	--	--	--	--
PHENANTHRENE	2300000	31000000	NA	13	5.5 J	--	--	--	--	--	--	--	--
PYRENE	230000	3100000	NA	15	7.5 J	--	--	--	--	--	--	--	--

Table 4-4

Summary of Positive Detects for Soil Samples
Supplemental Site Characterization
Greater Strawberry Point, Martin State Airport, Middle River, Maryland

LOCATION	MDE Residential Soil Criteria	MDE Non-Residential Soil Criteria	Eastern Maryland Anticipated Typical Concentration	GSP-MW-14		GSP-MW-15		GSP-MW-16		GSP-MW-17		GSP-MW-18	
SAMPLE ID				GSP-MW-14-10-12	GSP-MW-14-8-10	GSP-MW-15-10-11	GSP-MW-15-6-8	GSP-MW-16-16-18	GSP-MW-16-2-4	GSP-MW-17-14-16	GSP-MW-17-24-26	GSP-MW-18-22-24	GSP-MW-18-28-30
SAMPLE DATE				20120914	20120914	20120917	20120917	20120914	20120914	20120911	20120911	20120911	20120911
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH				10	8	10	6	16	2	14	24	22	28
BOTTOM DEPTH				12	10	11	8	18	4	16	26	24	30
TCLP METALS (MG/L)													
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)													
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)													
1,1-DICHLOROETHENE	390000	5100000	NA	0.9 J	6	--	--	--	--	0.61 J	--	0.74 J	--
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	78000	1000000	NA	--	--	--	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	7000	31000	NA	--	--	--	--	--	--	0.35 J	--	5.4	4.1 J
1,3-DICHLOROBENZENE	23000	310000	NA	--	--	--	--	--	--	--	--	--	--
2-BUTANONE	4700000	61000000	NA	2.1 J	3.2 J	1.4 J	1.5 J	--	5.7 J	--	--	--	--
4-ISOPROPYLTOLUENE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
ACETONE	7000000	92000000	NA	33	150	180 B	14 B	72	140	--	54	15 B	7.3 B
BENZENE	12000	52000	NA	--	--	--	--	--	--	--	--	0.28 J	--
CARBON DISULFIDE	780000	10000000	NA	--	--	--	--	--	--	--	--	--	--
CHLOROBENZENE	160000	2000000	NA	--	--	--	--	--	--	--	--	--	--
CHLOROFORM	78000	1000000	NA	--	--	--	--	--	--	--	--	0.89 J	--
CHLOROMETHANE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	78000	1000000	NA	--	--	--	--	--	--	1.3 J	--	25	9.9
ETHYLBENZENE	780000	10000000	NA	--	--	--	--	--	--	--	--	--	--
M+P-XYLENES	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
NAPHTHALENE	160000	2000000	NA	0.33 B	0.27 B	--	--	0.3 B	0.28 B	1.3 B	0.23 B	9.2	1.4 B
STYRENE	1600000	20000000	NA	--	--	--	0.21 B	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
TETRACHLOROETHENE	1200	5300	NA	--	--	--	--	0.53 J	--	--	--	--	--
TOLUENE	630000	8200000	NA	3.2 J	0.35 J	--	0.3 J	--	1 J	1.4 J	0.25 J	1.7 J	0.99 J
TRANS-1,2-DICHLOROETHENE	160000	2000000	NA	--	--	--	--	--	--	--	--	0.79 J	--
TRICHLOROETHENE	1600	7200	NA	1.1 J	0.57 J	--	--	1.3 J	0.5 J	2.4 J	--	110	53
VINYL CHLORIDE	90	4000	NA	--	--	--	--	--	--	--	--	4 J	1.2 J

Table 4-4

Summary of Positive Detects for Soil Samples
Supplemental Site Characterization
Greater Strawberry Point, Martin State Airport, Middle River, Maryland

LOCATION	MDE Residential Soil Criteria	MDE Non-Residential Soil Criteria	Eastern Maryland Anticipated Typical Concentration	GSP-MW-19		GSP-MW-20		GSP-SB-131		GSP-SB-132		GSP-SB-133	
SAMPLE ID				GSP-MW-19-12-14	GSP-MW-19-14-16	GSP-MW-20-0-2	GSP-MW-20-4-6	GSP-SB-131-12'-14'	GSP-SB-131-14'-18.5'	GSP-SB-132-30'-32'	GSP-SB-132-35'-36.5'	GSP-SB-133-16'-18.5'	GSP-SB-133-8'-10.5'
SAMPLE DATE				20120912	20120912	20120912	20120912	20120907	20120907	20120906	20120906	20120907	20120907
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				NA	NA	NA	NA	SB	SB	SB	SB	SB	SB
TOP DEPTH				12	14	0	4	12	14	30	35	16	8
BOTTOM DEPTH				14	16	2	6	14	18.5	32	36.5	18.5	10.5
METALS (MG/KG)													
ANTIMONY	3.1	41	NA	--	--	0.71 B	--	0.69 B	0.38 B	0.54 B	--	--	0.61 B
ARSENIC	0.43	1.9	3.6	4.9 *	2	3.9 *	2.8	2.9	1.3 J	1.2 J	0.68 J	1.1 J	4.4 *
BARIUM	1600	20000	NA	9.7 J	16 J	46	19	8.4 J	1.4 J	11 J	2.2 J	13 J	8.6 J
BERYLLIUM	16	200	NA	0.059 J	0.36 J	0.37 J	0.056 J	--	--	--	--	0.12 J	--
CADMIUM	3.9	51	NA	--	0.094 J	0.2 J	0.051 J	--	--	--	--	--	--
CHROMIUM	23	310	28	13	19	16	10	13	4.4	6.5	4	8.1	36 *
COBALT	NA	NA	NA	1.5	13	4	1.3	0.2 J	--	0.69 J	--	0.24 J	0.62 J
COPPER	310	4100	NA	4.4	20	16	9.6	9.3	2.4	2.5 J	1.3 J	8.6	8
LEAD	400	1000	NA	6.5	3.7	28	9.2	2.3	0.77 J	2.7	0.7 J	3.6	5
MERCURY	2.3	31	NA	--	--	0.39	0.086 J	--	--	0.035 J	--	--	0.043 J
MOLYBDENUM	NA	NA	NA	--	0.71 B	--	0.27 B	--	0.45 B	--	0.33 B	--	0.26 B
NICKEL	160	2000	NA	4.9	16	7.7	2.7 J	0.46 J	--	0.37 J	--	0.73 J	0.82 J
SELENIUM	39	510	NA	--	--	--	--	--	--	--	--	--	--
SILVER	39	510	NA	--	--	0.31 J	--	--	--	--	--	--	--
THALLIUM	0.55	7.2	3.9	--	0.67 J	--	--	--	--	--	--	--	--
VANADIUM	7.8	100	30	28	34 *	24	24	17 J	6.4 J	9.5 J	5.9 J	9.9 J	45 J*
ZINC	2300	31000	NA	25	100	48	20	3 J	--	2.5 J	--	3.6 J	3.3 J
PETROLEUM HYDROCARBONS (MG/KG)													
TPH (C10-C32)	230	620	NA	27 B	25 B	94	110	16 B	17 B	--	11 B	17 B	17 B
PETROLEUM HYDROCARBONS (UG/KG)													
TPH (C06-C10)	230000	620000	NA	120 B	71 B	140 B	190 B	--	--	63 J	--	--	--
SEMIVOLATILES (UG/KG)													
1,1-BIPHENYL	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
2-METHYLNAPHTHALENE	31000	410000	NA	--	--	18	58	--	--	--	--	--	--
ACENAPHTHENE	470000	6100000	NA	--	--	59	150	--	--	--	--	--	--
ACENAPHTHYLENE	470000	6100000	NA	--	--	14	11 J	--	--	--	--	--	--
ANTHRACENE	2300000	31000000	NA	--	--	130	400	--	--	--	--	--	--
BAP EQUIVALENT-HALFND	22	390	NA	--	5.6	780	930	--	--	--	--	--	--
BAP EQUIVALENT-POS	22	390	NA	--	1.4	780	920	--	--	--	--	--	--
BENZALDEHYDE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
BENZO(A)ANTHRACENE	220	3900	NA	--	--	570	840	--	--	--	--	--	--
BENZO(A)PYRENE	22	390	NA	--	--	550	700	--	--	--	--	--	--
BENZO(B)FLUORANTHENE	220	3900	NA	--	14	820	1100	--	--	--	--	--	--
BENZO(G,H,I)PERYLENE	230000	3100000	NA	--	--	210 J	220 J	--	--	--	--	--	--
BENZO(K)FLUORANTHENE	2200	39000	NA	--	--	350	450	--	--	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	46000	200000	NA	36 J	24 J	--	57 J	--	--	--	--	--	--
BUTYL BENZYL PHTHALATE	NA	NA	NA	72 J	--	--	--	--	--	--	--	--	--
CAPROLACTAM	NA	NA	NA	--	--	--	--	--	--	77 J	--	--	--
CARBAZOLE	32000	140000	NA	--	--	53 J	130	--	--	--	--	--	--
CHRYSENE	22000	390000	NA	--	--	610	800	--	--	--	--	--	--
DIBENZO(A,H)ANTHRACENE	22	390	NA	--	--	69 J	--	--	--	--	--	--	--
DIBENZOFURAN	7800	100000	NA	--	--	22 J	94 J	--	--	--	--	--	--
DIMETHYL PHTHALATE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
DI-N-BUTYL PHTHALATE	780000	10000000	NA	--	--	--	--	--	--	--	--	--	--
FLUORANTHENE	310000	4100000	NA	12	--	1200	1900	--	--	--	--	--	--
FLUORENE	310000	4100000	NA	--	--	49	220	--	--	--	--	--	--
INDENO(1,2,3-CD)PYRENE	220	3900	NA	--	--	190	230	--	--	--	--	--	--
NAPHTHALENE	160000	2000000	NA	--	--	23	87	--	--	--	--	--	--
PHENANTHRENE	2300000	31000000	NA	--	--	560	1400	--	--	--	--	--	--
PYRENE	230000	3100000	NA	34	--	1000	1500	--	--	--	--	--	--

Table 4-4

Summary of Positive Detects for Soil Samples
Supplemental Site Characterization
Greater Strawberry Point, Martin State Airport, Middle River, Maryland

LOCATION				GSP-MW-19		GSP-MW-20		GSP-SB-131		GSP-SB-132		GSP-SB-133	
SAMPLE ID				GSP-MW-19-12-14	GSP-MW-19-14-16	GSP-MW-20-0-2	GSP-MW-20-4-6	GSP-SB-131-12'-14'	GSP-SB-131-14'-18.5'	GSP-SB-132-30'-32'	GSP-SB-132-35'-36.5'	GSP-SB-133-16'-18.5'	GSP-SB-133-8'-10.5'
SAMPLE DATE				20120912	20120912	20120912	20120912	20120907	20120907	20120906	20120906	20120907	20120907
SAMPLE CODE		MDE	Eastern	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	MDE	Non-	Maryland	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	Residential	Residential	Anticipated	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	Soil Criteria	Soil Criteria	Typical	NA	NA	NA	NA	SB	SB	SB	SB	SB	SB
TOP DEPTH			Concentration	12	14	0	4	12	14	30	35	16	8
BOTTOM DEPTH				14	16	2	6	14	18.5	32	36.5	18.5	10.5
TCLP METALS (MG/L)													
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)													
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)													
1,1-DICHLOROETHENE	390000	5100000	NA	--	--	--	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	--	--	--	0.15 J	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	78000	1000000	NA	--	--	--	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	7000	31000	NA	--	--	--	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	23000	310000	NA	--	--	--	--	--	--	--	--	--	--
2-BUTANONE	4700000	61000000	NA	--	5.7 J	--	4.6 J	--	1.9 J	--	1.6 B	--	--
4-ISOPROPYLTOLUENE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
ACETONE	7000000	92000000	NA	12 J	250	150	91	--	13 J	--	9.1 J	--	--
BENZENE	12000	52000	NA	--	--	--	--	--	--	--	0.34 J	--	--
CARBON DISULFIDE	780000	10000000	NA	--	1.7 J	--	--	--	--	--	--	--	--
CHLOROBENZENE	160000	2000000	NA	--	--	--	--	--	--	--	--	--	--
CHLOROFORM	78000	1000000	NA	--	--	--	--	--	--	--	--	--	--
CHLOROMETHANE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	78000	1000000	NA	--	--	--	--	--	--	--	--	--	--
ETHYLBENZENE	780000	10000000	NA	--	--	--	--	--	--	--	--	--	--
M+P-XYLENES	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
NAPHTHALENE	160000	2000000	NA	0.63 B	0.83 B	0.33 B	15	--	1.1 B	0.21 B	0.2 B	0.17 B	--
STYRENE	1600000	20000000	NA	--	--	--	--	--	0.29 J	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	--	10 J	--	--	--	--	--	--	--	--
TETRACHLOROETHENE	1200	5300	NA	--	--	--	--	--	--	--	--	--	--
TOLUENE	630000	8200000	NA	0.54 J	0.32 J	--	0.23 J	0.84 J	0.73 J	0.76 J	1.5 J	0.75 J	1 J
TRANS-1,2-DICHLOROETHENE	160000	2000000	NA	--	--	--	--	--	--	--	--	--	--
TRICHLOROETHENE	1600	7200	NA	--	--	--	--	--	1.2 J	26	60	--	0.53 J
VINYL CHLORIDE	90	4000	NA	--	--	--	--	--	--	--	--	--	--

Table 4-4

Summary of Positive Detects for Soil Samples
Supplemental Site Characterization
Greater Strawberry Point, Martin State Airport, Middle River, Maryland

LOCATION	MDE Residential Soil Criteria	MDE Non-Residential Soil Criteria	Eastern Maryland Anticipated Typical Concentration	GSP-SB-134		GSP-SB-135		GSP-SB-136		GSP-SB-137		GSP-SB-138	
SAMPLE ID				GSP-SB-134-25'-27'	GSP-SB-134-27'-31'	GSP-SB-135-0'-2.5'	GSP-SB-135-10.5'-12'	GSP-SB-136-02	GSP-SB-136-10	GSP-SB-137-04	GSP-SB-137-18	GSP-SB-138-20-22	GSP-SB-138-24-26
SAMPLE DATE				20120906	20120906	20120907	20120907	20120914	20120914	20120926	20120926	20120921	20120921
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB	SS	SB	SB	SB	SB	SB
TOP DEPTH				25	27	0	10.5	0	8	2	16	20	24
BOTTOM DEPTH				27	31	2.5	12	2	10	4	18	22	26
METALS (MG/KG)													
ANTIMONY	3.1	41	NA	0.69 B	0.53 B	--	0.73 B	--	0.61 B	--	--	--	0.73 J
ARSENIC	0.43	1.9	3.6	1.7	0.52 J	1.5	21 *	2	1.7	1.7	2.5	1 J	3.9 *
BARIUM	1600	20000	NA	2 J	4.9 J	6 J	5 J	27	4.8 J	14 J	4.9 J	7.9 J	4 J
BERYLLIUM	16	200	NA	--	--	--	--	0.096 J	--	0.082 J	--	--	--
CADMIUM	3.9	51	NA	--	--	--	--	0.12 J	--	--	--	--	0.047 J
CHROMIUM	23	310	28	3.5	6.3	3.6	35 *	7.8	3.9	7.2	11	8.7 J	44 J*
COBALT	NA	NA	NA	0.59 J	0.23 J	0.65 J	0.64 J	2.3	0.4 J	0.83 J	--	0.41 J	--
COPPER	310	4100	NA	1.3 J	3	2 J	5.3	15	1.8 J	2.6 J	1.5 J	2.5 J	--
LEAD	400	1000	NA	1.6	2.8	1.8	5.7	9.3	1.2	3	2.3	2.6	6
MERCURY	2.3	31	NA	--	--	0.019 J	--	0.039 J	--	--	0.023 J	--	--
MOLYBDENUM	NA	NA	NA	--	--	--	0.35 B	0.67 B	0.35 B	--	--	--	0.51 J
NICKEL	160	2000	NA	--	0.38 J	1.1 J	0.63 J	4.4	1.6 J	2.1 J	0.33 J	0.47 J	--
SELENIUM	39	510	NA	--	--	--	1 J	--	--	--	--	--	0.77 J
SILVER	39	510	NA	--	--	--	--	0.2 J	--	--	--	--	--
THALLIUM	0.55	7.2	3.9	--	--	--	--	0.86 B	--	--	--	--	--
VANADIUM	7.8	100	30	11 J	5.7 J	7.4 J	61 J*	12 J	5.9 J	10	8.5	8.6 J	77 J*
ZINC	2300	31000	NA	1.5 J	2.1 J	4.3	3.3 J	25 K	3.6 J	6.7	1.6 J	1.9 J	1.3 J
PETROLEUM HYDROCARBONS (MG/KG)													
TPH (C10-C32)	230	620	NA	17 B	15 B	13 B	18 B	11 B	11 B	--	--	--	19 B
PETROLEUM HYDROCARBONS (UG/KG)													
TPH (C06-C10)	230000	620000	NA	240	--	--	--	--	--	--	--	59 B	--
SEMIVOLATILES (UG/KG)													
1,1-BIPHENYL	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
2-METHYLNAPHTHALENE	31000	410000	NA	--	--	--	--	--	--	--	--	--	--
ACENAPHTHENE	470000	6100000	NA	--	--	--	--	3.6 J	--	--	--	--	--
ACENAPHTHYLENE	470000	6100000	NA	--	--	--	--	4.8 J	--	--	--	--	--
ANTHRACENE	2300000	31000000	NA	--	--	--	--	13	--	--	--	--	--
BAP EQUIVALENT-HALFND	22	390	NA	--	--	--	--	120	--	--	--	--	--
BAP EQUIVALENT-POS	22	390	NA	--	--	--	--	120	--	--	--	--	--
BENZALDEHYDE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
BENZO(A)ANTHRACENE	220	3900	NA	--	--	--	--	85	--	--	--	--	--
BENZO(A)PYRENE	22	390	NA	--	--	--	--	94	--	--	--	--	--
BENZO(B)FLUORANTHENE	220	3900	NA	--	--	--	--	110	--	--	--	--	--
BENZO(G,H,I)PERYLENE	230000	3100000	NA	--	--	--	--	62 J	--	--	--	--	--
BENZO(K)FLUORANTHENE	2200	39000	NA	--	--	--	--	46	--	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	46000	200000	NA	--	--	39 J	--	25 J	--	21 J	--	--	--
BUTYL BENZYL PHTHALATE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
CAPROLACTAM	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
CARBAZOLE	32000	140000	NA	--	--	--	--	--	--	--	--	--	--
CHRYSENE	22000	390000	NA	--	--	--	--	99	--	--	--	--	--
DIBENZO(A,H)ANTHRACENE	22	390	NA	--	--	--	--	--	--	--	--	--	--
DIBENZOFURAN	7800	100000	NA	--	--	--	--	--	--	--	--	--	--
DIMETHYL PHTHALATE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
DI-N-BUTYL PHTHALATE	780000	10000000	NA	--	--	--	--	--	--	--	--	--	--
FLUORANTHENE	310000	4100000	NA	--	--	--	--	160	--	--	--	--	--
FLUORENE	310000	4100000	NA	--	--	--	--	--	--	--	--	--	--
INDENO(1,2,3-CD)PYRENE	220	3900	NA	--	--	--	--	55	--	--	--	--	--
NAPHTHALENE	160000	2000000	NA	--	--	--	--	4.6 J	--	--	--	--	--
PHENANTHRENE	2300000	31000000	NA	--	--	--	--	50	--	--	--	--	--
PYRENE	230000	3100000	NA	--	--	--	--	170	--	--	--	--	--

Table 4-4

Summary of Positive Detects for Soil Samples
Supplemental Site Characterization
Greater Strawberry Point, Martin State Airport, Middle River, Maryland

LOCATION	MDE Residential Soil Criteria	MDE Non-Residential Soil Criteria	Eastern Maryland Anticipated Typical Concentration	GSP-SB-134		GSP-SB-135		GSP-SB-136		GSP-SB-137		GSP-SB-138	
SAMPLE ID				GSP-SB-134-25'-27'	GSP-SB-134-27'-31'	GSP-SB-135-0'-2.5'	GSP-SB-135-10.5'-12'	GSP-SB-136-02	GSP-SB-136-10	GSP-SB-137-04	GSP-SB-137-18	GSP-SB-138-20-22	GSP-SB-138-24-26
SAMPLE DATE				20120906	20120906	20120907	20120907	20120914	20120914	20120926	20120926	20120921	20120921
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB	SS	SB	SB	SB	SB	SB
TOP DEPTH				25	27	0	10.5	0	8	2	16	20	24
BOTTOM DEPTH				27	31	2.5	12	2	10	4	18	22	26
TCLP METALS (MG/L)													
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)													
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)													
1,1-DICHLOROETHENE	390000	5100000	NA	--	--	--	--	0.72 J	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	78000	1000000	NA	17 J	--	--	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	7000	31000	NA	--	--	--	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	23000	310000	NA	7.4 J	6.3 J	--	--	--	--	--	--	--	--
2-BUTANONE	4700000	61000000	NA	--	--	--	--	--	--	2.3 J	--	--	--
4-ISOPROPYLTOLUENE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
ACETONE	7000000	92000000	NA	--	--	--	11 J	--	--	34	--	13 J	23
BENZENE	12000	52000	NA	--	--	--	0.26 J	--	--	--	0.22 J	--	0.34 J
CARBON DISULFIDE	780000	10000000	NA	--	--	--	--	--	--	--	--	--	--
CHLOROBENZENE	160000	2000000	NA	--	--	--	1.6 J	--	--	--	--	--	--
CHLOROFORM	78000	1000000	NA	--	--	--	--	--	--	--	--	--	--
CHLOROMETHANE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	78000	1000000	NA	--	--	--	--	--	--	--	0.43 J	--	--
ETHYLBENZENE	780000	10000000	NA	--	--	--	--	--	--	--	--	--	--
M+P-XYLENES	NA	NA	NA	8.2 J	6.5 J	--	--	--	--	--	--	--	--
NAPHTHALENE	160000	2000000	NA	22 B	15 B	0.13 B	--	0.63 B	0.32 B	--	--	--	--
STYRENE	1600000	20000000	NA	--	--	--	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
TETRACHLOROETHENE	1200	5300	NA	--	--	--	--	0.74 J	--	--	--	--	--
TOLUENE	630000	8200000	NA	--	--	0.41 J	1.2 J	0.26 J	0.88 J	0.43 J	0.54 J	0.61 J	1.1 J
TRANS-1,2-DICHLOROETHENE	160000	2000000	NA	--	--	--	--	--	--	--	--	--	--
TRICHLOROETHENE	1600	7200	NA	3900	1100	--	--	1.2 J	--	--	--	--	--
VINYL CHLORIDE	90	4000	NA	--	--	--	--	--	--	--	--	--	--

Table 4-4

Summary of Positive Detects for Soil Samples
Supplemental Site Characterization
Greater Strawberry Point, Martin State Airport, Middle River, Maryland

LOCATION	MDE Residential Soil Criteria	MDE Non-Residential Soil Criteria	Eastern Maryland Anticipated Typical Concentration	GSP-SB-139			GSP-SB-140		GSP-SB-141		GSP-SB-142	
SAMPLE ID				GSP-SB-139-02	GSP-SB-139-20-23	GSP-SB-139-32-34.5	GSP-SB-140-02	GSP-SB-140-08	GSP-SB-141-02	GSP-SB-141-10	GSP-SB-142-20	GSP-SB-142-28
SAMPLE DATE				20121002	20120921	20120921	20120926	20120926	20121001	20121001	20120928	20120928
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SB	SB	SS	SB	SS	SB	SB	SB
TOP DEPTH				0	20	32	0	6	0	8	18	26
BOTTOM DEPTH				2	23	34.5	2	8	2	10	20	28
METALS (MG/KG)												
ANTIMONY	3.1	41	NA	NA	--	--	--	--	0.46 J	--	--	--
ARSENIC	0.43	1.9	3.6	NA	1.2 J	3	1.5	--	11 J*	2.7 J	3.1	1.7 J
BARIUM	1600	20000	NA	NA	9.5 J	1.3 J	20	5.9 J	45	6.4 J	21	21
BERYLLIUM	16	200	NA	NA	--	--	0.16 J	--	0.49 J	0.061 J	0.35 J	0.45 J
CADMIUM	3.9	51	NA	NA	--	--	0.044 J	--	0.32 J	--	0.055 J	--
CHROMIUM	23	310	28	NA	5.6 J	8.1 J	5.8	3.7	39 J*	9.6 J	14	21
COBALT	NA	NA	NA	NA	0.28 J	--	1.4	--	4.6	0.3 J	3.4	14
COPPER	310	4100	NA	NA	3.3	4.1	3.1	3.3	19	5.2	8.7	29
LEAD	400	1000	NA	NA	2.3 L	0.63 J	3.9	1.3	30 J	3.8 J	7.7	10
MERCURY	2.3	31	NA	NA	--	--	--	--	0.51	0.045 J	0.03 J	0.13
MOLYBDENUM	NA	NA	NA	NA	--	0.28 J	0.36 J	--	0.52 J	0.4 J	0.31 J	--
NICKEL	160	2000	NA	NA	0.67 J	--	2.7 J	0.46 J	12	0.62 J	6.4	53
SELENIUM	39	510	NA	NA	--	--	--	--	--	--	--	--
SILVER	39	510	NA	NA	--	--	--	--	0.25 J	--	--	--
THALLIUM	0.55	7.2	3.9	NA	--	--	--	--	--	--	--	--
VANADIUM	7.8	100	30	NA	6.4 J	7.4 J	9.5	3.6	29	25	26	18
ZINC	2300	31000	NA	NA	2.1 J	1.4 J	11	1.5 J	51	3 J	22	9.1
PETROLEUM HYDROCARBONS (MG/KG)												
TPH (C10-C32)	230	620	NA	NA	--	--	27	--	110	--	70	--
PETROLEUM HYDROCARBONS (UG/KG)												
TPH (C06-C10)	230000	620000	NA	NA	--	--	--	--	--	--	--	--
SEMIVOLATILES (UG/KG)												
1,1-BIPHENYL	NA	NA	NA	NA	--	--	--	--	--	--	--	--
2-METHYLNAPHTHALENE	31000	410000	NA	NA	--	--	--	--	28	--	16	--
ACENAPHTHENE	470000	6100000	NA	NA	--	--	18	--	77	--	16	--
ACENAPHTHYLENE	470000	6100000	NA	NA	--	--	--	--	29	--	16	--
ANTHRACENE	2300000	31000000	NA	NA	--	--	38	--	190	--	69	--
BAP EQUIVALENT-HALFND	22	390	NA	NA	--	--	150	--	1100	41	460	--
BAP EQUIVALENT-POS	22	390	NA	NA	--	--	150	--	1100	39	450	--
BENZALDEHYDE	NA	NA	NA	NA	--	--	--	--	--	--	--	--
BENZO(A)ANTHRACENE	220	3900	NA	NA	--	--	150	--	880	25	340	--
BENZO(A)PYRENE	22	390	NA	NA	--	--	100	--	810	32	360	--
BENZO(B)FLUORANTHENE	220	3900	NA	NA	--	--	130	--	1300	43	460	--
BENZO(G,H,I)PERYLENE	230000	3100000	NA	NA	--	--	52	--	320	--	150	--
BENZO(K)FLUORANTHENE	2200	39000	NA	NA	--	--	66	--	420	--	160	--
BIS(2-ETHYLHEXYL)PHTHALATE	46000	200000	NA	NA	--	--	28 J	--	--	--	--	--
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	--	--	--	--	--	--	--	--
CAPROLACTAM	NA	NA	NA	NA	--	--	--	--	--	--	--	--
CARBAZOLE	32000	140000	NA	NA	--	--	--	--	--	--	--	--
CHRYSENE	22000	390000	NA	NA	--	--	130	--	990	26	380	--
DIBENZO(A,H)ANTHRACENE	22	390	NA	NA	--	--	14	--	--	--	--	--
DIBENZOFURAN	7800	100000	NA	NA	--	--	8.7 J	--	18 J	--	6.2 J	--
DIMETHYL PHTHALATE	NA	NA	NA	NA	--	--	--	--	--	--	--	--
DI-N-BUTYL PHTHALATE	780000	10000000	NA	NA	--	--	--	--	--	--	--	--
FLUORANTHENE	310000	4100000	NA	NA	--	--	310	--	1700	41	500	--
FLUORENE	310000	4100000	NA	NA	--	--	22	--	62	--	23	--
INDENO(1,2,3-CD)PYRENE	220	3900	NA	NA	--	--	45	--	290	--	120	--
NAPHTHALENE	160000	2000000	NA	NA	--	--	--	--	33	--	27	--
PHENANTHRENE	2300000	31000000	NA	NA	--	--	110	--	900	14	270	--
PYRENE	230000	3100000	NA	NA	--	--	240	--	1800	44	650	--

Table 4-4

Summary of Positive Detects for Soil Samples
Supplemental Site Characterization
Greater Strawberry Point, Martin State Airport, Middle River, Maryland

LOCATION	MDE Residential Soil Criteria	MDE Non-Residential Soil Criteria	Eastern Maryland Anticipated Typical Concentration	GSP-SB-139			GSP-SB-140		GSP-SB-141		GSP-SB-142	
SAMPLE ID				GSP-SB-139-02	GSP-SB-139-20-23	GSP-SB-139-32-34.5	GSP-SB-140-02	GSP-SB-140-08	GSP-SB-141-02	GSP-SB-141-10	GSP-SB-142-20	GSP-SB-142-28
SAMPLE DATE				20121002	20120921	20120921	20120926	20120926	20121001	20121001	20120928	20120928
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SB	SB	SS	SB	SS	SB	SB	SB
TOP DEPTH				0	20	32	0	6	0	8	18	26
BOTTOM DEPTH				2	23	34.5	2	8	2	10	20	28
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	0.0034 J	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	0.2 J	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	0.0012 J	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	0.0049 J	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
3&4-METHYLPHENOL	NA	NA	NA	--	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1-DICHLOROETHENE	390000	5100000	NA	NA	--	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	--	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	78000	1000000	NA	NA	--	--	--	--	0.4 B	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	--	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	7000	31000	NA	NA	--	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	23000	310000	NA	NA	--	--	--	--	--	--	--	--
2-BUTANONE	4700000	61000000	NA	NA	--	--	7.4 J	1.8 J	--	1.6 B	--	--
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	--	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	NA	NA	NA	NA	--	--	--	--	--	--	--	--
ACETONE	7000000	92000000	NA	NA	7.4 J	18 J	61	60	--	25 B	--	35 B
BENZENE	12000	52000	NA	NA	0.23 J	--	--	--	--	--	--	--
CARBON DISULFIDE	780000	10000000	NA	NA	--	--	0.69 J	--	--	--	--	--
CHLOROBENZENE	160000	2000000	NA	NA	0.64 J	--	--	--	--	--	--	--
CHLOROFORM	78000	1000000	NA	NA	--	--	--	--	--	--	--	--
CHLOROMETHANE	NA	NA	NA	NA	--	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	78000	1000000	NA	NA	--	--	--	--	--	--	--	--
ETHYLBENZENE	780000	10000000	NA	NA	--	--	--	--	--	--	--	--
M+P-XYLENES	NA	NA	NA	NA	--	--	--	--	--	--	--	--
NAPHTHALENE	160000	2000000	NA	NA	--	--	--	--	11 J	--	--	0.16 B
STYRENE	1600000	20000000	NA	NA	--	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	--	--	--	--	--	--	--	--
TETRACHLOROETHENE	1200	5300	NA	NA	--	--	--	--	--	--	--	--
TOLUENE	630000	8200000	NA	NA	0.54 J	0.72 J	1 J	0.9 J	0.73 J	0.67 J	0.39 J	0.5 J
TRANS-1,2-DICHLOROETHENE	160000	2000000	NA	NA	--	--	--	--	--	--	--	--
TRICHLOROETHENE	1600	7200	NA	NA	--	0.69 J	--	--	--	--	--	--
VINYL CHLORIDE	90	4000	NA	NA	--	--	--	--	--	--	--	--

Table 4-4

Summary of Positive Detects for Soil Samples
Supplemental Site Characterization
Greater Strawberry Point, Martin State Airport, Middle River, Maryland

LOCATION	MDE Residential Soil Criteria	MDE Non-Residential Soil Criteria	Eastern Maryland Anticipated Typical Concentration	GSP-SB-143		GSP-SB-144			GSP-SB-145		GSP-SB-146	
SAMPLE ID				GSP-SB-143-02	GSP-SB-143-26	GSP-SB-144-05	GSP-SB-144-10	GSP-SB-144-20	GSP-SB-145-06	GSP-SB-145-20	GSP-SB-146-06	GSP-SB-146-20
SAMPLE DATE				20120927	20120927	20121002	20120928	20120928	20121001	20121001	20121001	20121001
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH				0	24	3	8	18	4	18	4	18
BOTTOM DEPTH				2	26	5	10	20	6	20	6	20
METALS (MG/KG)												
ANTIMONY	3.1	41	NA	--	--	NA	--	--	--	--	--	--
ARSENIC	0.43	1.9	3.6	2.6	5.9 J*	NA	4.7 J*	--	3.3 J	4.1 J*	2.4	1.9 J
BARIUM	1600	20000	NA	24	12 J	NA	13 J	19 J	30	9.8 J	15 J	16 J
BERYLLIUM	16	200	NA	0.87 L	0.36 J	NA	0.13 J	0.5 J	0.42 J	0.28 J	0.23 J	--
CADMIUM	3.9	51	NA	0.05 J	0.58 J	NA	--	--	0.065 J	--	--	--
CHROMIUM	23	310	28	11	14	NA	8.4	27	15 J	16 J	18	21
COBALT	NA	NA	NA	3.7	17	NA	2.5	6.3	5.4	6.1	1.4	2.5
COPPER	310	4100	NA	11	21	NA	5.8	45	11	69	7.1	15
LEAD	400	1000	NA	7.5	15	NA	6.4	6.6	8.7 J	3.5 J	4.7	7.5
MERCURY	2.3	31	NA	--	0.079 J	NA	0.038 J	--	0.17	0.027 J	0.11	0.04 J
MOLYBDENUM	NA	NA	NA	0.3 J	--	NA	--	--	0.27 J	--	--	--
NICKEL	160	2000	NA	8.3	30	NA	3.5 J	9.8	9.2	6.9	2.9 J	3.9 J
SELENIUM	39	510	NA	--	--	NA	--	--	--	--	--	--
SILVER	39	510	NA	--	--	NA	--	--	--	--	--	--
THALLIUM	0.55	7.2	3.9	--	--	NA	--	--	--	--	--	--
VANADIUM	7.8	100	30	21	28	NA	10	12	26	7.5	45 *	14
ZINC	2300	31000	NA	28	51	NA	8.1	11	31	6.6	7.1	6.3
PETROLEUM HYDROCARBONS (MG/KG)												
TPH (C10-C32)	230	620	NA	190	71	NA	--	--	230	--	61	--
PETROLEUM HYDROCARBONS (UG/KG)												
TPH (C06-C10)	230000	620000	NA	--	--	NA	--	73 J	300	--	69 J	--
SEMIVOLATILES (UG/KG)												
1,1-BIPHENYL	NA	NA	NA	--	--	NA	--	--	330	--	--	--
2-METHYLNAPHTHALENE	31000	410000	NA	10	--	NA	--	--	2900	9.9	5.7 J	--
ACENAPHTHENE	470000	6100000	NA	12	--	NA	--	--	730	--	4.1 J	--
ACENAPHTHYLENE	470000	6100000	NA	14	--	NA	--	--	77	--	--	--
ANTHRACENE	2300000	31000000	NA	48	--	NA	--	--	1100	5.3 J	11	--
BAP EQUIVALENT-HALFND	22	390	NA	420	--	NA	--	--	1300	--	7.7	--
BAP EQUIVALENT-POS	22	390	NA	420	--	NA	--	--	1300	--	3.7	--
BENZALDEHYDE	NA	NA	NA	--	--	NA	--	--	--	--	--	--
BENZO(A)ANTHRACENE	220	3900	NA	320	--	NA	--	--	1200	--	16	--
BENZO(A)PYRENE	22	390	NA	330	--	NA	--	--	1000	--	--	--
BENZO(B)FLUORANTHENE	220	3900	NA	420	--	NA	--	--	1100	--	21	--
BENZO(G,H,I)PERYLENE	230000	3100000	NA	140	--	NA	--	--	330	--	--	--
BENZO(K)FLUORANTHENE	2200	39000	NA	160	--	NA	--	--	490	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	46000	200000	NA	--	--	NA	23 J	--	--	--	--	--
BUTYL BENZYL PHTHALATE	NA	NA	NA	--	--	NA	--	--	--	--	--	--
CAPROLACTAM	NA	NA	NA	--	--	NA	--	--	--	--	--	--
CARBAZOLE	32000	140000	NA	--	--	NA	--	--	160 J	--	--	--
CHRYSENE	22000	390000	NA	370	--	NA	--	--	1300	--	16	--
DIBENZO(A,H)ANTHRACENE	22	390	NA	--	--	NA	--	--	--	--	--	--
DIBENZOFURAN	7800	100000	NA	3.8 J	--	NA	--	--	230 J	--	--	--
DIMETHYL PHTHALATE	NA	NA	NA	--	--	NA	--	--	--	--	--	--
DI-N-BUTYL PHTHALATE	780000	10000000	NA	--	--	NA	--	--	--	--	--	--
FLUORANTHENE	310000	4100000	NA	540	--	NA	12	--	2300	13	39	--
FLUORENE	310000	4100000	NA	13	--	NA	--	--	1500	5.8 J	5.8 J	--
INDENO(1,2,3-CD)PYRENE	220	3900	NA	120	--	NA	--	--	330	--	--	--
NAPHTHALENE	160000	2000000	NA	19	--	NA	--	64	4400	11	10	--
PHENANTHRENE	2300000	31000000	NA	190	--	NA	--	--	4500	25	40	--
PYRENE	230000	3100000	NA	590	--	NA	12	6.6 J	3000	16	37	--

Table 4-4

Summary of Positive Detects for Soil Samples
Supplemental Site Characterization
Greater Strawberry Point, Martin State Airport, Middle River, Maryland

LOCATION	MDE Residential Soil Criteria	MDE Non-Residential Soil Criteria	Eastern Maryland Anticipated Typical Concentration	GSP-SB-143		GSP-SB-144			GSP-SB-145		GSP-SB-146	
SAMPLE ID				GSP-SB-143-02	GSP-SB-143-26	GSP-SB-144-05	GSP-SB-144-10	GSP-SB-144-20	GSP-SB-145-06	GSP-SB-145-20	GSP-SB-146-06	GSP-SB-146-20
SAMPLE DATE				20120927	20120927	20121002	20120928	20120928	20121001	20121001	20121001	20121001
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH				0	24	3	8	18	4	18	4	18
BOTTOM DEPTH				2	26	5	10	20	6	20	6	20
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	0.014 J	NA	NA	0.024 J	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	0.13 J	NA	NA	0.16 J	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	--	NA	NA	--	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	0.0045 J	NA	NA	0.004 J	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	--	NA	NA	0.0014 J	NA	NA	NA
VOLATILES (UG/KG)												
1,1-DICHLOROETHENE	390000	5100000	NA	--	--	NA	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	--	--	NA	--	--	--	--	5.5 J	--
1,2,4-TRICHLOROBENZENE	78000	1000000	NA	--	--	NA	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	--	--	NA	--	--	--	--	7.2 J	--
1,2-DICHLOROETHANE	7000	31000	NA	--	--	NA	--	--	--	--	--	--
1,3-DICHLOROBENZENE	23000	310000	NA	--	--	NA	--	--	--	--	--	--
2-BUTANONE	4700000	61000000	NA	--	--	NA	--	--	89 J	--	--	--
4-ISOPROPYLTOLUENE	NA	NA	NA	--	--	NA	--	--	26 J	--	--	--
4-METHYL-2-PENTANONE	NA	NA	NA	--	--	NA	--	--	--	--	--	--
ACETONE	7000000	92000000	NA	--	13 B	NA	8.7 B	40 B	--	6.5 B	--	11 B
BENZENE	12000	52000	NA	--	--	NA	--	--	--	--	--	--
CARBON DISULFIDE	780000	10000000	NA	--	--	NA	--	--	--	--	--	--
CHLOROBENZENE	160000	2000000	NA	--	--	NA	--	--	--	--	--	--
CHLOROFORM	78000	1000000	NA	--	--	NA	--	--	--	--	--	--
CHLOROMETHANE	NA	NA	NA	--	--	NA	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	78000	1000000	NA	--	--	NA	--	--	--	--	--	--
ETHYLBENZENE	780000	10000000	NA	--	--	NA	--	--	11 J	--	--	--
M+P-XYLENES	NA	NA	NA	--	--	NA	--	--	6.4 B	--	5.3 B	--
NAPHTHALENE	160000	2000000	NA	0.22 B	--	NA	0.19 B	--	470 J	--	740 J	--
STYRENE	1600000	20000000	NA	--	--	NA	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	--	--	NA	--	--	--	--	--	--
TETRACHLOROETHENE	1200	5300	NA	--	--	NA	--	--	16 B	--	14 B	--
TOLUENE	630000	8200000	NA	0.43 J	0.44 J	NA	0.59 J	0.51 J	580	--	14 B	0.85 J
TRANS-1,2-DICHLOROETHENE	160000	2000000	NA	--	--	NA	--	--	--	--	--	--
TRICHLOROETHENE	1600	7200	NA	--	--	NA	--	--	14 B	--	12 B	--
VINYL CHLORIDE	90	4000	NA	--	--	NA	--	--	--	--	--	--

Table 4-4

Summary of Positive Detects for Soil Samples
Supplemental Site Characterization
Greater Strawberry Point, Martin State Airport, Middle River, Maryland

LOCATION	MDE Residential Soil Criteria	MDE Non-Residential Soil Criteria	Eastern Maryland Anticipated Typical Concentration	GSP-SB-147		GSP-SB-148		GSP-SB-149		GSP-SB-150		GSP-SB-151	
SAMPLE ID				GSP-SB-147-10	GSP-SB-147-24	GSP-SB-148-02	GSP-SB-148-16	GSP-SB-149-08	GSP-SB-149-28	GSP-SB-150-02	GSP-SB-150-18	GSP-SB-151-10	GSP-SB-151-20
SAMPLE DATE				20120928	20120928	20120927	20120927	20120924	20120924	20120924	20120924	20120927	20120927
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SS	SB	SB	SB	SS	SB	SB	SB
TOP DEPTH				8	22	0	14	6	26	0	16	8	18
BOTTOM DEPTH				10	24	2	16	8	28	2	18	10	20
METALS (MG/KG)													
ANTIMONY	3.1	41	NA	--	--	--	--	--	--	--	--	--	--
ARSENIC	0.43	1.9	3.6	1.9	--	2.9	3.3 J	0.69 J	0.94 J	1.6	0.45 J	0.82 J	--
BARIUM	1600	20000	NA	8 J	12 J	16 J	10 J	9 J	4.9 J	29	2.1 J	2.2 J	3.7 J
BERYLLIUM	16	200	NA	0.067 J	0.31 J	0.11 J	0.27 J	--	--	0.27 J	--	--	--
CADMIUM	3.9	51	NA	--	--	--	--	--	--	0.048 J	--	--	--
CHROMIUM	23	310	28	9.7	17	11	17	5.6	8.2	4.9	3.2	3.6	3.8
COBALT	NA	NA	NA	0.44 J	11	0.64 J	9.8	--	1.2	0.49 J	0.25 J	0.21 J	--
COPPER	310	4100	NA	6.8	22	7.6	32	1.9 J	2 J	3.5	3.9	1.9 J	0.89 J
LEAD	400	1000	NA	3	2.9 J	6.5	9.2	2 L	1.8 L	8.7	0.76 J	0.63 J	1.1 J
MERCURY	2.3	31	NA	0.039 J	0.025 J	--	0.081 J	--	--	--	--	--	--
MOLYBDENUM	NA	NA	NA	--	--	--	--	--	--	--	0.25 J	0.39 J	--
NICKEL	160	2000	NA	2.5 J	11	2.3 J	14	0.38 J	0.41 J	1.3 J	0.86 J	0.35 J	--
SELENIUM	39	510	NA	--	--	--	--	--	--	--	--	--	--
SILVER	39	510	NA	--	--	--	--	--	--	--	--	--	--
THALLIUM	0.55	7.2	3.9	--	--	--	--	--	--	--	--	--	--
VANADIUM	7.8	100	30	7.9	12	16	6.9	4.3	14	7.3	7	3.1	4.9
ZINC	2300	31000	NA	5	10	9.2	7.5	1.7 J	1.2 J	6.3	2.4 J	1.3 J	--
PETROLEUM HYDROCARBONS (MG/KG)													
TPH (C10-C32)	230	620	NA	--	--	72	--	--	--	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)													
TPH (C06-C10)	230000	620000	NA	69 J	60 J	56 J	98 J	--	--	--	--	65 J	70 J
SEMIVOLATILES (UG/KG)													
1,1-BIPHENYL	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
2-METHYLNAPHTHALENE	31000	410000	NA	--	--	4 J	--	--	--	--	--	--	--
ACENAPHTHENE	470000	6100000	NA	--	--	23	--	--	--	--	--	--	--
ACENAPHTHYLENE	470000	6100000	NA	--	--	--	--	--	--	--	--	--	--
ANTHRACENE	2300000	31000000	NA	--	--	62	--	--	--	10	--	--	--
BAP EQUIVALENT-HALFND	22	390	NA	--	--	170	--	--	--	58	--	--	--
BAP EQUIVALENT-POS	22	390	NA	--	--	170	--	--	--	57	--	--	--
BENZALDEHYDE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
BENZO(A)ANTHRACENE	220	3900	NA	--	--	150	--	--	--	38	--	--	--
BENZO(A)PYRENE	22	390	NA	--	--	130	--	--	--	44	--	--	--
BENZO(B)FLUORANTHENE	220	3900	NA	--	--	190	--	--	--	57	--	--	--
BENZO(G,H,I)PERYLENE	230000	3100000	NA	--	--	45	--	--	--	19 J	--	--	--
BENZO(K)FLUORANTHENE	2200	39000	NA	--	--	83	--	--	--	23	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	46000	200000	NA	--	--	--	--	--	--	--	--	--	--
BUTYL BENZYL PHTHALATE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
CAPROLACTAM	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
CARBAZOLE	32000	140000	NA	--	--	--	--	--	--	--	--	--	--
CHRYSENE	22000	390000	NA	--	--	140	--	--	--	43	--	--	--
DIBENZO(A,H)ANTHRACENE	22	390	NA	--	--	--	--	--	--	--	--	--	--
DIBENZOFURAN	7800	100000	NA	--	--	21 J	--	--	--	--	--	--	--
DIMETHYL PHTHALATE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
DI-N-BUTYL PHTHALATE	780000	10000000	NA	--	--	--	--	--	--	--	--	--	--
FLUORANTHENE	310000	4100000	NA	--	--	350	--	--	--	80	--	--	--
FLUORENE	310000	4100000	NA	--	--	22	--	--	--	--	--	--	--
INDENO(1,2,3-CD)PYRENE	220	3900	NA	--	--	52	--	--	--	28	--	--	--
NAPHTHALENE	160000	2000000	NA	--	6.5 J	7.1 J	--	--	--	--	--	--	--
PHENANTHRENE	2300000	31000000	NA	--	--	220	--	--	--	37	--	--	--
PYRENE	230000	3100000	NA	4.5 J	--	270	--	--	--	65	--	--	--

Table 4-4

Summary of Positive Detects for Soil Samples
Supplemental Site Characterization
Greater Strawberry Point, Martin State Airport, Middle River, Maryland

LOCATION	MDE Residential Soil Criteria	MDE Non-Residential Soil Criteria	Eastern Maryland Anticipated Typical Concentration	GSP-SB-147		GSP-SB-148		GSP-SB-149		GSP-SB-150		GSP-SB-151	
SAMPLE ID				GSP-SB-147-10	GSP-SB-147-24	GSP-SB-148-02	GSP-SB-148-16	GSP-SB-149-08	GSP-SB-149-28	GSP-SB-150-02	GSP-SB-150-18	GSP-SB-151-10	GSP-SB-151-20
SAMPLE DATE				20120928	20120928	20120927	20120927	20120924	20120924	20120924	20120924	20120927	20120927
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SS	SB	SB	SB	SS	SB	SB	SB
TOP DEPTH				8	22	0	14	6	26	0	16	8	18
BOTTOM DEPTH				10	24	2	16	8	28	2	18	10	20
TCLP METALS (MG/L)													
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)													
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)													
1,1-DICHLOROETHENE	390000	5100000	NA	--	--	--	0.47 J	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	78000	1000000	NA	--	--	--	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	7000	31000	NA	--	--	--	--	--	2 J	--	0.77 J	--	1.9 J
1,3-DICHLOROBENZENE	23000	310000	NA	--	--	--	--	--	--	--	--	--	--
2-BUTANONE	4700000	61000000	NA	--	--	8.5 J	--	1.7 B	--	1.4 J	--	--	--
4-ISOPROPYLTOLUENE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	NA	NA	NA	--	--	--	--	--	--	0.71 J	--	--	--
ACETONE	7000000	92000000	NA	18 B	12 B	49	9 B	12 J	24	--	--	30	--
BENZENE	12000	52000	NA	--	--	--	--	--	--	--	--	--	0.2 J
CARBON DISULFIDE	780000	10000000	NA	--	--	--	--	--	--	--	--	--	--
CHLOROBENZENE	160000	2000000	NA	--	--	--	--	--	--	--	--	--	--
CHLOROFORM	78000	1000000	NA	--	--	--	--	--	--	--	0.27 J	--	--
CHLOROMETHANE	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	78000	1000000	NA	--	--	--	1.2 J	--	11	--	9.6	--	4.4
ETHYLBENZENE	780000	10000000	NA	--	--	--	--	--	--	--	--	--	--
M+P-XYLENES	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
NAPHTHALENE	160000	2000000	NA	--	--	--	0.19 B	--	0.94 J	--	0.58 J	--	4.3
STYRENE	1600000	20000000	NA	--	--	--	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	--	--	--	--	--	--	--	--	--	--
TETRACHLOROETHENE	1200	5300	NA	--	--	--	--	--	--	--	--	--	--
TOLUENE	630000	8200000	NA	0.58 J	0.3 J	0.81 J	0.24 J	0.67 J	1.3 J	0.4 J	--	0.76 J	0.52 J
TRANS-1,2-DICHLOROETHENE	160000	2000000	NA	--	--	--	--	--	--	--	--	--	--
TRICHLOROETHENE	1600	7200	NA	--	--	--	64	--	67	--	52	0.72 J	21
VINYL CHLORIDE	90	4000	NA	--	--	--	--	--	1.9 J	--	0.89 J	--	1.9 J

Table 4-4

Summary of Positive Detects for Soil Samples
Supplemental Site Characterization
Greater Strawberry Point, Martin State Airport, Middle River, Maryland

LOCATION	MDE Residential Soil Criteria	MDE Non-Residential Soil Criteria	Eastern Maryland Anticipated Typical Concentration	GSP-SB-152		GSP-SB-153		GSP-SB-154		GSP-SB-155	
SAMPLE ID				GSP-SB-152-10	GSP-SB-152-28	GSP-SB-153-02	GSP-SB-153-24	GSP-SB-154-02	GSP-SB-154-16	GSP-SB-155-02	GSP-SB-155-10
SAMPLE DATE				20120926	20120926	20120925	20120925	20120925	20120925	20120925	20120925
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SS	SB	SS	SB	SS	SB
TOP DEPTH				8	26	0	22	0	14	0	8
BOTTOM DEPTH				10	28	2	24	2	16	2	10
METALS (MG/KG)											
ANTIMONY	3.1	41	NA	--	--	--	--	--	--	--	--
ARSENIC	0.43	1.9	3.6	0.84 J	0.66 J	3.5	0.48 J	1 J	0.89 J	3	0.71 J
BARIUM	1600	20000	NA	2.4 J	7.4 J	18 J	2 J	11 J	2.9 J	100	7.7 J
BERYLLIUM	16	200	NA	--	0.059 J	0.19 J	--	0.15 J	0.045 J	1.4	--
CADMIUM	3.9	51	NA	--	--	0.084 J	--	0.041 J	--	0.22 J	--
CHROMIUM	23	310	28	2.2	6.1	9.6	2.8	4.7	10	12	6
COBALT	NA	NA	NA	--	0.53 J	1.2	--	0.62 J	0.18 J	2.2	0.25 J
COPPER	310	4100	NA	1.1 J	3.1	5.4	--	3.3	1.9 J	8.7	2.3 J
LEAD	400	1000	NA	0.73 J	2.3	9.9	0.91 L	5.9	1.1 L	15	1.9 L
MERCURY	2.3	31	NA	--	0.038 J	0.05 J	--	0.065 J	--	0.67	0.13 K
MOLYBDENUM	NA	NA	NA	--	--	0.3 J	--	--	--	--	0.29 J
NICKEL	160	2000	NA	--	0.85 J	2.2 J	--	1.5 J	0.26 J	11	0.88 J
SELENIUM	39	510	NA	--	--	--	--	--	--	1 J	--
SILVER	39	510	NA	--	--	--	--	--	--	0.13 J	--
THALLIUM	0.55	7.2	3.9	--	--	--	--	--	--	--	--
VANADIUM	7.8	100	30	3.3	5.2	25	4.3	7.5	15	27	5.9
ZINC	2300	31000	NA	--	2.2 J	25	--	10	1.3 J	51	3.3 J
PETROLEUM HYDROCARBONS (MG/KG)											
TPH (C10-C32)	230	620	NA	--	--	33	--	98	--	88	28
PETROLEUM HYDROCARBONS (UG/KG)											
TPH (C06-C10)	230000	620000	NA	62 B	--	--	--	--	--	--	58 B
SEMIVOLATILES (UG/KG)											
1,1-BIPHENYL	NA	NA	NA	--	--	--	--	--	--	--	--
2-METHYLNAPHTHALENE	31000	410000	NA	--	--	--	--	--	--	40	--
ACENAPHTHENE	470000	6100000	NA	--	--	11	--	--	--	41	--
ACENAPHTHYLENE	470000	6100000	NA	--	--	--	--	--	--	110	--
ANTHRACENE	2300000	31000000	NA	--	--	27	--	22	--	230	--
BAP EQUIVALENT-HALFND	22	390	NA	--	--	200	--	300	--	1000	26
BAP EQUIVALENT-POS	22	390	NA	--	--	200	--	300	--	1000	24
BENZALDEHYDE	NA	NA	NA	--	--	44 J	--	19 J	--	--	--
BENZO(A)ANTHRACENE	220	3900	NA	--	--	140	--	160	--	650	18
BENZO(A)PYRENE	22	390	NA	--	--	150	--	210	--	710	19
BENZO(B)FLUORANTHENE	220	3900	NA	--	--	220	--	310	--	720	22
BENZO(G,H,I)PERYLENE	230000	3100000	NA	--	--	96	--	160	--	520	14
BENZO(K)FLUORANTHENE	2200	39000	NA	--	--	89	--	110	--	420	16
BIS(2-ETHYLHEXYL)PHTHALATE	46000	200000	NA	--	--	43 J	--	47 J	--	83	26 J
BUTYL BENZYL PHTHALATE	NA	NA	NA	--	--	--	--	--	--	--	--
CAPROLACTAM	NA	NA	NA	--	--	--	--	--	--	--	--
CARBAZOLE	32000	140000	NA	--	--	--	--	--	--	--	--
CHRYSENE	22000	390000	NA	--	--	170	--	230	--	790	22
DIBENZO(A,H)ANTHRACENE	22	390	NA	--	--	--	--	30	--	130	--
DIBENZOFURAN	7800	100000	NA	--	--	--	--	--	--	14 J	--
DIMETHYL PHTHALATE	NA	NA	NA	--	--	--	--	--	--	--	--
DI-N-BUTYL PHTHALATE	780000	10000000	NA	--	--	46 J	--	27 J	--	--	--
FLUORANTHENE	310000	4100000	NA	--	--	270	--	260	--	1000	30
FLUORENE	310000	4100000	NA	--	--	--	--	--	--	61	--
INDENO(1,2,3-CD)PYRENE	220	3900	NA	--	--	85	--	140	--	420	10
NAPHTHALENE	160000	2000000	NA	--	--	--	--	--	--	60	--
PHENANTHRENE	2300000	31000000	NA	--	--	94	--	84	--	610	17
PYRENE	230000	3100000	NA	--	--	240	--	230	--	1300	32

Table 4-4

Summary of Positive Detects for Soil Samples
Supplemental Site Characterization
Greater Strawberry Point, Martin State Airport, Middle River, Maryland

LOCATION	MDE Residential Soil Criteria	MDE Non-Residential Soil Criteria	Eastern Maryland Anticipated Typical Concentration	GSP-SB-152		GSP-SB-153		GSP-SB-154		GSP-SB-155	
SAMPLE ID				GSP-SB-152-10	GSP-SB-152-28	GSP-SB-153-02	GSP-SB-153-24	GSP-SB-154-02	GSP-SB-154-16	GSP-SB-155-02	GSP-SB-155-10
SAMPLE DATE				20120926	20120926	20120925	20120925	20120925	20120925	20120925	20120925
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SS	SB	SS	SB	SS	SB
TOP DEPTH				8	26	0	22	0	14	0	8
BOTTOM DEPTH				10	28	2	24	2	16	2	10
TCLP METALS (MG/L)											
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)											
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)											
1,1-DICHLOROETHENE	390000	5100000	NA	--	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	--	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	78000	1000000	NA	--	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	--	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	7000	31000	NA	--	1.5 J	--	0.65 J	--	1.4 J	--	--
1,3-DICHLOROBENZENE	23000	310000	NA	--	--	--	--	--	--	--	--
2-BUTANONE	4700000	61000000	NA	--	2 J	--	--	--	--	--	--
4-ISOPROPYLTOLUENE	NA	NA	NA	--	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	NA	NA	NA	--	--	--	--	--	--	--	--
ACETONE	7000000	92000000	NA	--	48	12 B	23 B	--	6.1 B	--	15 B
BENZENE	12000	52000	NA	--	--	--	--	--	--	--	--
CARBON DISULFIDE	780000	10000000	NA	--	--	--	--	--	--	--	--
CHLOROBENZENE	160000	2000000	NA	--	--	--	--	--	--	--	--
CHLOROFORM	78000	1000000	NA	--	--	--	--	--	--	--	--
CHLOROMETHANE	NA	NA	NA	--	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	78000	1000000	NA	--	1.2 J	--	1.4 J	--	6.1	--	--
ETHYLBENZENE	780000	10000000	NA	--	--	--	--	--	--	--	--
M+P-XYLENES	NA	NA	NA	--	--	--	--	--	--	--	--
NAPHTHALENE	160000	2000000	NA	--	--	0.22 B	1.8 B	0.18 B	2.1 B	0.55 B	0.18 B
STYRENE	1600000	20000000	NA	--	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	--	--	--	--	--	--	--	--
TETRACHLOROETHENE	1200	5300	NA	--	--	--	--	--	--	--	--
TOLUENE	630000	8200000	NA	0.91 J	1 J	0.8 J	0.53 J	0.4 J	0.79 J	0.87 J	0.79 J
TRANS-1,2-DICHLOROETHENE	160000	2000000	NA	--	--	--	--	--	--	--	--
TRICHLOROETHENE	1600	7200	NA	--	5.2	--	3.8	--	39	--	0.4 J
VINYL CHLORIDE	90	4000	NA	--	--	--	0.86 J	--	--	--	--

B - Laboratory blank contamination.
L - Positive result is considered biased low as a result of technical noncompliance.
K - Positive result is considered biased high as a result of technical noncompliance.
J - Positive result is considered estimated as a result of technical noncompliance.
ug/kg - microgram per kilogram
mg/kg - millgram per kilogram
NA-Not Applicable/Analyzed
-- - Nondetected
Gray shaded values exceed one of the MDE criteria.
Black shaded values exceed both MDE criteria.
Asterisk next to reported metals values indicates concentrations exceed Maryland ATC criteria.
ATC - Anticipated Typical Concentration for Soils of Eastern Maryland.

Table 4-5

Statistical Summary of Groundwater Chemical Results
Greater Strawberry Point 2012 Supplemental Investigation
Martin State Airport, Middle River, Maryland

Chemical	Frequency of Detection		Minimum Non Detected	Maximum Non Detected	Minimum Detected	Maximum Detected	Location of Maximum Detected	Mean of All Samples	Mean of Positive Samples	Standard Deviation
	Number	Percent								
Metals (µg/L)										
BARIUM	19/20	95	33	33	9.9 K	1400	GSP-MW-11	147.120	153.995	301.191
COBALT	19/20	95	0.21	0.21	0.56 J	100	GSP-MW-19	17.646	18.569	25.846
NICKEL	19/20	95	0.92	0.92	0.54 J	180	GSP-MW-19	19.787	20.804	39.795
ARSENIC	17/20	85	0.4	0.4	0.44 J	22	GSP-MW-11	3.293	3.839	4.947
SELENIUM	12/20	60	0.57	0.57	0.59 J	14	GSP-MW-06	1.778	2.773	3.074
VANADIUM	10/20	50	0.44	0.44	0.55 J	23 L	GSP-MW-13	2.792	5.364	5.386
ANTIMONY	9/20	45	0.13	0.41	0.15 J	2.2	GSP-MW-12	0.326	0.598	0.496
BERYLLIUM	8/20	40	0.2	0.2	0.22 J	1.7	GSP-MW-16	0.346	0.715	0.463
COPPER	8/20	40	0.5	3.5	3.4 K	32 K	GSP-MW-16	4.314	9.775	7.685
CHROMIUM	7/20	35	0.71	0.71	0.86 J	17	GSP-MW-13	1.618	3.964	3.725
LEAD	7/20	35	0.18	0.53	0.2 J	7.4	GSP-MW-13	0.566	1.394	1.620
ZINC	7/20	35	2.3	40	28	2100	GSP-MW-19	185.965	515.000	489.406
CADMIUM	5/20	25	0.13	0.45	0.13 J	1.7	GSP-MW-18	0.222	0.648	0.394
MOLYBDENUM	5/20	25	0.093	2.7	1.3 J	5.8 J	GSP-MW-13	1.194	3.780	1.791
MERCURY	3/20	15	0.12	0.19	0.12 J	0.31 J	GSP-MW-10	0.083	0.183	0.057
Metals, filtered (µg/L)										
BARIUM	19/20	95	4.1	4.1	9.5 K	1400	GSP-MW-11	144.323	151.811	301.585
NICKEL	19/20	95	1.3	1.3	0.8 J	120	GSP-MW-19	16.963	17.821	27.705
COBALT	18/20	90	0.072	0.31	0.45 J	80	GSP-MW-18	16.397	18.208	22.014
ARSENIC	16/20	80	0.4	0.4	0.48 J	21	GSP-MW-11	2.882	3.552	4.708
SELENIUM	11/20	55	0.57	0.57	0.58 J	13	GSP-MW-06	1.714	2.884	2.904
VANADIUM	9/20	45	0.44	0.44	0.71 J	6.5 J	GSP-MW-06	1.398	2.837	2.084
ANTIMONY	7/20	35	0.13	1.4	0.14 J	2.2	GSP-MW-12	0.315	0.633	0.494
ZINC	7/20	35	2.3	41	25	1400	GSP-MW-19	148.093	408.571	350.093
BERYLLIUM	6/20	30	0.2	1	0.25 J	1.7	GSP-MW-16	0.347	0.855	0.470
CHROMIUM	6/20	30	0.71	0.71	0.78 J	3.4 L	GSP-MW-20	0.670	1.403	0.726

Table 4-5

Statistical Summary of Groundwater Chemical Results
Greater Strawberry Point 2012 Supplemental Investigation
Martin State Airport, Middle River, Maryland

Chemical	Frequency of Detection		Minimum Non Detected	Maximum Non Detected	Minimum Detected	Maximum Detected	Location of Maximum Detected	Mean of All Samples	Mean of Positive Samples	Standard Deviation
	Number	Percent								
COPPER	6/20	30	0.34	3.3	3.8 K	30 K	GSP-MW-16	3.683	10.900	7.384
MERCURY	5/20	25	0.12	0.12	0.12 J	0.19 J	GSP-MW-10	0.080	0.138	0.037
MOLYBDENUM	5/20	25	0.093	2.2	1.3 J	6.2 J	GSP-MW-14	1.235	4.120	2.006
CADMIUM	2/20	10	0.13	0.58	0.31 J	1.8	GSP-MW-18	0.188	1.055	0.387
LEAD	2/20	10	0.18	0.48	0.24 J	0.61 J	GSP-MW-19	0.131	0.425	0.122
Miscellaneous (µg/L)										
HEXAVALENT CHROMIUM	3/8	38	0.02	0.02	0.097	0.118	GSP-MW-06	0.047	0.108	0.051
PERCHLORATE	2/8	25	0.082	0.082	0.16 J	0.45 J	GSP-MW-08	0.107	0.305	0.145
Petroleum Hydrocarbons (µg/L)										
TPH (C10-C32)	8/20	40	230	250	240 J	1200	GSP-MW-05	292.500	556.250	299.616
Semivolatile Organics (µg/L)										
NAPHTHALENE	4/12	33	0.095	0.15	0.097 J	3.3	GSP-MW-18	0.469	1.299	0.973
BIS(2-ETHYLHEXYL)PHTHALA	3/12	25	0.76	0.8	2.5 J	10	GSP-MW-19	1.541	5.000	2.786
CAPROLACTAM	2/12	17	0.76	1.2	1.1 J	4 J	GSP-MW-18	0.765	2.550	1.040
2,4-DINITROTOLUENE	1/12	8	0.26	0.41	0.85 J	0.85 J	GSP-MW-20	0.200	0.850	0.206
2,6-DINITROTOLUENE	1/12	8	0.76	1.2	0.93 J	0.93 J	GSP-MW-20	0.463	0.930	0.165
2-METHYLNAPHTHALENE	1/12	8	0.095	0.15	0.11 J	0.11 J	GSP-MW-11	0.057	0.110	0.019
ACENAPHTHENE	1/12	8	0.095	0.15	9.1	9.1	GSP-MW-11	0.806	9.100	2.612
ANTHRACENE	1/12	8	0.095	0.15	0.57	0.57	GSP-MW-11	0.095	0.570	0.150
DIBENZOFURAN	1/12	8	0.095	0.15	1.8	1.8	GSP-MW-11	0.198	1.800	0.505
FLUORANTHENE	1/12	8	0.095	0.15	0.27	0.27	GSP-MW-11	0.070	0.270	0.063
FLUORENE	1/12	8	0.095	0.15	5.9	5.9	GSP-MW-11	0.540	5.900	1.688
PHENANTHRENE	1/12	8	0.095	0.15	1.1	1.1	GSP-MW-11	0.140	1.100	0.303

Table 4-5

Statistical Summary of Groundwater Chemical Results
Greater Strawberry Point 2012 Supplemental Investigation
Martin State Airport, Middle River, Maryland

Chemical	Frequency of Detection		Minimum Non Detected	Maximum Non Detected	Minimum Detected	Maximum Detected	Location of Maximum Detected	Mean of All Samples	Mean of Positive Samples	Standard Deviation
	Number	Percent								
Volatile Organic Compounds (µg/L)										
TRICHLOROETHENE	9/20	45	0.17	0.17	0.21 J	170	GSP-MW-18	15.533	34.413	43.840
CIS-1,2-DICHLOROETHENE	8/20	40	0.17	0.17	0.21 J	34	GSP-MW-18	2.335	5.710	7.575
ACETONE	7/20	35	1.1	7.3	1.6 J	16	GSP-MW-20	2.375	4.443	3.419
CHLOROFORM	6/20	30	0.16	1.1	0.33 J	0.68 J	GSP-MW-05	0.220	0.427	0.192
TOLUENE	6/20	30	0.13	0.52	0.14 J	0.99 J	GSP-MW-20	0.211	0.512	0.279
BENZENE	4/20	20	0.13	0.87	0.14 J	4.1	GSP-MW-10	0.309	1.143	0.897
CARBON DISULFIDE	4/20	20	0.13	0.87	0.13 J	0.3 J	GSP-MW-19	0.126	0.230	0.109
CHLOROMETHANE	3/20	15	0.3	2	0.51 J	0.67 J	GSP-MW-19	0.279	0.573	0.246
1,2-DICHLOROETHANE	2/20	10	0.22	0.88	0.41 J	13	GSP-MW-18	0.786	6.705	2.877
2-BUTANONE	2/20	10	0.57	3.8	0.68 J	1.1 J	GSP-MW-20	0.470	0.890	0.429
BROMOMETHANE	2/20	10	0.41	2.7	0.48 J	0.72 J	GSP-MW-19	0.332	0.600	0.298
CARBON TETRACHLORIDE	2/20	10	0.13	0.87	0.71 J	1.9	GSP-MW-05	0.217	1.305	0.429
METHYL TERT-BUTYL ETHER	2/20	10	0.17	1.1	0.32 J	3 J	GSP-MW-16	0.279	1.660	0.652
Volatile Organic Compounds (µg/L), continued										
NAPHTHALENE	2/20	10	0.24	1.6	0.47 J	3	GSP-MW-11	0.358	1.735	0.653
VINYL CHLORIDE	2/20	10	0.22	0.88	0.53 J	4.7 J	GSP-MW-18	0.377	2.615	1.024
ETHYLBENZENE	1/20	5	0.17	1.1	0.19 J	0.19 J	GSP-MW-20	0.126	0.190	0.117
TERT-AMYL METHYL ETHER	1/20	5	0.067	0.45	0.27 J	0.27 J	GSP-MW-16	0.060	0.270	0.068
TIC Volatile Organic Compounds (µg/L)										
1-HEXANOL, 2-ETHYL-	1/1	100			6.3 NJ	6.3 NJ	GSP-MW-14	6.300	6.300	
1-PENTENE	1/1	100			1.1 NJ	1.1 NJ	GSP-MW-09	1.100	1.100	
CYCLOHEXANE	1/1	100			0.21 NJ	0.21 NJ	GSP-MW-10	0.210	0.210	
N-BUTANOL	1/1	100			27 NJ	27 NJ	GSP-MW-14	27.000	27.000	

Table 4-5

Statistical Summary of Groundwater Chemical Results
Greater Strawberry Point 2012 Supplemental Investigation
Martin State Airport, Middle River, Maryland

Footnotes:
For non-detects, 1/2 sample quantitation limit is used as a proxy concentration.
1/2 the dtection limit was used for B qualified data.

Associated Samples:

GSP-MW01-042612	GSP-MW06-043012	GSP-MW13-100812
GSP-MW1-042612	GSP-MW6-043012	GSP-MW14-101112
GSP-MW02-042612	GSP-MW07-043012	GSP-MW15-100812
GSP-MW2-042612	GSP-MW7-042712	GSP-MW16-101012
GSP-MW03-042612	GSP-MW08-043012	GSP-MW17-101012
GSP-MW3-042612	GSP-MW8-042712	GSP-MW18-101012
GSP-MW04-043012	GSP-MW09-100512	GSP-MW19-101112
GSP-MW4-042712	GSP-MW10-100912	GSP-MW20-101112
GSP-MW05-043012	GSP-MW11-100512	
GSP-MW5-043012	GSP-MW12-100812	

µg/L- micrograms per liter
J- estimated concentration
K- value biased high
L- value biased low
NJ- chemical presumed present; concentration estmated
TIC- tentatvely identified compounds

Table 4-6
Summary of Positive Detections in Groundwater Samples
Greater Strawberry Point 2012 Supplemental Investigation
Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID	MDE GROUNDWATER STANDARD	GSP-MW-01 GSP-MW1-042612	GSP-MW-02 GSP-MW2-042612	GSP-MW-03 GSP-MW3-042612	GSP-MW-04 GSP-MW4-042712	GSP-MW-05 GSP-MW5-043012	GSP-MW-06 GSP-MW6-043012	GSP-MW-07 GSP-MW7-042712
SAMPLE DATE		20120426	20120426	20120426	20120427	20120430	20120430	20120427
MATRIX		GW	GW	GW	GW	GW	GW	GW
REC AREA		REC #11	REC #11	REC#11	REC #11	REC #10	REC #10	REC #9
Metals, dissolved (µg/L)								
ANTIMONY	6	0.19 B	--	--	--	--	0.76 J	0.28 B
ARSENIC	10	5.6	0.92 J	5.5	6.4	3.5 J	2.1 J	1.4 J
BARIUM	2000	76	9.9 K	9.5 K	27	21	40	45
BERYLLIUM	4	--	--	--	--	1.4	--	--
CADMIUM	5	--	--	--	--	0.31 J	--	--
CHROMIUM	100	0.82 J	--	--	--	0.78 J	--	--
COBALT	NA	9.4	12	16	11	29	0.45 J	6.3
COPPER	1300	1 B	1.7 B	0.67 B	0.5 B	0.34 B	4.1	1.5 B
LEAD	15	--	--	--	--	--	--	--
MERCURY	2	--	--	--	--	--	--	--
MOLYBDENUM	NA	2.2 B	--	0.25 B	0.14 B	0.35 B	2.2 B	0.76 B
NICKEL	73	8.9	12	15	1.1 J	19	1.2 J	7.2
SELENIUM	50	0.72 J	--	--	0.58 J	2.7 J	13	--
VANADIUM	3.7	1 J	--	--	--	1.8 J	6.5 J	0.71 J
ZINC	5000	25 B	27 B	51	--	25	460	760
Metals, total (µg/L)								
ANTIMONY	6	0.18 B	--	0.27 B	--	--	0.92 J	0.41 B
ARSENIC	10	5.7	0.99 J	6	6.5	3.4 J	4 J	1.4 J
BARIUM	2000	73	10	9.9 K	27	21	42	44
BERYLLIUM	4	--	--	--	--	1.3	--	0.22 J
CADMIUM	5	--	--	--	--	0.32 J	--	--
CHROMIUM	100	0.86 J	--	--	--	2.2	--	--
COBALT	NA	9.3	12	17	11	26	0.56 J	6.4
COPPER	1300	1.6 B	1.3 B	1.8 B	0.59 B	4.9	5	1.9 B
LEAD	15	--	--	--	--	0.39 J	--	0.28 B
MERCURY	2	--	--	--	--	--	--	--
MOLYBDENUM	NA	2.1 B	0.13 B	0.84 B	0.26 B	0.34 B	2.7 B	1.2 B
NICKEL	73	8.6	12	16	0.94 J	17	1.3 J	7.1
SELENIUM	50	0.59 J	--	--	--	2.2 J	14	0.83 J
VANADIUM	3.7	0.8 J	--	0.55 J	--	4.4 J	8.5 J	0.92 J
ZINC	5000	25 B	27 B	51	--	28	530	730

Table 4-6
Summary of Positive Detections in Groundwater Samples
Greater Strawberry Point 2012 Supplemental Investigation
Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID	MDE GROUNDWATER STANDARD	GSP-MW-01 GSP-MW1-042612	GSP-MW-02 GSP-MW2-042612	GSP-MW-03 GSP-MW3-042612	GSP-MW-04 GSP-MW4-042712	GSP-MW-05 GSP-MW5-043012	GSP-MW-06 GSP-MW6-043012	GSP-MW-07 GSP-MW7-042712
SAMPLE DATE		20120426	20120426	20120426	20120427	20120430	20120430	20120427
MATRIX		GW	GW	GW	GW	GW	GW	GW
REC AREA		REC #11	REC #11	REC#11	REC #11	REC #10	REC #10	REC #9
Miscellaneous (µg/L)								
HEXAVALENT CHROMIUM	100	--	--	--	--	--	0.118	0.11
PERCHLORATE	2.6	--	--	--	--	0.16 J	--	--
Petroleum Hydrocarbons (µg/L)								
TPH-DRO (C10-C32)	47	240 J	--	--	330 J	1200	490	--
Semivolatile Organic Compounds (µg/L)								
2,4-DINITROTOLUENE	7.3	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	3.7	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	2.4	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	37	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	180	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	6	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	3.7	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	150	NA	NA	NA	NA	NA	NA	NA
FLUORENE	24	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.65	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	180	NA	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED								
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHANE	5	--	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--	--
ACETONE	550	--	--	--	1.6 J	--	--	--
BENZENE	5	--	--	--	--	--	--	--
BROMOMETHANE	0.85	--	--	--	--	--	--	--
CARBON DISULFIDE	100	--	--	--	--	0.13 J	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	1.9	--	--
CHLOROFORM	80	--	--	--	--	0.68 J	--	--

Table 4-6
Summary of Positive Detections in Groundwater Samples
Greater Strawberry Point 2012 Supplemental Investigation
Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE MATRIX REC AREA	MDE GROUNDWATER STANDARD	GSP-MW-01 GSP-MW1-042612 20120426 GW REC #11	GSP-MW-02 GSP-MW2-042612 20120426 GW REC #11	GSP-MW-03 GSP-MW3-042612 20120426 GW REC#11	GSP-MW-04 GSP-MW4-042712 20120427 GW REC #11	GSP-MW-05 GSP-MW5-043012 20120430 GW REC #10	GSP-MW-06 GSP-MW6-043012 20120430 GW REC #10	GSP-MW-07 GSP-MW7-042712 20120427 GW REC #9
CHLOROMETHANE	19	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	70	0.27 J	--	--	1.7	--	--	1.4 J
ETHYLBENZENE	700	--	--	--	--	--	--	--
METHYL TERT-BUTYL ETHER	20	--	--	--	--	--	--	--
NAPHTHALENE	0.65	--	--	--	--	--	--	--
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	1000	--	--	--	--	--	--	--
TRICHLOROETHENE	5	0.81 J	--	--	5.1	--	--	110
VINYL CHLORIDE	2	--	--	--	0.53 J	--	--	--

Table 4-6
Summary of Positive Detections in Groundwater Samples
Greater Strawberry Point 2012 Supplemental Investigation
Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID	MDE GROUNDWATER STANDARD	GSP-MW-08 GSP-MW8-042712	GSP-MW-09 GSP-MW09-100512	GSP-MW-10 GSP-MW10-100912	GSP-MW-11 GSP-MW11-100512	GSP-MW-12 GSP-MW12-100812	GSP-MW-13 GSP-MW13-100812	GSP-MW-14 GSP-MW14-101112
SAMPLE DATE		20120427	20121005	20121009	20121005	20121008	20121008	20121011
MATRIX		GW	GW	GW	GW	GW	GW	GW
REC AREA		REC #9	REC #8	REC #8	REC #8	REC #8	REC #7	REC #7
Metals, dissolved (µg/L)								
ANTIMONY	6	--	0.24 B	0.2 J	1.4 B	2.2	0.6 B	0.59 J
ARSENIC	10	0.58 J	0.62 J	--	21	1.3 J	1.2 J	1.3 J
BARIUM	2000	49	100	110	1400	140	4.1 B	77
BERYLLIUM	4	0.36 J	--	0.42 J	--	--	--	--
CADMIUM	5	0.2 B	--	0.22 B	--	--	--	--
CHROMIUM	100	--	--	--	1.7 J	--	--	--
COBALT	NA	12	3.2	18	2.6	1	0.072 B	0.31 B
COPPER	1300	3.8 K	0.66 B	5.1 K	1.2 B	1.8 B	1.2 B	0.75 B
LEAD	15	0.48 B	--	--	--	--	--	--
MERCURY	2	--	--	0.19 J	--	--	--	0.12 J
MOLYBDENUM	NA	0.15 B	1.5 B	--	4.8 J	1.3 J	5.9 J	6.2 J
NICKEL	73	16	2.3 K	19	2.8 K	1.7 J	1.3 B	0.8 J
SELENIUM	50	4.7 J	--	--	0.72 J	--	2.6 J	--
VANADIUM	3.7	--	--	--	5.2 J	6.4 J	0.83 J	--
ZINC	5000	72	5.5 B	33 B	6.1 B	7.6 B	2.6 B	6.2 B
Metals, total (µg/L)								
ANTIMONY	6	0.13 B	0.36 B	0.31 J	0.27 B	2.2	0.73 J	0.36 J
ARSENIC	10	0.85 J	0.84 J	--	22	1.3 J	5.4 L	0.44 J
BARIUM	2000	48	100	110	1400	140	33 B	80
BERYLLIUM	4	0.35 J	--	0.45 J	--	--	0.26 J	--
CADMIUM	5	--	--	0.22 B	0.22 J	--	--	--
CHROMIUM	100	--	--	--	2.3 L	--	17	--
COBALT	NA	11	3.3	18	2.8	0.95 J	1.9	0.21 B
COPPER	1300	3.4 K	0.54 B	3.5 B	0.92 B	1.4 B	6.7	0.81 B
LEAD	15	0.53 B	--	0.2 J	0.5 B	--	7.4	--
MERCURY	2	--	0.19 B	0.31 J	--	--	0.15 B	--
MOLYBDENUM	NA	0.24 B	1.6 B	--	4.6 J	1.3 J	5.8 J	4.8 J
NICKEL	73	15	2.1 K	19	2.8 K	0.92 B	5.6	0.54 J
SELENIUM	50	4.4 J	--	--	1.2 J	--	2.6 J	0.65 J
VANADIUM	3.7	--	--	--	6.1 J	6.5 J	23 L	--
ZINC	5000	77	17 B	32 B	5.6 B	5.4 B	29 B	3.9 B

Table 4-6
Summary of Positive Detections in Groundwater Samples
Greater Strawberry Point 2012 Supplemental Investigation
Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID	MDE GROUNDWATER STANDARD	GSP-MW-08 GSP-MW8-042712	GSP-MW-09 GSP-MW09-100512	GSP-MW-10 GSP-MW10-100912	GSP-MW-11 GSP-MW11-100512	GSP-MW-12 GSP-MW12-100812	GSP-MW-13 GSP-MW13-100812	GSP-MW-14 GSP-MW14-101112
SAMPLE DATE		20120427	20121005	20121009	20121005	20121008	20121008	20121011
MATRIX		GW	GW	GW	GW	GW	GW	GW
REC AREA		REC #9	REC #8	REC #8	REC #8	REC #8	REC #7	REC #7
Miscellaneous (µg/L)								
HEXAVALENT CHROMIUM	100	0.097	NA	NA	NA	NA	NA	NA
PERCHLORATE	2.6	0.45 J	NA	NA	NA	NA	NA	NA
Petroleum Hydrocarbons (µg/L)								
TPH-DRO (C10-C32)	47	--	--	--	690	--	--	270 J
Semivolatile Organic Compounds (µg/L)								
2,4-DINITROTOLUENE	7.3	NA	--	--	--	--	--	--
2,6-DINITROTOLUENE	3.7	NA	--	--	--	--	--	--
2-METHYLNAPHTHALENE	2.4	NA	--	--	0.11 J	--	--	--
ACENAPHTHENE	37	NA	--	--	9.1	--	--	--
ANTHRACENE	180	NA	--	--	0.57	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	6	NA	--	2.5	--	--	--	2.5 J
CAPROLACTAM	NA	NA	--	--	--	--	--	--
DIBENZOFURAN	3.7	NA	--	--	1.8	--	--	--
FLUORANTHENE	150	NA	--	--	0.27	--	--	--
FLUORENE	24	NA	--	--	5.9	--	--	--
NAPHTHALENE	0.65	NA	--	--	1.4	--	--	--
PHENANTHRENE	180	NA	--	--	1.1	--	--	--
TENTATIVELY IDENTIFIED								
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	6.3 NJ
1-PENTENE	NA	NA	1.1 NJ	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	0.21 NJ	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	27 NJ
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHANE	5	--	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--	0.68 J
ACETONE	550	--	5.9 B	3.8 J	5.3 B	--	--	1.9 J
BENZENE	5	--	--	4.1	0.14 J	--	--	0.14 J
BROMOMETHANE	0.85	--	--	--	--	--	--	0.48 J
CARBON DISULFIDE	100	--	--	--	--	--	--	0.26 J
CARBON TETRACHLORIDE	5	--	--	--	--	--	--	--
CHLOROFORM	80	--	--	0.47 J	--	0.33 J	--	0.36 J

Table 4-6
Summary of Positive Detections in Groundwater Samples
Greater Strawberry Point 2012 Supplemental Investigation
Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE MATRIX REC AREA	MDE GROUNDWATER STANDARD	GSP-MW-08 GSP-MW8-042712 20120427 GW REC #9	GSP-MW-09 GSP-MW09-100512 20121005 GW REC #8	GSP-MW-10 GSP-MW10-100912 20121009 GW REC #8	GSP-MW-11 GSP-MW11-100512 20121005 GW REC #8	GSP-MW-12 GSP-MW12-100812 20121008 GW REC #8	GSP-MW-13 GSP-MW13-100812 20121008 GW REC #7	GSP-MW-14 GSP-MW14-101112 20121011 GW REC #7
CHLOROMETHANE	19	--	--	--	--	--	--	0.54 J
CIS-1,2-DICHLOROETHENE	70	--	--	1.1	--	0.21 J	--	--
ETHYLBENZENE	700	--	--	--	--	--	--	--
METHYL TERT-BUTYL ETHER	20	--	--	0.32 J	--	--	--	--
NAPHTHALENE	0.65	--	--	--	3	--	--	--
TERT-AMYL METHYL ETHER	NA	NA	--	--	--	--	--	--
TOLUENE	1000	--	0.21 B	0.25 J	--	--	--	0.14 J
TRICHLOROETHENE	5	--	--	0.21 J	--	1.4	--	0.3 J
VINYL CHLORIDE	2	--	--	--	--	--	--	--

Table 4-6
Summary of Positive Detections in Groundwater Samples
Greater Strawberry Point 2012 Supplemental Investigation
Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID	MDE GROUNDWATER STANDARD	GSP-MW-15 GSP-MW15-100812	GSP-MW-16 GSP-MW16-101012	GSP-MW-17 GSP-MW17-101012	GSP-MW-18 GSP-MW18-101012	GSP-MW-19 GSP-MW19-101112	GSP-MW-20 GSP-MW20-101112
SAMPLE DATE		20121008	20121010	20121010	20121010	20121011	20121011
MATRIX		GW	GW	GW	GW	GW	GW
REC AREA		REC #7	REC #7	REC #11	REC #11	REC #11	REC #11
Metals, dissolved (µg/L)							
ANTIMONY	6	--	--	--	0.14 J	0.22 J	0.32 J
ARSENIC	10	--	0.73 J	--	--	0.48 J	4.2 J
BARIUM	2000	43	170	57	210	130	170
BERYLLIUM	4	--	1.7	--	1	0.25 J	--
CADMIUM	5	--	0.43 B	0.17 B	1.8	0.58 B	--
CHROMIUM	100	--	0.8 J	0.92 J	--	--	3.4 L
COBALT	NA	4.8	30	14	80	71	7
COPPER	1300	1.1 B	30 K	4.4 K	18 K	3.3 B	0.81 B
LEAD	15	--	0.24 J	--	--	0.61 J	--
MERCURY	2	--	--	0.14 J	0.12 J	0.12 J	--
MOLYBDENUM	NA	--	--	--	--	--	2.4 J
NICKEL	73	6.1	19	20	60	120	6.5
SELENIUM	50	2.3 J	1.6 J	--	1.4 J	--	1.4 J
VANADIUM	3.7	--	0.99 J	--	--	--	2.1 J
ZINC	5000	7.4 B	41 B	23 B	92	1400	17 B
Metals, total (µg/L)							
ANTIMONY	6	--	--	0.15 J	0.18 J	0.17 J	0.36 J
ARSENIC	10	--	0.57 J	--	0.55 J	0.52 J	4.8 J
BARIUM	2000	43	170	58	200	170	180
BERYLLIUM	4	--	1.7	--	1.1	0.34 J	--
CADMIUM	5	0.13 J	0.45 B	0.18 B	1.7	0.87 J	--
CHROMIUM	100	--	--	0.92 J	--	0.87 J	3.6 L
COBALT	NA	4.9	30	14	77	100	6.7
COPPER	1300	0.5 B	32 K	4.2 K	18 K	4 K	1.3 B
LEAD	15	--	0.26 J	--	0.22 J	0.92 J	0.37 J
MERCURY	2	0.17 B	--	--	0.12 J	0.12 J	0.16 B
MOLYBDENUM	NA	--	--	--	--	--	2.4 J
NICKEL	73	5.6	19	20	57	180	5.7
SELENIUM	50	2.4 J	1.5 J	--	1.5 J	--	1.4 J
VANADIUM	3.7	--	0.87 J	--	--	--	2 J
ZINC	5000	5.4 B	40 B	21 B	89	2100	15 B

Table 4-6
Summary of Positive Detections in Groundwater Samples
Greater Strawberry Point 2012 Supplemental Investigation
Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID	MDE GROUNDWATER STANDARD	GSP-MW-15 GSP-MW15-100812	GSP-MW-16 GSP-MW16-101012	GSP-MW-17 GSP-MW17-101012	GSP-MW-18 GSP-MW18-101012	GSP-MW-19 GSP-MW19-101112	GSP-MW-20 GSP-MW20-101112
SAMPLE DATE		20121008	20121010	20121010	20121010	20121011	20121011
MATRIX		GW	GW	GW	GW	GW	GW
REC AREA		REC #7	REC #7	REC #11	REC #11	REC #11	REC #11
Miscellaneous (µg/L)							
HEXAVALENT CHROMIUM	100	NA	NA	NA	NA	NA	NA
PERCHLORATE	2.6	NA	NA	NA	NA	NA	NA
Petroleum Hydrocarbons (µg/L)							
TPH-DRO (C10-C32)	47	--	--	--	390 J	--	840
Semivolatile Organic Compounds (µg/L)							
2,4-DINITROTOLUENE	7.3	--	--	--	--	--	0.85 J
2,6-DINITROTOLUENE	3.7	--	--	--	--	--	0.93 J
2-METHYLNAPHTHALENE	2.4	--	--	--	--	--	--
ACENAPHTHENE	37	--	--	--	--	--	--
ANTHRACENE	180	--	--	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	6	--	--	--	--	10	--
CAPROLACTAM	NA	--	--	--	4 J	1.1 J	--
DIBENZOFURAN	3.7	--	--	--	--	--	--
FLUORANTHENE	150	--	--	--	--	--	--
FLUORENE	24	--	--	--	--	--	--
NAPHTHALENE	0.65	--	--	0.097 J	3.3	--	0.4
PHENANTHRENE	180	--	--	--	--	--	--
TENTATIVELY IDENTIFIED							
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (µg/L)							
1,2-DICHLOROETHANE	5	--	--	0.41 J	13	--	--
2-BUTANONE	700	--	--	--	--	--	1.1 J
ACETONE	550	2.5 J	--	3.5 J	--	1.8 J	16
BENZENE	5	--	0.19 J	--	--	--	--
BROMOMETHANE	0.85	--	--	--	--	0.72 J	--
CARBON DISULFIDE	100	--	--	--	--	0.3 J	0.23 J
CARBON TETRACHLORIDE	5	--	0.71 J	--	--	--	--
CHLOROFORM	80	--	--	0.33 J	--	0.39 J	--

Table 4-6
Summary of Positive Detections in Groundwater Samples
Greater Strawberry Point 2012 Supplemental Investigation
Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE MATRIX REC AREA	MDE GROUNDWATER STANDARD	GSP-MW-15 GSP-MW15-100812 20121008 GW REC #7	GSP-MW-16 GSP-MW16-101012 20121010 GW REC #7	GSP-MW-17 GSP-MW17-101012 20121010 GW REC #11	GSP-MW-18 GSP-MW18-101012 20121010 GW REC #11	GSP-MW-19 GSP-MW19-101112 20121011 GW REC #11	GSP-MW-20 GSP-MW20-101112 20121011 GW REC #11
CHLOROMETHANE	19	--	--	0.51 J	--	0.67 J	--
CIS-1,2-DICHLOROETHENE	70	--	6	1	34	--	--
ETHYLBENZENE	700	--	--	--	--	--	0.19 J
METHYL TERT-BUTYL ETHER	20	--	3 J	--	--	--	--
NAPHTHALENE	0.65	--	0.47 J	--	--	--	1.2 B
TERT-AMYL METHYL ETHER	NA	--	0.27 J	--	--	--	--
TOLUENE	1000	0.28 J	--	0.48 J	0.93 J	--	0.99 J
TRICHLOROETHENE	5	--	17	4.9	170	--	--
VINYL CHLORIDE	2	--	--	--	4.7 J	--	--

Notes:
-- =
µg/L - micrograms pe liter
B- analyte detected in blank
GW - groundwater
J - estimated concentration.
K- value biased high
L- vakue biased low
MDE - Maryland Department of the Environment
NA - not analyzed/not applicable
REC - recognized environmental condition
TPH-DRO - total petroleum hydrocarbons—diesel-range organics

Figure 4-1

Groundwater Elevation Contour Map, RECs #7 through #10- October 2012

LEGEND

- Groundwater Well
- Groundwater Elevation Contours
  Contour Interval = 1 Foot
- Inferred
- 2.98 Groundwater Elevation Feet: NAV 1988
- - - Level not used due to unrepresentive value
- 023 Building Number
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES Outfalls
- Sediment Basin
- MTN Tanks
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Land topographic contour line
  Contour line interval is 2 Feet
- tree/woods
- Electric Utilities
- REC #10 REC Number

Note:
Refer to Figure 2-2 for details of historic structures

NAVD= North American Vertical Datum
MSA = Martin State Airport
NPDES = National Pollutant and Discharge Elimination System
MTN = Main Terminal
REC = Recognized Environmental Condition
MH = Manhole

Strawberry Point
Middle River, Maryland

0 30 60 120 Feet

N

DATE MODIFIED: 1/4/13

CREATED BY: MP

TETRA TECH

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP Groundwater Elevation Contours October 2012.mxd)
1/4/2013 -- 3:08:42 PM

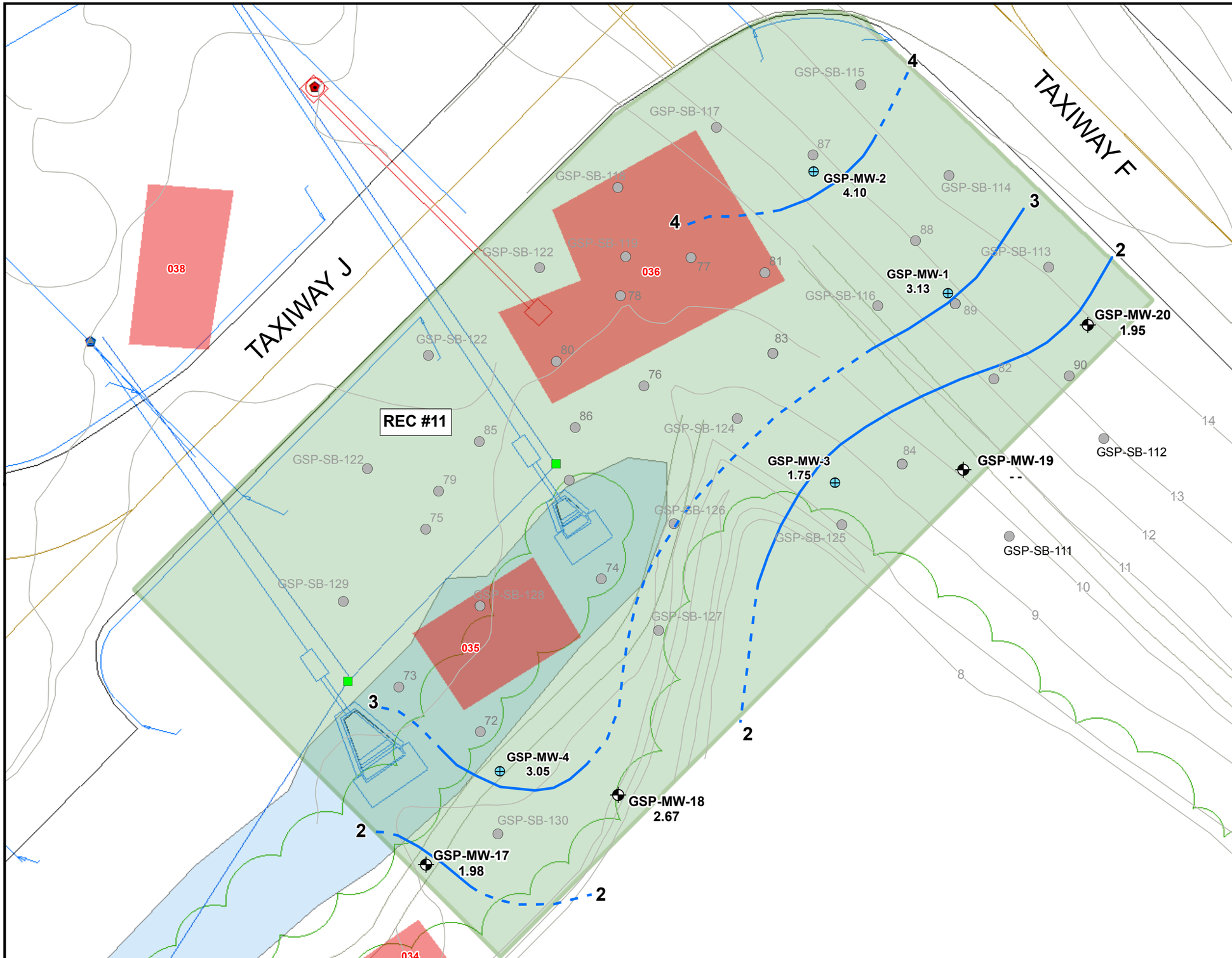


Figure 4-2

Groundwater Elevation Contour Map, REC #11- October 2012

Legend

- Monitoring Well Locations 2012
- Groundwater Elevation Contours, Contour Interval = 1 Foot (October 23-26, 2012)
- Inferred
- 3.43 Groundwater Elevation Feet: NAV 1988
- - - Level not used due to unrepresentive value
- 023 Building Number
- Existing Monitoring Well (2011)
- Previous Soil Boring (SB) - 2010-2011
- MSA Inlets
- MSA Manholes
- NPDES Outfalls
- Sediment Basin
- Historic Structures
- REC
- Current Structures
- Trench Drain
- Sanitary MH
- MTN Tanks
- MTN WellsPipes
- Sanitary Pipes
- Storm Pipes
- Stormwater Holding Area
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Land topographic contour line Contour line interval is 1 Foot
- tree/woods
- Electric Utilities
- REC #10 REC Number

Note:
Refer to Figure 2-2 for details of historic structures

NAVD= North American Vertical Datum
MSA = Martin State Airport
NPDES = National Pollutant and Discharge Elimination System
MTN = Main Terminal
REC = Recognized Environmental Condition
MH = Manhole

Strawberry Point
Middle River, Maryland

0 10 20 40 Feet

N

DATE MODIFIED: 1/4/13

CREATED BY: MP

TETRA TECH

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP Groundwater Elevation Contours October 2012_Rec 11.mxd)
1/4/2013 -- 3:19:30 PM

Figure 4-3

Elevated Membrane Interface Probe Readings (REC #8 and #9)

Legend

- MIP Location- 2012
- Soil Boring Location- 2012
- Existing Monitoring Well (2011)
- Previous Soil Boring (SB) 2010- 2011
- Test Pit (2011)
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES Outfalls
- Sediment Basin
- MTN Tanks
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- REC #8 REC Number

MSA – Martin State Airport
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
NPDES - National Pollutant Discharge Elimination System

Results are in microvolts (uV)

Electron Capture Device (ECD) readings indicate elevated presence of chlorinated volatile organic compounds (cVOCs) .
Photoionization Dector (PID) readings indicate elevated presence of petroleum hydrocarbons.
(3 to 49') Indicates zone containing elevated readings
MIP = Membrane Interface Probe

Note:
Refer to Figure 2-2 for details of historic structures

Strawberry Point
Middle River, Maryland

0 10 20 40 Feet

N

DATE MODIFIED: 1/7/13

CREATED BY: MP

Tetra Tech, Inc.

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP Rec 8_9 elevated MIP readings 2012.mxd)
1/7/2013 -- 3:44:04 PM

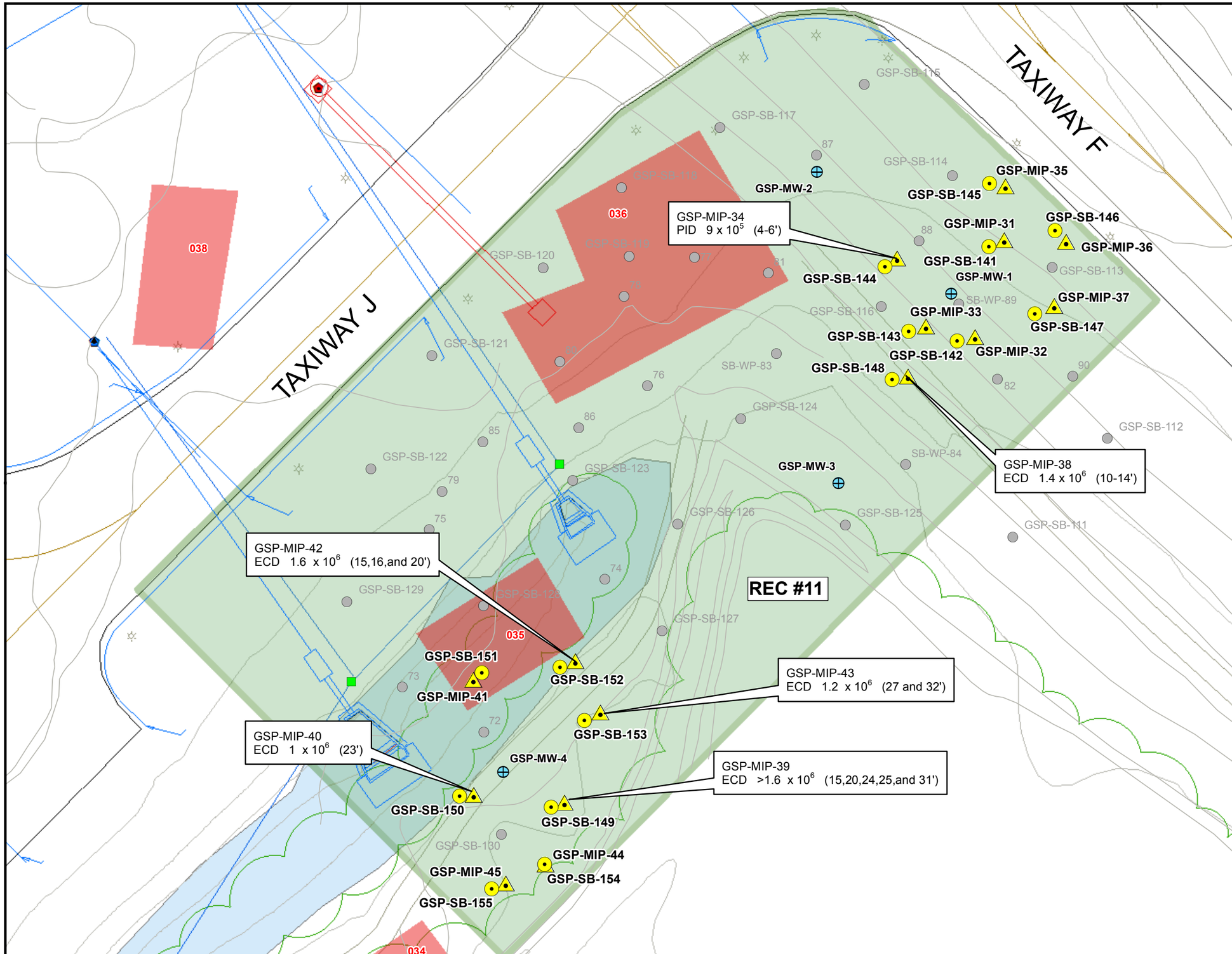


Figure 4-4

Elevated Membrane Interface Probe Readings (REC #11)

Legend

- MIP Location- 2012
- Soil Boring Location- 2012
- Existing Monitoring Well (2012)
- Previous Soil Boring (SB) 2010- 2011
- Oil Filled Operational Equipment
- Drum Storage
- MSA GW Wells
- MSA Inlets
- MSA Manholes
- NPDES Outfalls
- Sediment Basin
- MTN Tanks
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Stormwater Holding Area
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- REC #8 REC Number

MSA – Martin State Airport
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
NPDES - National Pollutant Discharge Elimination System

Results are in microvolts (uV)

Electron Capture Device (ECD) readings indicate elevated presence of chlorinated volatile organic compounds (cVOCs) .
Photoionization Dector (PID) readings indicate elevated presence of petroleum hydrocarbons.
(3 to 49') Indicates zone containing elevated readings
MIP = Membrane Interface Probe

Note:
Refer to Figure 2-2 for details of historic structures

Strawberry Point
Middle River, Maryland

0 10 20 40 Feet

N

DATE MODIFIED: 1/7/13

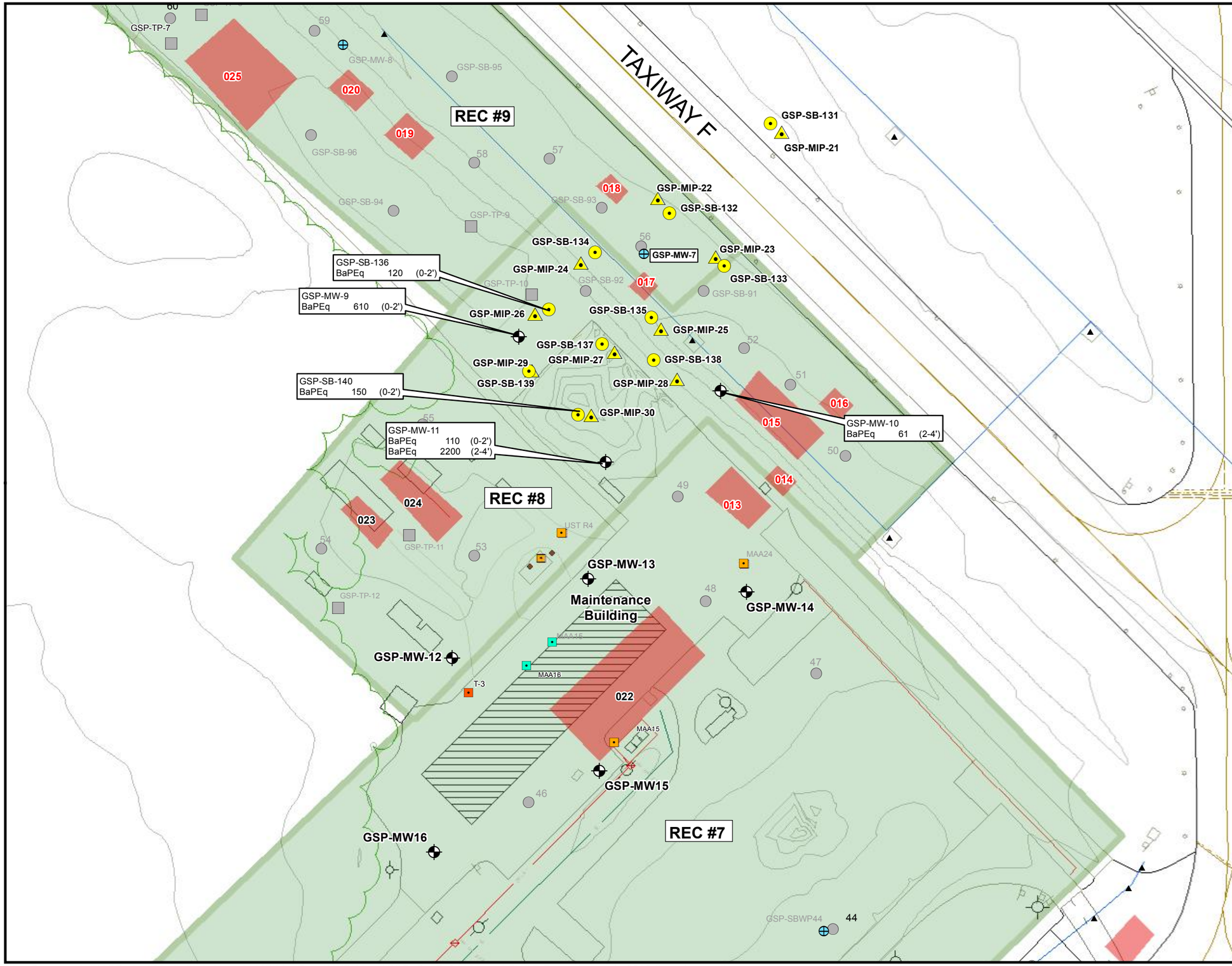
CREATED BY: MP

Tetra Tech, Inc.

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP Rec 11 elevated MIP readings 2012.mxd)
1/7/2013 -- 10:52:02 AM

Figure 4-5

Volatile Organic Compound and Semivolatile Organic Compound Exceedances in Soil Samples (REC #7, #8 and #9)



Legend

- Monitoring Well Locations (2012)
- MIP Location- 2012
- Soil Boring Location- 2012
- Existing Monitoring Well (2012)
- Previous Soil Boring (SB) 2010- 2011
- Test Pit (2011)
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES Outfalls
- Sediment Basin
- MTN Tanks
- Historic Structures
- REC
- Current Structures
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- REC #8 REC Number

MSA – Martin State Airport
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
NPDES - National Pollutant Discharge Elimination System

Note:
Refer to Figure 2-2 for details of historic structures

Concentrations are in units of ug/kg
ug/kg= micrograms per kilogram
MDE= Maryland Department of the Environment
BaPEq = benzo(a)pyrene equivalents
TCE= trichloroethene

MDE Screening Levels mg/kg:

	Residential	Industrial
BaPEq	22	390
TCE	1600	7200

Strawberry Point
Middle River, Maryland

0 12.5 25 50 Feet

N

DATE MODIFIED: 12/27/12

CREATED BY: MP

Tetra Tech, Inc.

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP_Rec7_9 VOC and SVOC Exceedances in 2012 Samples.mxd)
12/27/2012 -- 12:07:41 PM

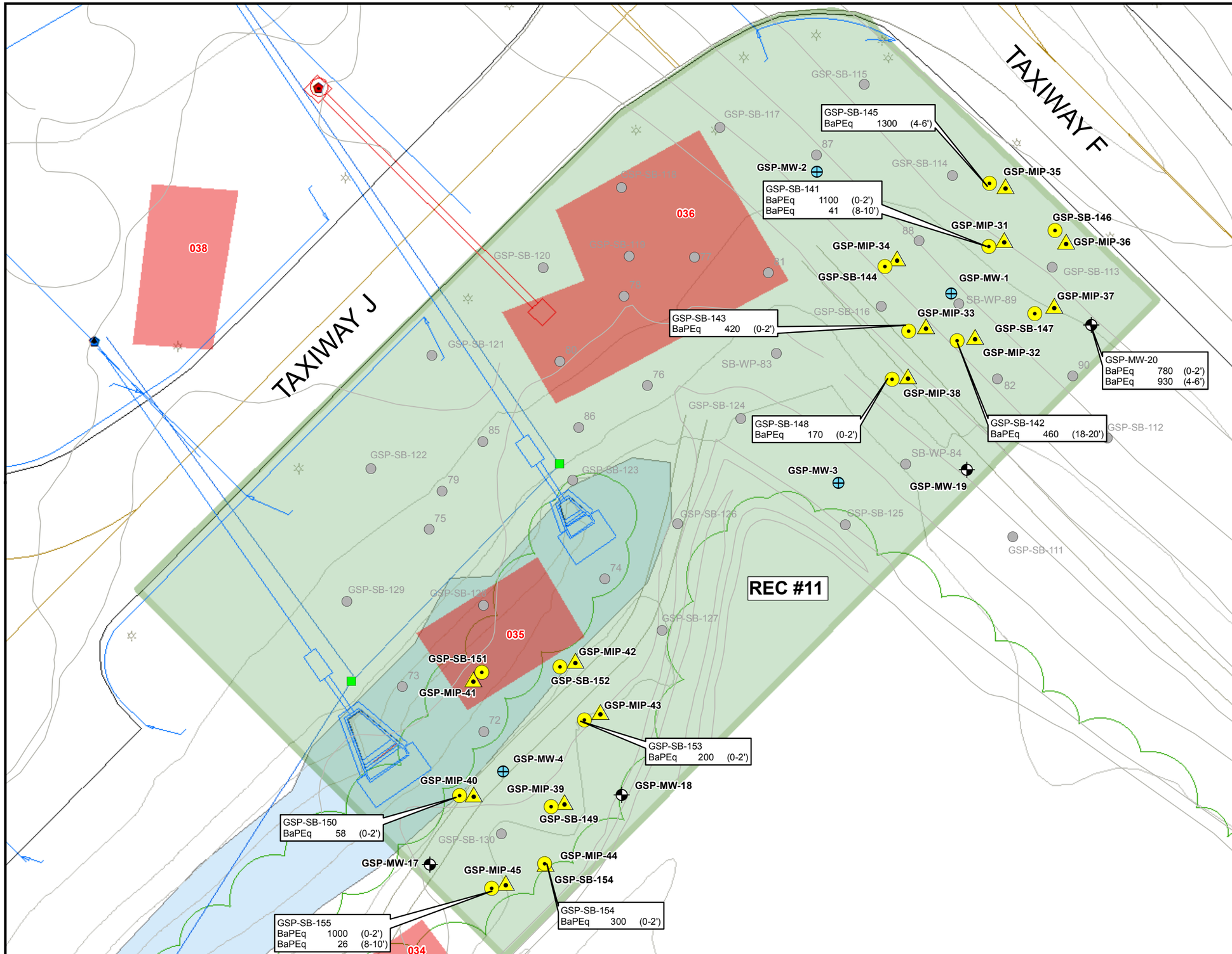


Figure 4-6

Volatile Organic Compound and Semivolatile Organic Compound Exceedances in Soil Samples (REC #11)

Legend

- Monitoring Well Locations (2012)
- MIP Location- 2012
- Soil Boring Location- 2012
- Existing Monitoring Well (2012)
- Previous Soil Boring (SB) 2010- 2011
- Oil Filled Operational Equipment
- Drum Storage
- MSA GW Wells
- MSA Inlets
- MSA Manholes
- NPDES Outfalls
- Sediment Basin
- Historic Structures
- MTN Tanks
- REC
- Current Structures
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Sanitary Pipes
- Storm Pipes
- Stormwater Holding Area
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- REC #8 REC Number

MSA – Martin State Airport
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
NPDES - National Pollutant Discharge Elimination System

Note:
Refer to Figure 2-2 for details of historic structures

Concentrations are in units of ug/kg
ug/kg= micrograms per kilogram
MDE= Maryland Department of the Environment
BaPEq = benzo(a)pyrene equivalents

MDE Screening Levels ug/kg:

	Residential	Industrial
BaPEq	22	390

Strawberry Point
Middle River, Maryland

0 10 20 40 Feet

N

DATE MODIFIED: 12/27/12

CREATED BY: MP

Tetra Tech, Inc.

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP_Rec11 VOC and SVOC Exceedances in 2012 Samples.mxd)
12/27/2012 -- 3:14:32 PM

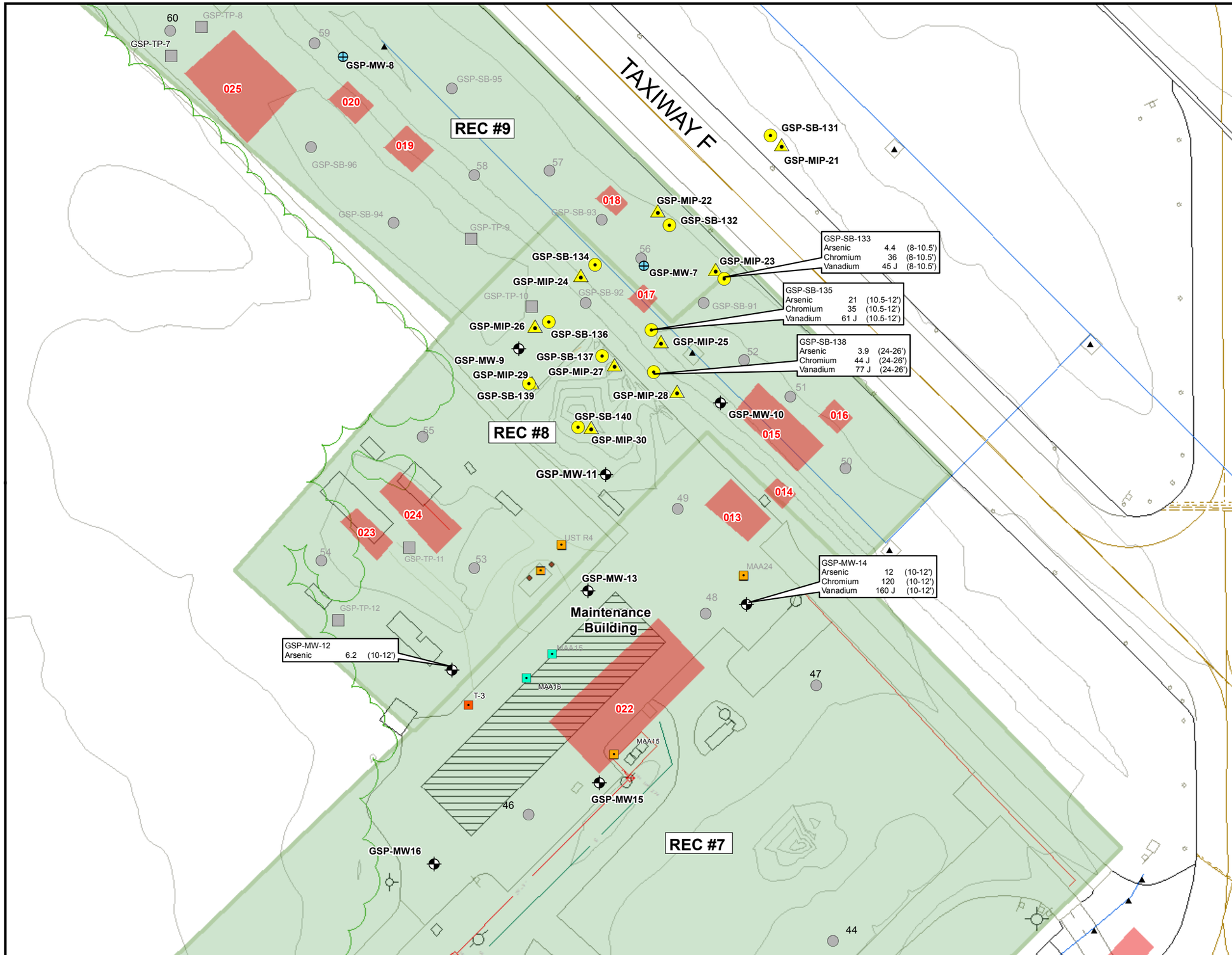


Figure 4-7

Metal Exceedances in Soil Samples (REC #7, #8 and #9)

Legend

- Monitoring Well Locations (2012)
- MIP Location- 2012
- Soil Boring Location- 2012
- Existing Monitoring Well (2012)
- Previous Soil Boring (SB) 2010- 2011
- Test Pit (2011)
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES Outfalls
- Sediment Basin
- MTN Tanks
- Historic Structures
- REC
- Current Structures
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- REC #8 REC Number

MSA – Martin State Airport
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
NPDES - National Pollutant Discharge Elimination System

Note:
Refer to Figure 2-2 for details of historic structures

Concentrations are in units of mg/kg
J = Estimated Value
mg/kg= milligrams per kilogram
ATC = Anticipated Typical Concentration

ATC Screening Levels mg/kg:

Arsenic	3.6
Chromium	28
Vanadium	30

Strawberry Point
Middle River, Maryland

0 12.5 25 50 Feet

N

DATE MODIFIED: 12/26/12

CREATED BY: MP

Tetra Tech, Inc.

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP_Rec7_9 Metal Exceedances in 2012 Samples.mxd)
12/26/2012 -- 3:41:37 PM

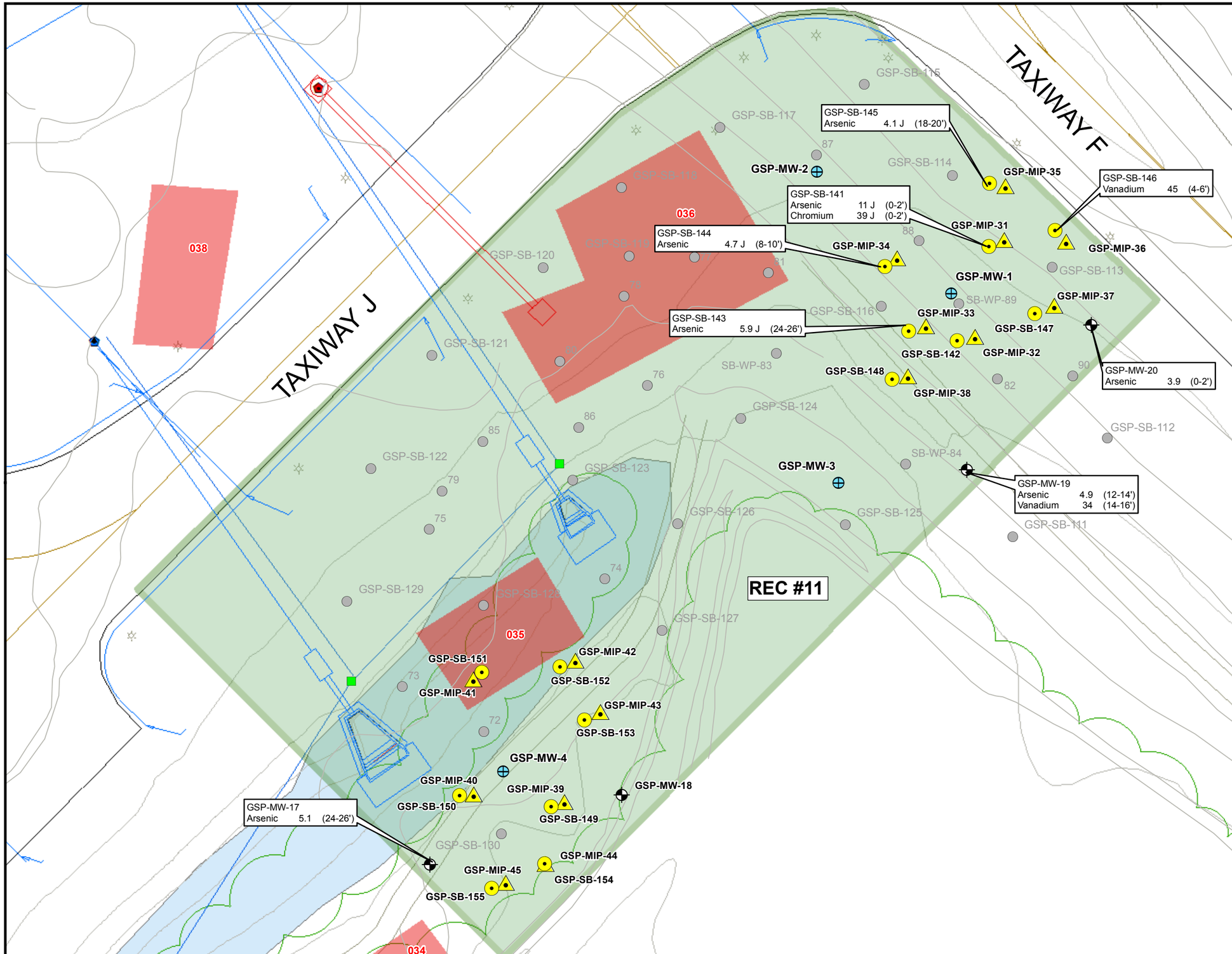


Figure 4-8

Metal Exceedances in Soil Samples (REC #11)

Legend

- Monitoring Well Locations (2012)
- MIP Location- 2012
- Soil Boring Location- 2012
- Existing Monitoring Well (2011)
- Previous Soil Boring (SB) 2010- 2011
- Oil Filled Operational Equipment
- Drum Storage
- MSA GW Wells
- MSA Inlets
- MSA Manholes
- NPDES Outfalls
- Sediment Basin
- Historic Structures
- MTN Tanks
- REC
- Current Structures
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Sanitary Pipes
- Storm Pipes
- Stormwater Holding Area
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- REC #8 REC Number

MSA – Martin State Airport
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
NPDES - National Pollutant Discharge Elimination System

Note:
Refer to Figure 2-2 for details of historic structures

Concentrations are in units of mg/kg
J = Estimated Value
mg/kg= milligrams per kilogram
ATC = Anticipated Typical Concentration

ATC Screening Levels mg/kg:

Arsenic	3.6
Chromium	28
Vanadium	30

Strawberry Point
Middle River, Maryland

0 10 20 40 Feet

N

DATE MODIFIED: 12/26/12

CREATED BY: MP

Tetra Tech, Inc.

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP_Rec11 Metal Exceedances in 2012 Samples.mxd)
12/26/2012 -- 4:35:36 PM

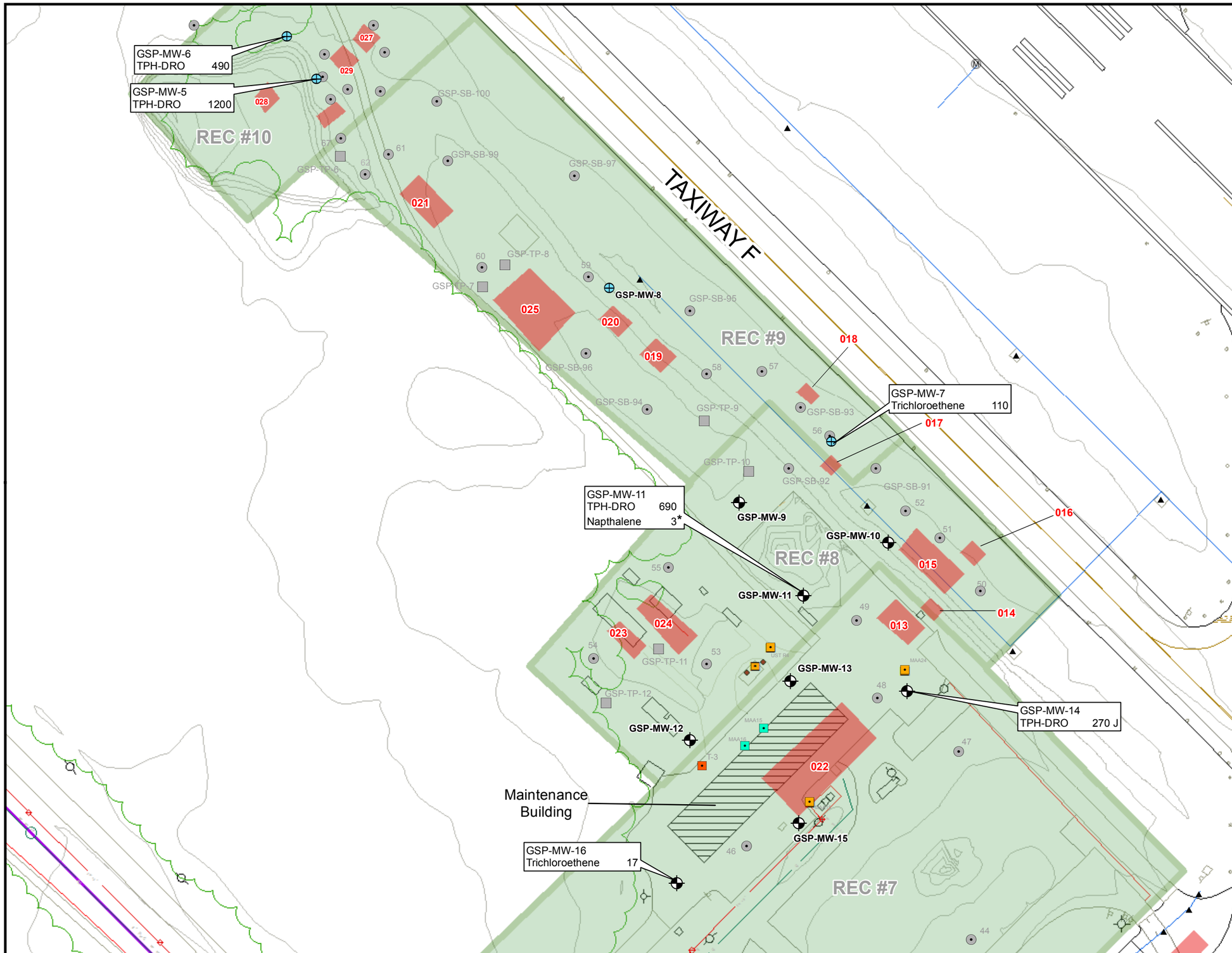


Figure 4-9

Volatile Organic Compound, Semivolatile Organic Compound and Total Petroleum Hydrocarbons-Diesel Range Organics Exceedances in Groundwater Monitoring Wells (REC #7, #8, #9 and #10)

Legend

- Monitoring Well Locations (2012)
- Existing Monitoring Well (2011)
- Previous Soil Boring (SB) (2010-2011)
- Previous Test Pit (2011)
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES Outfalls
- Sediment Basin
- Historic Structures
- MTN Tanks
- REC
- Current Structures
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- REC #8 REC Number

Note: Refer to Figure 2-2 for details of historic structures

MSA = Martin State Airport
NPDES = National Pollutant and Discharge Elimination System
MTN = Main Terminal
REC = Recognized Environmental Condition
MH = Manhole
Concentrations in ug/L
ug/L= micrograms per liter
TPH-DRO = Total Petroleum Hydrocarbons Diesel Range Organics
VOC= volatile organic conpound
SVOC= semivolatile organic compound
* = This value represents the greater of two detected concentrations in both the VOC and SVOC analyses

MDE Groundwater Criteria:
Naphthalene = 0.65 ug/L
TPH-DRO = 47 ug/L
Trichloroethene = 5 ug/L

J estimated result

Strawberry Point
Middle River, Maryland

0 30 60 120 Feet

N

DATE MODIFIED: 1/2/13

CREATED BY: MP

Tetra Tech, Inc.

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP_Rec7_10 VOC_SVOC_TPHDRO GW Exceedances in 2012 Samples.mxd)
1/2/2013 -- 3:32:35 PM

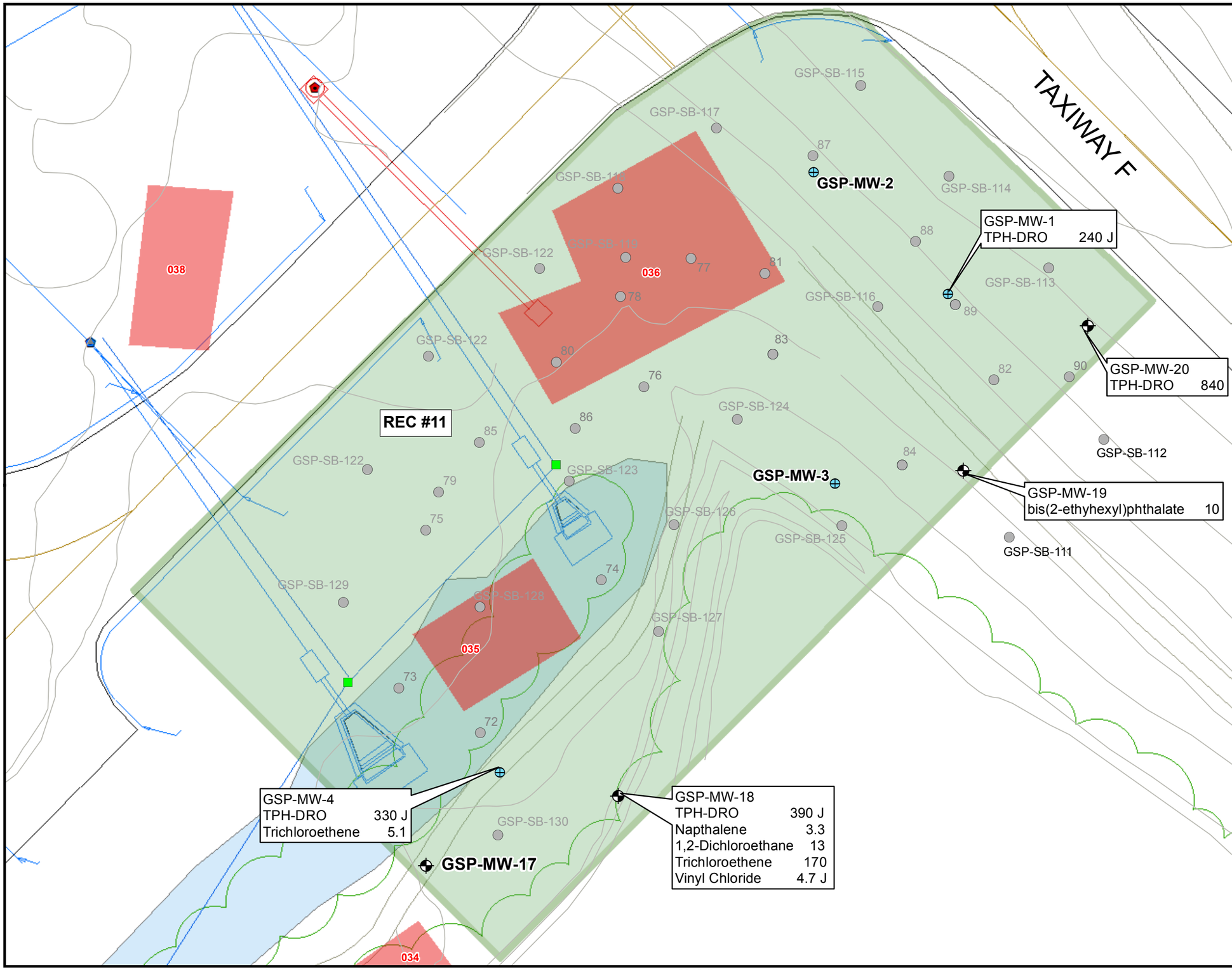


Figure 4-10

Volatile Organic Compound, Semivolatile Organic Compound and Total Petroleum Hydrocarbons-Diesel Range Organics Exceedances in Groundwater Monitoring Wells (REC #11)

Legend

- Monitoring Well Locations 2012
- Existing Monitoring Well (2011)
- Previous Soil Boring (SB) - 2010-2011
- MSA Inlets
- MSA Manholes
- NPDES Outfalls
- Sediment Basin
- Trench Drain
- Sanitary MH
- MTN Tanks
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Stormwater Holding Area
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- REC #10 REC Number

Note:
Refer to Figure 2-2 for details of historic structures

MSA = Martin State Airport
NPDES = National Pollutant and Discharge Elimination System
MTN = Main Terminal
REC = Recognized Environmental Condition
MH = Manhole
Concentrations in ug/L
ug/L= micrograms per liter
TPH-DRO = Total Petroleum Hydrocarbons Diesel Range Organics
VOC= volatile organic conpound
SVOC= semivolatile organic compound

MDE Groundwater Criteria:
Naphthalene = 0.65 ug/L
TPH-DRO = 47 ug/L
Trichloroethene = 5 ug/L
bis(2-ethyhexyl)phthalate = 6 ug/L
1,2 Dichloroethane= 5 ug/L
Viny Chloride= 2 ug/L

J estimated result

Strawberry Point
Middle River, Maryland

0 10 20 40 Feet

N

DATE MODIFIED: 1/3/13

CREATED BY: MP

Tetra Tech, Inc.

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP_Rec11 VOC_SVOC_TPHDRO GW Exceedances in 2012 Samples.mxd)
1/3/2013 -- 9:58:58 AM

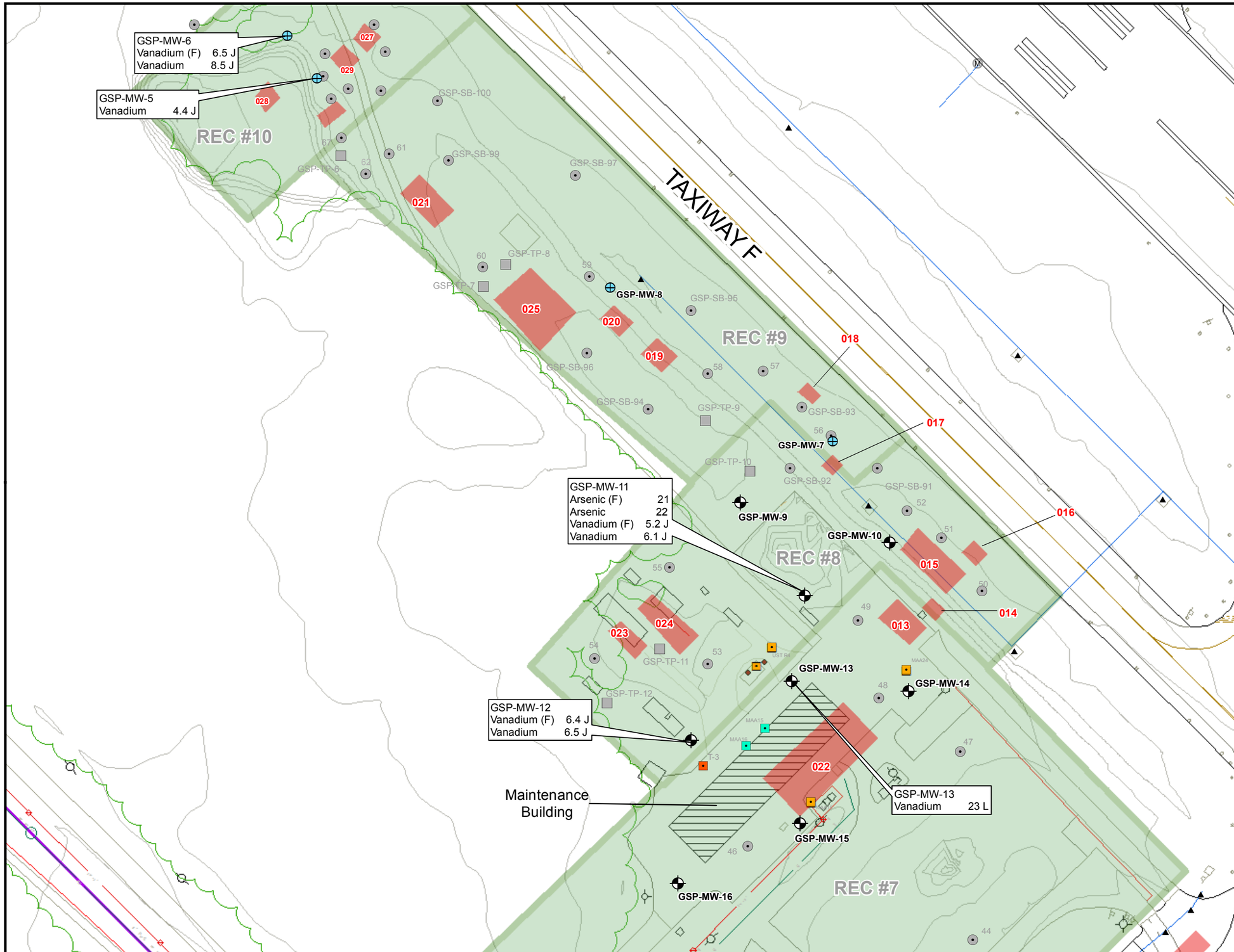


Figure 4-11

Metals Exceedances in Groundwater Monitoring Wells (REC #7, #8, #9 and #10)

Legend

- Monitoring Well Locations (2012)
- Existing Monitoring Well (2011)
- Previous Soil Boring (SB) (2010-2011)
- Previous Test Pit (2011)
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES Outfalls
- Sediment Basin
- Historic Structures
- MTN Tanks
- REC
- Current Structures
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- REC #8 REC Number

MSA = Martin State Airport
NPDES = National Pollutant and Discharge Elimination System
MTN = Main Terminal
REC = Recognized Environmental Condition
MH = Manhole
(F) = Filtered

Concentrations are in units of ug/L
ug/L= micrograms per liter
MDE= Maryland Department of the Environment

MDE Groundwater Criteria:
Arsenic = 10 ug/L
Vanadium = 3.7 ug/L

J estimated result
L result is considered biased low

Strawberry Point
Middle River, Maryland

0 30 60 120 Feet

N

DATE MODIFIED: 1/2/13

CREATED BY: MP

Tetra Tech, Inc.

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP_Rec7_10 Metal GW Exceedances in 2012 Samples.mxd)
1/2/2013 -- 3:34:24 PM

Figure 4-12

Metal Exceedances in Groundwater Monitoring Wells (REC #11)

Legend

- Monitoring Well Locations 2012
- Existing Monitoring Well (2011)
- Previous Soil Boring (SB) - 2010-2011
- MSA Inlets
- MSA Manholes
- NPDES Outfalls
- Sediment Basin
- Trench Drain
- Sanitary MH
- MTN Tanks
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Stormwater Holding Area
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- REC #10 REC Number

Note:
Refer to Figure 2-2 for details of historic structures

MSA = Martin State Airport
NPDES = National Pollutant and Discharge Elimination System
MTN = Main Terminal
REC = Recognized Environmental Condition
MH = Manhole
(F) = Filtered

Concentrations are in units of ug/L
ug/L= micrograms per liter
MDE= Maryland Department of the Environment

MDE Groundwater Criteria:
Nickel = 73 ug/L

Strawberry Point
Middle River, Maryland

0 10 20 40 Feet

N

DATE MODIFIED: 1/2/13

CREATED BY: MP

Tetra Tech, Inc.

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP_Rec11 Metal GW Exceedances in 2012 Samples.mxd)
1/2/2013 -- 4:56:11 PM

Section 5
Summary

A supplemental soil and groundwater characterization was conducted in 2012 at five recognized environmental conditions (RECs) in the northern portion of the Greater Strawberry Point (GSP) area of Martin State Airport (MSA) to further determine the nature and extent of environmental contamination in soil and groundwater. Specific chemical constituents and their concentrations in soil and groundwater were identified using field-screening techniques and fixed-laboratory analyses. Chemical analytical results were screened against State of Maryland human health standards for soil and groundwater to assess the need for additional sampling or to support no further action.

The following field investigations were completed in 2012:

- Soil and groundwater were screened using membrane-interface probes (MIPs) at 25 locations to a maximum depth of 44.6 feet below grade at recognized environmental conditions #8, #9, and #11 to help locate and delineate possible areas of subsurface contamination.

- Soil borings were advanced at 25 locations via direct-push technology (DPT) to a depth of 40 feet below grade to collect soil lithologic information, to screen soil in the field for volatile organic compounds (VOCs) using a portable photo-ionization detector (PID), and to collect soil samples for fixed-laboratory chemical analyses for volatile organic compounds, semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), metals, total petroleum hydrocarbon (TPH)-diesel-range organics (DRO), total petroleum hydrocarbon-gasoline-range organics (GRO), and toxicity characteristic leaching procedure (TCLP) analytes.

- Twelve new groundwater monitoring wells were installed, and two soil samples from each well boring were submitted to a fixed laboratory for chemical analyses for volatile organic compounds, semivolatile organic compounds, polychlorinated biphenyls, metals, total petroleum hydrocarbon-diesel-range organics, and total petroleum hydrocarbon-gasoline-range organics.

- Groundwater samples were collected in April 2012 from the eight existing monitoring wells and submitted to a fixed laboratory for the same chemical analyses listed above.

- Groundwater samples were collected in October 2012 from the 12 newly installed monitoring wells and submitted to a fixed laboratory for previously listed chemical analyses.

- Static groundwater levels were initially measured at the 12 newly installed monitoring wells and at seven existing monitoring wells on October 4, 2012. The static groundwater levels were measured again on October 23–26, 2012, and these levels were used to develop groundwater elevation contour maps.

- Horizontal and vertical coordinates were surveyed for the membrane-interface probe borings, direct-push technology advanced soil borings, and monitoring wells.

The following summarizes the results of these activities:

- The water table at the site ranges from 4.45 feet to 13.3 feet below grade. Groundwater elevations range from -6.69 feet North American Vertical Datum 1988 (NAVD88) at GSP-MW18 to 8.18 feet NAVD88 at GSP-MW-14.

- Groundwater elevations indicate that groundwater beneath the Greater Strawberry Point generally flows in a southerly direction toward Stansbury Creek and Frog Mortar Creek.

- Membrane-interface probe screening indicates possible volatile organic compounds in soil in the southeastern area of REC #9 and the northern portion of REC #8. In REC #11, several elevated responses were recorded, especially from the electron-capture detector in the southwestern portion of the REC.

- Trace to low concentrations of volatile organic compounds (VOCs) were detected in soil samples collected at all recognized environmental conditions. However, trichloroethene (TCE) in one sample from the northern portion of REC #8 is the only VOC detected at concentrations exceeding its Maryland residential soil standards.

- Semivolatile organic compounds (SVOCs) were detected in soil at several recognized environmental conditions. However, most SVOC concentrations are less than the residential and nonresidential standards. Benzo(a)pyrene equivalents (BaPEq) and associated compounds are the only SVOCs detected at concentrations exceeding their screening criteria. In RECs #8 and #9, BaPEq concentrations exceed the residential screening criterion in six samples, with two samples also exceeding the nonresidential screening criterion. In REC #11, 13 soil samples contained benzo(a)pyrene equivalents at concentrations exceeding the residential screening criterion, with five also exceeding the nonresidential screening criterion.

- No concentrations of polychlorinated biphenyls, total petroleum hydrocarbon-gasoline-range organics, or total petroleum hydrocarbon-diesel-range organics exceed MDE comparison criteria in soil samples collected during this investigation.

- Concentrations of arsenic, chromium, and vanadium in soil exceed standards in some samples from all investigated recognized environmental conditions. Although arsenic and vanadium frequently exceed their risk-based standards, in general, concentrations of these

two metals are similar to Maryland Department of the Environment (MDE) anticipated typical concentrations (ATCs) for the eastern region of Maryland. Thallium was also detected at a concentration exceeding its residential screening criterion in one sample from REC #11, although at a concentration below its ATC. Therefore, concentrations of these metals appear to be consistent with local background and are not indicative of a release at Greater Strawberry Point.

- Low concentrations of arsenic, barium, cadmium, and chromium were detected in the sample submitted for toxicity characteristic leachate procedure analysis (TCLP), which was collected from REC #8. Two samples were submitted for TCLP analysis from REC #11; they produced low detected concentrations of the metals arsenic, barium, and chromium, and one sample had a low concentration of the semivolatile organic compound 3&4-methylphenol. TCLP results do not indicate constituent concentrations at levels exceeding toxic thresholds.

- Trichloroethene (TCE) was detected at concentrations exceeding its MDE groundwater criterion in samples from GSP-MW-07 (in the southern portion of REC #9) and GSP-MW-16 (in REC #7, southwest of the maintenance building). TCE was also detected at concentrations exceeding its MDE criterion in two wells (GSP-MW-4 and GSP-MW-18) at REC #11. Two additional VOCs exceed Maryland Department of the Environment (MDE) criteria in REC #11 groundwater samples collected from GSP-MW-18: 1,2-dichloroethane and vinyl chloride.

- The semivolatile organic compound naphthalene was detected in groundwater at one REC #11 well (GSP-MW-18) at a concentration exceeding its MDE criterion. Naphthalene was also detected at concentrations exceeding the Maryland Department of the Environment (MDE) criterion in a REC #8 well (GSP-MW-11) in both the volatile organic and semivolatile organic compound analytical methods.

- Groundwater samples collected from REC #7, #8, and #9 wells had total petroleum hydrocarbon-diesel-range organics (TPH-DRO) concentrations in two wells (GSP-MW-11 and GSP-MW-14) in excess of Maryland Department of the Environment (MDE) groundwater criteria. TPH-DRO concentrations in two REC #10 wells (GSP-MW-5 and GSP-MW-6) also exceed MDE criteria. At REC #11, TPH-DRO concentrations exceed MDE criteria in four of eight wells: GSP-MW-1 and GSP-MW-20 in the eastern portion of REC #11, and GSP-MW-4 and GSP-MW-18 in the southwest portion of REC #11.

- Concentrations of total and dissolved arsenic in one well (GSP-MW-11) and total vanadium in five wells (GSP-MW-05, GSP-MW-06, GSP-MW-11, GSP-MW-12, and GSP-MW-13) exceed Maryland Department of the Environment (MDE) groundwater criteria.

This page intentionally left blank.

Section 6
References

1. Chapelle, F. M., 1985. "Hydrogeology, Digital Solute-Transport Simulation, and Geochemistry of the Lower Cretaceous Aquifer-System near Baltimore, Maryland." *Maryland Geological Survey Report of Investigations No. 43*, Maryland Geological Survey, Baltimore, Maryland. 120 pp.

2. Curtin, S., 2006. Personal communication and draft potentiometric map of the Patuxent Aquifer-2004: Mr. Fred Kolberg of Tetra Tech with Mr. Steve Curtin of the U.S. Geological Survey, Baltimore, Maryland. May 5.

3. Defense Environmental Restoration Program for Formerly Used Defense Sites (DERP-FUDS), 1991. *Inventory Project Report, Site Survey Summary Sheet for DERP-FUDS Site No. C03MD038500*. U.S. Department of Defense. August.

4. Geoprobe® Systems, 2006. "Direct-Push Installation for Active Soil-Vapor Sampling and Monitoring (Post-Run Tubing Method)." *Technical Bulletin MK 3098.* May.

5. Glaser, J. D., 1969. "Petrology and Origin of Potomac and Magothy (Cretaceous) Sediments, Middle Atlantic Coastal Plain." *Maryland Geological Survey Reports of Investigations No. 11*. Maryland Geological Survey, Baltimore, Maryland. 102 pp.

6. Hansen, H. J., and J. Edwards, 1986. "The Lithology and Distribution of Pre-Cretaceous Basement Rocks beneath the Maryland Coastal Plain." *Maryland Geological Survey Report of Investigations 44*. 27 pp.

7. Lockheed Martin Corporation (Lockheed Martin), 2009. *Energy, Environment, Safety, and Health (EESH) Remediation Waste Management Procedure No: EROP-03, Revision 4* (effective April 17*).*

8. Lockheed Martin Corporation (Lockheed Martin), 2009. "Lockheed Martin Minimum Requirements for Invasive Fieldwork Work Plans." Appendix A to the *Lockheed Martin Remediation Contractor's ESH Handbook*. June.

9. Maryland Aviation Administration (MAA), 2008. *Spill Prevention, Control, and Countermeasure Plan for Martin State Airport*. Report prepared for MAA, Facilities Development and Engineering, Linthicum, Maryland by EA Engineering, Science, and Technology, Inc., Sparks, Maryland. December.

10. Maryland Department of the Environment (MDE), 2006. *Voluntary Cleanup Program Guidance Document*, "Environmental Restoration and Redevelopment Program." Maryland Department of the Environment. March 17.

11. Maryland Department of the Environment (MDE), 2008. *Cleanup Standards for Soil and Groundwater, Interim Final Guidance (Update No. 2).* March.

12. Tetra Tech, Inc. (Tetra Tech), 2008. *Historical Data Review for Strawberry Point Facility, Martin State Airport: Middle River, Maryland.* Consultant's report prepared by Tetra Tech, Inc. for Lockheed Martin Corporation, Bethesda, Maryland. September.

13. Tetra Tech, Inc. (Tetra Tech), 2009. *Final Phase II Site Investigation Report, Strawberry Point, Martin State Airport: Middle River, Maryland*. Consultant's report prepared by Tetra Tech, Inc. for Lockheed Martin Corporation, Bethesda, Maryland. April.

14. Tetra Tech (Tetra Tech, Inc.), 2010a. *Deep-Groundwater Investigation Report, Lockheed Martin, Martin State Airport*. Prepared by Tetra Tech, Inc. for Lockheed Martin Corporation, Bethesda, Maryland. April.

15. Tetra Tech, Inc. (Tetra Tech), 2010b. *Phase II Site Investigation Report, Greater Strawberry Point, Martin State Airport: Middle River, Maryland.* Consultant's report prepared by Tetra Tech, Inc. for Lockheed Martin Corporation, Bethesda, Maryland. October.

16. Tetra Tech, Inc. (Tetra Tech), 2012a. *Additional Phase II Site Investigation Report, Greater Strawberry Point, Martin State Airport: Middle River, Maryland*. Consultant's report prepared by Tetra Tech, Inc. for Lockheed Martin Corporation, Bethesda, Maryland. January.

17. Tetra Tech, Inc. (Tetra Tech), 2012b. *Supplemental Soil and Groundwater Characterization Work Plan, Greater Strawberry Point, Martin State Airport: Middle River, Maryland*. Consultant's report prepared by Tetra Tech, Inc. for Lockheed Martin Corporation, Bethesda, Maryland. June.

18. United States Environmental Protection Agency (USEPA), Region 3, 1993. *Region III Modifications to the Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses*. April.

19. United States Environmental Protection Agency (USEPA) Region 3, 1994. *Region III Modifications to the National Functional Guidelines for Organic Data Review*. September.

20. Vroblesky, D. A and W. B. Fleck, 1991. "Hydrogeologic Framework of the Coastal Plain of Maryland, Delaware, and the District of Columbia, Regional Aquifer-System Analysis—Northern Atlantic Coastal Plain." U.S. Geological Survey Professional Paper 1404-E, U.S. Government Printing Office, Washington, D.C. 45 pp.

APPENDIX A—DIGGING PERMITS AND UTILITY CLEARANCE REPORTS

Final Report
Geophysical Survey
Utility/Structure Clearance for 25 MIP, 23 Monitoring Well, 25 Soil Boring and 26 Soil Gas Locations
Greater Strawberry Point Area
Middle River, MD
Enviroscan Reference Number 071226

Prepared For: Tetra Tech NUS, Inc.
Prepared By: Enviroscan, Inc.
October 9, 2012

1051 Columbia Avenue ● Lancaster, PA 17603 ● 717.396.8922 ● Fax 717.396.8746 ● email@enviroscan.com ● www.enviroscan.com

ENVIROSCAN, INC.

October 9, 2012

Mr. Tony Apanavage
Tetra Tech NUS, Inc.
20251 Century Boulevard
Suite 200
Germantown, MD 20874-7114

RE: Geophysical Survey
Utility/Structure Clearance for 25 MIP, 23 Monitoring Well,
25 Soil Boring and 26 Soil Gas Locations
Greater Strawberry Point Area
Middle River, MD
Enviroscan Reference Number 071226

Dear Mr. Apanavage,

Pursuant to our phone discussions in early July 2012, Enviroscan, Inc. has conducted a multi-technique geophysical survey at the above-referenced site. The field work was performed on August 13, 14, and 22, 2012. The purpose of the survey was to perform utility clearance for 25 proposed MIP locations, 23 proposed monitoring well locations, 25 proposed soil boring locations and 26 proposed soil gas locations.

Methods

The utility survey was completed using standard and/or routinely accepted practices of the geophysical industry and equipment representing the best available technology, including:

- a Radiodetection RD8000 Multi-Frequency pipe and cable tracer;
- a Radiodetection C.A.T. and Genny pipe and cable locator/tracer;
- a Fisher TW-6 electromagnetic (EM) pipe and cable locator/tracer;
- a GSSI SIR-2000 ground penetrating radar (GPR) system.

1051 Columbia Avenue ● Lancaster, PA 17603 ● 717.396.8922 ● Fax 717.396.8746 ● email@enviroscan.com ● www.enviroscan.com

The principles of these techniques are detailed below.

RD8000

Utility tracing was conducted using a Radiodetection RD8000 digital cable and pipe tracer. The transmitter can be directly coupled to exposed portions of a metallic pipe, cable, or wire or indirectly (inductively) to a subsurface metallic utility of known location/orientation. The transmitter remains stationary and energizes the metallic utility at a frequency selected by the operator (512 Hz, 8 kHz, 33 kHz, or 65 kHz), which is received at the ground surface by the digital locator. When the transmitter is directly coupled to the metallic utility, the digital receiver can also calculate the depth of the utility to an accuracy of ±10% of the actual depth of the utility. Please note the close proximity to bends in the traced line or poor signal strength can result in erroneous depth estimations.

C.A.T. and Genny

The survey areas were also scanned with a Radiodetection C.A.T. and Genny pipe and cable locator and tracer. In Power mode, the C.A.T. detects the 50 to 60 Hertz (Hz) electromagnetic field generated by live power cables and other metallic utilities to which a live line is grounded. In Radio mode, the C.A.T. detects buried conductors (cables or metallic pipes) as they conduct and re-transmit commercial broadcast radio energy. In Genny mode, the C.A.T. detects signal generated by the Genny transmitter. The Genny transmitter can be coupled directly (conductively) to exposed portions of a metallic pipe, cable, or wire or inductively to a subsurface metallic utility with known location and orientation.

TW-6

In order to detect unknown utilities, Enviroscan employed a Fisher TW-6 pipe and cable locator and tracer. In pipe and cable search mode, the TW-6 is essentially a deep-sensing metal detector that detects any highly electrically conductive materials (e.g. metals) by creating an electromagnetic field with a transmitting coil. A receiving coil at a fixed separation from the transmitter measures the field strength. As the instrument is swept along the ground surface, subsurface metallic bodies distort the transmitted field. The change in field strength/orientation is sensed by the receiver, setting off an audible alarm and/or causing deflection of an analog meter. The TW-6 can nominally detect a 2-inch metal pipe to a depth of 8 feet and a 10-inch metal pipe to a depth of 14 feet.

In pipe and cable tracing mode, the TW-6 transmitter can be coupled directly (conductively) to exposed portions of a metallic pipe, cable, or wire or inductively to a subsurface metallic utility with known location and orientation. The transmitter remains stationary and energizes or excites the metallic utility to be traced with an 81.92-kilohertz signal that can be traced at the ground surface using the mobile TW-6 receiver wand or probe.

GPR

GPR systems produce cross-sectional images of subsurface features and layers by continuously emitting pulses of radar-frequency energy from a scanning antenna as it is towed along a survey profile. The radar pulses are reflected by interfaces between materials with differing dielectric properties. The reflections return to the antenna and are displayed on a video monitor as a continuous cross section in real time. Since the electrical properties of metal are distinctly different from soil and backfill materials, metallic pipes and other structures commonly produce dramatic and characteristic reflections. Fiberglass, plastic, concrete, and terra-cotta pipes and structures also produce recognizable, but less dramatic reflections. Scanning was performed using a GSSI SIR-2000 GPR controller with an internal hard drive and a color display, and both a high-frequency, high-resolution 500 megaHertz (MHz) antenna or transducer, and a lower frequency deep-penetrating 200 MHz transducer.

Results Summary

The utility clearance survey results are depicted in Figures 1 and 2. The mapped utilities located during the survey are overlain on a basemap of the site. Several proposed borings needed to be relocated due to nearby utilities. These new locations are noted in Table 1. Please note that the new coordinates of boring locations that were moved during geoprobing (by others) to avoid marked utilities or obstructions do not appear on Table 1.

Limitations

The above-referenced geophysical survey was completed using standard and/or routinely accepted practices of the geophysical industry and equipment representing the best available technology. Enviroscan does not accept responsibility for survey limitations due to inherent technological limitations or unforeseen site-specific conditions. However, we make every effort to identify and notify the client of such limitations or conditions. In particular, please note the following specific limitations and recommendations:

- Enviroscan's field markings should be considered accurate to within approximately +/-18 inches for single lines. In contrast, since electromagnetic tracing of duct banks provides only a centerline, the bank itself may extend for 2 to 3 feet beyond the marked trace.

- The completion of this survey does not relieve any party of applicable legal obligations to notify the appropriate One-Call center prior to digging or drilling.

As always, we appreciate this opportunity to have worked with you. If you have any questions, please do not hesitate to contact me.

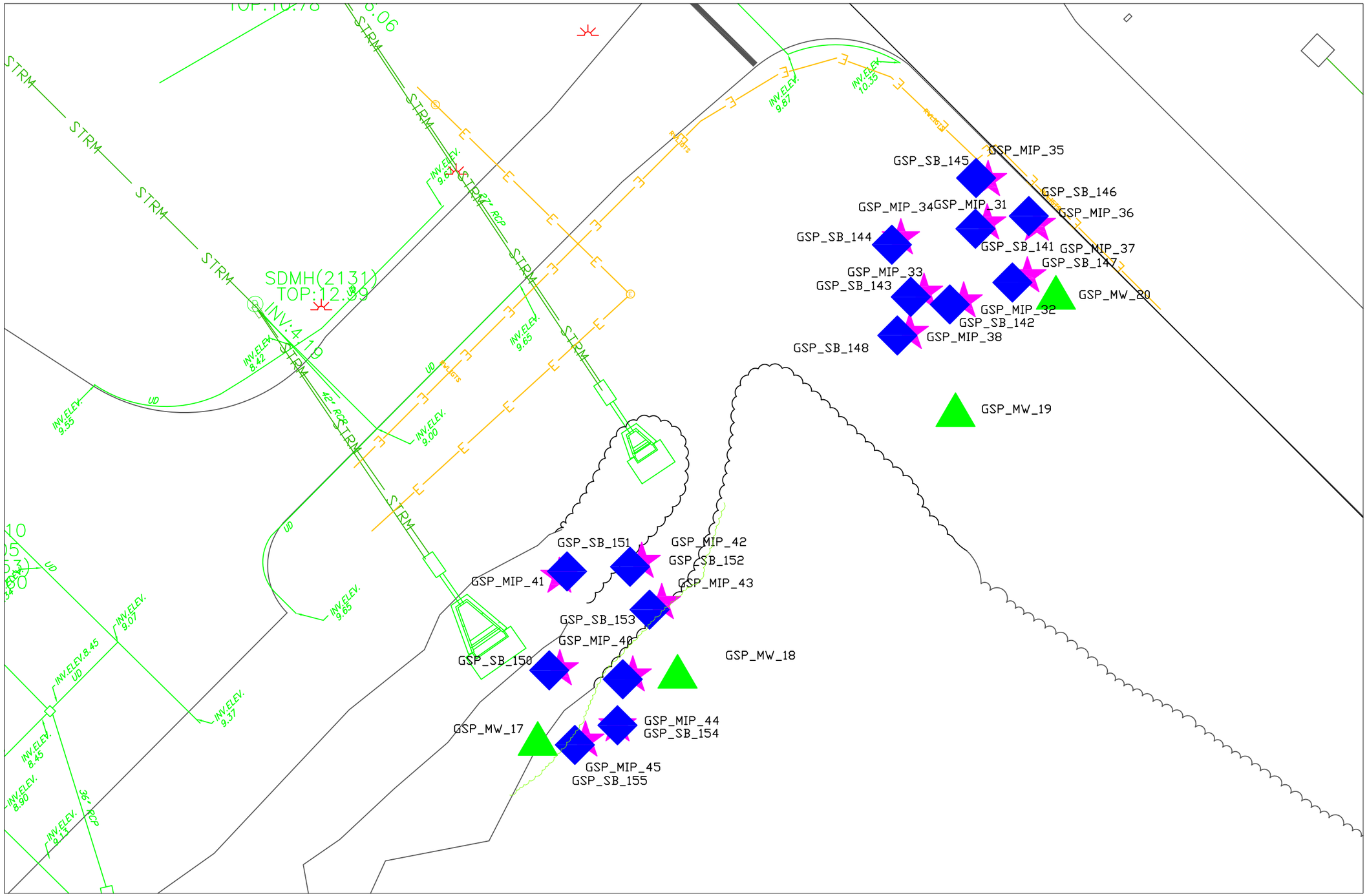
Sincerely,
Enviroscan, Inc.

William E. Steinhart III, M.Sc., P.G.
Principal Geophysicist

Technical Review By:
Enviroscan, Inc.

Felicia Kegel Bechtel, M.Sc., P.G.
President

enc.: Figure 1 Utility Survey Results Greater Strawberry Point
Figure 2 Utility Survey Results Greater Strawberry Point
Table 1 – Utility Clearance Results



The information depicted on this drawing represents survey results on the date surveyed and can only be considered to be indicative of the general conditions existing on that survey date.

Coordinates in Maryland State Plane (feet) NAD-83 Datum.

0 50 100
Scale in Feet

N

Prepared by:

Enviroscan, Inc.
1051 Columbia Avenue
Lancaster, PA
(717) 396-8922

ENVIROSCAN, INC.

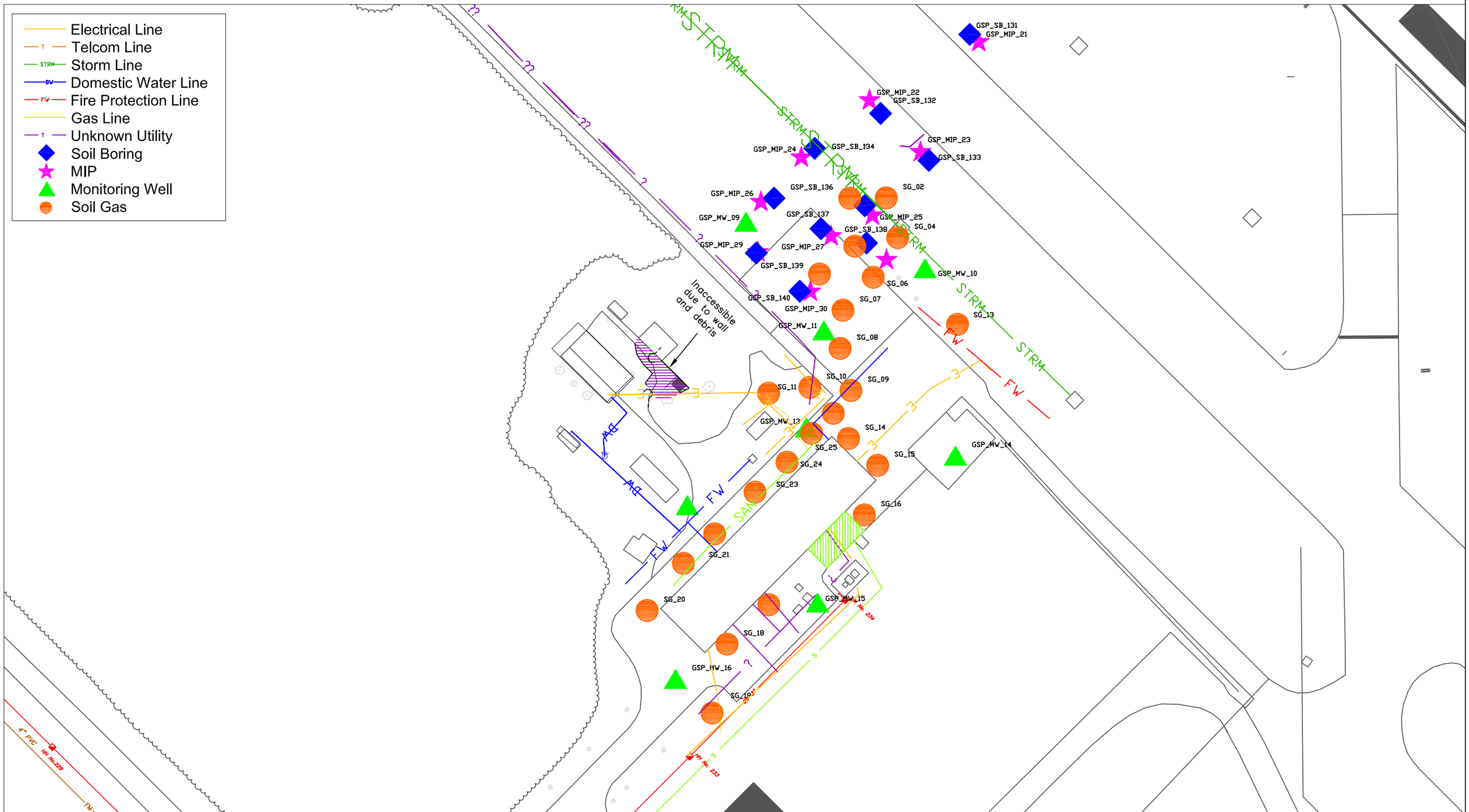
Utility Survey Results Greater Strawberry Point

Greater Strawberry Point Utility Survey

Martin State Airport
Middle River, MD

Figure: 1

Project Number	Survey Date	Drawn by:
071226	08/22/12	WES
Original Scale	Revision/Issue	Approved by:
1" = 50'	10/08/2012	FKB



The information depicted on this drawing represents survey results on the date surveyed and can only be considered to be indicative of the general conditions existing on that survey date.

Coordinates in Maryland State Plane (feet) NAD-83 Datum.

0 80 160
Scale in Feet

N

Prepared by:

Enviroscan, Inc.
1051 Columbia Avenue
Lancaster, PA
(717) 396-8922

Utility Survey Results Greater Strawberry Point

Greater Strawberry Point Utility Survey

Martin State Airport Middle River, MD

Figure 2

Project Number	Survey Date	Drawn by:
071226	08/22/12	WES
Original Scale	Revision/Issue	Approved by:
1" = 80'	10/09/2012	FKB

Table 1
Utility Clearance Results
Greater Strawberry
Point Area

Boring ID	Final Easting	Final Northing	Boring Moved due to Utility or Obstruction
GSP_MIP_21	1479406.002	603017.229	
GSP_MIP_22	1479306.976	602964.461	x
GSP_MIP_23	1479353.216	602917.519	x
GSP_MIP_24	1479245.283	602912.63	x
GSP_MIP_25	1479309.638	602860.024	x
GSP_MIP_26	1479208.659	602872.31	
GSP_MIP_27	1479272.242	602841.285	
GSP_MIP_28	1479322.419	602819.835	
GSP_MIP_29	1479205.978	602826.73	
GSP_MIP_30	1479253.474	602791.108	
GSP_MIP_31	1478226.103	604020.076	
GSP_MIP_32	1478214.099	603980.293	
GSP_MIP_33	1478193.828	603984.718	
GSP_MIP_34	1478182.017	604012.504	
GSP_MIP_35	1478226.531	604042.259	x
GSP_MIP_36	1478251.453	604019.408	x
GSP_MIP_37	1478246.599	603993.129	
GSP_MIP_38	1478186.515	603964.18	
GSP_MIP_39	1478045.182	603789.249	
GSP_MIP_40	1478007.924	603792.377	
GSP_MIP_41	1478007.702	603839.645	
GSP_MIP_42	1478049.733	603847.269	
GSP_MIP_43	1478059.972	603826.223	
GSP_MIP_45	1478021.007	603755.972	
GSP_MIP_44	1478037.364	603763.753	x
GSP_MW_09	1479195.161	602854.358	
GSP_MW_10	1479357.309	602812.274	
GSP_MW_11	1479265.714	602755.956	
GSP_MW_12	1479141.937	602597.522	
GSP_MW_13	1479249.825	602667.962	
GSP_MW_14	1479384.842	602642.427	
GSP_MW_15	1479259.916	602509.318	x
GSP_MW_16	1479131.268	602440.13	
GSP_MW_17	1477996.646	603757.024	
GSP_MW_18	1478068.033	603791.312	x
GSP_MW_19	1478209.904	603924.927	x
GSP_MW_20	1478261.17	603984.843	
GSP_SB_131	1479397.894	603024.207	x
GSP_SB_132	1479317.077	602952.652	x
GSP_SB_133	1479360.821	602910.122	x
GSP_SB_134	1479257.415	602920.959	
GSP_SB_135	1479302.667	602869.023	x
GSP_SB_136	1479220.533	602875.757	
GSP_SB_137	1479263.049	602848.179	
GSP_SB_138	1479304.367	602835.196	x
GSP_SB_139	1479204.515	602826.133	x

Table 1
Utility Clearance Results
Greater Strawberry
Point Area

Boring ID	Final Easting	Final Northing	Boring Moved due to Utility or Obstruction
GSP_SB_140	1479243.898	602791.491	
GSP_SB_141	1478220.094	604017.345	
GSP_SB_142	1478206.998	603978.654	
GSP_SB_143	1478187.08	603982.56	
GSP_SB_144	1478177.409	604009.153	
GSP_SB_145	1478220.427	604043.227	x
GSP_SB_146	1478247.345	604023.847	x
GSP_SB_147	1478238.952	603989.852	
GSP_SB_148	1478180.234	603962.814	
GSP_SB_149	1478040.062	603787.258	
GSP_SB_150	1478002.52	603791.808	
GSP_SB_151	1478011.584	603842.346	
GSP_SB_152	1478043.76	603844.71	
GSP_SB_153	1478053.714	603822.81	
GSP_SB_154	1478037.364	603763.753	x
GSP_SB_155	1478015.603	603753.697	
MT_MW10	1475841	605210	
MT_MW11	1475717.233	605506.504	x
MT_MW12	1475751	605593	
MT_MW7	1475339.583	606343.334	x
MT_MW8	1475339	606408	
MT_MW9	1476159.227	605416.347	x
MT_SB17	1475334.876	606303.213	x
MT_SB18	1476152	605390	
MT_SB19	1475747.991	605505.357	x
MT_SB20	1475802.582	605668.258	x
MT_SB21	1475831.432	605749.993	x
SG_01	1479289.151	602875.782	
SG_02	1479322.178	602876.049	
SG_03	1479293.679	602832.368	
SG_04	1479332.565	602840.092	
SG_05	1479261.717	602807.065	
SG_06	1479310.459	602804.135	
SG_07	1479283.025	602774.304	
SG_08	1479280.361	602739.679	
SG_09	1479290.216	602701.591	
SG_10	1479252.928	602704.255	
SG_11	1479215.641	602699.035	x
SG_12	1479274.232	602680.869	x
SG_13	1479386.763	602761.431	x
SG_14	1479287.965	602658.064	
SG_15	1479314.47	602633.7	
SG_16	1479302.295	602588.814	x
SG_17	1479215.786	602507.404	x
SG_18	1479177.883	602471.683	
SG_19	1479164.378	602409.203	x

Table 1
Utility Clearance Results
Greater Strawberry
Point Area

Boring ID	Final Easting	Final Northing	Boring Moved due to Utility or Obstruction
SG_20	1479105.542	602502.197	
SG_21	1479138.441	602544.936	x
SG_22	1479166.751	602571.618	x
SG_23	1479203.32	602609.37	x
SG_24	1479232.279	602636.555	x
SG_25	1479254.593	602662.724	x

APPENDIX B—MEMBRANE-INTERFACE PROBE INVESTIGATION REPORT

VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

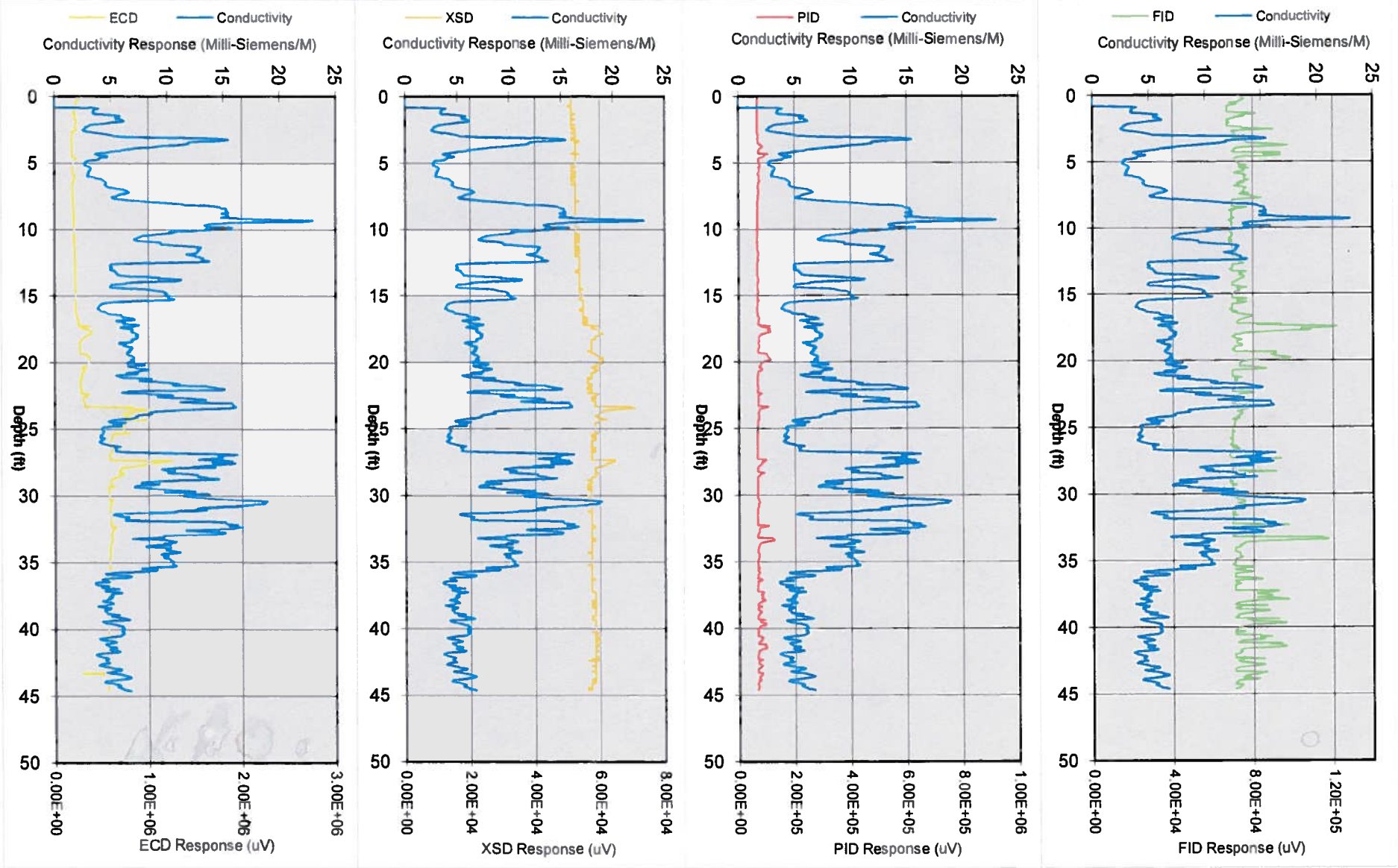
Boring Name: MIP21

Total Depth (ft): 44.60

Notes:
None.

GW Depth (ft): 6
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	TetraTech	Trunkline Length:	150	Start Boring Time:	Tue Sep 04 2012 13:18:46
Project Name:	GSP Supplemental Soil	Probe Type:	6520	End Boring Time:	Tue Sep 04 2012 14:20:01
Site Address:	701 Wilson Point Rd. Middle River, MD	Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry



VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

Boring Name: MIP22

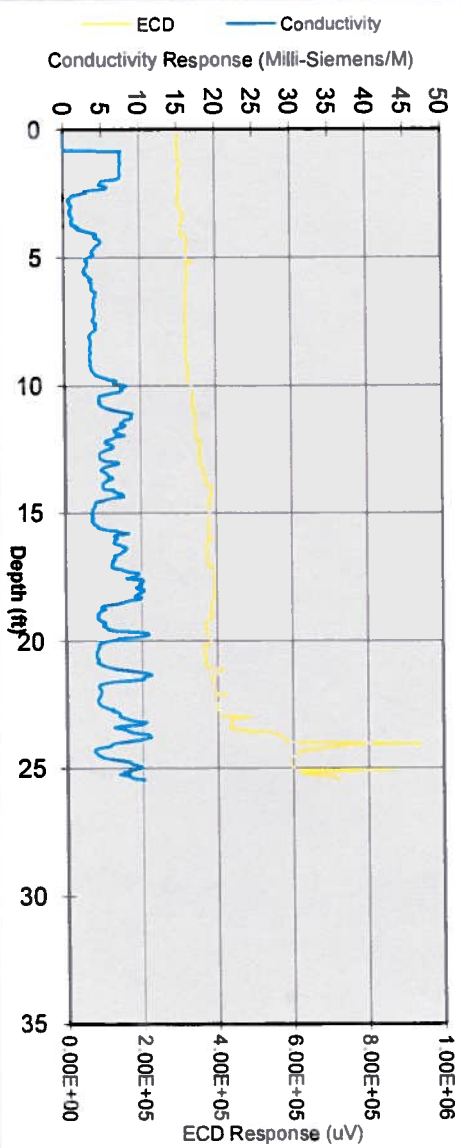
Total Depth (ft): 25.50

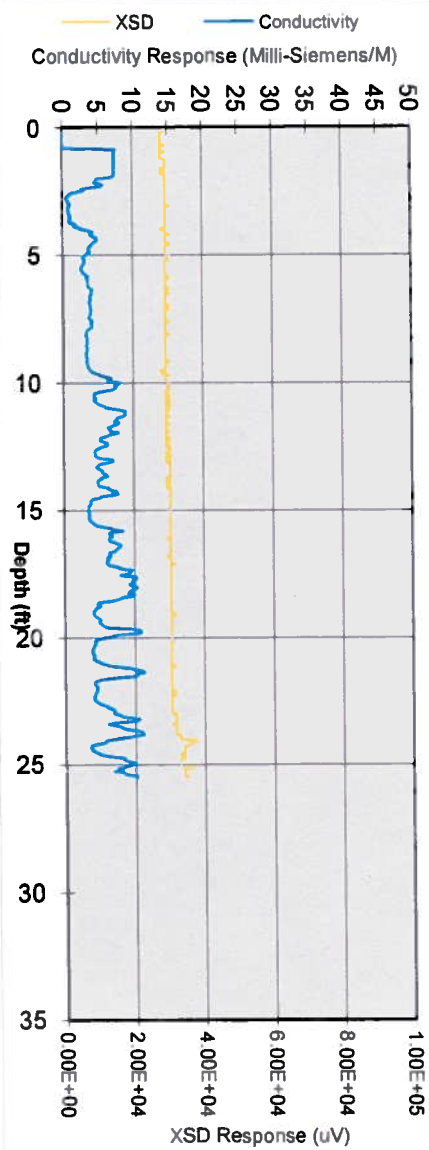
Notes:
Refusal at 25.50 feet bgs.

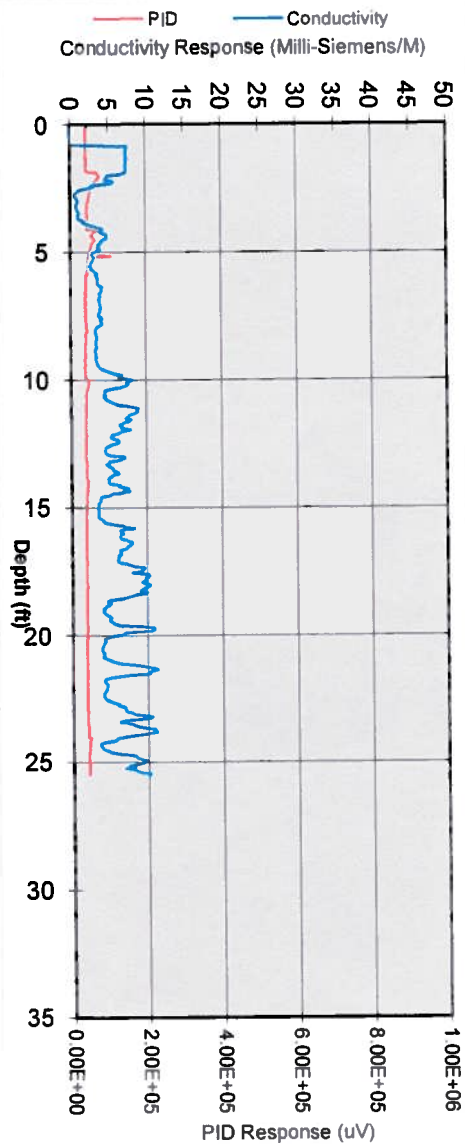
GW Depth (ft): 6
Depth of GW Provided by Client

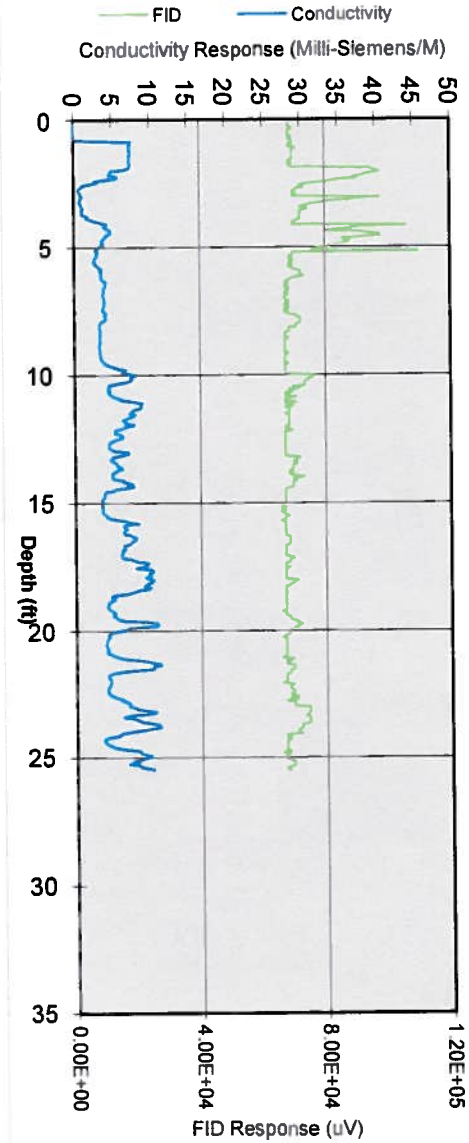
Job Information	
Client Company:	TetraTech
Project Name:	GSP Supplemental Soil
Site Address:	701 Wilson Point Rd. Middle River, MD

MIP Sampling Information			
Trunkline Length:	150	Start Boring Time:	Wed Aug 29 2012 09:49:22
Probe Type:	6520	End Boring Time:	Wed Aug 29 2012 10:17:10
Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry









VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

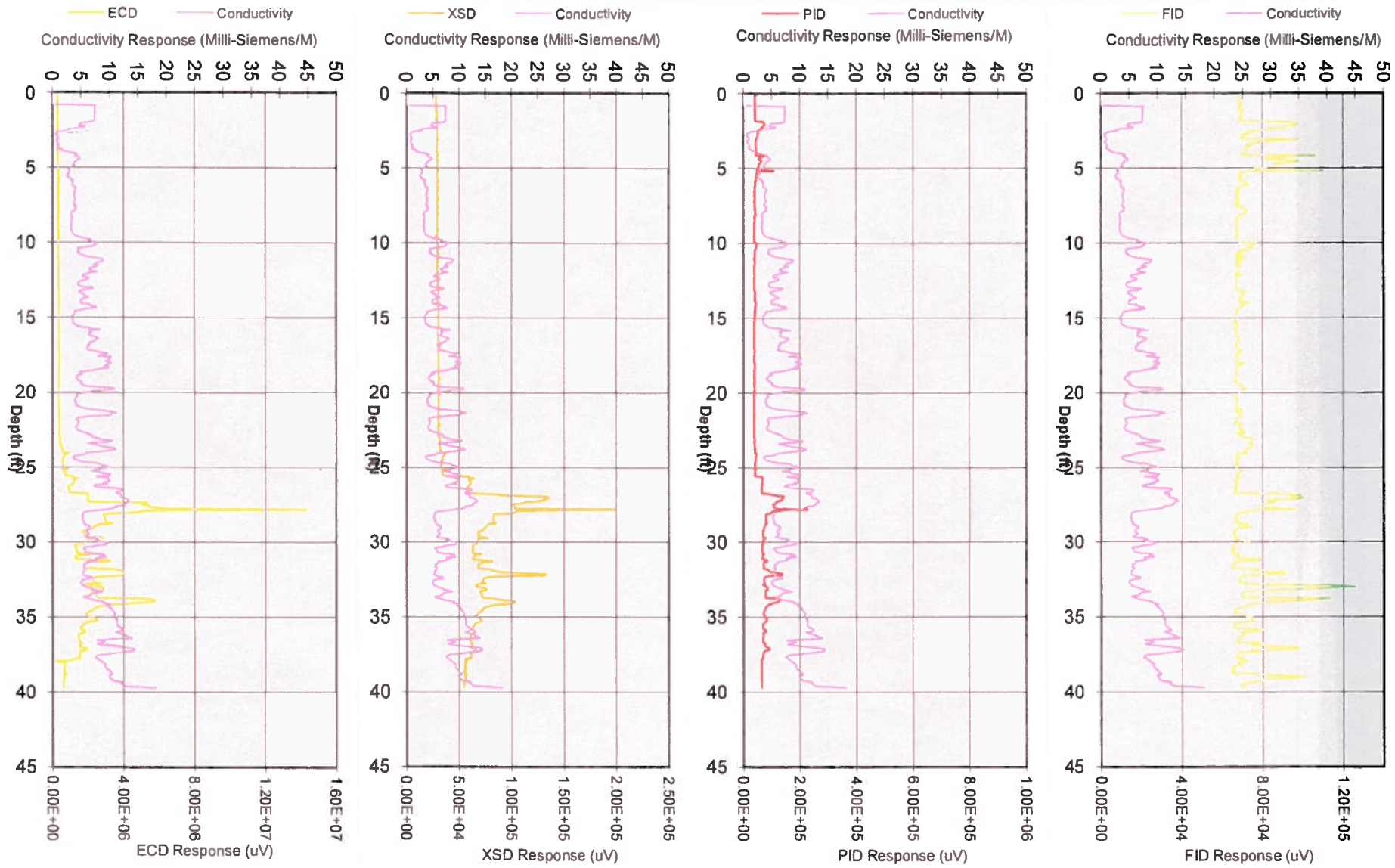
Boring Name: MIP22

Total Depth (ft): 39.70

Notes:
Refusal at 25.50 feet bgs. Continued boring with 7822DT to refusal at 39.70 feet bgs. Combined files TT22 and TT22A.

GW Depth (ft): 6
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	TetraTech	Trunkline Length:	150	Start Boring Time:	Wed Aug 29 2012 09:49:22
Project Name:	GSP Supplemental Soil	Probe Type:	6520	End Boring Time:	Wed Aug 29 2012 10:17:10
Site Address:	701 Wilson Point Rd. Middle River, MD	Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry



VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

Boring Name: MIP23

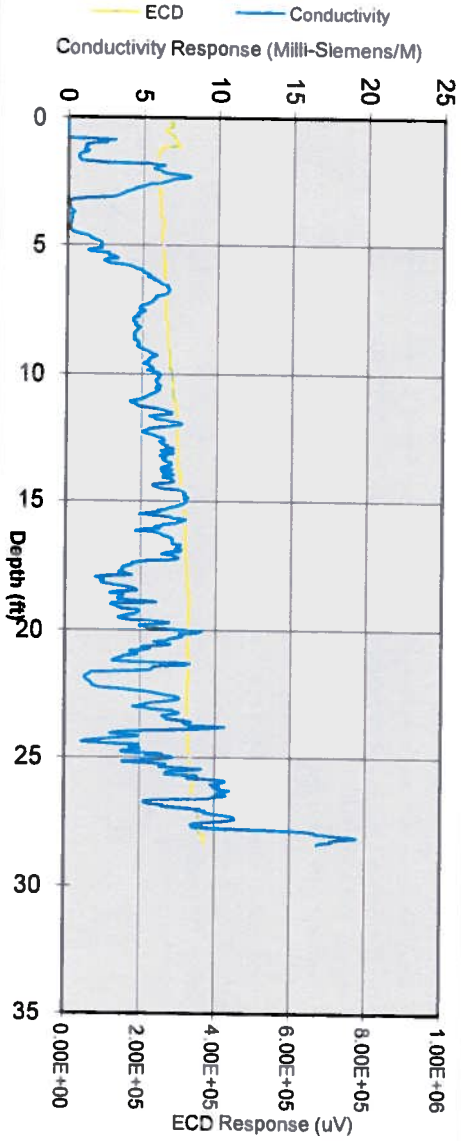
Total Depth (ft): 28.35

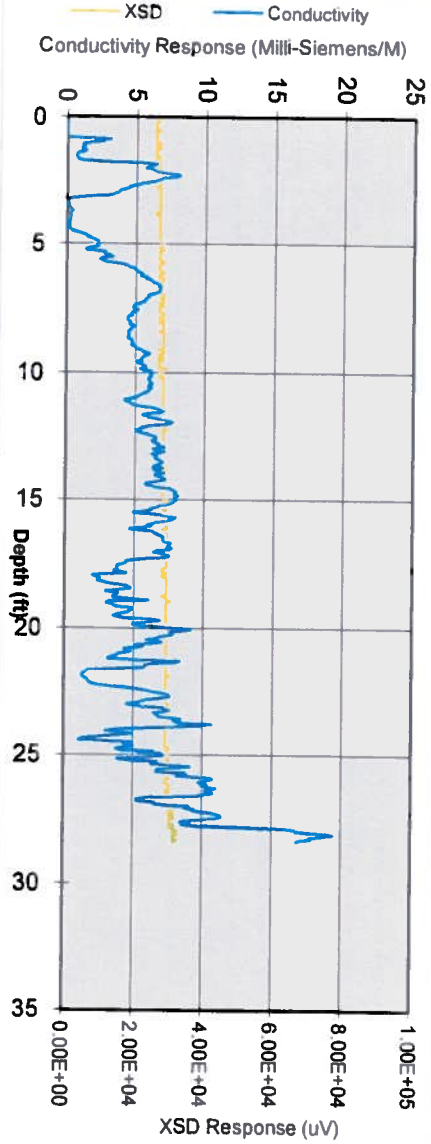
Notes:
Refusal at 28.35 feet bgs.

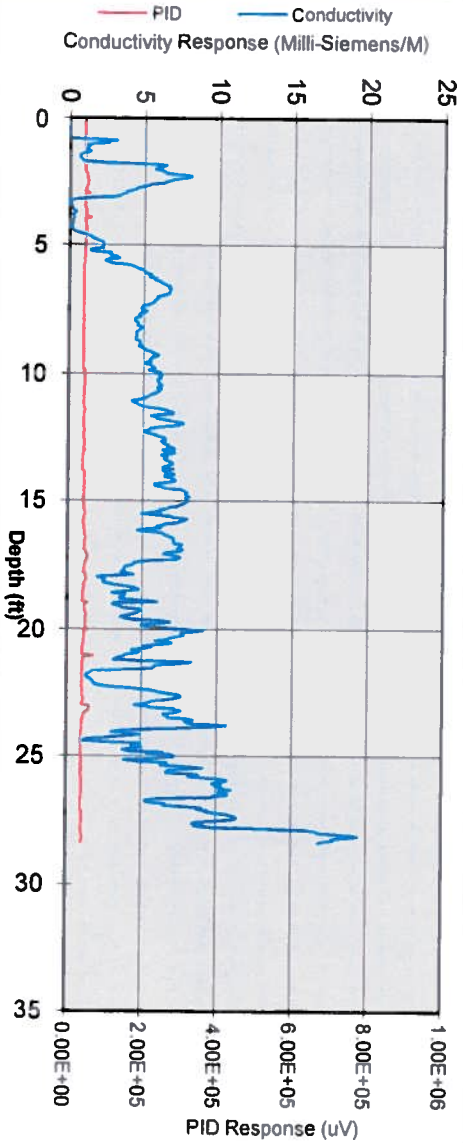
GW Depth (ft): 6
Depth of GW Provided by Client

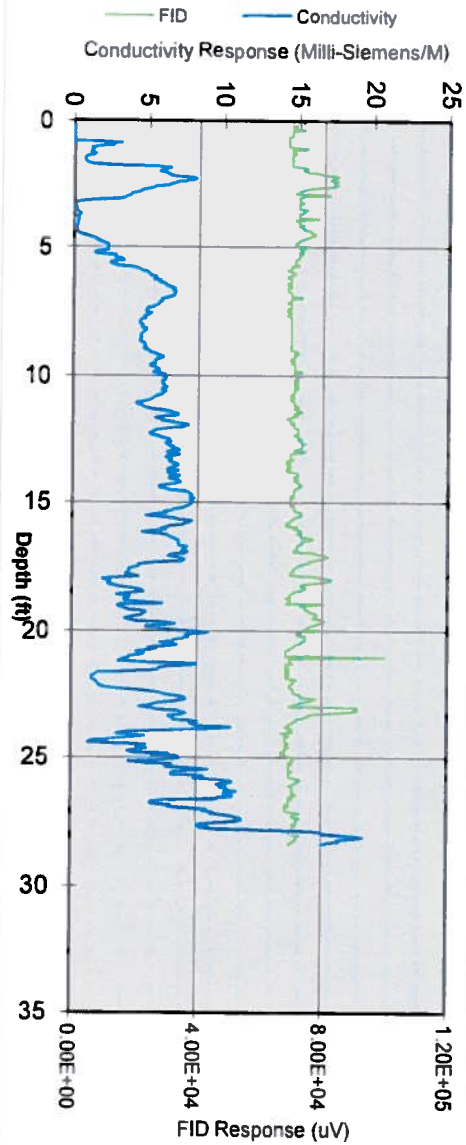
Job Information	
Client Company:	TetraTech
Project Name:	GSP Supplemental Soil
Site Address:	701 Wilson Point Rd. Middle River, MD

MIP Sampling Information			
Trunkline Length:	150	Start Boring Time:	Wed Aug 29 2012 08:27:29
Probe Type:	6520	End Boring Time:	Wed Aug 29 2012 08:59:12
Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry









VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

Boring Name: MIP24

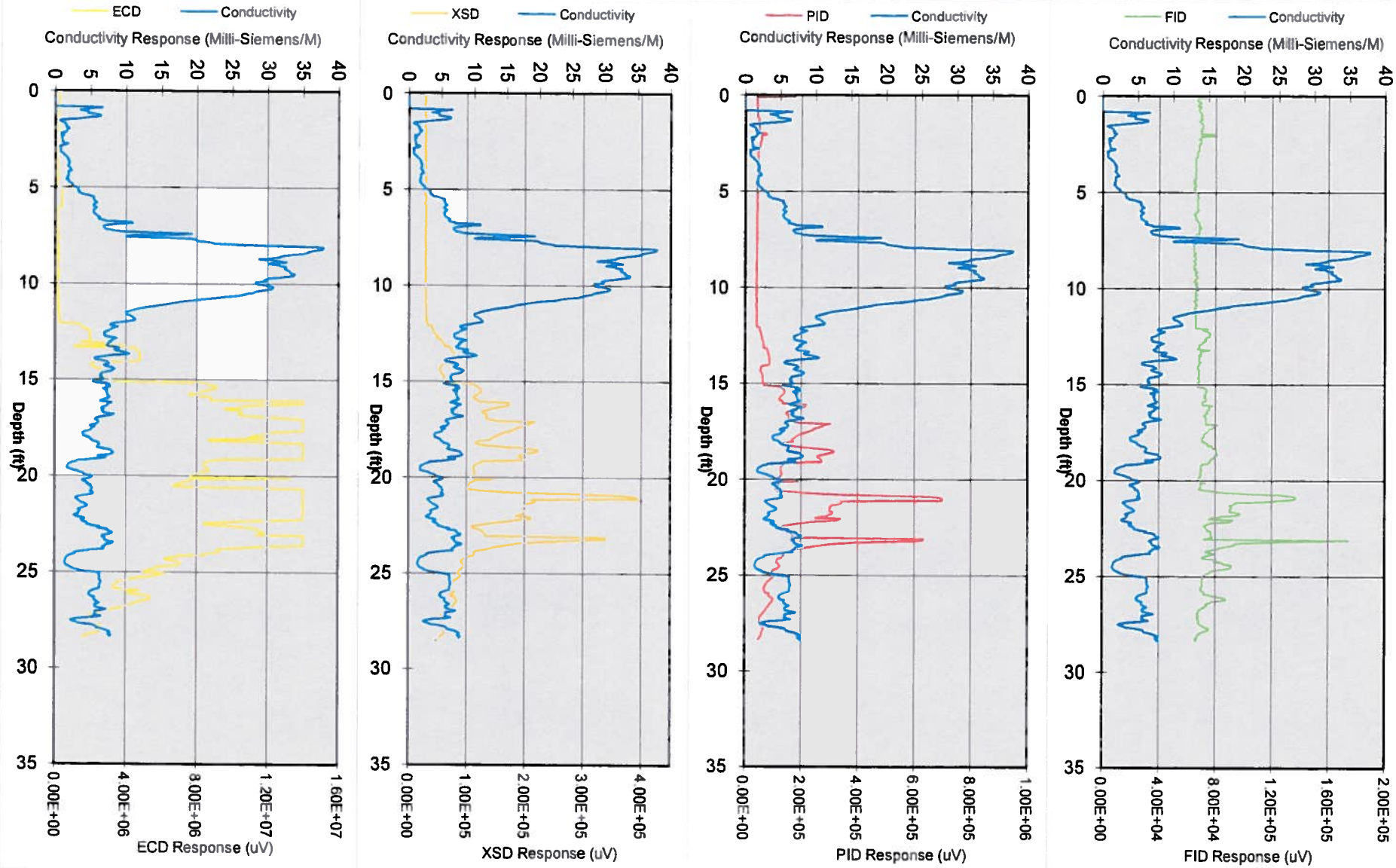
Total Depth (ft): 28.35

Notes:
Cleared concrete. Refusal at 28.35 feet bgs.

GW Depth (ft): 6
Depth of GW Provided by Client

Job Information	
Client Company:	TetraTech
Project Name:	GSP Supplemental Soil
Site Address:	701 Wilson Point Rd. Middle River, MD

MIP Sampling Information			
Trunkline Length:	150	Start Boring Time:	Tue Aug 28 2012 08:02:44
Probe Type:	6520	End Boring Time:	Tue Aug 28 2012 08:36:15
Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry



VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

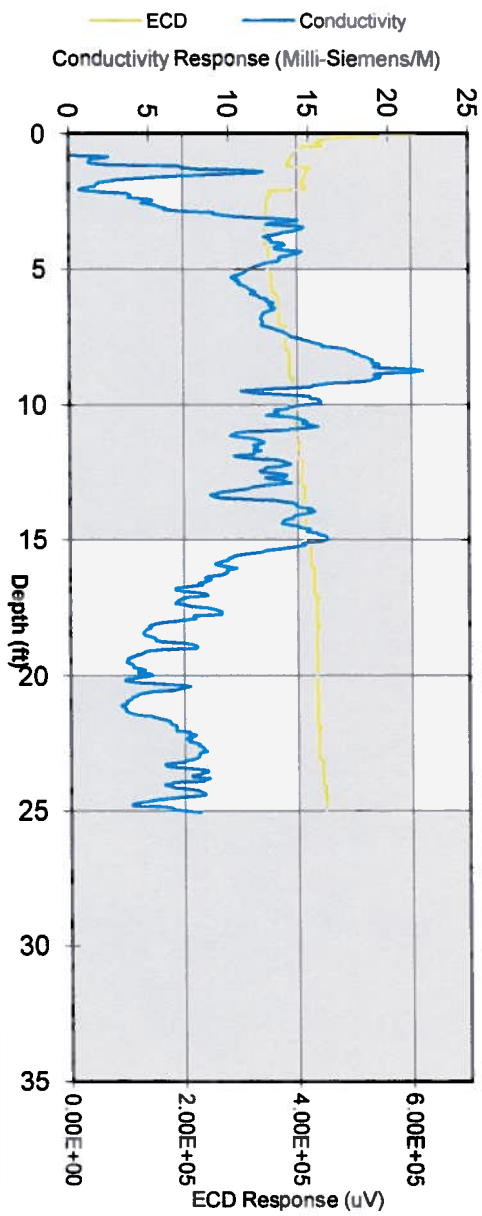
Boring Name: MIP25

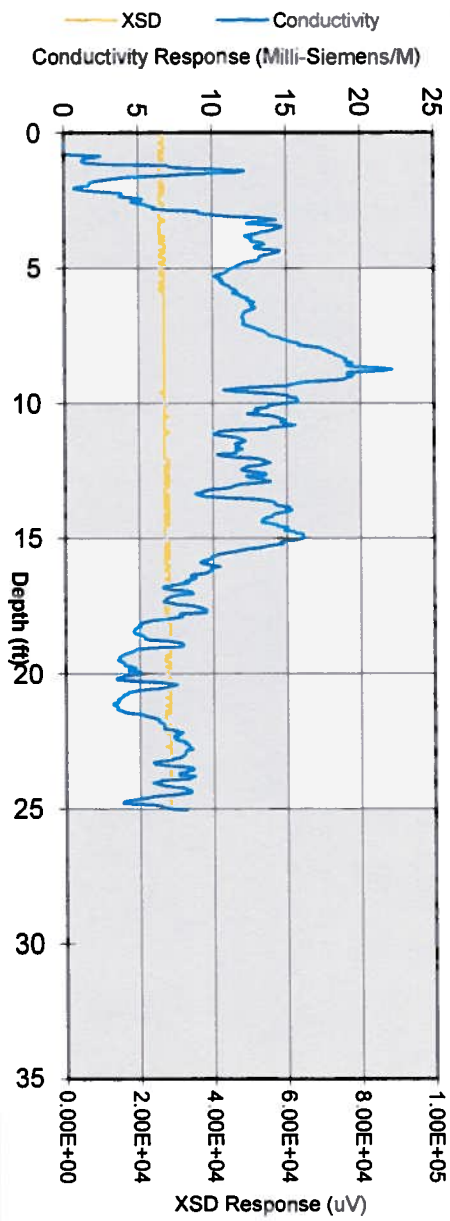
Total Depth (ft): 25.05

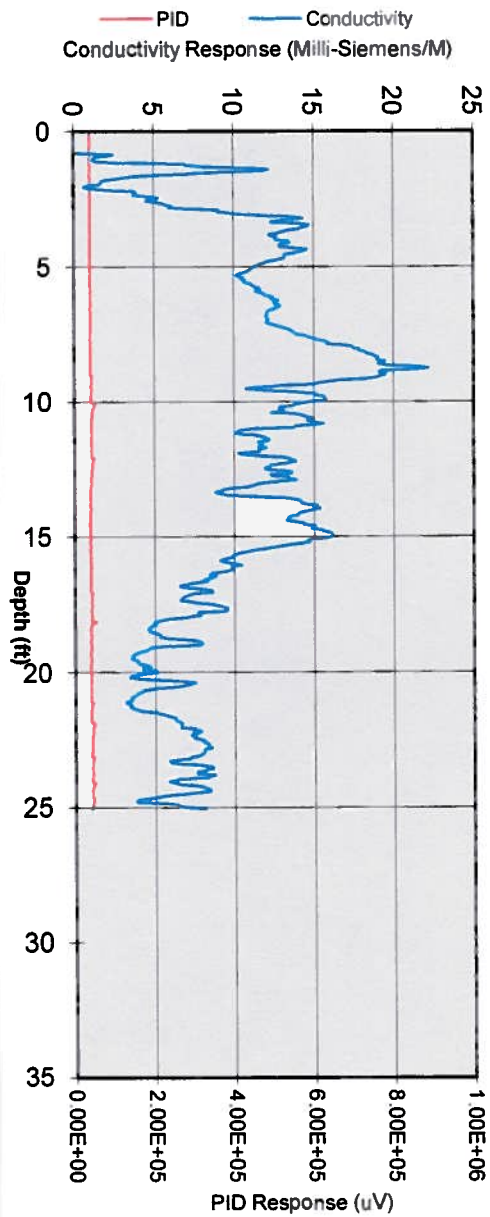
Notes:
Cleared concrete.

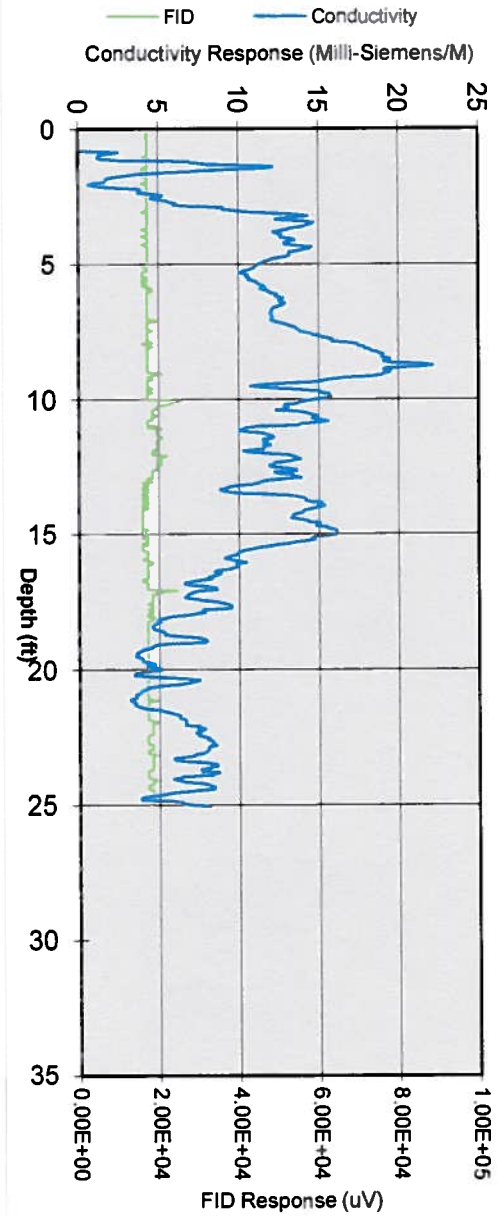
GW Depth (ft): 6
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	TetraTech	Trunkline Length:	150	Start Boring Time:	Mon Aug 27 2012 14:59:50
Project Name:	GSP Supplemental Soil	Probe Type:	6520	End Boring Time:	Mon Aug 27 2012 15:26:32
Site Address:	701 Wilson Point Rd. Middle River, MD	Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry









VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

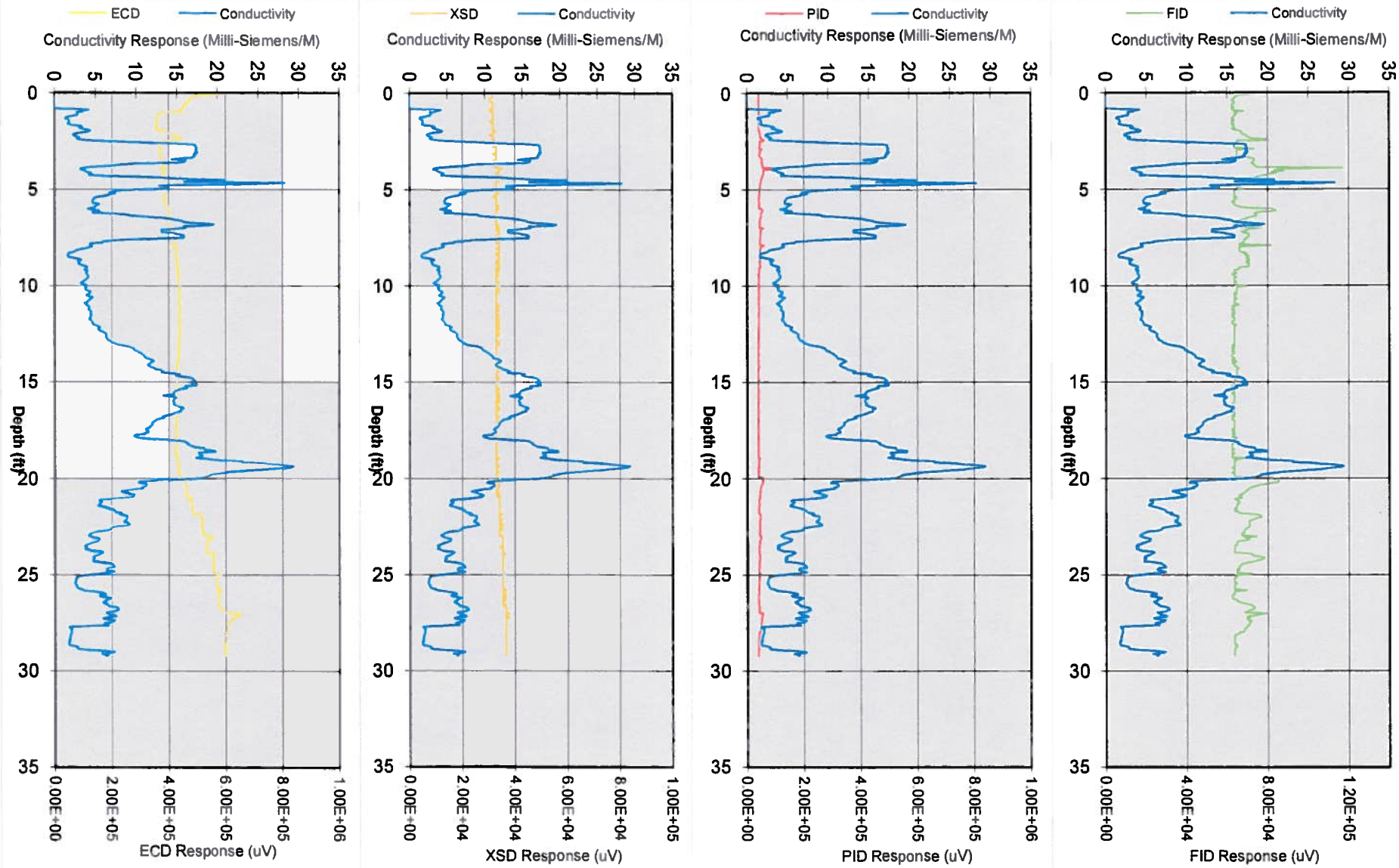
Boring Name: MIP26

Total Depth (ft): 29.20

Notes:
Refusal at 29.20 feet bgs.

GW Depth (ft): 6
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	TetraTech	Trunkline Length:	150	Start Boring Time:	Tue Aug 28 2012 09:15:40
Project Name:	GSP Supplemental Soil	Probe Type:	6520	End Boring Time:	Tue Aug 28 2012 09:50:24
Site Address:	701 Wilson Point Rd. Middle River, MD	Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry



VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

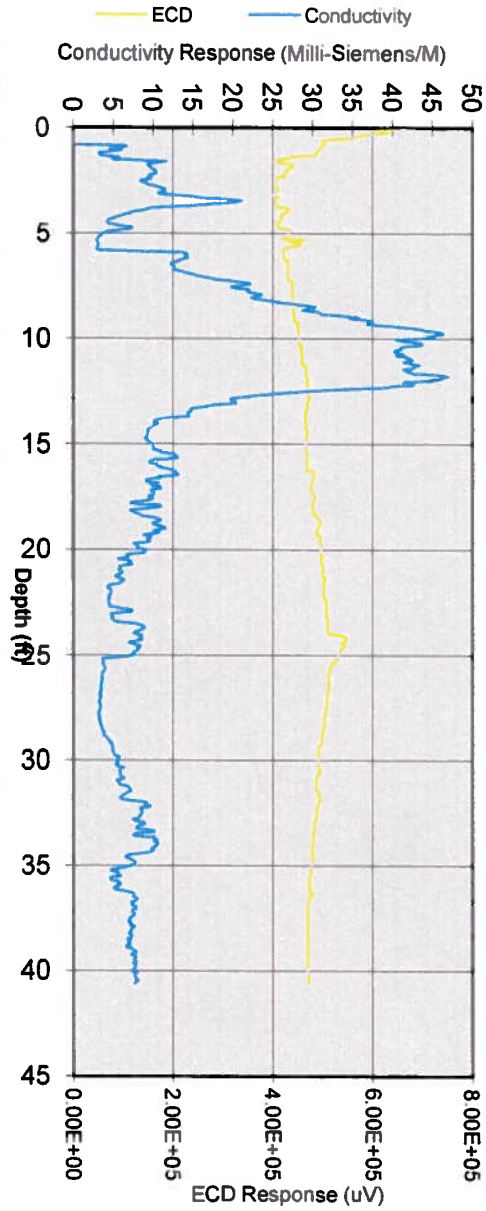
Boring Name: MIP27

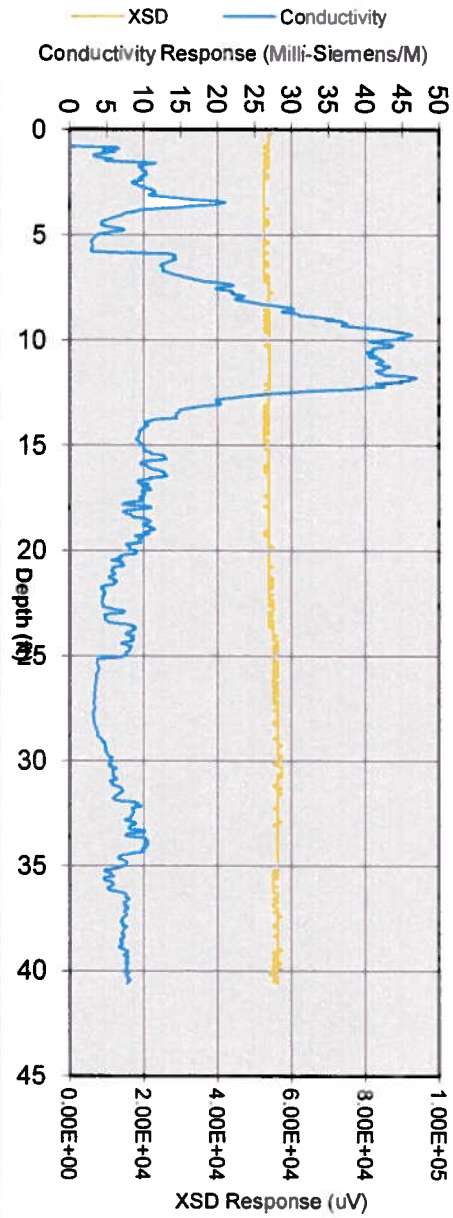
Total Depth (ft): 40.60

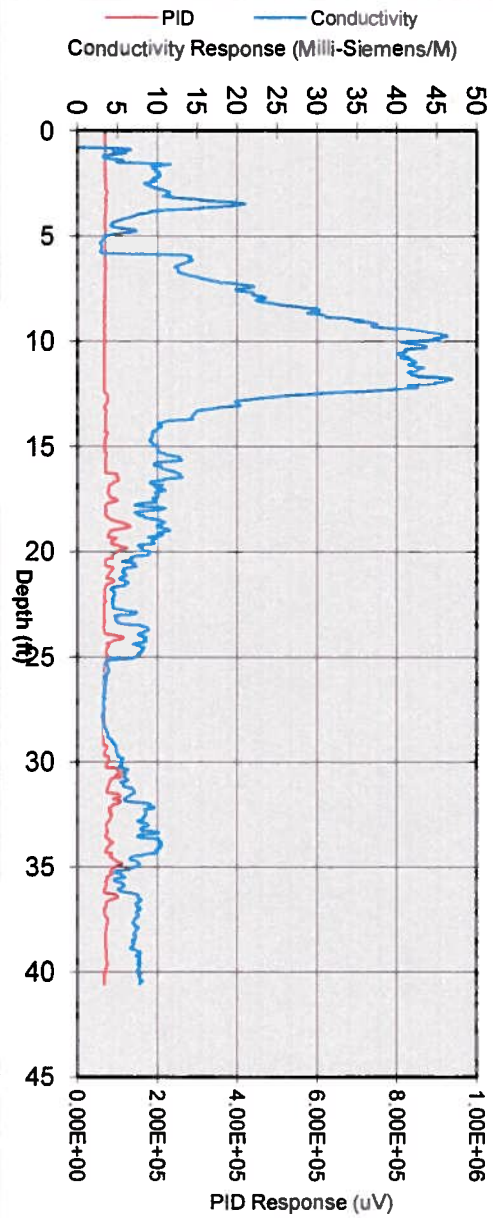
Notes:
None.

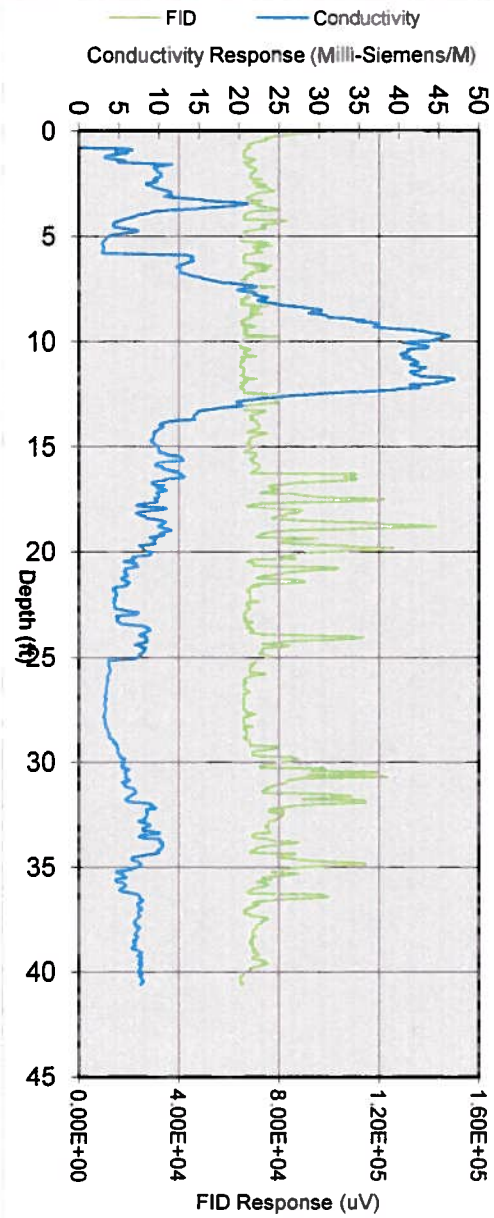
GW Depth (ft): 6
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	TetraTech	Trunkline Length:	150	Start Boring Time:	Tue Sep 04 2012 14:56:33
Project Name:	GSP Supplemental Soil	Probe Type:	6520	End Boring Time:	Tue Sep 04 2012 15:42:13
Site Address:	701 Wilson Point Rd. Middle River, MD	Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry









VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

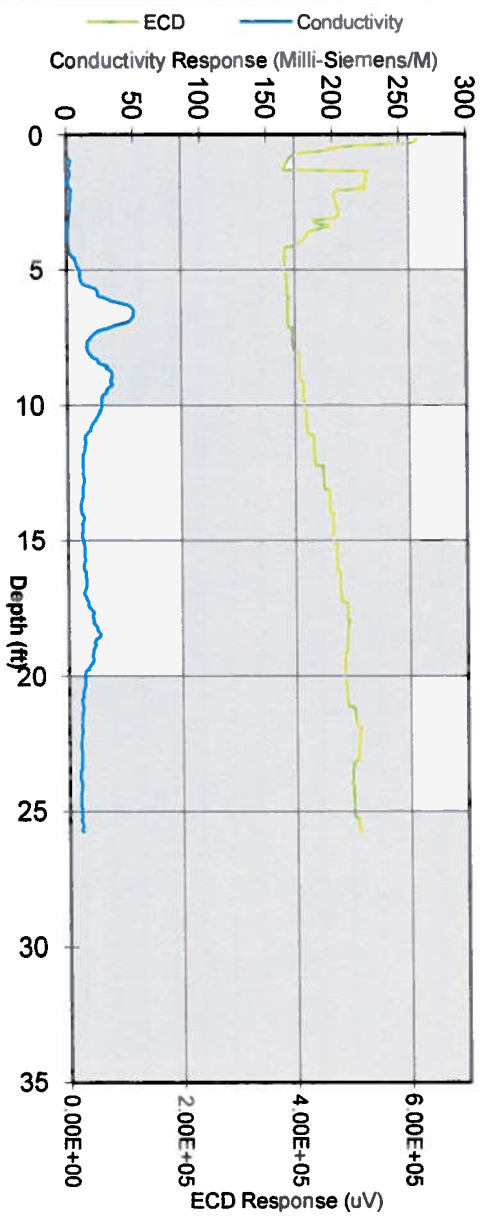
Boring Name: MIP28

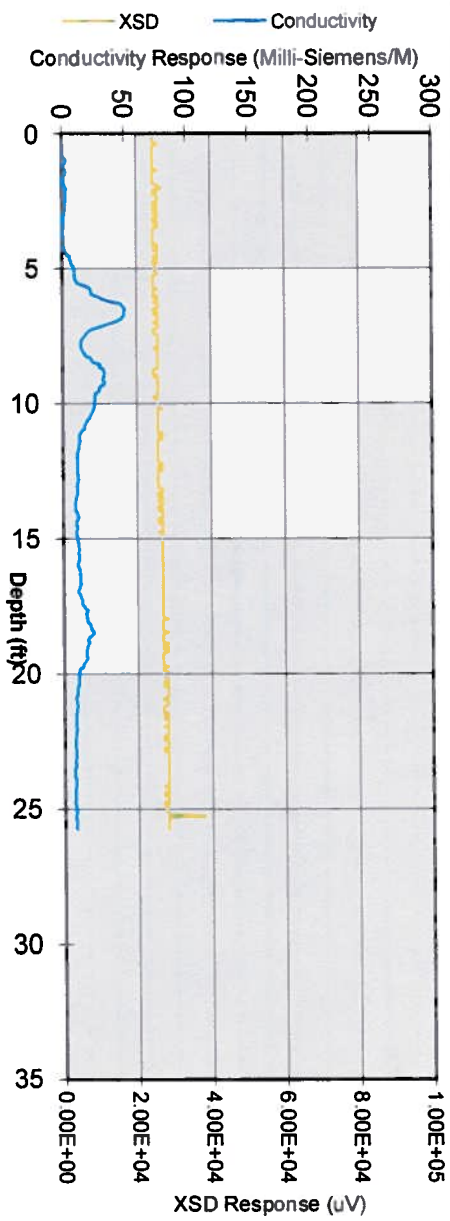
Total Depth (ft): 25.75

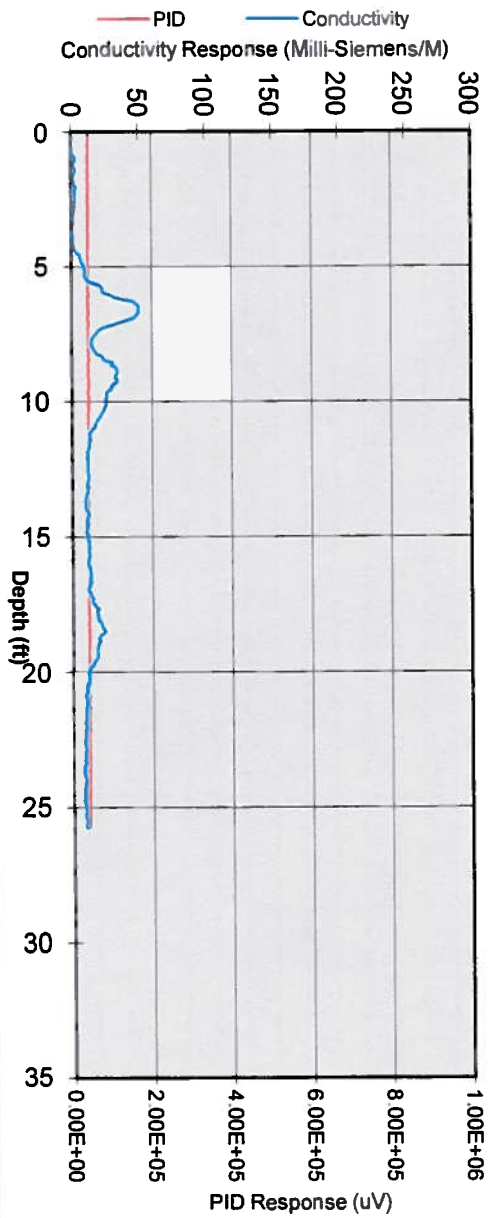
Notes:
Cleared concrete.

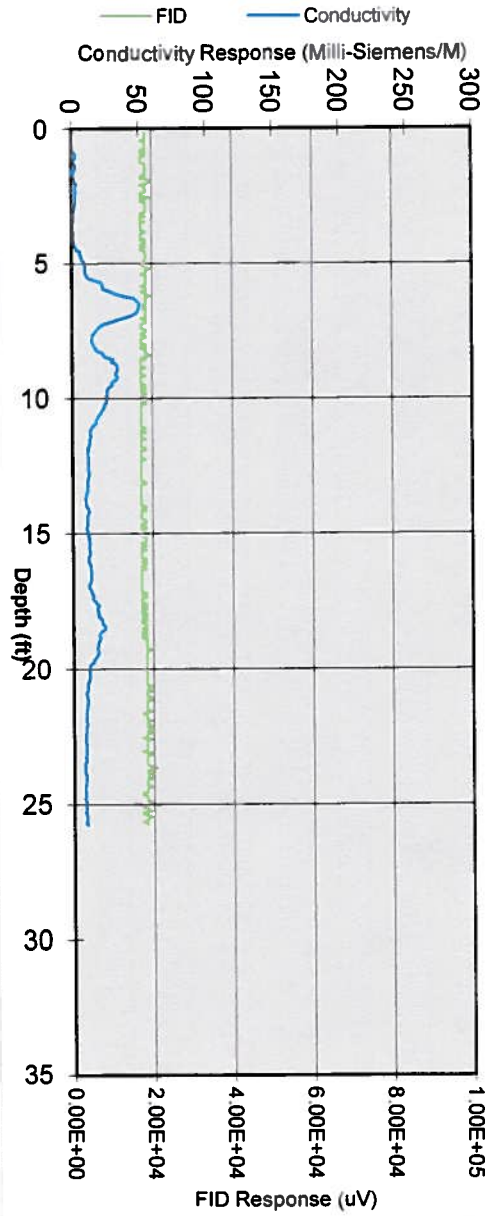
GW Depth (ft): 6
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	TetraTech	Trunkline Length:	150	Start Boring Time:	Mon Aug 27 2012 13:39:26
Project Name:	GSP Supplemental Soil	Probe Type:	6520	End Boring Time:	Mon Aug 27 2012 14:08:00
Site Address:	701 Wilson Point Rd. Middle River, MD	Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry









VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

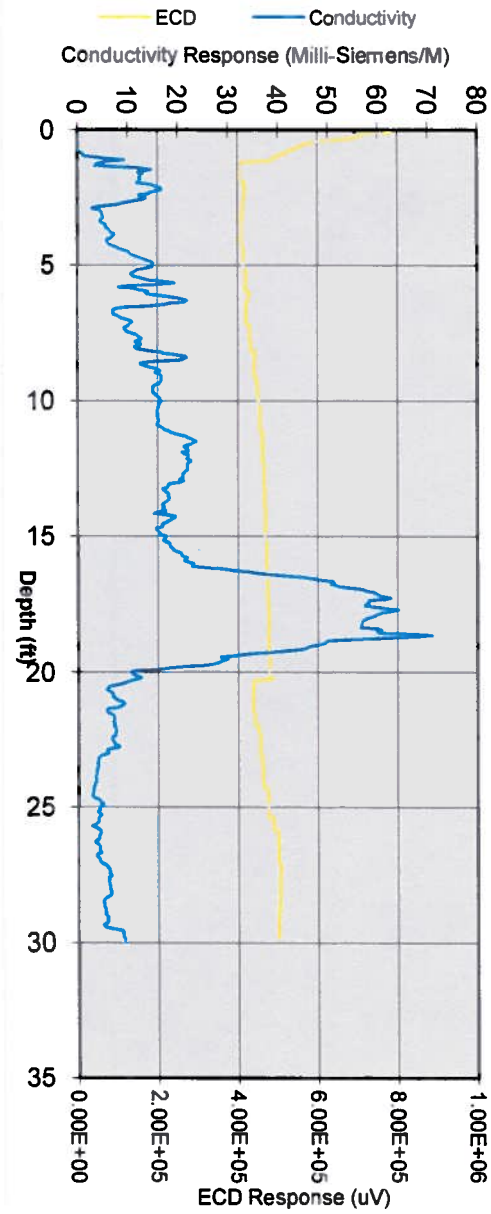
Boring Name: MIP29

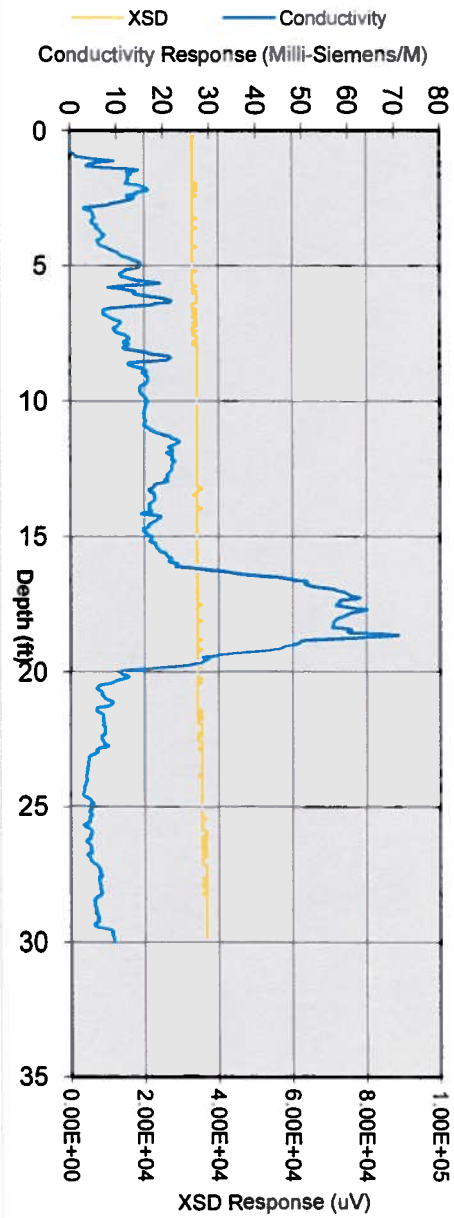
Total Depth (ft): 29.90

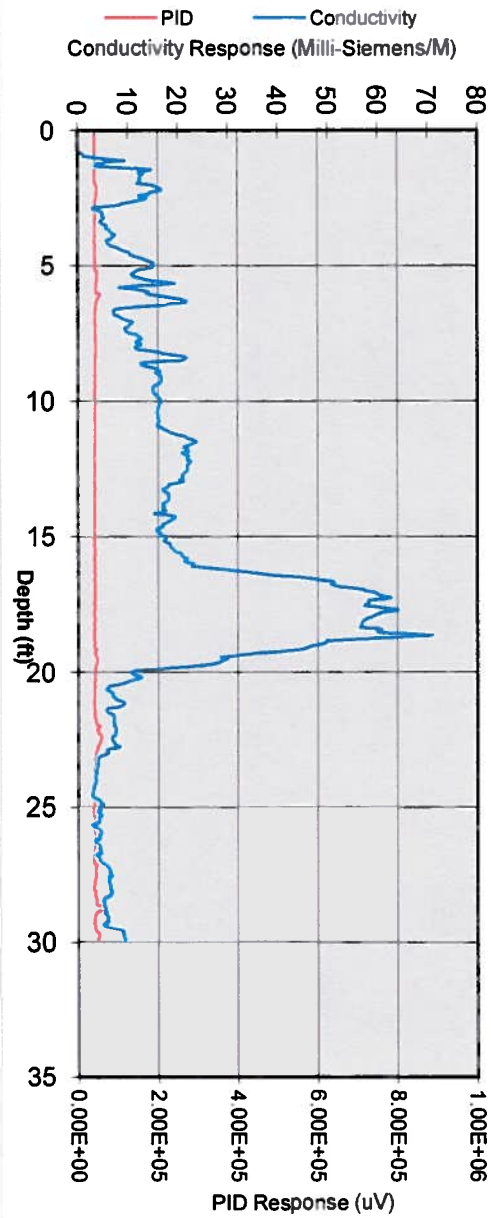
Notes:
Refusal at 29.20 feet bgs.

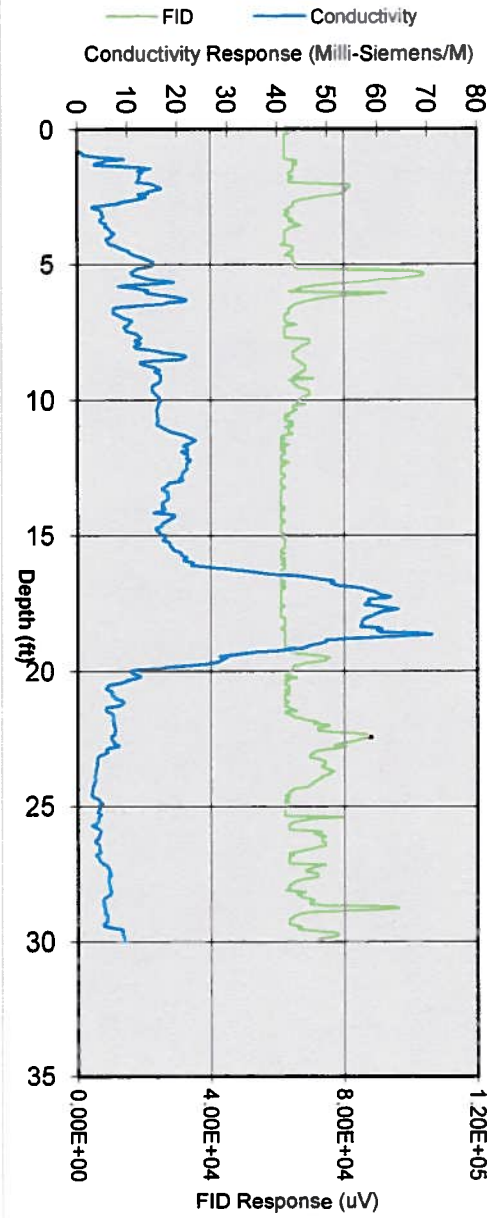
GW Depth (ft): 6
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	TetraTech	Trunkline Length:	150	Start Boring Time:	Tue Aug 28 2012 10:28:22
Project Name:	GSP Supplemental Soil	Probe Type:	6520	End Boring Time:	Tue Aug 28 2012 11:05:16
Site Address:	701 Wilson Point Rd. Middle River, MD	Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry









VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

Boring Name: MIP30

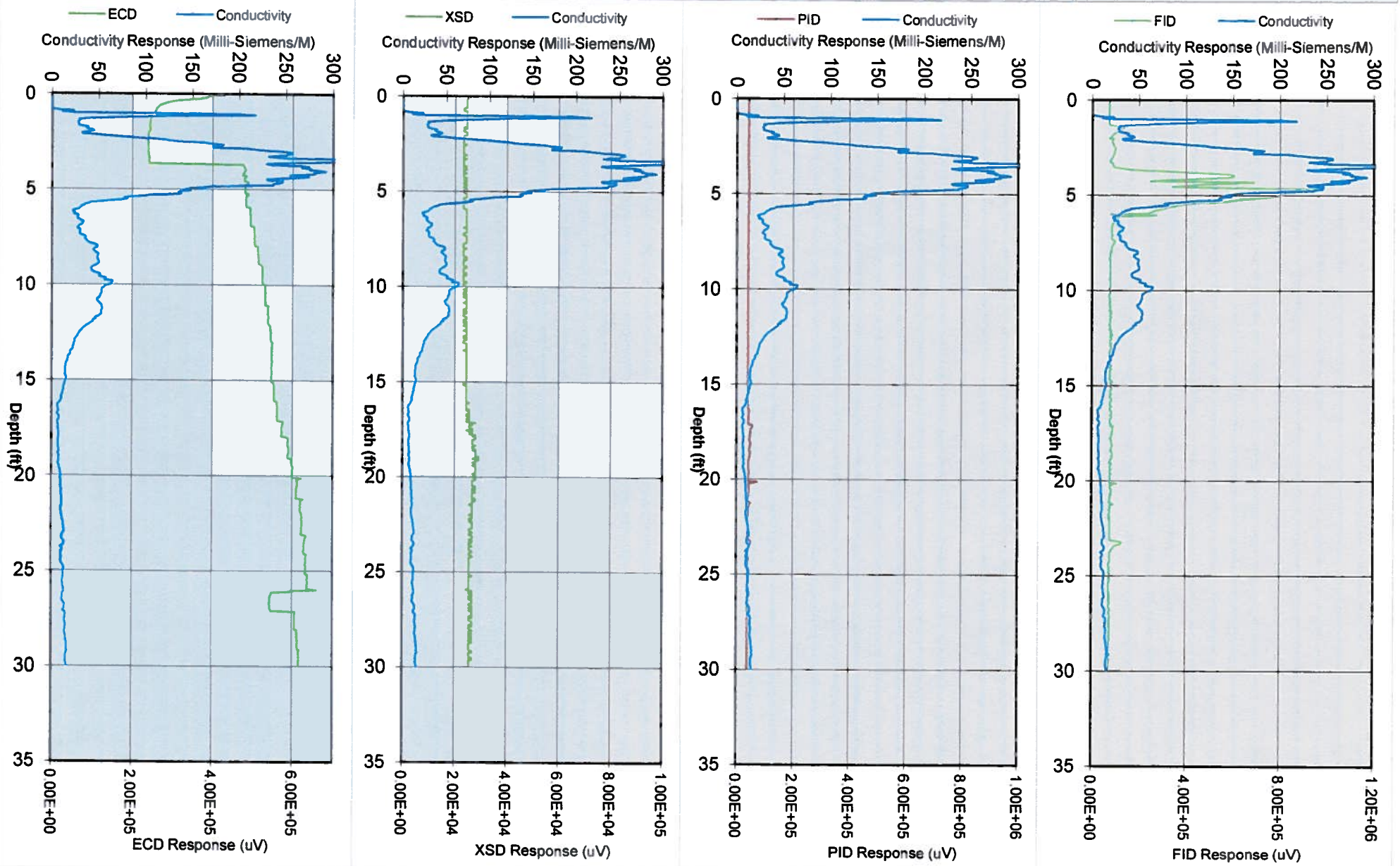
Total Depth (ft): 29.95

Notes:
Cleared concrete. ECD shift at 3.50 feet bgs caused by attenuation error.

GW Depth (ft): 6
Depth of GW Provided by Client

Job Information	
Client Company:	TetraTech
Project Name:	GSP Supplemental Soil
Site Address:	701 Wilson Point Rd. Middle River, MD

MIP Sampling Information			
Trunkline Length:	150	Start Boring Time:	Mon Aug 27 2012 12:06:07
Probe Type:	6520	End Boring Time:	Mon Aug 27 2012 12:38:30
Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry



VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

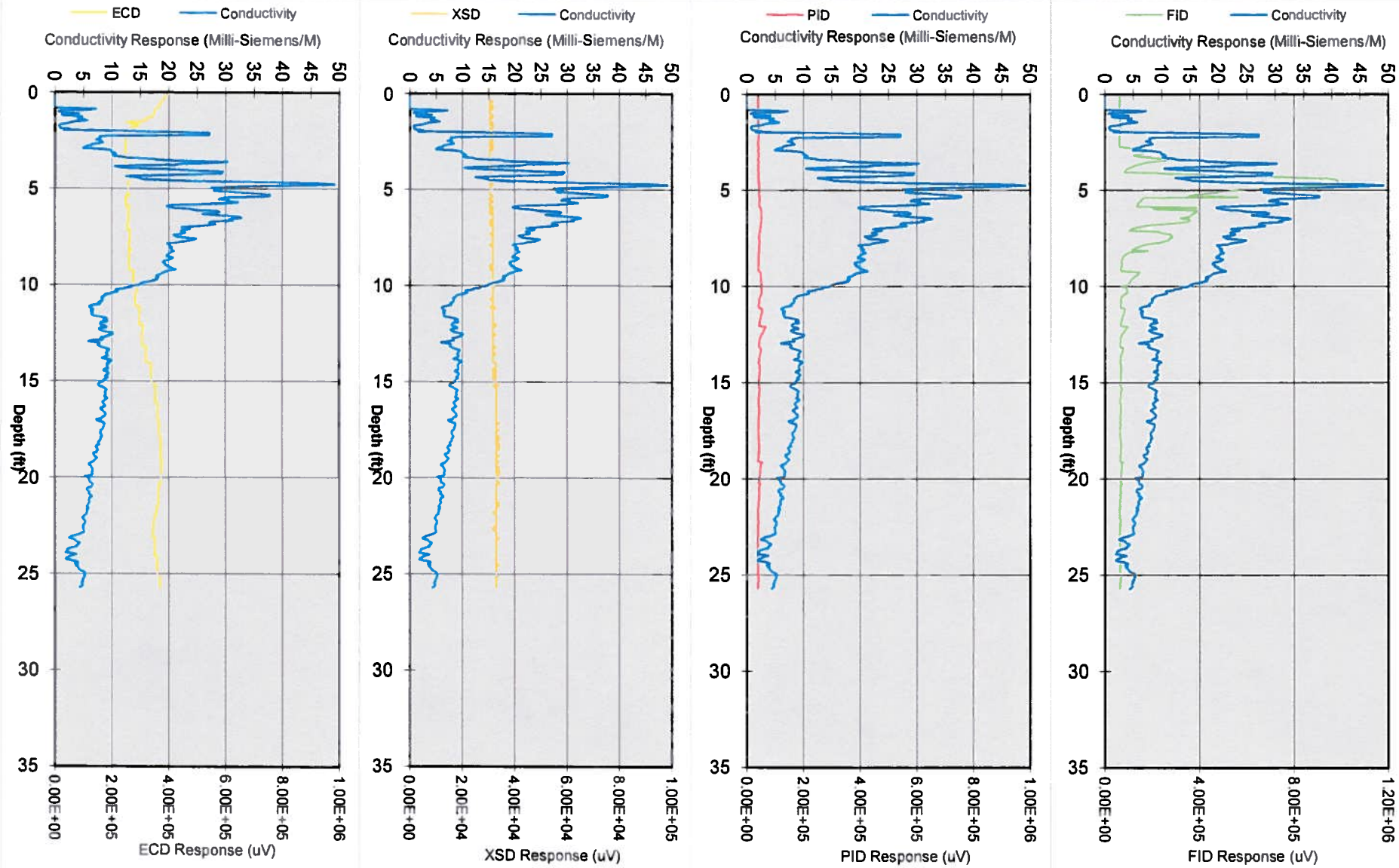
Boring Name: MIP31

Total Depth (ft): 25.70

Notes:
~~Refusal at 25.70 feet bgs~~.

GW Depth (ft): 6
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	TetraTech	Trunkline Length:	150	Start Boring Time:	Wed Aug 29 2012 14:28:49
Project Name:	GSP Supplemental Soil	Probe Type:	6520	End Boring Time:	Wed Aug 29 2012 14:59:05
Site Address:	701 Wilson Point Rd. Middle River, MD	Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry



VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

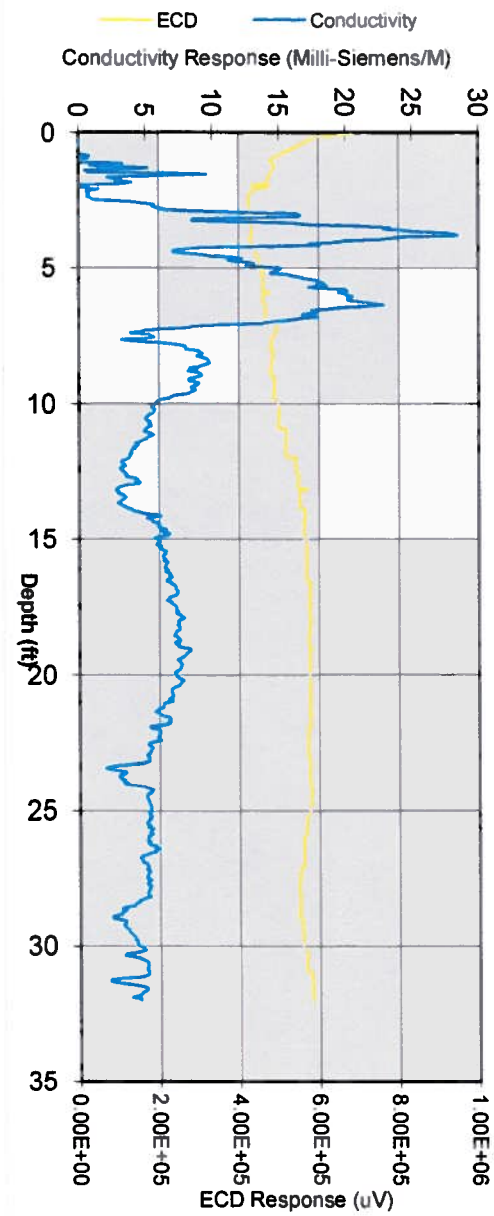
Boring Name: MIP32

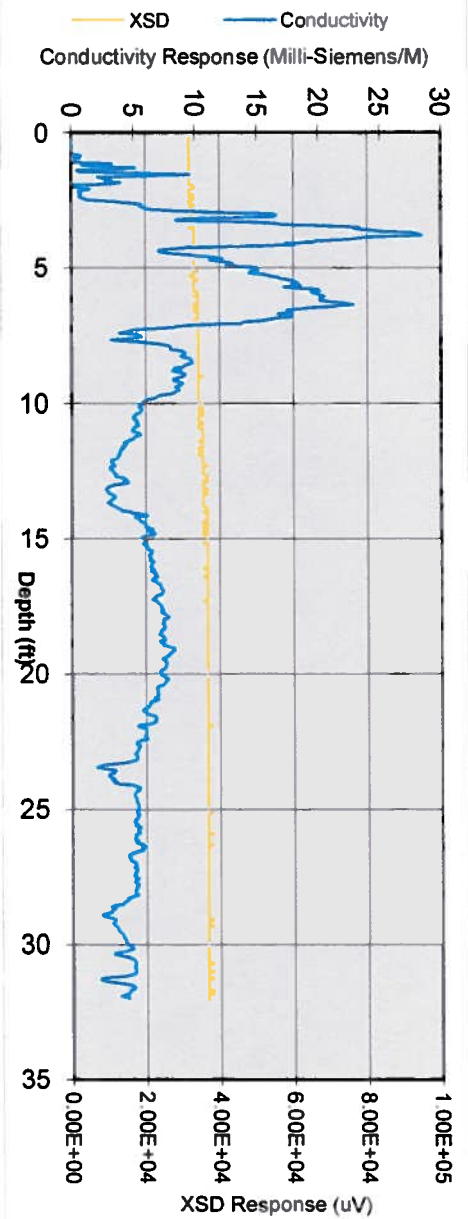
Total Depth (ft): 32.00

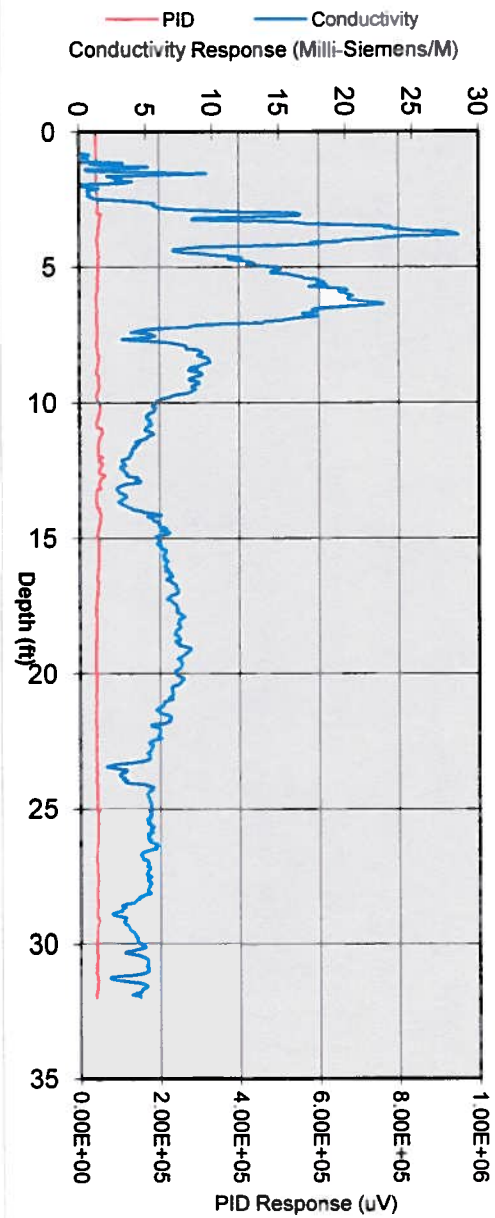
Notes:
Refusal at 32.00 feet bgs.

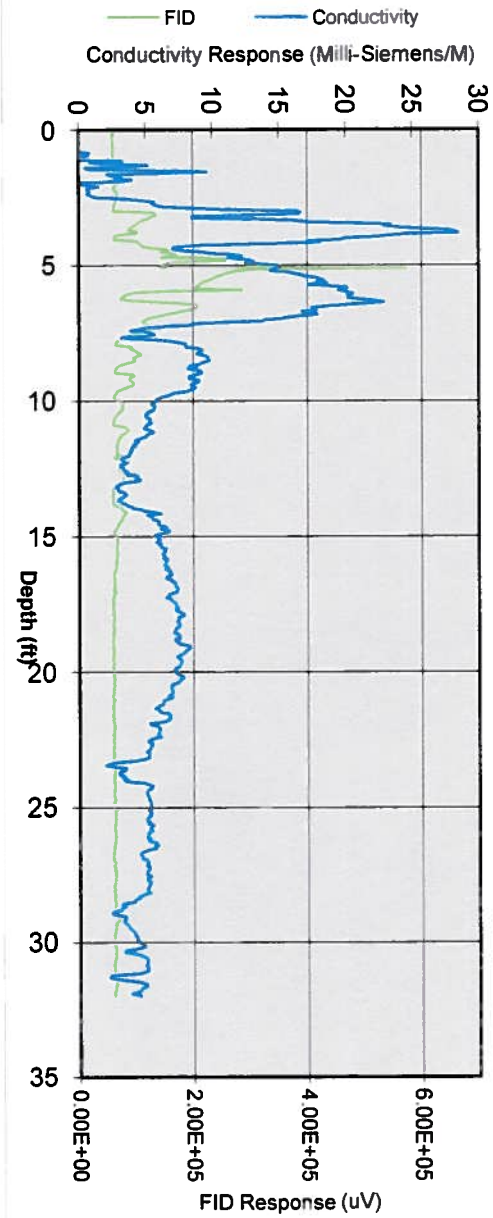
GW Depth (ft): 6
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	TetraTech	Trunkline Length:	150	Start Boring Time:	Tue Aug 28 2012 12:00:09
Project Name:	GSP Supplemental Soil	Probe Type:	6520	End Boring Time:	Tue Aug 28 2012 12:36:18
Site Address:	701 Wilson Point Rd. Middle River, MD	Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry









VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

Boring Name: MIP33

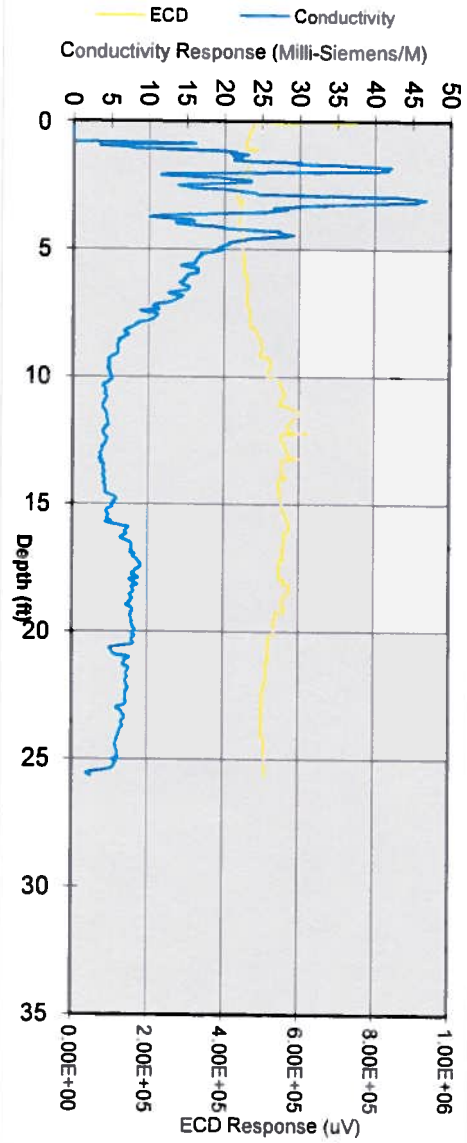
Total Depth (ft): 25.65

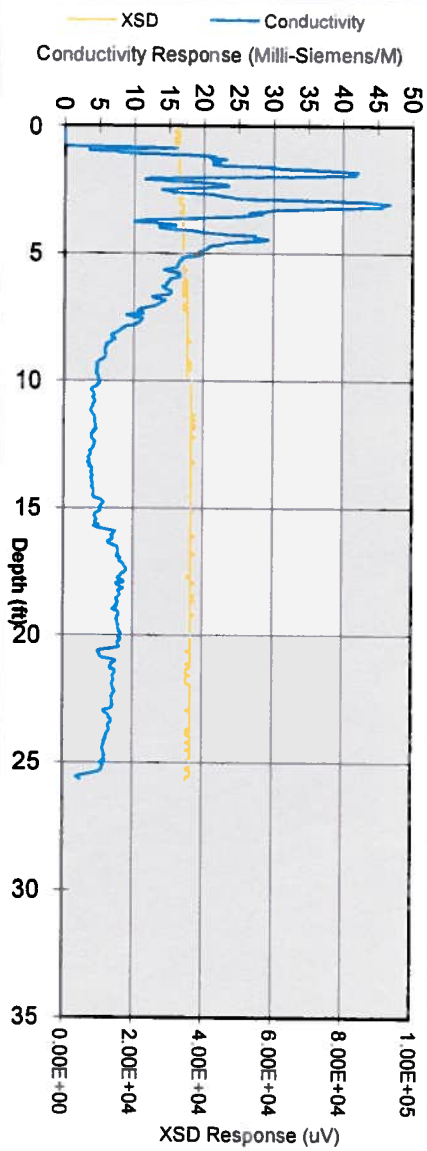
Notes:
Refusal at 25.65 feet bgs.

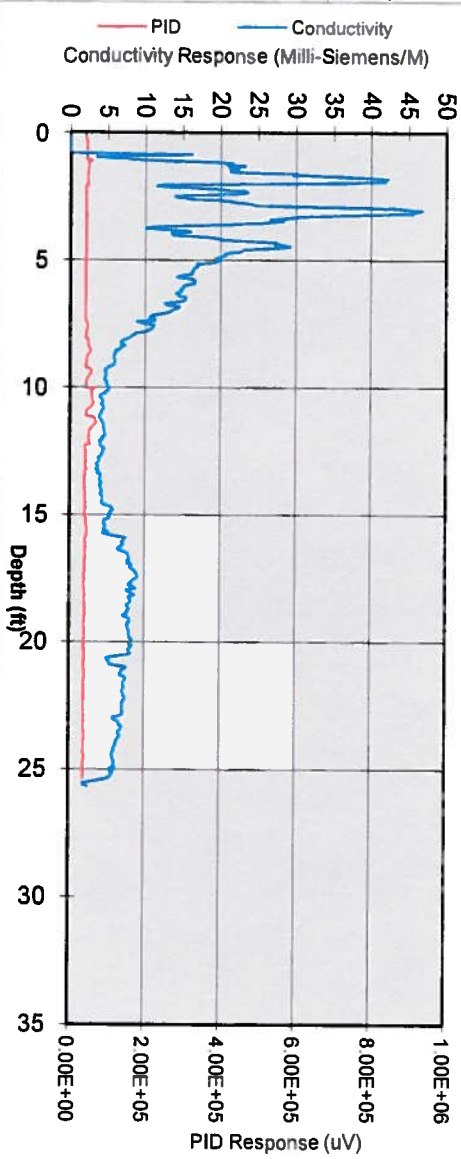
GW Depth (ft): 6
Depth of GW Provided by Client

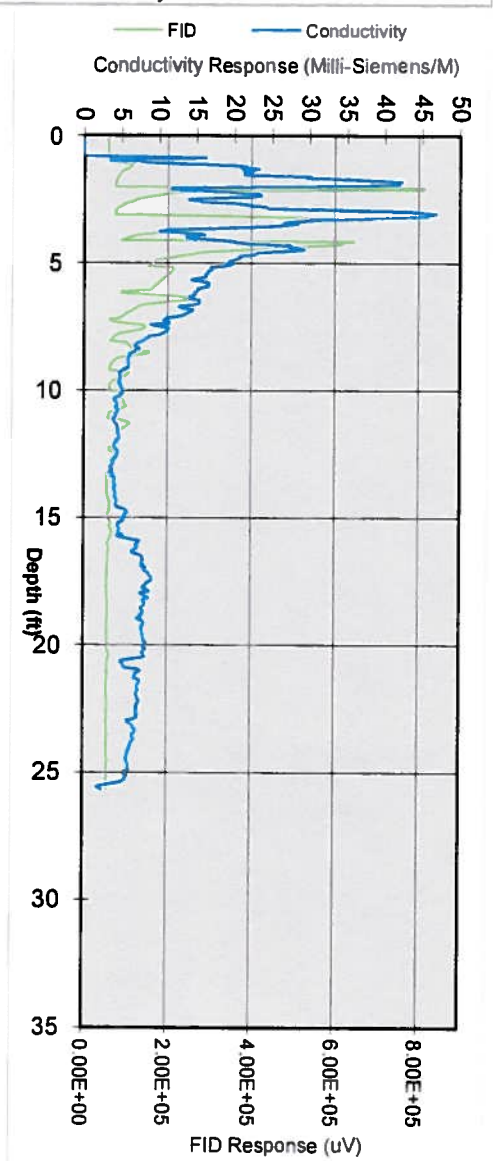
Job Information	
Client Company:	TetraTech
Project Name:	GSP Supplemental Soil
Site Address:	701 Wilson Point Rd. Middle River, MD

MIP Sampling Information			
Trunkline Length:	150	Start Boring Time:	Tue Aug 28 2012 13:09:01
Probe Type:	6520	End Boring Time:	Tue Aug 28 2012 13:36:46
Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry









VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

Boring Name: MIP34

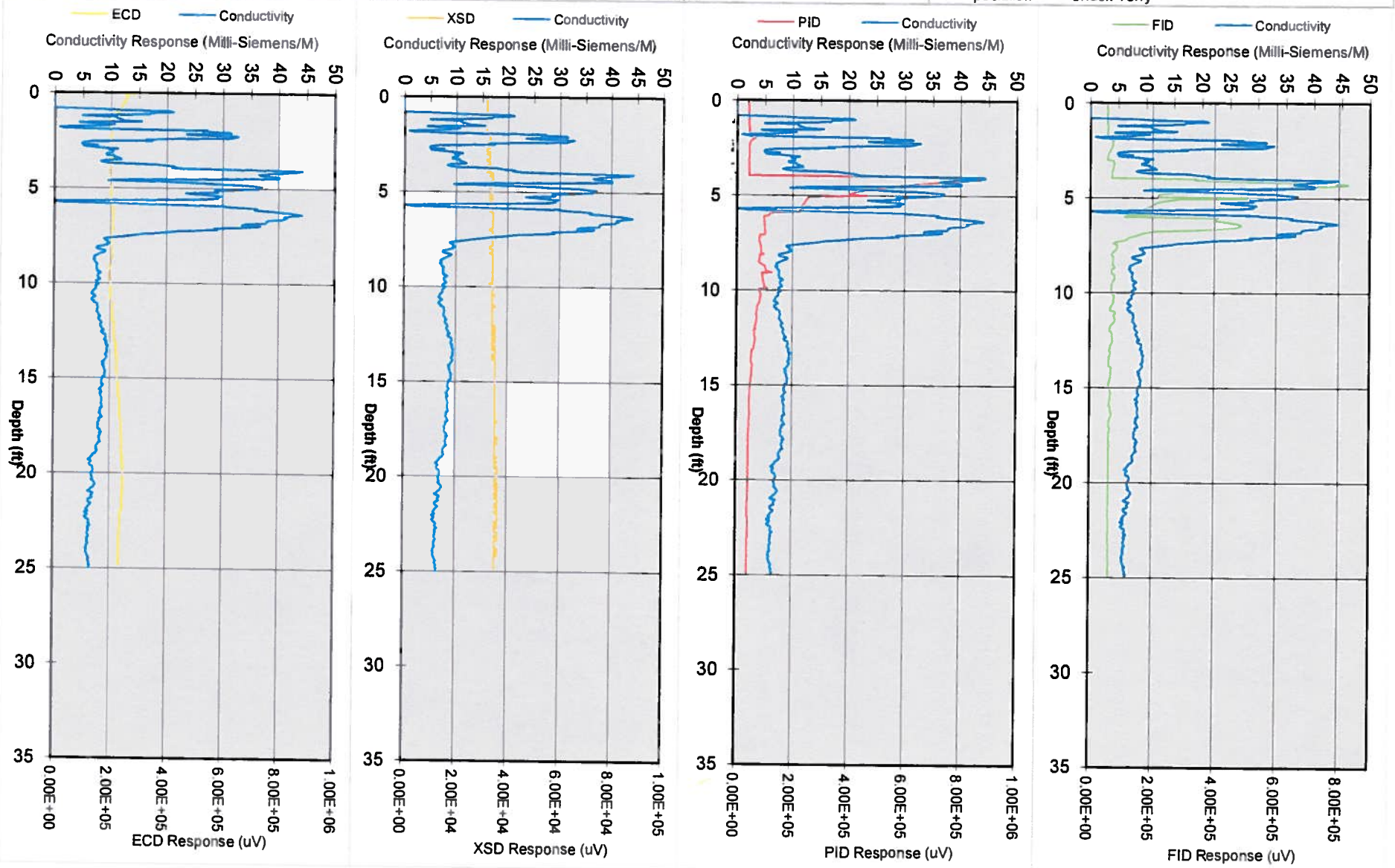
Total Depth (ft): 24.95

Notes:
Refusal at 25.65 feet bgs.

GW Depth (ft): 6
Depth of GW Provided by Client

Job Information	
Client Company:	TetraTech
Project Name:	GSP Supplemental Soil
Site Address:	701 Wilson Point Rd. Middle River, MD

MIP Sampling Information			
Trunkline Length:	150	Start Boring Time:	Tue Aug 28 2012 14:07:13
Probe Type:	6520	End Boring Time:	Tue Aug 28 2012 14:35:29
Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry



VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

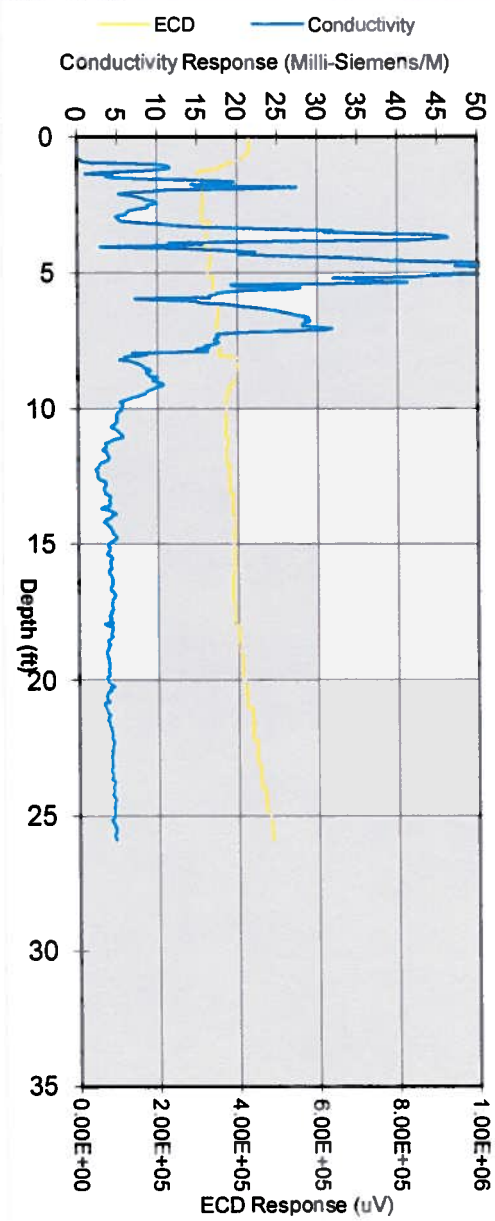
Boring Name: MIP35

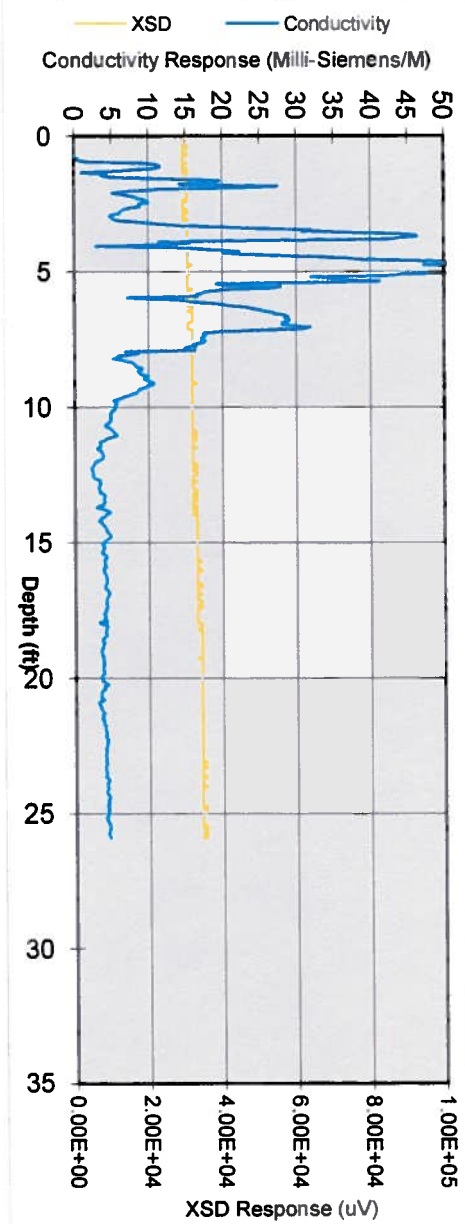
Total Depth (ft): 25.90

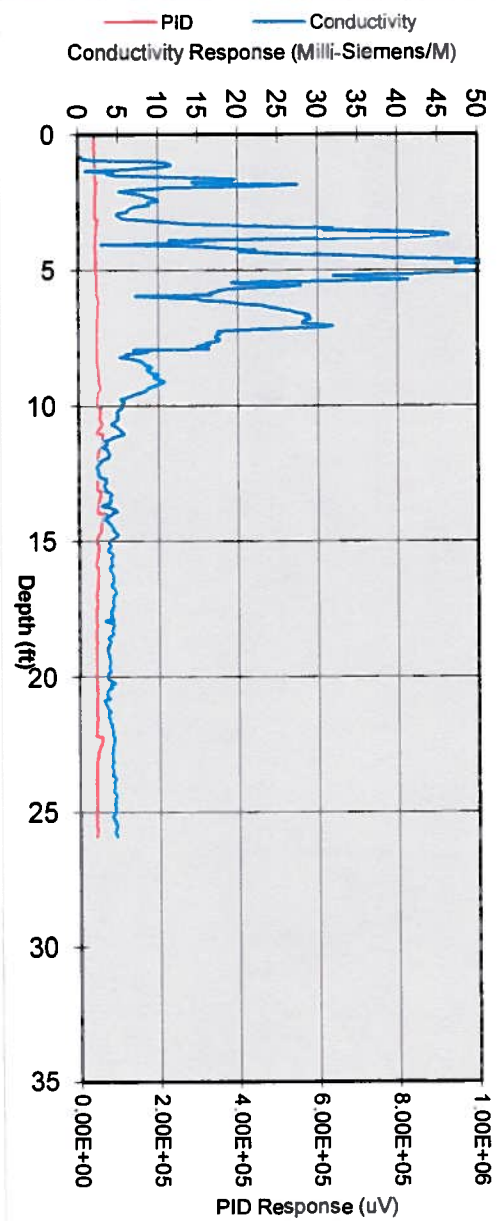
Notes: 25.90
Refusal at ~~25.50~~ feet bgs.

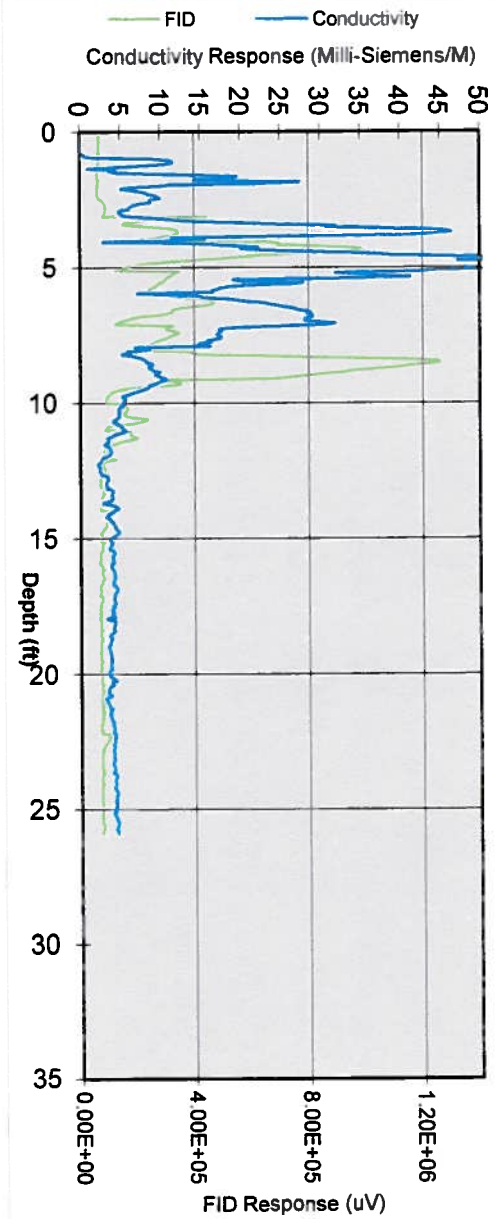
GW Depth (ft): 6
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	TetraTech	Trunkline Length:	150	Start Boring Time:	Wed Aug 29 2012 11:29:35
Project Name:	GSP Supplemental Soil	Probe Type:	6520	End Boring Time:	Wed Aug 29 2012 11:59:05
Site Address:	701 Wilson Point Rd. Middle River, MD	Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry









VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

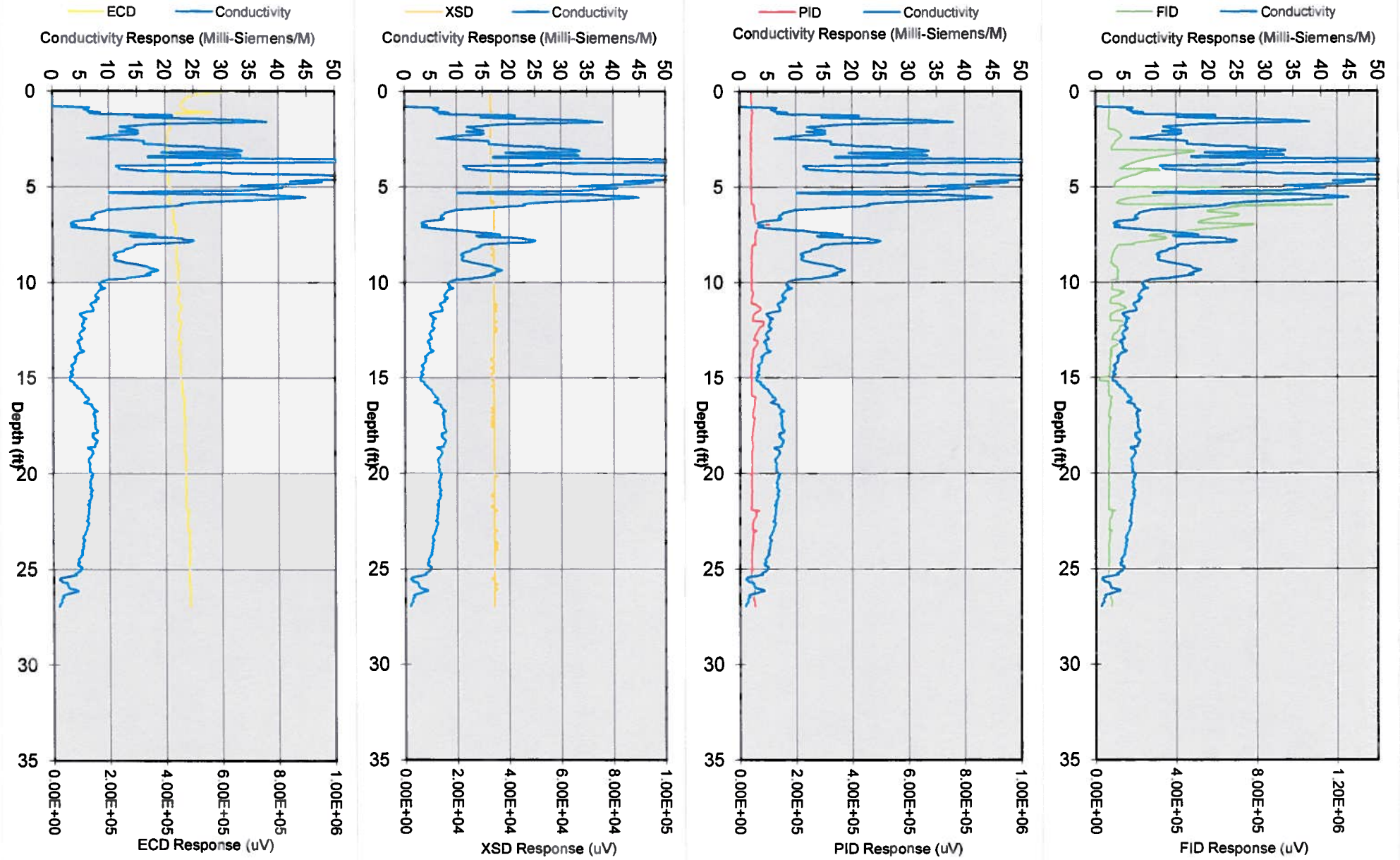
Boring Name: MIP36

Total Depth (ft): 26.95

Notes:
Refusal at 26.95 feet bgs.

GW Depth (ft): 6
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	TetraTech	Trunkline Length:	150	Start Boring Time:	Wed Aug 29 2012 11:29:35
Project Name:	GSP Supplemental Soil	Probe Type:	6520	End Boring Time:	Wed Aug 29 2012 11:59:05
Site Address:	701 Wilson Point Rd. Middle River, MD	Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry



VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

Boring Name: MIP37

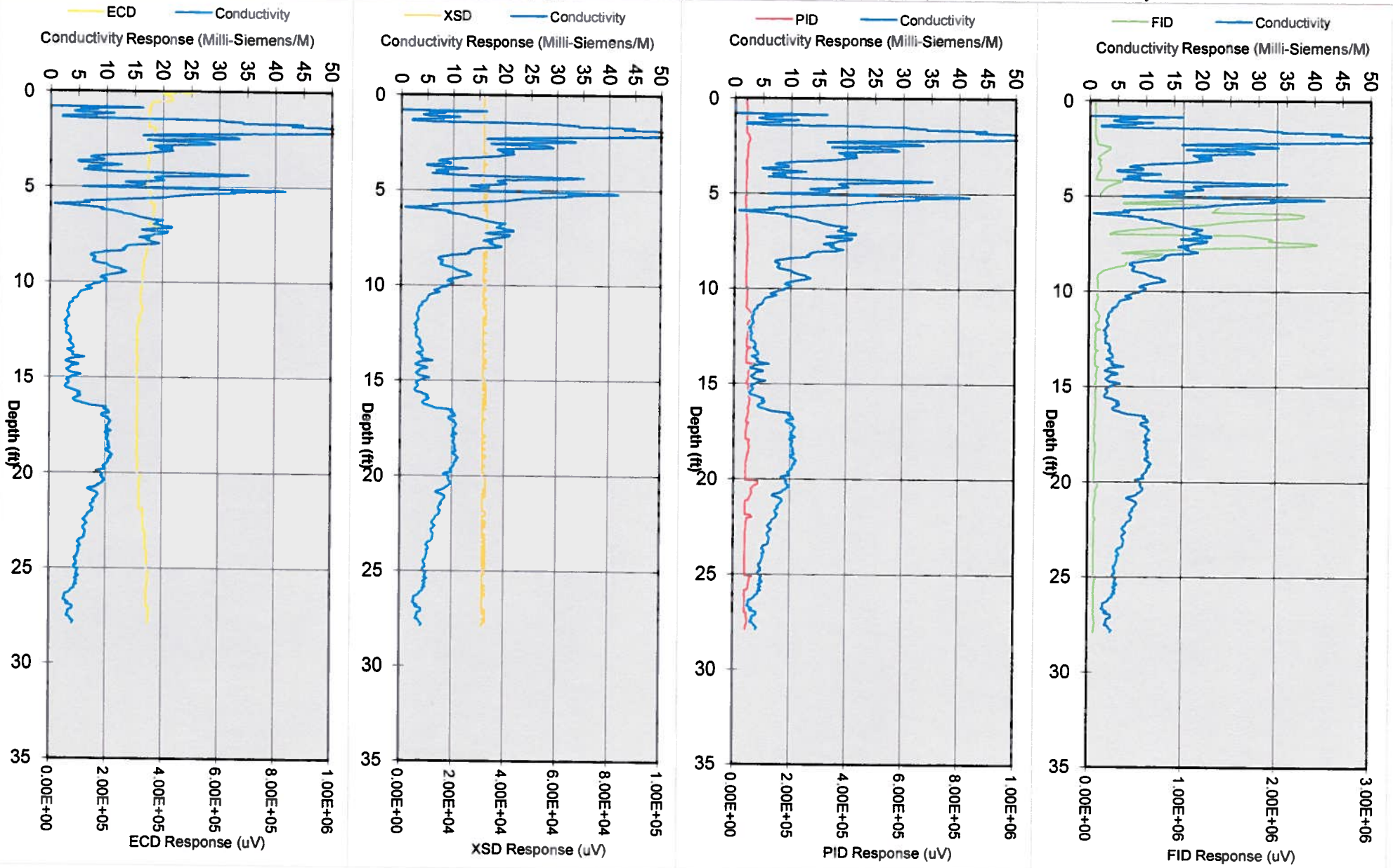
Total Depth (ft): 27.90

Notes:
~~Refusal at 27.00 feet bgs.~~

GW Depth (ft): 6
Depth of GW Provided by Client

Job Information	
Client Company:	TetraTech
Project Name:	GSP Supplemental Soil
Site Address:	701 Wilson Point Rd. Middle River, MD

MIP Sampling Information			
Trunkline Length:	150	Start Boring Time:	Wed Aug 29 2012 13:19:24
Probe Type:	6520	End Boring Time:	Wed Aug 29 2012 13:58:52
Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry



VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

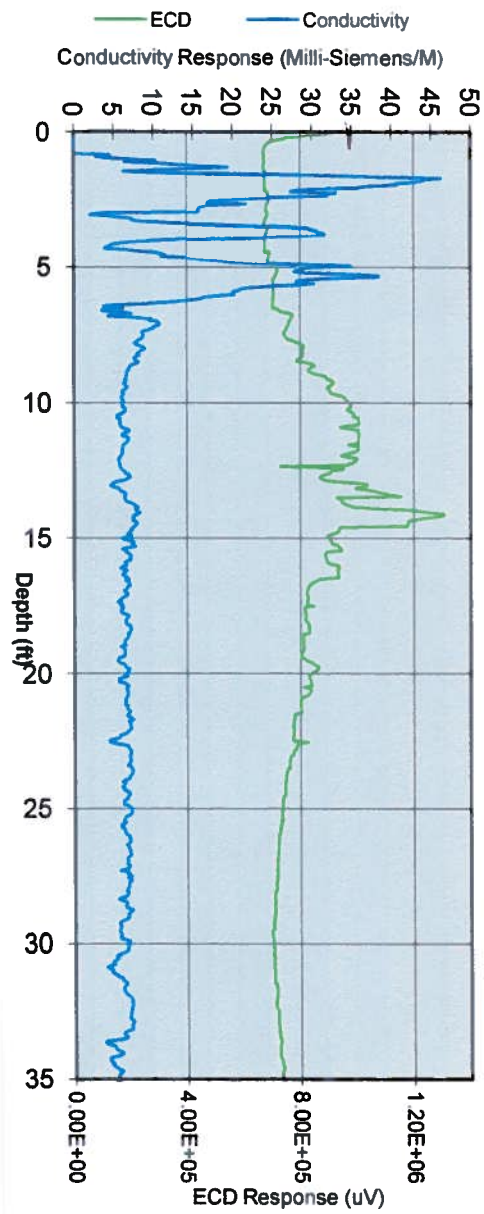
Boring Name: MIP38

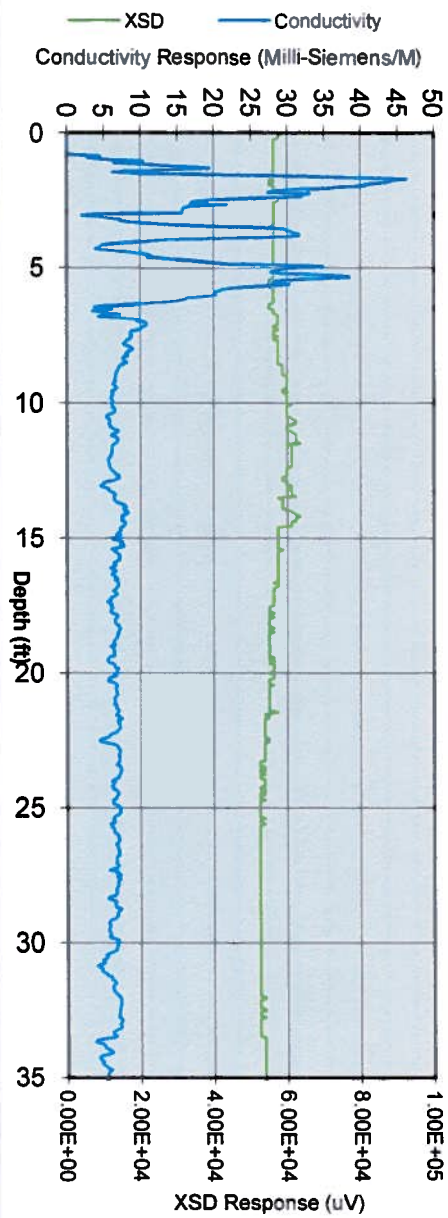
Total Depth (ft): 39.40

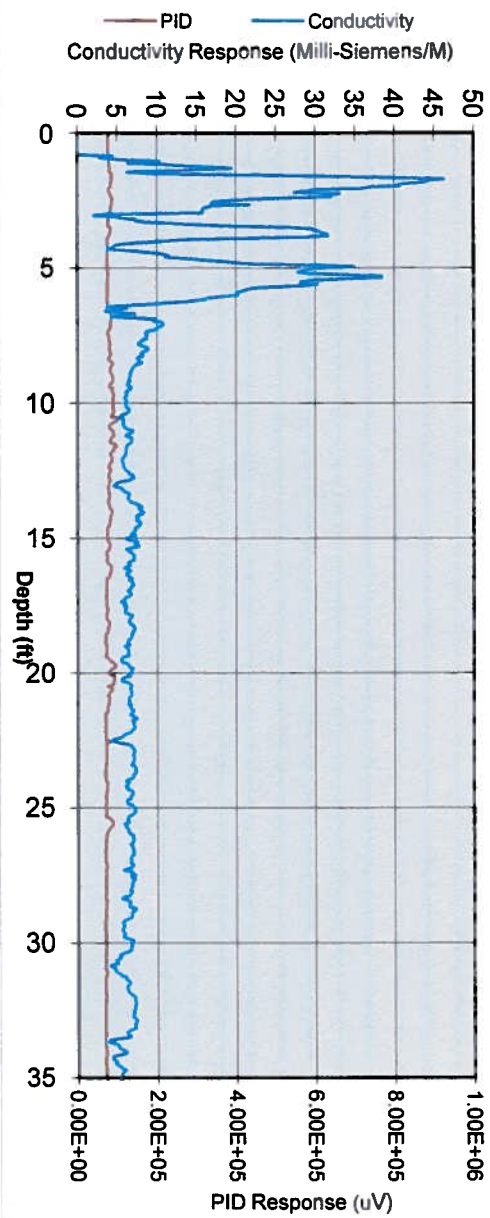
Notes:
None.

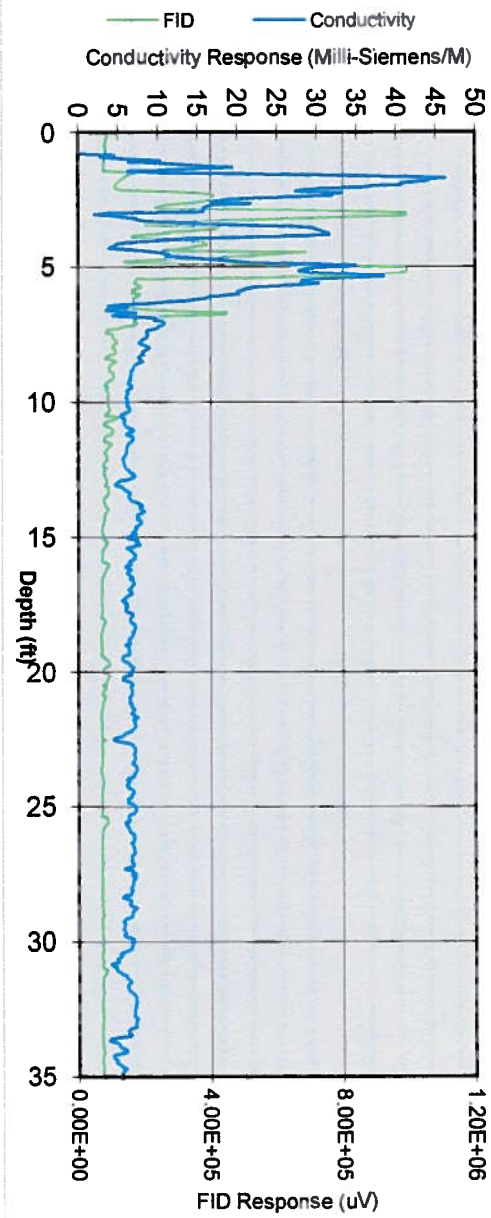
GW Depth (ft): 6
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	TetraTech	Trunkline Length:	150	Start Boring Time:	Tue Sep 04 2012 07:55:15
Project Name:	GSP Supplemental Soil	Probe Type:	6520	End Boring Time:	Tue Sep 04 2012 08:49:38
Site Address:	701 Wilson Point Rd. Middle River, MD	Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry









VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

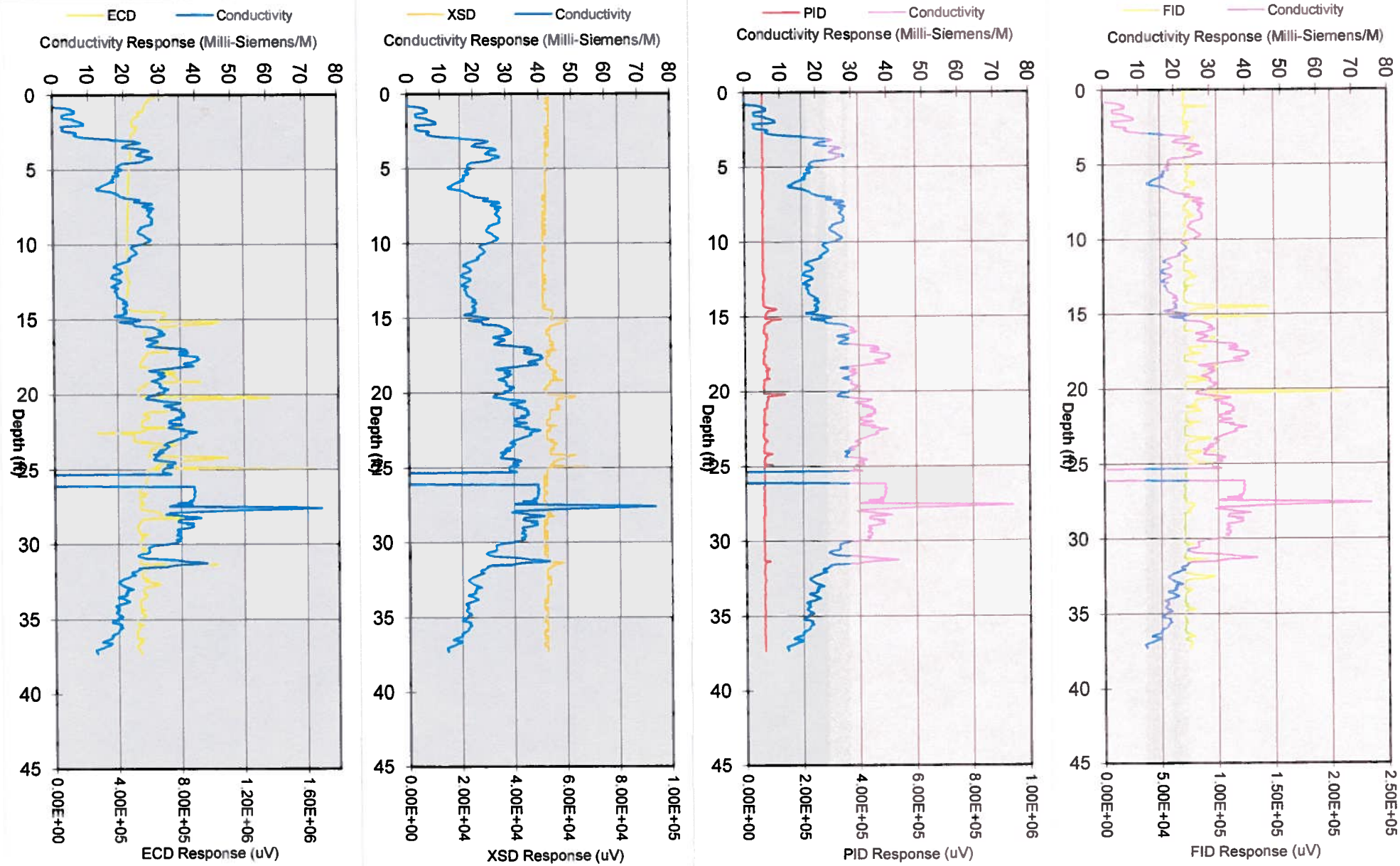
Boring Name: MIP39

Total Depth (ft): 37.30

Notes:
Stringpot fouled at 25.50 feet bgs. Restarted field computer, which caused EC dip at 25.50 feet bgs. Combined files TT39 and TT39A. Refusal at 37.30 feet bgs.

GW Depth (ft): 6
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	TetraTech	Trunkline Length:	150	Start Boring Time:	Wed Sep 05 2012 09:12:40
Project Name:	GSP Supplemental Soil	Probe Type:	6520	End Boring Time:	Wed Sep 05 2012 09:58:56
Site Address:	701 Wilson Point Rd. Middle River, MD	Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry



VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

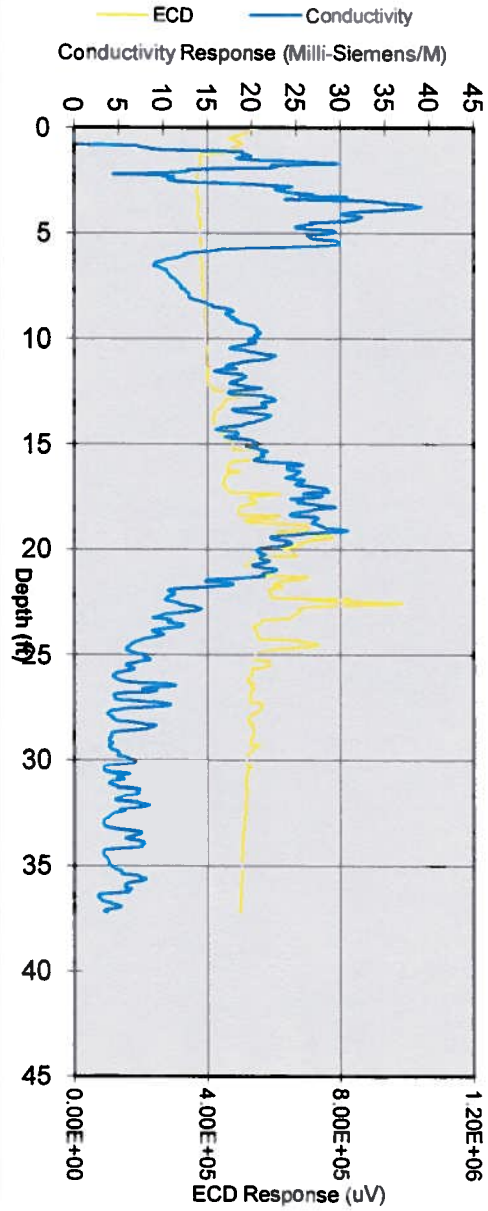
Boring Name: MIP40

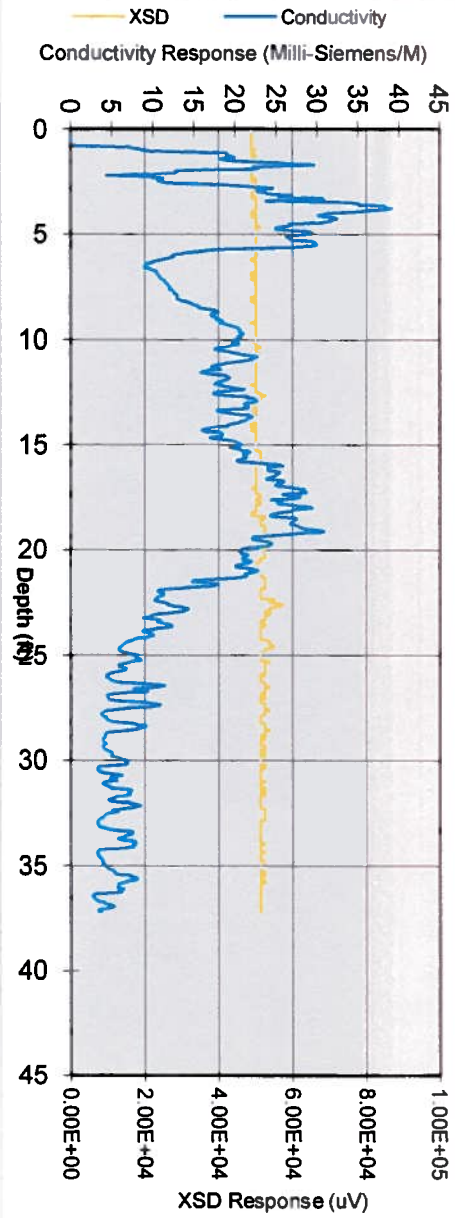
Total Depth (ft): 37.20

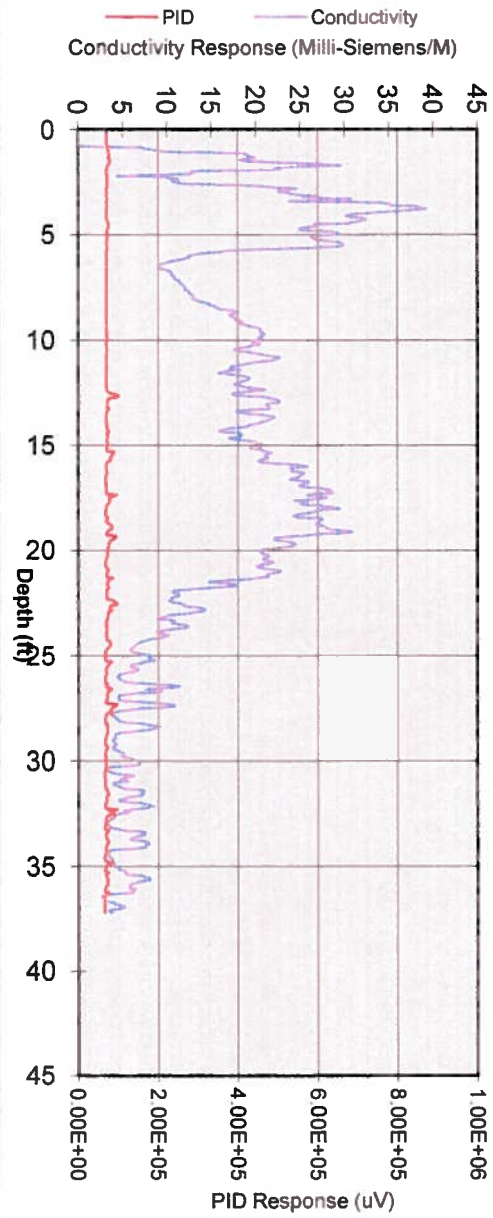
Notes:
Refusal at 37.20 feet bgs.

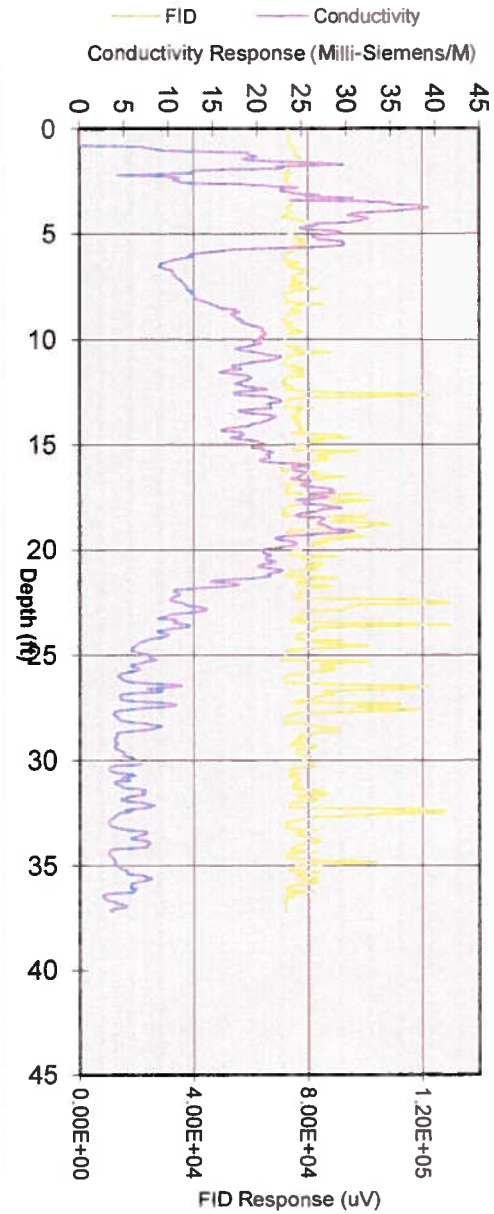
GW Depth (ft): 6
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	TetraTech	Trunkline Length:	150	Start Boring Time:	Wed Sep 05 2012 07:48:27
Project Name:	GSP Supplemental Soil	Probe Type:	6520	End Boring Time:	Wed Sep 05 2012 08:33:27
Site Address:	701 Wilson Point Rd. Middle River, MD	Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry









VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

Boring Name: MIP41

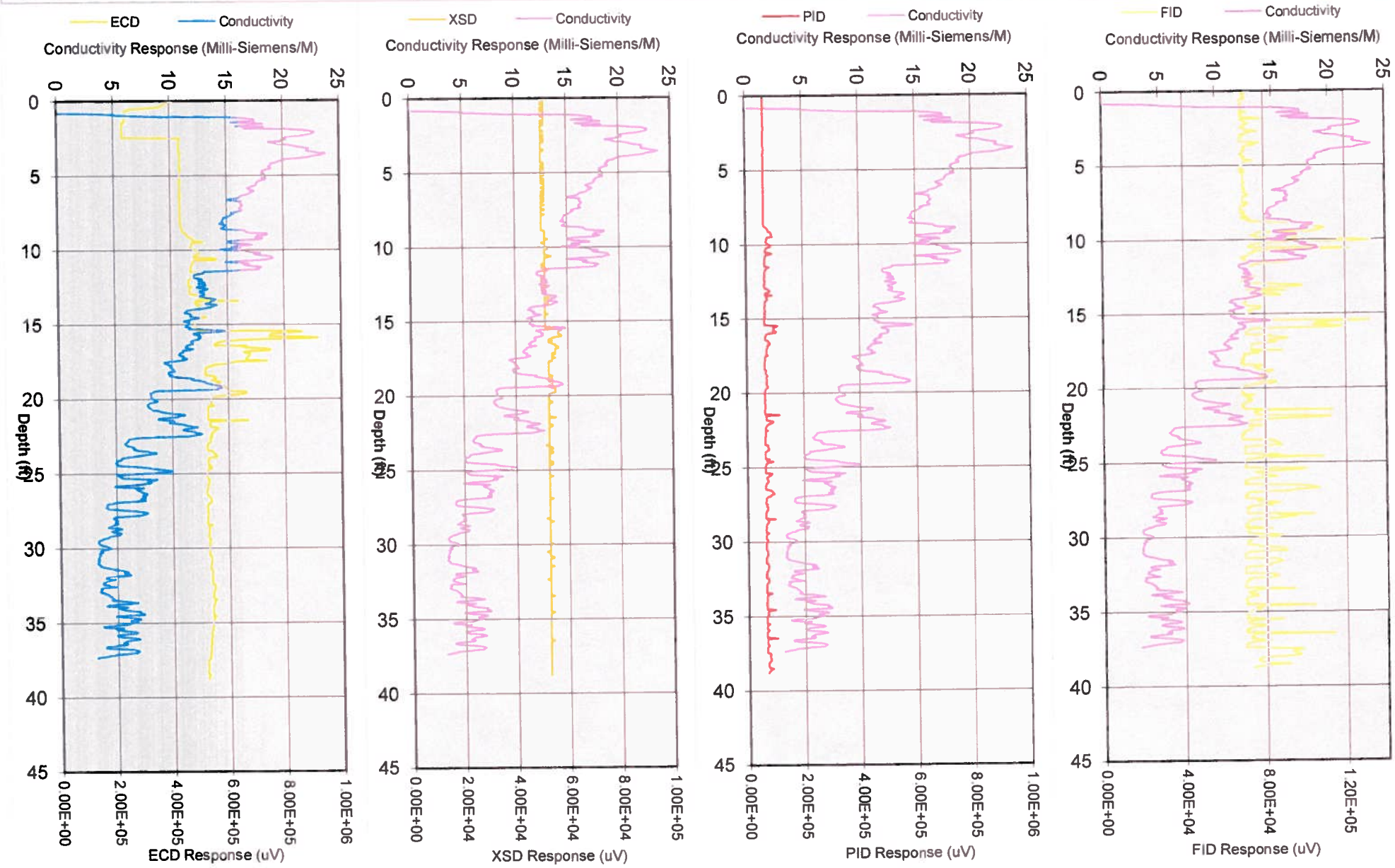
Total Depth (ft): 38.80

Notes:
None.

GW Depth (ft): 6
Depth of GW Provided by Client

Job Information	
Client Company:	TetraTech
Project Name:	GSP Supplemental Soil
Site Address:	701 Wilson Point Rd. Middle River, MD

MIP Sampling Information			
Trunkline Length:	150	Start Boring Time:	Wed Sep 05 2012 11:01:17
Probe Type:	6520	End Boring Time:	Wed Sep 05 2012 12:19:28
Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry



VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

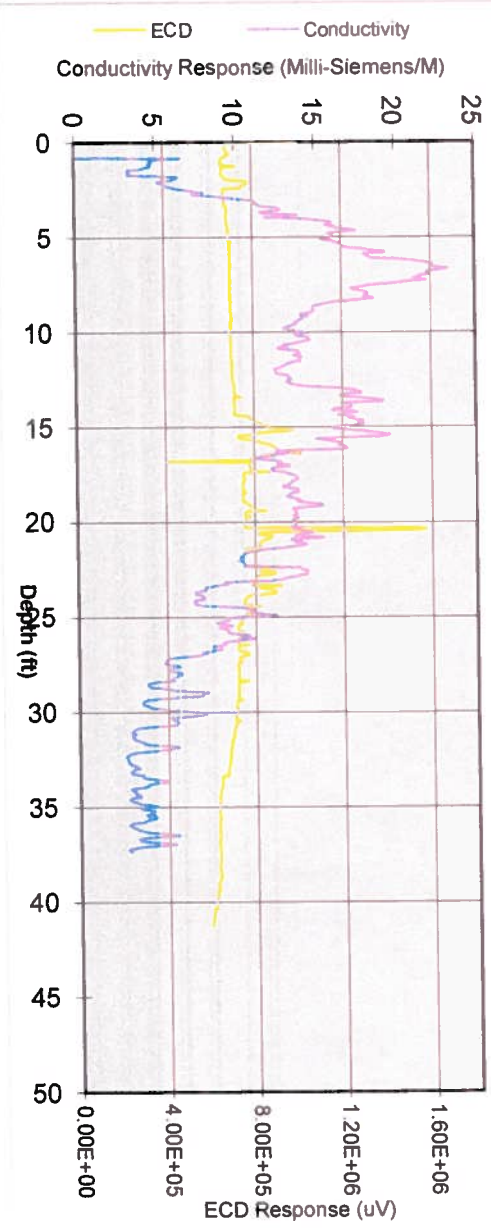
Boring Name: MIP42

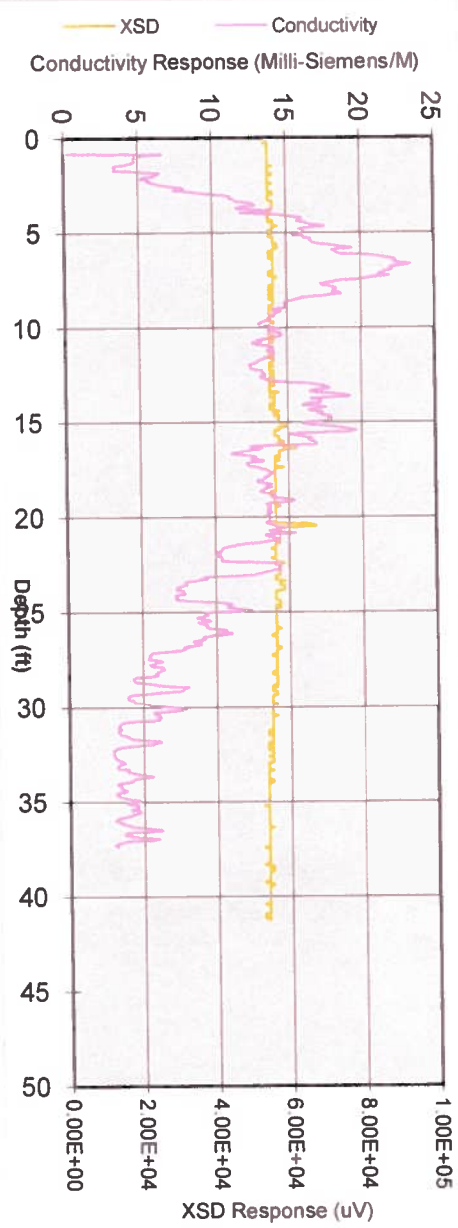
Total Depth (ft): 42.00

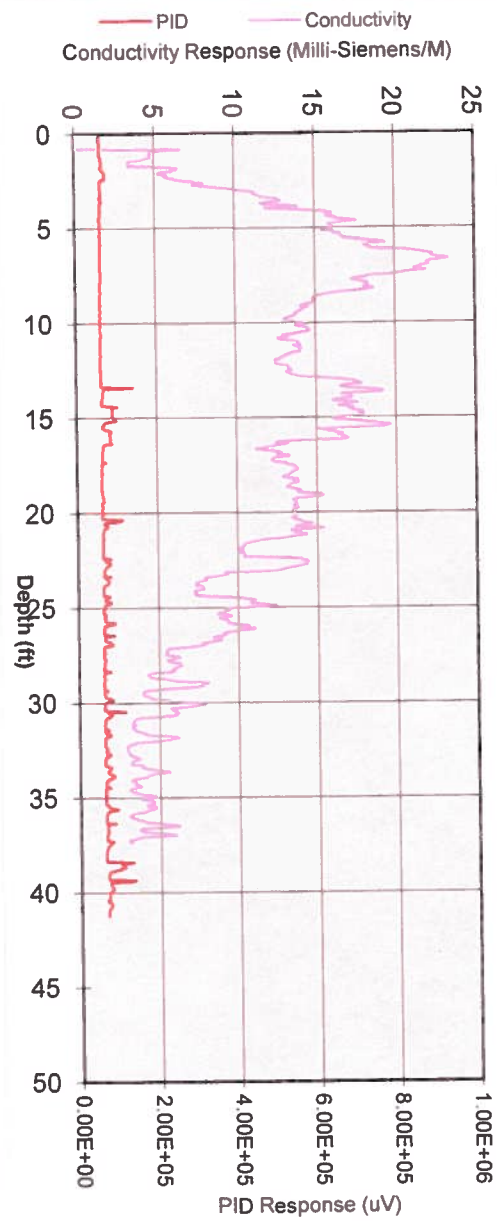
Notes:
None.

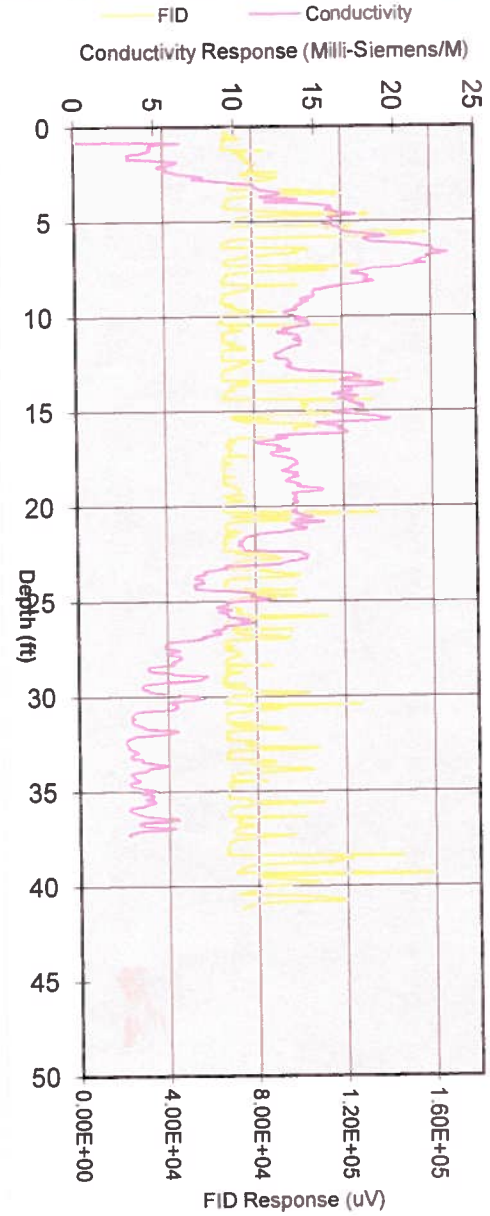
GW Depth (ft): 6
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	TetraTech	Trunkline Length:	150	Start Boring Time:	Wed Sep 05 2012 14:07:13
Project Name:	GSP Supplemental Soil	Probe Type:	6520	End Boring Time:	Wed Sep 05 2012 15:03:40
Site Address:	701 Wilson Point Rd. Middle River, MD	Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry









VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

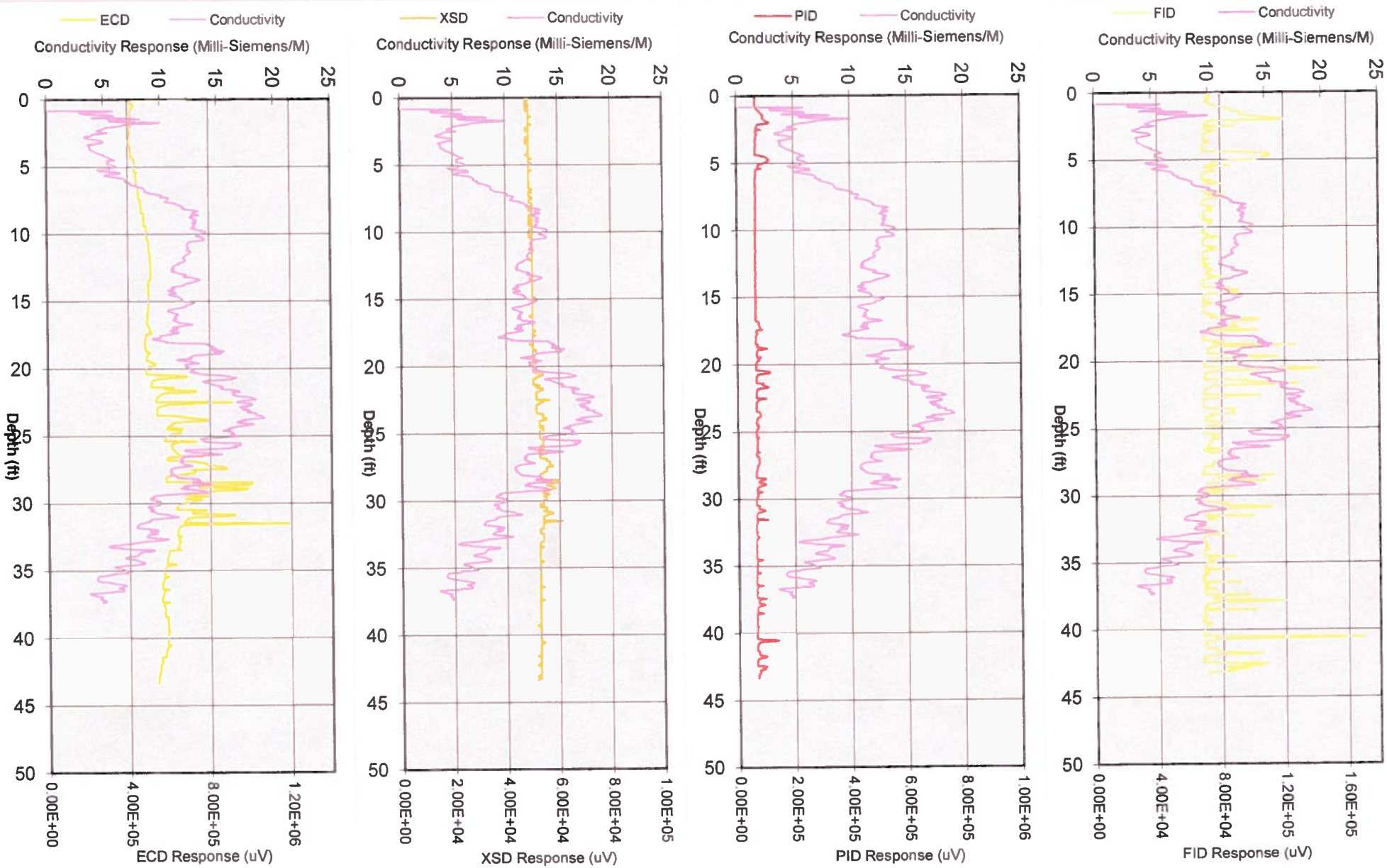
Boring Name: MIP43

Total Depth (ft): 43.35

Notes:
Refusal at 43.35 feet bgs.

GW Depth (ft): 6
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	TetraTech	Trunkline Length:	150	Start Boring Time:	Wed Sep 05 2012 12:40:01
Project Name:	GSP Supplemental Soil	Probe Type:	6520	End Boring Time:	Wed Sep 05 2012 13:35:22
Site Address:	701 Wilson Point Rd. Middle River, MD	Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry



VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

Boring Name: MIP44

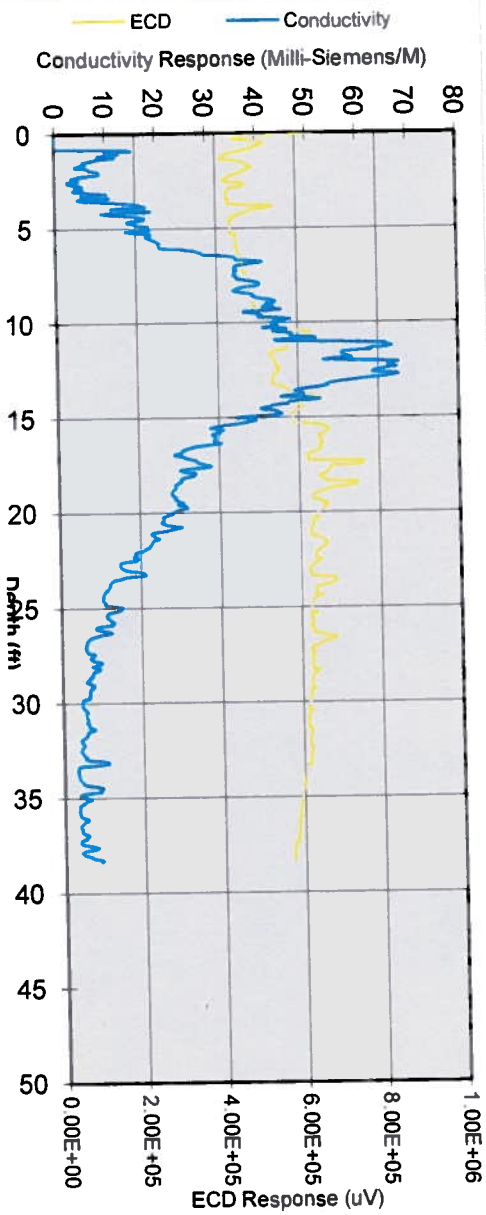
Total Depth (ft): 38.35

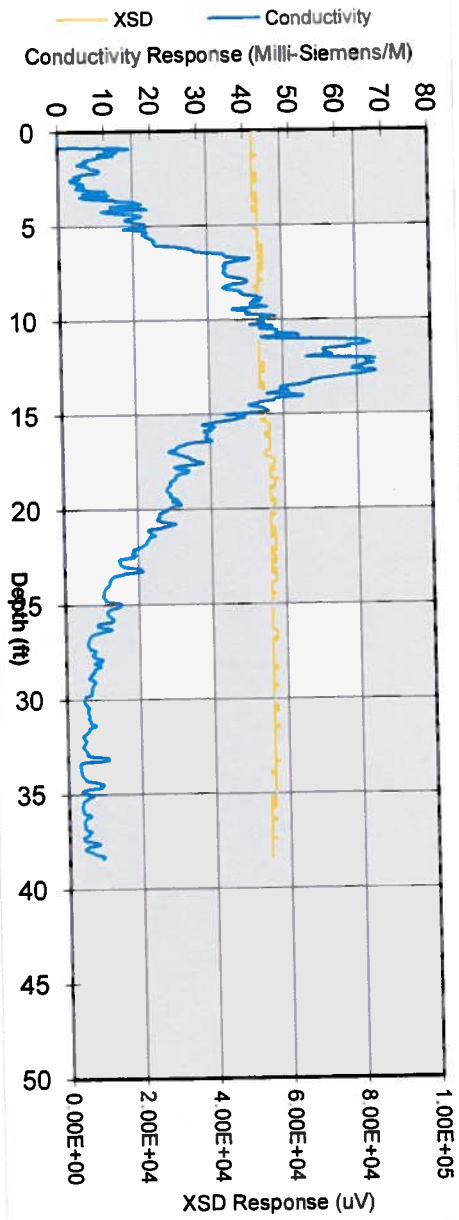
Notes:
Refusal at 38.35 feet bgs.

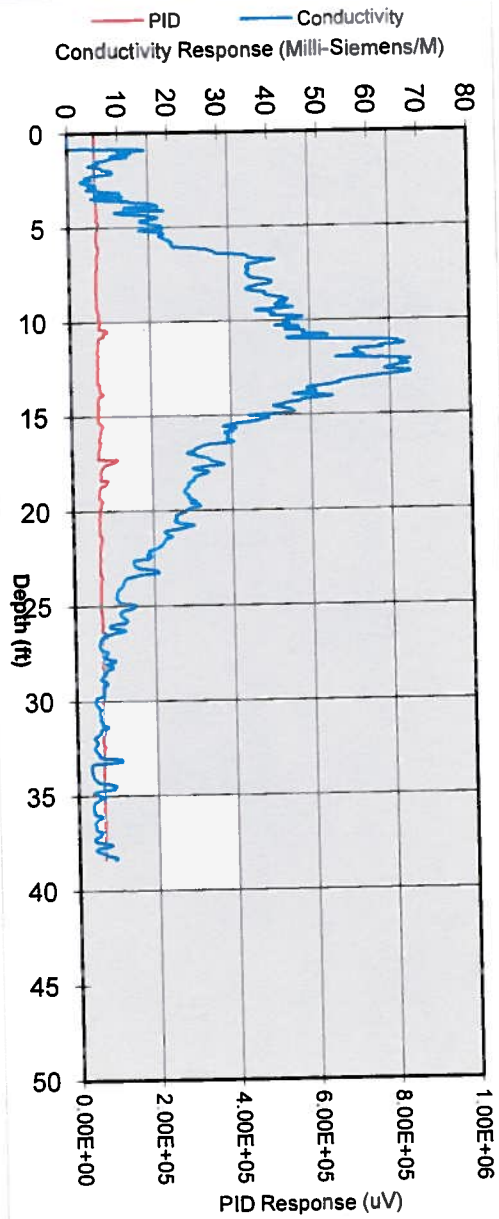
GW Depth (ft): 6
Depth of GW Provided by Client

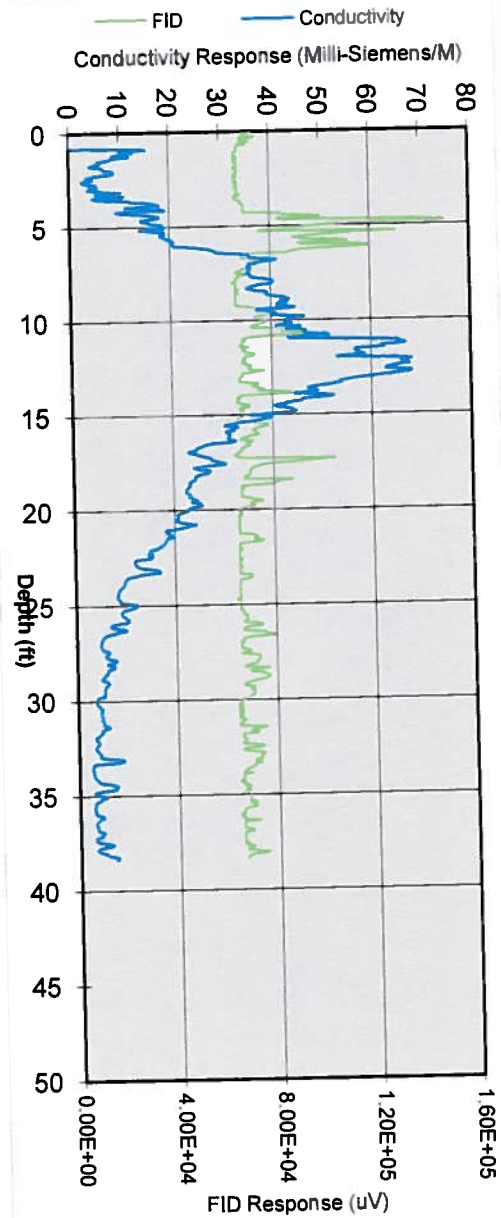
Job Information	
lient Company:	TetraTech
roject Name:	GSP Supplemental Soil
ite Address:	701 Wilson Point Rd. Middle River, MD

MIP Sampling Information			
Trunkline Length:	150	Start Boring Time:	Tue Sep 04 2012 11:06:20
Probe Type:	6520	End Boring Time:	Tue Sep 04 2012 12:00:58
Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry









VIRONEX
4961 Telsa Drive
Suite E
Bowie, MD 20715
P:301-352-6642
F:301-352-6643
www.vironex.com

Boring Name: MIP45

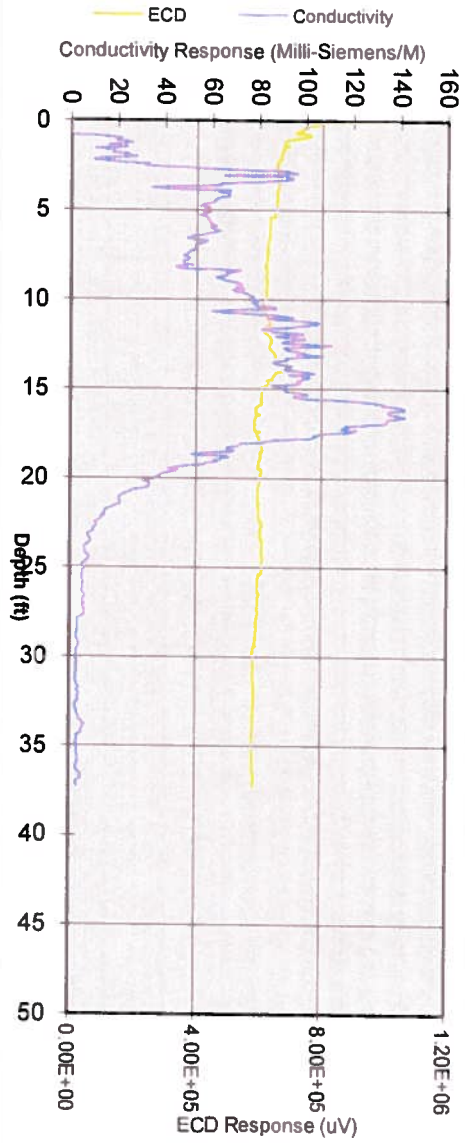
Total Depth (ft): 37.25

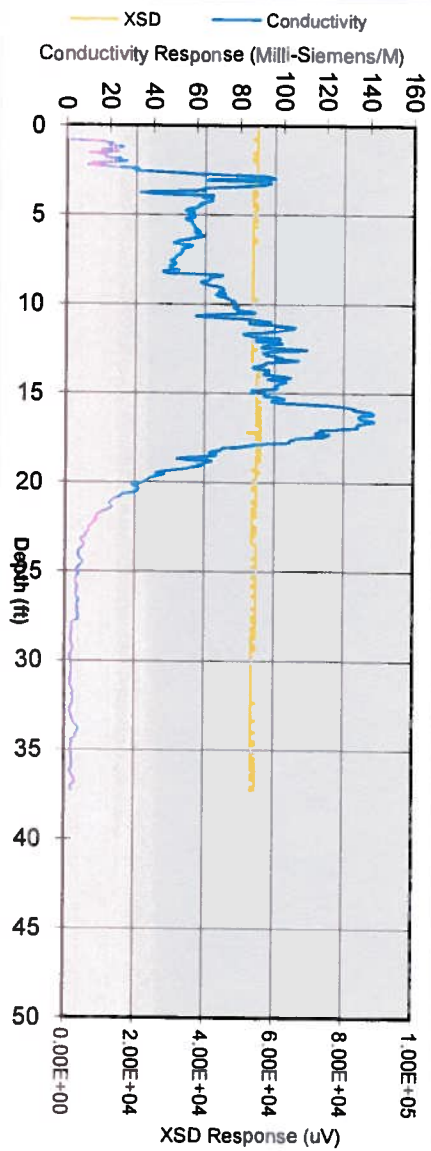
Notes:
Refusal at 37.25 feet bgs.

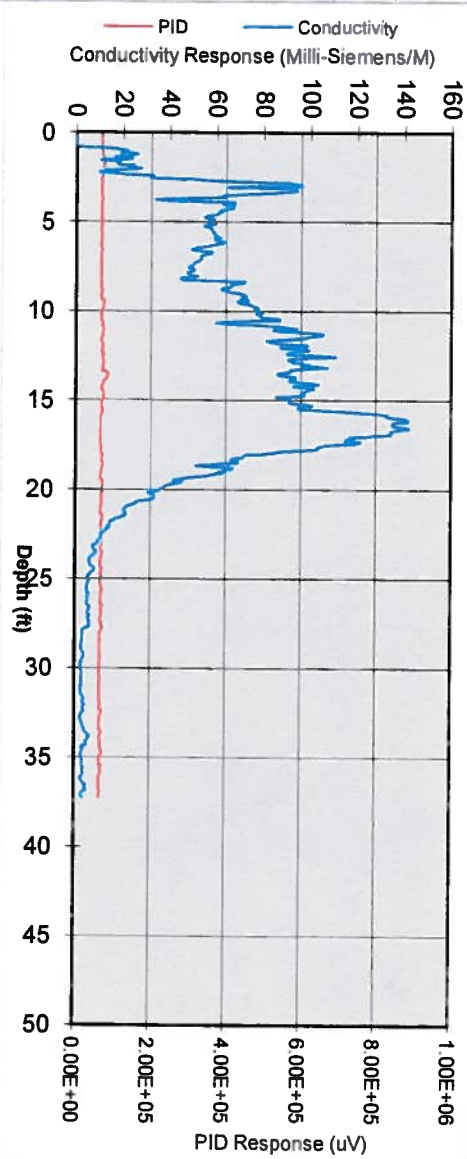
GW Depth (ft): 6
Depth of GW Provided by Client

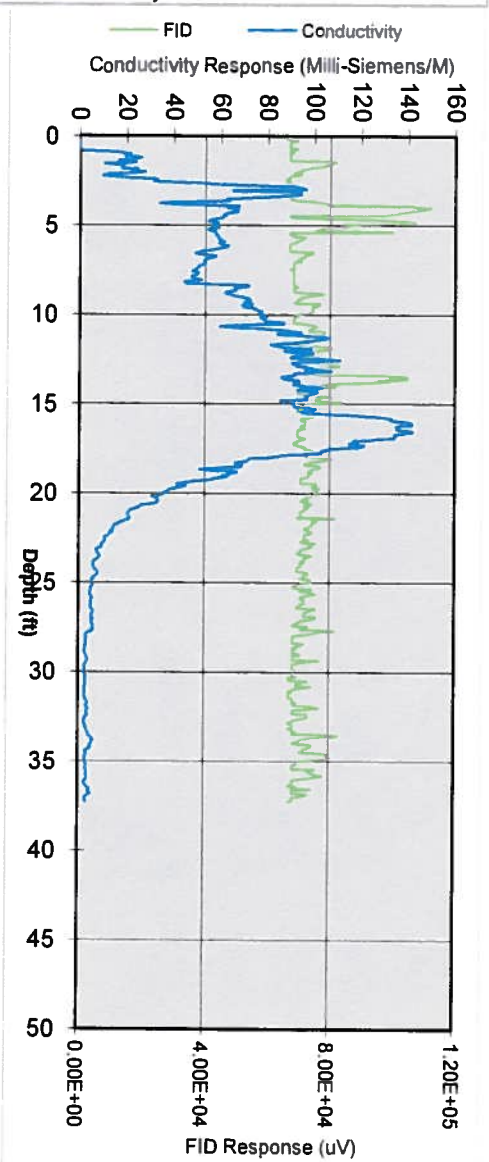
Job Information	
Client Company:	TetraTech
Project Name:	GSP Supplemental Soil
Site Address:	701 Wilson Point Rd. Middle River, MD

MIP Sampling Information			
Trunkline Length:	150	Start Boring Time:	Tue Sep 04 2012 09:36:06
Probe Type:	6520	End Boring Time:	Tue Sep 04 2012 10:28:22
Rig Type:	Geoprobe 66DT	MIP Specialist:	Chuck Terry









APPENDIX C—BORING LOGS AND SOIL SAMPLING LOG SHEETS

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-9-0-2
Sample Location: Middle River MD
Sampled By: W. Bowell
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/12/12 Time: 1810 Method: Vibrosonic Core Monitor Reading (ppm): 0.7	0 - 2	brown	Sandy silt w/ gravel dry

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4oz glass	✓	
SVOCs, metals, DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 7782 DT

BORING No: GSP-SB-131
DATE: 9/7/12
GEOLOGIST: W. O'Neil
DRILLER: George Sartos

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
	0						Soil, Brown sandy soft dry		0.0				
							Brown to lt. brown sand (medium grained) soft dry		0.0				
							No recovery						
	5												
							Brown to gray silty sand moist to wet near 6'						
							lt. gray silty sand, wet		0.4 / 0.0				
							lt. gray to orange clay to sandy clay, pliable, moist						
							No recovery		0.0				
	10												
							Brown/orange silty coarse sand, moist		0.0				
							tan silty sand, soft, wet		0.0				
							lt. gray clay, dense stiff & dry with 3" orange/gray sand lens @ 18.5'		0.1				
	15						light gray brown silty med. sand soft wet		3.8				
							tan sandy clay, stiff v. slightly moist		0.0				
	20						orange gray clay, stiff dry		0.1				
							lt. gray/dark gray/orange silty clay dense v. slightly moist		0.1				
							No recovery						
	25						red brown silty sand, wet		0.0				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse re

Drilling Area Background (ppm): 0.0

Remarks:

Converted to Well: Yes ____ No X Well I.D #: N/A

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 7782DT
BORING No.: GSP-SB-131
DATE: 9/7/12
GEOLOGIST: W. O'Neil
DRILLER: George Sortos

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
	25						gray silty to sandy clay, pliable, slightly moist		0.0				
							No recovery						
							clayey sand, lt. brown, moist, fairly soft		0.2				
	30						Brown to gray silty & sandy clay dense, stiff v. slightly moist		0.2				
							No recovery						
							DARK GRAY sandy to silty clay dense, dry to v. slightly moist in sandy sections		0.6				
	35												
							NO recovery						
	40												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse re d.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D #: N/A

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe

BORING No.: GSP-SB-132
DATE: 9/6/12
GEOLOGIST: W. ONeil
DRILLER: Geary Santos

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
	0						soil sandy brown dry						
							tan silty sand to sandy silt, dry, friable		0.4				
							red to pink silty clay, stiff, dry		0.4				
	5								0.1				
							orange silty sand, soft, wet; red pink silty clay stiff dry						
							orange to gray silty sand, wet, soft		0.0				
							No recovery		N/A				
	10						light						
							gray silty clay to silt sand, moist, soft						
							gray silty clay to clayey silt pliable, moist		0.0				
							tan to orange fine silty sand, wet		0.0				
							orange coarse sand to silty sand, wet.		1.2				
	15												
									1.3				
							orange fine sand to silty sand, wet		0.0				
							gray silty sand, wet; gray sandy silt to clayey silt soft or to extremely stiff or slightly stiff		0.0				
	20												
							orange coarse sand to silty sand, wet						
							tan/orange fine sand w/ silt, wet		0.0				
							tan/orange sandy silt w/ clay, fairly soft, wet						
	25						gray orange silty clay slightly moist		0.3				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks:

Converted to Well: Yes ____ No X Well I.D. #: N/A

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe
BORING No.: GSP-SB-132
DATE: 9/6/12
GEOLOGIST: W. ONeil
DRILLER: George Sortos

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25						gray orange silty clay slightly moist		0.3				
							fine orange silty sand, wet						
									25'-29' → 0.0				
	30						coarse orange sand, wet		29'-30' → 0.0				
							orange gray sandy & silty clay moist to s. moist		30'-32' → 2.0				
							lt. brown to tan fine silty sand, wet		32'-35' → 0.0				
	35												
							red/lt. brown clayey sand to sandy clay moist to wet, stiff to s. pliable		35'-36.5' → 2.4				
							tan, silty fine sand, wet		36.5'-40' → 0.0				
	40												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: N/A

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 7782 DT

BORING No.: GSP-SB 133
DATE: 9/7/12
GEOLOGIST: W. Oswell
DRILLER: George Sortos

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
	0						Brown sandy soil, soft dry		0.0				
							lt. red brown silty coarse SAND, dry		0.0				
							gray brown silty med. SAND, v. slightly moist		0.0				
							No recovery						
	5						lt. brown sandy clay to clayey SAND, friable v. slightly moist where sandy		0.0				
							lt. brown clayey sand, soft moist		0.0				
							No recovery						
	10						gray to red clay, friable slightly moist		0.0				
							No recovery						
	15						lt. brown silty med SAND, soft, wet		0.0				
							brown, gray, orange CLAY to silty & sandy CLAY, friable, slightly moist		0.7				
	20						No recovery						
							No recovery						
	25						Dark gray clay dense stiff, dry		0.0				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse re d.

Drilling Area Background (ppm): 0.0

Remarks:

Converted to Well: Yes ____ No X Well I.D #: N/A

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
BORING No.: GSP-SB-133
PROJECT NUMBER:
DATE: 9/7/12
DRILLING COMPANY: Ground Zero
GEOLOGIST: W. O'Neil
DRILLING RIG: Geoprobe 7782DT
DRILLER: George Sortos

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25						dark gray clay dense stiff, dry w/ SAN lenses		0.0				
							No recovery						
							gray sandy clay, stiff dry w/ wet lens of sand		0.0				
	30						Dark gray clay, stiff, dry						
							No recovery						
							lt. brown, silty & clayey SAND, Friable, moist		0.0				
							Dark gray sandy clay stiff slightly moist						
	35												
							No recovery						
	40												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse re d.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D #: N/A

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe

BORING No.: GSP-SB-134
DATE: 9/6/12
GEOLOGIST: W. ONeil
DRILLER: George Sirtos

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	0						Soil sandy brown, dry						
							tan to orange						
							silty sand w/						
	5						occasional gravel						
							Dry to 6.5'						
							Slightly moist 6.5 to 7.5'						
							Brown to lt. brown silty sand, soft, wet						
	10						No Recovery						
							orange gray sand to silty sand, ~~wet~~ wet						
							lt. brown sandy clay moist, soft where sandy stiff where clayey						
	15												
							gray coarse sand, wet						
							tan orange silty fine sand wet						
	20												
							tan orange coarse sand, wet						
							tan orange silty fine sand, soft wet						
	25						Gray clay w/ red mottles dense, stiff, dry						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: N/A

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe
BORING No.: GSP-SB-134
DATE: 9/6/12
GEOLOGIST: W. O'Neil
DRILLER: George Sortos

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25						orange-tan silty sand, wet						
							red, orange, lt. brown clay to sandy clay w/ sand lenses, sand is wet clay is dry						
	30												
							orange gray silty sand wet						
							gray sandy clay, slightly moist, pliable						
	35						light brown silty sand, wet						
							lt. brown orange silty sand, wet						
	40												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: N/A

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 7822DT

BORING No: GSP-SB-135
DATE: 9/7/12
GEOLOGIST: W. O'Neill
DRILLER: George Sortos

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
	0						Brown sandy soil, soft, dry						
							lt. brown sand, dry at top & moist @ base, soft		0.0				
							lt. brown clayey sand, slightly moist, soft						
							No recovery						
	5						Brown clayey sand soft, wet						
							Brown clayey sand to sandy clay, soft moist		0.0				
							No recovery						
							Brown silty sand, moist to wet, soft		0.0				
	10												
							red/gray sandy clay to clayey sand soft, moist		0.0				
							light brown silty v. coarse sand, soft, wet						
	15								0.0				
							~~lt. brown silt~~						
							red, silty med. sand soft, wet		0.0				
	20												
							Dark to med. gray clay slightly pliable & very slightly moist		0.0				
							No recovery						
	25						orange to gray clay grading into sandy clay, pliable, moist		0.0				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse re

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D #: N/A

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 7782DT

BORING No: GSP-SB-135
DATE: 9/7/12
GEOLOGIST: W. ONeil
DRILLER: George Sortos

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25						sandy clay, pliable moist		0.0				
							No recovery						
							lt. gray sandy clay to clayey sand, slightly pliable to stiff, moist to very slightly moist		0.0				
	30						No recovery						
							Refusal @ 31.5'						
	35												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse re d.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D #: N/A

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Soil + Water
PROJECT NUMBER: 112IC04136-04
DRILLING COMPANY: Ground Zero
DRILLING RIG: 6620 DT

BORING No.: GSP-SB-136
DATE: 9/14/12
GEOLOGIST: S. Cameron
DRILLER: J. Sorto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Sample Recovery / Sample Length	Lithology change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	USCS	Material Classification	Remarks	PID/FID Reading (PPM)
	0-1'			Slightly Dense	Light brn		Fine grained SANDY SILT w/	Dry	0-2: 1.4
				to loose			trace organics		2-4: 1.3
	1-4.5'			Moderately Hard	Cream mottled brn		CLAYEY SILT w/ some	Dry	4-6: 2.1
							medium grained sand		6-8: 2.2
	4.5-7.5			Loose	Cream		Well sorted, medium grained SAND	Slightly moist	8-10: 3.4
							w/ trace silt.		12: 5.2
	7.5-8.5			Moderately hard	Cream mottled brn		Sandy, silty, low plasticity	Slightly moist	14: 4.9
							CLAY w/ intermittent medium		16: 4.2
							grained sand lenses		18: 2.4
	8.5-19.5			Moderately Dense	Light brn		Medium grained, well sorted SAND	Moist becoming	20: 0.6
								Saturated @ 11'	22: 1.4
	19.5-26			Moderately soft	Gray		Low plasticity SILTY CLAY w/	Slightly moist	24: 3.1
							intermittent fine grained sand lenses.		26: 2.1
	26-32						Medium to high plasticity CLAY w/	Slightly moist	28: 0.6
							trace silt.		30: 0.2
	32-36			Dense sand	Gray w/		Alternating layers of medium	Slightly moist	32: 2.8
				and hard clay	brn @ 34-35'		grained, well sorted SAND and	w/ moist to	34: 4.0
							Low plasticity SILTY CLAY,	wet from 33.5'	36: 3.1
							ranging from a quarter inch to 6".	to 35'.	38: X
									40: X

Remarks: Sampled from 0-2' @ 1015 + from 8-10' @ 1100.
Refusal @ 36'

Drilling Area Background (PPM): ☐

Convert to Well: Yes: No: ✓

Well I.D. #:

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Soil & Water
BORING No.: GSP-SB-137
PROJECT NUMBER: 112IC04136-04
DATE: 9/26/12
DRILLING COMPANY: Ground Zero
GEOLOGIST: S. Cameron
DRILLING RIG: 6620 DT
DRILLER: J. Dzenick

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Sample Recovery / Sample Length	Lithology change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	USCS	Material Classification	Remarks	PID/FID Reading (PPM)
	0-2.5						Cored concrete		0-2: X
	2.5-4			Moderately Dense	gray/brn		Silty, fine to medium grained	Slightly moist	2-4: 0.0
							SAND w/ trace gravel.		4-6: 0.0
	4-15			Slightly Dense	red/brn		Fine to medium grained SAND	Slightly moist	6-8: 0.0
							w/ trace silt.		8-10: 0.0
	15-25			Moderately hard	Cream mottled		Medium plasticity CLAY w/	Slightly moist	12: 0.0
					red/purple		some silt + frequent fine		14: 0.0
							grained sand veins.		16: 0.0
	25-30			Hard	gray/brn		Fine grained SANDY SILT w/	Slightly moist	18: 0.0
							some clay.		20: 0.0
	30-35			Hard	cream mottled		Medium to high plasticity	Slightly moist	22: 0.0
					purple.		CLAY w/ trace veins of		24: 0.0
							fine grained sandy silt.		26: 0.0
									28: 0.0
									30: 0.0
									32: 0.0
									34: 0.0
									36: 0.0
									38: X
									40: X

Remarks: Sampled from 2-4' @ 1500 + from 16-18' @ 1520.
Refusal @ 35'

Drilling Area Background (PPM):

Convert to Well: Yes: No: ✓

Well I.D. #:

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP- Supplemental characterization
PROJECT NUMBER:
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe

BORING No.: GSP-SB-138
DATE: 9/21/12
GEOLOGIST: WD'Neil
DRILLER: Jeff Dzienik

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	0						Brown silt w/ grass dry to lt. brown silty sand w/ grass dry brown to white silt, sand w/ grass, dry		0.4				
	5						No recovery		N/A				
							lt. brown clayey sand, soft, moist lt. brown clayey silt, stiff, moist lt. gray silty sand, soft, moist w/ clay lens at base		0.8				
	10						lt. brown silty sand soft, wet		0.6				
							No recovery						
							lt. brown silty sand, soft, wet		1.7				
	15						No recovery						
							lt. brown/orange silty sand, soft, wet lt. gray to pink silty sand w/ 0.25' clay lens		1.1				
	20						No recovery						
							red to pink silty fine sand, soft, wet w/ clay lenses		2.1				
							No recovery						
	25						red fine silty sand, soft, wet		2.0				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): Ad

Converted to Well: Yes ____ No X Well I.D. #: N/A

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe

BORING No.: GSP-SB-138
DATE: 9/21/12
GEOLOGIST: W. Oswell
DRILLER: Jeff Dziernik

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25						wet fine silty sand, soft, wet		2.0				
							lt. gray clay, stiff, dry						
							No recovery						
							wet silty sand, mod. soft, wet		1.4				
	30												
							No recovery						
							wet brown, fine silty sand, soft		1.1				
							gray clay, stiff, dry						
	35												
							No recovery						
	40												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: N/A

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe

BORING No.: GSP-SB-139
DATE: 9/21/12
GEOLOGIST: W. Oniell
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks (PID/FID Reading (ppm))	Sample	Sampler BZ	Borehole**	Driller BZ**
	0						Brown soil, damp						
							white gray gravel fill, dry						
							dark brown silt, mod soft, very slightly moist		2.3				
							Brown silty sand, soft w/ gravel very slightly moist						
							NO recovery						
	5						Brown silty sand soft, moist						
							gray/brown silty clay stiff, v. slightly moist		1.1				
							red brown to brown silty sand, soft, moist						
							NO recovery						
							red brown silty sand soft, moist						
	10						Brown silty sand soft, wet		1.8				
							NO recovery						
							Brown to red brown silty sand, soft, wet		2.3				
	15												
							red/gray clay, stiff, dry		2.5				
	20						NO recovery						
							red gray silty clay, stiff, dry						
							red gray sandy soft, wet						
							red gray clay stiff, dry		3.0				
							orange red gray silty sand soft wet						
							NO recovery						
	25						gray silty sand, soft, wet		2.4				
							gray orange silty clay stiff, v slightly moist						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: N/A

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe

BORING No.: GSP-SB-139
DATE: 9/21/12
GEOLOGIST: W. O'Neill
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks (PID/FID Reading (ppm))	Sample	Sampler BZ	Borehole**	Driller BZ**
	25						gray orange silty clay stiff, v. slightly moist		2.4				
							No recovery						
							lt gray clay, stiff dry w/ sand @ 30-30.5		1.4				
	30												
							No recovery						
							Brown silty sand, soft, wet		3.0				
							gray clay, stiff, dry						
							Brownish gray sand, soft, wet						
	35												
							No recovery						
	40												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: N/A

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Soil + Water
BORING No.: GSP-SB-140
PROJECT NUMBER: 112IC04136-04
DATE: 9/26/12
DRILLING COMPANY: Ground Zero
GEOLOGIST: S. Cameron
DRILLING RIG: 6620 DT
DRILLER: J. Dzennick

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Sample Recovery / Sample Length	Lithology change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	USCS	Material Classification	Remarks	PID/FID Reading (PPM)
	0-1'			Slightly Dense	Dark brn		SILTY fine grained SAND w/	Moist	0-2: 0.1
							trace gravel.		2-4: 0.0
	1-3'			Dense	Dark brn		Fine to medium grained SAND	Moist	4-6: 0.0
							w/ Some silt.		6-8: 0.0
	3-20'			Dense	Gray		Fine to medium grained well	Wet	8-10: 0.0
							sorted SAND.		12: 0.0
	20-26'						No Recovery		14: 0.0
	26-28'			Hard	cream mottled		Medium to high plasticity	Slightly moist	16: 0.0
					red/brn		CLAY w/ trace silt to 27'.		18: 0.0
	28-30						No Recovery		20: X
	30-32			Dense	Gray		Fine to medium grained, well	Wet	22: X
							sorted SAND.		24: X
	32-34						No Recovery		26: X
	34-40			Dense	Gray		Fine to medium grained, well	Wet w/	28: 0.0
							Sorted SAND w/ medium	slightly moist	30: X
							plasticity, hard clay lenses	clay lenses	32: 0.0
							intermittently from 38-40'.		34: X
									36: 0.0
									38: 0.0
									40: 0.0

Remarks: Sampled from 0-2' @ 1240 + from 6-8' @ 1300

Drilling Area Background (PPM):

Convert to Well: Yes: No: ✓

Well I.D. #:

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Soil & Water
BORING No.: GSP-SB-141
PROJECT NUMBER: 112IC04136-04
DATE: 10/1/12
DRILLING COMPANY: Ground Zero
GEOLOGIST: S. Cameron
DRILLING RIG: 6620 DT
DRILLER: J. Dzemick

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Sample Recovery / Sample Length	Lithology change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	USCS	Material Classification	Remarks	PID/FID Reading (PPM)
	0-3.5			Dense	brn		Fine grained SANDY SILT w/	Dry	0-2': 0.0
							trace gravel + organics to 2".		2-4': 0.0
	3.5-4			Dense	Dark brn		SILTY fine grained SAND.	Slightly Moist	4-6': 0.0
	4-8			Soft	Dark brn becoming		CLAYEY SILT w/ trace	Slightly moist	6-8': 0.0
					light gray @ 6".		fine grained sand.		8-10': 0.0
	8-13				light gray		SILTY fine grained SAND w/	Slightly moist,	10': 0.0
					becoming brn @ 11'		trace gravel to 9'.	wet from 10-10.2	11': 0.0
	13-20			moderately soft	purple mottled		Medium to high plasticity	Slightly moist	15': 0.0
					cream		CLAY w/ trace silt.		18': 0.0
	20-23			Moderately Dense	Dark Gray		Fine to medium grained SAND	Saturated	20': 0.0
							w/ trace silt.		22': 0.0
	23-35			moderately soft	Dark Gray		Medium to high plasticity	Slightly moist	24': 0.0
							CLAY w/ trace silt.		30': 0.0
									32': 0.0
									34': 0.0
									35': 0.0
									36': X
									37': X
									38': X

Remarks: Sampled from 0-2' @ 1210 + from 8-10' @ 1225.

Refusal @ 35'

Drilling Area Background (PPM):

Convert to Well: Yes: No: ✓

Well I.D. #:

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Soil + Water
BORING No.: GSP-SB-142
PROJECT NUMBER: 112IC04136-04
DATE: 9/28/12
DRILLING COMPANY: Ground Zero
GEOLOGIST: S. Cameron
DRILLING RIG: 6620 DT
DRILLER: J. Dzemick

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Sample Recovery / Sample Length	Lithology change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	USCS	Material Classification	Remarks	PID/FID Reading (PPM)
	0-3			Moderately soft	light brn		SILTY fine grained SAND w/	Dry	0-2: 0.0
							trace gravel + organics to 2"		2-4: 0.0
	3-7			Moderately Hard	Dark Gray		Fine grained SANDY SILT w/	Slightly moist	4-6: 0.0
				becoming soft @ 5'			trace black clasts.		6-8: 0.0
	7-7.5			Moderately Dense	Light gray		Fine grained SAND w/ trace	Slightly Moist	8-10: 0.0
							silt.		12: 0.0
	7.5-12			Hard	Light gray		CLAYEY SILT w/ trace fine	Dry	14: 0.0
							grained Sand + some fine		16: 0.0
	10.5-12						grained sand veins intermittently		18: 0.0
							from 10.5-12'.		20: 0.1
	12-15				light brown		Fine to medium grained SAND	Saturated	22: 0.0
							w/ trace silt.	becoming moist @ 13'	24: 0.0
	15-16			Moderately hard	light brown		Low plasticity SILTY CLAY	Slightly moist	26: 0.2
							w/ some fine grained sand		28: 0.5
							silt lenses.		30: 0.0
	16-19.5			Dense	light brn		Fine to medium grained SAND	Saturated	32: 0.0
							w/ trace silt.		34 0.0
	19.5-20			Hard	Dark Gray		Low plasticity SILTY CLAY	Slightly Moist	36: 0.0
	20-38			Moderately Soft	Dark Gray		Medium to high plasticity CLAY	Slightly moist	38: 0.0
							w/ some intermittent fine	becoming moist	40: 0.0
							grained sandy silt lenses from	@ 24'	
							30-31.5'.		
	38-40			Moderately Hard	Dark Gray		CLAYEY SILT w/ some fine	Moist	
							grained sand.		

Remarks: Sampled from 18-20' @ 1000 + from 26-28' @ 1015

Drilling Area Background (PPM):

Convert to Well: Yes: No: ✓

Well I.D. #:

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Soil + Water
BORING No.: GSP-SB-143
PROJECT NUMBER: 112IC04136-04
DATE: 9/27/12
DRILLING COMPANY: Ground Zero
GEOLOGIST: S. Cameron
DRILLING RIG: 6620 DT
DRILLER: J. Dzemick

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Sample Recovery / Sample Length	Lithology change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	USCS	Material Classification	Remarks	PID/FID Reading (PPM)
	0-1'			Compact	Red/brn		Fine grained SANDY SILT	Dry	0-2: 0.0
							w/ trace gravel + organics		2-4: 0.0
	1-2			Compact	Red/brn		Fine to medium grained SILTY SAND	Dry	4-6: 0.0
	2-6			Compact	Dark gray		Low plasticity SILTY CLAY w/	Dry	6-8: 0.0
					becoming gray		trace, fine grained SAND		8-10: 0.0
	6-8			Moderately Soft	Light gray		SILTY fine grained SAND	Moist	12: 0.0
	8-11			Moderately Hard	Light gray		Fine grained SANDY SILT	Slightly Moist	14: 0.0
	11-12			Compact	brown		Fine grained SILTY SAND	Moist	16: 0.0
	12-26			Moderately Loose	brown		Well sorted, Fine to medium grained	Saturated	18: 0.0
							SAND		20: 0.0
	26-34			Moderately Hard	Dark gray		Medium to high plasticity CLAY	Moist	22: 0.0
							w/ trace, medium grained black clasts		24: 0.0
							and silty veins from 28-34'.		26: 0.1
	34-40			Moderately Loose	gray		SILTY fine grained SAND	Slightly moist	28: 0.0
									30: 0.0
									32: 0.0
									34: 0.0
									36: 0.0
									38: 0.0
									40: 0.0

Remarks: Sampled from 0-2' @ 1450 + from 24-26' @ 1500

Drilling Area Background (PPM):

Convert to Well: Yes: No: ✓

Well I.D. #:

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Soil + Water
BORING No.: GSP-SB-144
PROJECT NUMBER: 112IC04136-04
DATE: 9/28/12
DRILLING COMPANY: Ground Zero
GEOLOGIST: S. Cameron
DRILLING RIG: 6620 DT
DRILLER: J. Dzennick

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Sample Recovery / Sample Length	Lithology change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	USCS	Material Classification	Remarks	PID/FID Reading (PPM)
	0-2.5			Compact	Light brn		SILTY fine grained SAND w/	Dry	0-2: 0.5
							trace gravel + organics to 2"		2-4: 0.4
	2.5-3.5			Loose	Light brn		Fine grained SAND w/ some	Dry	4-6: 0.7
							gravel + trace silt.		6-8: 0.5
	3.5-6			Moderately Hard	Light brn		CLAYEY SILT w/ trace fine	Slightly moist	8-10: 0.8
							grained sand + fine gravel		12: 0.4
	6-8			Compact	Light gray		SILTY fine grained SAND w/	Slightly moist	14: 1.4
							trace clay.		16: 1.2
	8-12			Hard	Cream mottled		Low plasticity SILTY CLAY	Dry	18: 1.5
					red/brn				20: 1.9
	12-31.5			Hard	purple		Medium to high plasticity CLAY	Slightly moist	22: 1.5
							w/ trace silt and silt veins		24: 0.5
							from 20-24'		26: 0.0
	31.5-32			Dense	Dark gray		SILTY fine grained SAND	Dry	28: 0.0
									30: 0.0
									32: 0.0
									34: X
									36: X
									38: X
									40: X

Remarks: Sampled from 8-10' @ 1200 + from 18-20' @ 1220

Refusal @ 32'

Drilling Area Background (PPM):

Convert to Well: Yes: No: ✓

Well I.D. #:

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: GSP- Supplemental Soil + Water
BORING No.: GSP-SB-145
PROJECT NUMBER: 112IC04136-04
DATE: 10/1/12
DRILLING COMPANY: Ground Zero
GEOLOGIST: S. Cameron
DRILLING RIG: 6620 DT
DRILLER: J. Dzemick

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Sample Recovery / Sample Length	Lithology change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	USCS	Material Classification	Remarks	PID/FID Reading (PPM)
	0-2'			Dense	Red/brn		Fine grained SANDY SILT w/	Dry	0-2: 0.0
							trace gravel + organics to 2"		2-4: 0.0
	2-3.5			Loose	Light brn		SILTY fine grained SAND w/	Dry	4-6: 6.4
							trace gravel		6-8: 2.3
	3.5-4			Loose	Gray/brn		Fine to medium grained SAND	Slightly moist	8-10: 0.0
							w/ trace silt.		12: 0.3
	4-6.5			Compact	red/brn		Low plasticity SILTY CLAY	Slightly moist	14: 0.6
					mottled light brn		w/ trace fine grained sand		16: 0.5
	6.5-7			Compact	light gray		Fine grained SANDY SILT w/	Dry	18: 0.2
							black medium grained organic clasts		20: 0.6
	7-8			Soft	Cream mottled		Low plasticity SILTY CLAY	Moist	22: 0.4
					light brn		w/ trace fine grained sand		24: 0.2
	8-13			Hard	Light gray		Fine grained SANDY SILT	Dry to	26: 0.3
					becoming brn mottled cream			Slightly moist	28: 0.1
	13-20			Moderately Soft	Dark gray		Medium to high plasticity CLAY	Slightly moist	30: 0.0
							w/ trace silt.		32: 0.0
	20-22			Loose	Dark brn		Fine to medium grained SAND w/	Saturated	34: 0.0
							trace silt		36: X
	22-34			Moderately Soft	Dark gray		Medium to high plasticity CLAY	Slightly moist	38: X
							w/ trace silt.		40: X

Remarks: Sampled from 4-6' @ 1410 + from 18-20' @ 1430

Refusal @ 34'

Drilling Area Background (PPM):

Convert to Well: Yes: No: ✓

Well I.D. #:

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Soil & Water
BORING No.: GSP-SB-146
PROJECT NUMBER: 112IC04136-04
DATE: 10/1/12
DRILLING COMPANY: Ground Zero
GEOLOGIST: S. Cameron
DRILLING RIG: 6620 DT
DRILLER: J. Dzemick

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Sample Recovery / Sample Length	Lithology change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	USCS	Material Classification	Remarks	PID/FID Reading (PPM)
	0-1.5			Compact	brown		Fine grained SANDY SILT	Slightly moist	0-2: 0.0
							w/ trace gravel + organics to 2".		2-4: 0.2
	1.5-3.5			Compact	light brn		SILTY fine grained SAND w/	Slightly moist	4-6: 1.3
							trace gravel.		6-8: 0.2
	3.5-8			Compact	Dark brn		Fine grained SANDY SILT w/	Slightly moist	8-10: 0.9
							trace fine grained gravel and		12: 0.7
							medium to high plasticity clay		14: 0.7
							from 5 to 6'.		16: 0.5
	8-9.5			Soft	Light gray		Low plasticity SILTY CLAY	Moist	18: 0.8
							w/ some fine grained sand.		20: 1.0
	9.5-10.5			Soft	Light gray		SILTY fine grained SAND	Moist	22: 0.5
	10.5-15			Compact	Light gray		Fine to medium grained SAND	Slightly moist	24: 0.5
					becoming brn		w/ trace silt.	to saturated @ 14'	26: 0.2
	15-26			Hard to soft @ 20'	Cream mottled purple becoming		Medium to high plasticity CLAY	Slightly moist	28: 0.0
					dark gray @ 20'		w/ trace silt.		30: 0.3
	26-28			Compact	Dark gray		SILTY fine grained SAND	Moist	32: 0.1
	28-36			Compact	Dark gray		Medium to high plasticity CLAY	Slightly Moist	34: 0.4
							w/ trace silt + fine grained		36: 0.2
							sand lenses intermittently from 28-32'		38: 0.1
	36-40			Dense	Dark gray		Fine grained SANDY SILT w/	Slightly Moist	40: 0.0
							medium to high plasticity CLAY lenses		
							intermittently.		

Remarks: Sampled from 4-6' @ 0945 + from 18-20' @ 0955.

Drilling Area Background (PPM):

Convert to Well: Yes: No: ✓

Well I.D. #:

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Soil + Water
BORING No.: GSP-SB-147
PROJECT NUMBER: 112IC04136-04
DATE: 9/28/12
DRILLING COMPANY: Ground Zero
GEOLOGIST: S. Cameron
DRILLING RIG: 6620 DT
DRILLER: J. Dzenick

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Sample Recovery / Sample Length	Lithology change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	USCS	Material Classification	Remarks	PID/FID Reading (PPM)
	0-3.5			Dense	Light brn		SILTY fine grained SAND w/	Dry	0-2' 0.7
							trace gravel + organics to 2"		2-4' 0.9
	3.5-5			Loose	brn		Fine to medium grained SAND	Dry	4-6' 1.4
							w/ some silt + trace gravel.		6-8' 1.3
	5-6			Compact	Dark brn		Low plasticity SILTY CLAY	Slightly Moist	8-10' 1.5
							w/ trace organics.		12' 1.0
	6-8.5			Dense	Gray mottled brn		CLAYEY SILT w/ trace	Moist	14' 0.9
							fine grained sand		16' 1.5
	8.5-11			Moderately Compact	Light gray		SILTY fine grained SAND	Moist to wet	18' 0.8
	11-16			Hard	brn		Fine grained SANDY SILT	Dry	20' 0.0
							w/ some intermittent fine		22' 1.1
							grained sand veins.		24' 1.8
	16-40			Hard	Purple		Medium to high plasticity CLAY	Slightly moist	26' 1.4
							w/ trace silt + some silty	Black wood layer	28' 1.1
							fine grained sand from 28-32'.	2" thick @ 31'	30' 1.3
									32' 0.8
									34' 0.4
									36' 0.6
									38' 0.0
									40' 0.0

Remarks: Sampled from 8-10' @1315 + from 22-24' @1330

Drilling Area Background (PPM):

Convert to Well: Yes: No: ✓

Well I.D. #:

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Soil + Water
BORING No.: GSP-SB-148
PROJECT NUMBER: 112IC04136-04
DATE: 9/27/12
DRILLING COMPANY: Ground Zero
GEOLOGIST: S. Cameron
DRILLING RIG: CG20 DT
DRILLER: J. Dzennick

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Sample Recovery / Sample Length	Lithology change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	USCS	Material Classification	Remarks	PID/FID Reading (PPM)
	0-1			Moderately Dense	Black		Poorly sorted SANDY GRAVEL	Slightly Moist	0-2' 0.1
	1-4			Compact	Dark Gray		CLAYEY SILT w/ some gravel	Slightly Moist	2-4' 0.0
	4-6			Compact	Gray mottled brn		SILTY medium grained SAND	Slightly Moist	4-6' 0.0
	6-7			Soft	Gray mottled brn		Low plasticity SILTY CLAY	Slightly Moist	6-8' 0.0
							w/ trace fine grained sand		8-10' 0.0
	7-8			Hard	Gray mottled brn		Medium to high plasticity CLAY	Slightly Moist	12' 0.2
							w/ trace fine grained sand.		14' 1.1
	8-14			Hard	Gray		CLAYEY SILT w/ trace fine	Dry	16' 1.6
							grained sand + infrequent medium		18' 1.9
							grained sand veins from 12-14'		20' 0.0
	14-16			Hard	Dark gray		Medium to high plasticity CLAY	Dry	22' 0.0
	16-23			Loose	Dark gray		Fine grained SAND w/ trace	Saturated	24' 0.0
							silt.		26' 0.0
	23-31			Moderately Soft	Dark gray		Medium to high plasticity CLAY	Slightly Moist	28' 0.0
								to Moist	30' 0.0
	31-36			Moderately Soft	Dark gray		CLAYEY SILT	Moist	32' 0.0
	36-40			Compact	Brn mottled		Fine grained SANDY SILT w/	Slightly Moist	34' 0.0
					Dark gray		some medium plasticity Clay veins.		36' 0.0
									38' 0.0
									40' 0.0

Remarks: Sampled from 0-2' @ 1300 + from 14-16' @ 1315

Drilling Area Background (PPM):

Convert to Well: Yes: No: ✓

Well I.D. #:

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Soil + Water
BORING No.: GSP-SB-149
PROJECT NUMBER: 112IC04136-04
DATE: 9/24/12
DRILLING COMPANY: Granite Zero
GEOLOGIST: S. Cameron
DRILLING RIG: 6620DT
DRILLER: J Sorto, J Dzemick

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Sample Recovery / Sample Length	Lithology change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	USCS	Material Classification	Remarks	PID/FID Reading (PPM)
	0-3			Dense	Gray/brn		Fine grained SANDY SILT w/	Very slightly	0-2: 0.0
							trace gravel + organics	Moist	24: 0.0
	3-6			Dense	Gray		Fine grained SAND w/ trace silt	Moist	4-6: 0.0
	6-6.5			Moderately Soft	Gray		Low plasticity SILTY CLAY	Moist +	6-9: 0.5
							w/ trace fine grained sand	slightly odorous	9-11: 0.2
							+ roots.		12: 0.0
	6.5-14			Dense	Cream/brn		Medium grained, well sorted	Wet becoming	14: 0.0
							SAND.	Saturated @ 10'	16: 0.3
	14-15			Moderately Hard	Cream mottled light brn		Low plasticity SILTY CLAY	Moist	18: 0.0
	15-20.5			Dense	Gray		Medium grained well sorted SAND	Saturated	20: 0.6
	20.5-34			Compact	Gray		Fine grained SAND w/ trace	Slightly moist	23: 1.3
							Silt.		24: 1.2
	34-40			Compact	Gray		Fine grained SILTY SAND w/	Slightly moist	26: 1.0
							intermittent medium grained		28: 5.2
							sand veins.		30: 0.3
									32: 1.6
									34: 0.0
									36: 0.0
									38: 0.0
									40: 0.0

Remarks: Sampled from 6-8' @ 1035 + from 26-28' @ 1050

Drilling Area Background (PPM): ☐

Convert to Well: Yes: No: ✓

Well I.D. #:

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Soil + Water
BORING No.: GSP-SB-150-
PROJECT NUMBER: 112IC04136-04
DATE: 9/24/12
DRILLING COMPANY: Ground Zero
GEOLOGIST: S. Cameron
DRILLING RIG: 6620 DT
DRILLER: J. Dzenick

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Sample Recovery / Sample Length	Lithology change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	USCS	Material Classification	Remarks	PID/FID Reading (PPM)
	0-5			Dense	light brn		SILTY fine grained SAND	Very slightly	0-2' 0.0
							w/ trace roots to 1'.	moist	2-4' 0.0
	5-12			Dense	light brn		Well sorted medium grained	Saturated	4-6' 0.1
							SAND		6-8' 0.0
	12-40			Dense	Gray mottled		Fine grained SANDY SILT	Moist	8-10' 0.1
					light brn		w/ intermittent layers of		10-12' 0.0
							medium grained, well sorted		12-14' 0.0
							sand, and a three inch red		14-16' 0.0
							medium plasticity Clay lense		16-18' 1.3
							@ 18.5'.		18-20' 0.8
									22' 0.4
									24' 0.7
									26' 0.0
									28' 0.0
									30' 0.0
									32' 0.0
									34' 0.0
									36' 0.0
									38' 0.0
									40' 0.0

Remarks: Sampled from 0-2' @ 1345 & from 16-18' @ 1400

Drilling Area Background (PPM):

Convert to Well: Yes: No: ✓

Well I.D. #:

Page ___ of ___

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Soil & Water
BORING No.: GSP-SB-151
PROJECT NUMBER: 112IC04136-04
DATE: 9/27/12
DRILLING COMPANY: Ground Zero
GEOLOGIST: S. Cameron
DRILLING RIG: 6620 DT
DRILLER: J. Dzemick

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Sample Recovery / Sample Length	Lithology change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	USCS	Material Classification	Remarks	PID/FID Reading (PPM)
	0-5'			Soft	Dark brn		Fine grained SANDY SILT w/	Slightly Moist	0-2' 0.0
							trace organics.		2-4' 0.0
	5-4			Compact	Gray		SILTY fine grained SAND	Slightly Moist	4-6' 0.0
	4-11			Compact	Gray		Fine to medium grained	Saturated	6-8' 0.0
							well sorted SAND		8-10' 0.2
	11-12			Hard	Gray mottled		Medium plasticity CLAY w/	Moist	12' 0.0
					light brn		trace fine grained sand		14' 0.0
	12-16			Loose	Light brn		Fine to medium grained well	Saturated	16' 0.0
							Sorted SAND		18' 0.1
	16-20			Compact	Cream mottled light brn		SILTY fine to medium grained	Slightly Moist	20' 0.0
							SAND w/ some medium plasticity		22' 0.1
							clay veins.		24' 0.0
	20-23			Dense	Cream mottled brn		Fine to medium SAND w/	Moist	26' 0.0
							Some silt.		28' 0.0
	23-24			Moderately Soft	Cream		Medium plasticity CLAY w/	Slightly moist	30' 0.0
							fine grained sandy silt veins.		32' 0.0
	24-36			Dense	Cream mottled		Alternating layers of fine grained	Slightly Moist	34' 0.0
					brown		Sand, medium plasticity clay,		36' 0.0
							and fine grained sandy silt.		38' X
									40' X

Remarks: Sampled from 8-10' @ 1100 + from 18-20' @ 1115

Refusal @ 36'

Drilling Area Background (PPM):

Convert to Well: Yes: No:

Well I.D. #:

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Soil & Water
BORING No.: GSP-SB-152
PROJECT NUMBER: 112IC04136-04
DATE: 9/26/12
DRILLING COMPANY: Ground Zero
GEOLOGIST: S. Cameron
DRILLING RIG: 6620 DT
DRILLER: J. Dzennick

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Sample Recovery / Sample Length	Lithology change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	USCS	Material Classification	Remarks	PID/FID Reading (PPM)
	0-2'			Moderately Soft	Gray mottled brown		Fine grained SANDY SILT w/	Slightly Moist	0-2: 0.0
							some organics to 2".		2-4: 0.0
	2-3.5			Loose	brown		Fine grained SAND w/ some	Slightly Moist	4-6: 0.0
							silt + trace gravel		6-8: 0.0
	3.5-4.5			Compact	Gray		SILTY fine grained SAND	Slightly Moist	8-10: 0.3
	4.5-20			Compact	Gray		Medium grained, well sorted	Moist becoming	12: 0.2
							SAND w/ trace silt.	Saturated	14: 0.0
								from 5 to 15'.	16: 0.1
	20-35			Compact	Gray		Alternating layers of fine	Moist sand	18: 0.0
					Mottled brn		to medium grained SAND, silty	layers + slightly	20: 0.0
							fine grained sand, and medium	moist clay +	22: 0.0
							plasticity clay w/ trace silt.	silt layers.	24: 0.0
							Silty lithology dominates to 28'		26: 0.1
							where sandy lithology begins		28: 0.6
							to dominate.		30: 0.3
									32: 0.0
									34: 0.0
									36: 0.0
									38: X
									40: X

Remarks: Sampled from 8-10' @ 1040 + from 26-28' @ 1055

Drilling Area Background (PPM):

Convert to Well: Yes: No: ✓

Well I.D. #:

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Soil & Water
BORING No.: GSP-SB-153
PROJECT NUMBER: 112IC04136-04
DATE: 9/25/12
DRILLING COMPANY: Ground Zero
GEOLOGIST: S. Cameron
DRILLING RIG: 6620 DT
DRILLER: J. Dzemick

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Sample Recovery / Sample Length	Lithology change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	USCS	Material Classification	Remarks	PID/FID Reading (PPM)
	0-2			Compact	Dark brn		Fine grained SANDY SILT w/	Slightly Moist	0-2: 0.0
							trace organics		2-4: 0.0
	2-3			Dense	brn		SILTY fine grained SAND	Slightly Moist	4-6: 0.0
	3-4			Loose	brn		Fine to medium grained	Slightly Moist	6-8: 0.0
							SAND w/ trace coarse grained		8-10: 0.0
							gravel		12: 0.1
	4-6			Dense	Gray		SILTY fine grained SAND	Slightly Moist	14: 0.0
	6-20			Loose	brn		Fine to medium grained, well	Wet	16: 0.0
							Sorted SAND		18: 0.0
	20-40			Dense	Gray		Intermittent layers of	Moist	20: 0.0
							fine grained silty sand +	Clays become	22: 0.0
							medium plasticity clay, in	More prominent	24: 0.2
							predominantly medium grained	below 28'	26: 0.1
							SAND lithology.		28: 0.0
									30: 0.0
									32: 0.0
									34: 0.0
									36: 0.0
									38: 0.0
									40: 0.0

Remarks: Sampled from 0-2' @ 1445 + from 22-24 @ 1500

Drilling Area Background (PPM):

Convert to Well: Yes: No: ✓

Well I.D. #:

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Soil & Water
BORING No.: GSP-SB-154
PROJECT NUMBER: 112IC04136-04
DATE: 9/25/12
DRILLING COMPANY: Ground Zero
GEOLOGIST: S. Cameron
DRILLING RIG: 6620 DT
DRILLER: J. Dzenick

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Sample Recovery / Sample Length	Lithology change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	USCS	Material Classification	Remarks	PID/FID Reading (PPM)
	0-3			Compact	Dark brn		Fine grained SANDY SILT	Slightly Moist	0-2: 0.0
							w/ trace organics		2-4: 0.0
	3-5			Compact	Light brn		SILTY fine grained SAND	Slightly Moist	4-6: 0.0
							w/ Coarse gravel from 3.5-4'		6-8: 0.0
	7-12			Compact	Gray		Medium grained, well sorted	Wet	8-10: 0.0
							SAND w/ trace silt.		12: 0.1
	12-16			Dense	Gray mottled		Primarily medium grained	Sand is moist	14: 0.2
					brown		SAND w/ trace silt, w/	to wet, clay	16: 0.6
							some lenses of medium	lenses are	18: 0.0
							plasticity clay & trace sand.	slightly moist	20: 0.0
	16-20			Dense	Gray mottled		Primarily medium plasticity	Slightly Moist	22: 0.0
					brown		SILTY CLAY w/ trace sand,		24: 0.0
							with some lenses of		26: 0.2
							medium grained sand		28: 0.0
	20-40			Dense	Gray mottled		Medium grained SAND w/	Slightly	30: 0.0
					brown		some medium plasticity	moist	32: 0.0
							clay lenses intermittently	beginning wet	34: 0.0
								from 24-28'	36: 0.0
									38: 0.0
									40: 0.0

Remarks: Sampled from 0-2' @ 1240 + from 14-16' @ 1310

Drilling Area Background (PPM):

Convert to Well: Yes: No: ✓

Well I.D. #:

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Soil & Water
BORING No.: GSP-SB-155
PROJECT NUMBER: 112IC04136-04
DATE: 9/25/12
DRILLING COMPANY: Ground Zero
GEOLOGIST: S. Cameron
DRILLING RIG: 6620 DT
DRILLER: J Dzemnick

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Sample Recovery / Sample Length	Lithology change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	USCS	Material Classification	Remarks	PID/FID Reading (PPM)
	0-2			Compact	Dark brn		Fine grained SANDY SILT	very slightly	0-2: 0.0
							w/ trace organics + gravel	moist	2-4: 0.0
	2-5			Compact	Dark brn		SILTY fine grained SAND w/	Slightly moist	4-6: 0.0
							trace organics.	becoming moist @3'	6-8: 0.0
	5-10			Loose	Gray		Fine to medium grained SAND	Moist becoming	8-10: 0.0
							w/ trace silt.	Saturated @ 8'	10: 0.0
	10-12			Moderately Soft	Gray mottled		High plasticity CLAY w/ intermittent	Slightly moist w/	14: 0.0
					Cream		layers of fine to medium grained	moist sand layers	16: 0.0
							sand		18: 0.0
	12-15.5			Loose	Gray		Fine to medium grained SAND	Saturated	20: 0.0
							w/ trace silt.		22: 0.0
	15.5-16			Dense	Gray mottled		SILTY fine grained SAND	Slightly Moist	24: 0.0
					light brn				26: 0.0
	16-24			Dense/hard	Gray sand		Alternating layers of fine	Moist sands	28: 0.0
					light brn silt		to medium grained SAND w/	+ slightly	30: 0.0
							trace silt, and fine grained	moist silts.	32: 0.0
							SANDY SILT w/ trace clay.		34: 0.0
	24-40			Dense/hard	Gray Sand		Alternating layers of medium	Wet sands	36: 0.0
					light brn Clay		grained SAND, and low plasticity	+ slightly	38: 0.0
							SILTY CLAY w/ trace fine	moist clays.	40: 0.0
							grained sand, ranging in thickness		
							from 1/4 inch to 6".		

Remarks: Sampled from 0-2 @ 1020 & from 8-10 @ 1040

Drilling Area Background (PPM):

Convert to Well: Yes: No: ✓

Well I.D. #:

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-131-12'-14'
Sample Location: Middle Branch MD
Sampled By: WON
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/7/12 Time: 1010 Method: DPT macrocore Monitor Reading (ppm): 6.1	12'-14'	lt. gray clay	dense stiff dry

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4oz glass	✓	
SVOCs, Metals, DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-131-14'-18.5'
Sample Location: Middle River, MD
Sampled By: WOA
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/7/12 Time: 1020 Method: DPT macro core Monitor Reading (ppm):	14'-18.5'	lt. gray brown	Silty med sand soft, wet

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4oz glass	✓	
SVOCs, metals, DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GREATER STRAWBERRY POINT SUPPLEMENTAL CHARACTERIZATION
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-132-30-32'
Sample Location: Middle River MD
Sampled By: WON
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/6/12	30'-32'	orange gray	sandy & silty clay moist to s. moist
Time: 1125			
Method: DPT core			
Monitor Reading (ppm): 2.0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4oz glass	✓	
SVOC, METALS, DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GREATER STRAWBERRY POINT Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-132-35.5'-36.5'
Sample Location: Middle River, MD
Sampled By: WON
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/6/12 Time: 1140 Method: DPT core Monitor Reading (ppm): 2.4	35'-36.5'	lt. brown	clayey sand to sandy clay moist to wet stiff to slightly pliable

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4oz glass	✓	
SVOC, metals, DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP supplemental Charact.
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-133-8'-10.5'
Sample Location: Middle Row MD
Sampled By: WOW
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/7/12 Time: 1325 Method: DPT macrocore Monitor Reading (ppm): 0.0	8'-10.5'	gray tan	clay, v. pliable slightly moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4oz Jar	✓	
SVOCs, metals, DRO	8oz Jar	✓	

OBSERVATIONS / NOTES:

Sampled because it was just above water table

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-133-16-18.5
Sample Location: Middle River, MD
Sampled By: WAN
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/7/12 Time: 1345 Method: DPT macrocore Monitor Reading (ppm): 0.7	16'-18.5'	Brown, gray orange	clay to silty/sandy clay, pliable, slightly moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4oz glass	✓	
SVOCs, metals, DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

Sample had highest PID reading in core (0.7 ppm vs. 0.0 ppm)

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Greater Strawberry Point Supplemental Core
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-134-25'-27'
Sample Location: Middle River MD
Sampled By: WON
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/6/12 Time: 1508 Method: DPT core Monitor Reading (ppm): 289	25'-27'	orange/tan	silty sand, wet

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4oz glass	✓	
SVOCs, Metals, DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Won

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GREATER STRAWBERRY POINT Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-134-27'-31'
Sample Location: Middle River MD
Sampled By: WON
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/6/12 Time: 1520 Method: DPT core Monitor Reading (ppm): 42.3	27'-31'	red, orange, lt. brown	clay w/ sand lenses clay is dry sand is wet

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra core kit	✓	
GRO	4 oz glass	✓	
SVOCs, metals, DRO	8 oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GREATER STRAWBERRY POINT SUPPLEMENTAL CHARACTER.
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-134-25'-31'
Sample Location: Middle River, MD
Sampled By: TWON
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/6/12 Time: 1525 Method: DPT Core Monitor Reading (ppm): 423 to 289	25'-31'	orange tan red, lt. brown	clay to SAND

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TCLP VOCs	8 oz glass	✓	
TCLP SVOCs, metals, pest., herb.	16 oz glass X2	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Charac.
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-135-0'-2.5'
Sample Location: Middle River, MD
Sampled By: WAN
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/7/12 Time: 1447 Method: DPT Macrocore Monitor Reading (ppm): 0.0	0-2.5'	lt. brown	Sand to sandy clay dry to slightly moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	terra core kit	✓	
GRO	4oz glass	✓	
SVOCs, metals, DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

Sampled top interval & interval above water table because @ PID reading = 0.0

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [illegible]

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Charac.
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-135-10.5'-12'
Sample Location: Middle River, MD
Sampled By: WON
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/7/12 Time: 1505 Method: DPT macro core Monitor Reading (ppm): 0.0	10.5'-12'	red gray	sandy clay to clayey sand moist, soft

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	terra Core kit	✓	
SVOCs, metals, DRO	8oz glass	✓	
GRO	4oz glass	✓	

OBSERVATIONS / NOTES:

PID reading = 0.0 in entire core
sampled top (0'-2.5')
and this sample above
water table

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-136-02
Sample Location: SB136
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/14/12 Time: 1015 Method: Grab Monitor Reading (ppm): 1.4	0-2'	Light brn / cream	Sandy, Clayey, Silt w/ trace organics. Dry

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-136-10
Sample Location: SB-136
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/14/12 Time: 1100 Method: Grab Monitor Reading (ppm): 3.4	8-10'	Light brn / cream	Silty Sand, slightly moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): SC

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-137-18
Sample Location: SB-137
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/26/12 Time: 1520 Method: Grab Monitor Reading (ppm): 0.0	16-18'	Cream mottled red/purple	Medium plasticity clay w/ sand + silt. Slightly moist

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-137-04
Sample Location: SB-137
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/26/13 Time: 1500 Method: Grab Monitor Reading (ppm): 0.0	2-4'	gray/brn	Slightly moist, fine to medium grained Silty Sand

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-138-20-22
Sample Location: Middle River, MD
Sampled By: W. Oswell
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/21/12 Time: 1140 Method: Geoprobe macrocore Monitor Reading (ppm):	20-22	red to pink	silty fine sand soft wet

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	TEMA core kit	✓	
GRO	4oz glass	✓	
SVOCs, metals, DW	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-138-24-26
Sample Location: Middle River, MD
Sampled By: W. Oniell
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:	24-26	red	Fine silty sand, soft, wet
Time:			
Method: Geoprobe macrocore			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	TEMA core kit		
GRO	4oz glass		
SVOCs, metals, DW	8oz glass		

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-139-20-23
Sample Location: Middle River, MD
Sampled By: W. Oswell
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/21/12 Time: 1445 Method: Geoprobe macrocore Monitor Reading (ppm):	20-23	red gray	sand (soft, wet) to clay (stiff, dry)

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	TEWA core kit	✓	
GRO	4oz glass	✓	
SVOCs, metals, DW	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-139-32-34.5
Sample Location: Middle River, MD
Sampled By: W. ONeil
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/21/12 Time: 1455 Method: Geoprobe macrocore Monitor Reading (ppm):	32-34.5	brown	silty sand, soft, wet

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	TCWA core kit	✓	
GRO	4oz glass	✓	
SVOCs, metals, DW	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-140-02
Sample Location: SB-140
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/26/12 Time: 1240 Method: Grab Monitor Reading (ppm): 0.1	0-2'	Dark brn	Sand w/ silt + trace gravel. Moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-140-08
Sample Location: SB-140
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/26/12 Time: 1300 Method: Grab Monitor Reading (ppm): 0.0	6-8'	Gray	Dense, fine to medium grained wet sand.

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-141-02
Sample Location: SB-141
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 10/1/12 Time: 1210 Method: Grab Monitor Reading (ppm): 0.0	0-2	brown	Sandy Silt w/ trace gravel + organics. Dry

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-141-10
Sample Location: SB 141
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 10/1/11 Time: 1225 Method: Grab Monitor Reading (ppm): 0.0	8-10'	light gray	Silty fine grained sand w/ trace gravel. Slightly moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-142-20
Sample Location: SB-142
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/28/12 Time: 1000 Method: Grab Monitor Reading (ppm): 0.1	18-20	light brown	Wet fine to medium grained sand

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-142-28
Sample Location: SD142
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/28/12 Time: 1015 Method: Grab Monitor Reading (ppm): 0.5	26-28	Dark gray	Slightly moist, medium plasticity Clay

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

SC

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-143-02
Sample Location: SB143
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/27/12 Time: 1450 Method: Grab Monitor Reading (ppm): 0.0	0-2	Red/brn	Dry, fine to medium grained sand & silt

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-143-26
Sample Location: SB-143
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/27/12 Time: 1500 Method: Grab Monitor Reading (ppm): 0.1	24-26'	brown	wet, fine to medium grained sand

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-144-10
Sample Location: SB144
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/28/12 Time: 1200 Method: Grab Monitor Reading (ppm): 0.8	8-10'	Cream mottled red/brn	Dry, low plasticity Silty Clay

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-144-20
Sample Location: SB-144
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/28/11 Time: 1220 Method: Grab Monitor Reading (ppm): 1.9	18-20	Purple	Medium to high plasticity Clay w/ trace sand + silt veins. Slightly moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-145-06
Sample Location: SQ-145
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 10/1/12 Time: 1410 Method: Grab Monitor Reading (ppm): 6.4	4-6'	red/brn mottled light brn	Slightly moist low plasticity silty clay

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[✓] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-145-20
Sample Location: SB-145
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 10/1/12 Time: 1430 Method: Grab Monitor Reading (ppm): 0.6	18-20'	Dark gray	Slightly moist medium to high plasticity clay

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-146-06
Sample Location: SB146
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 10/1/12 Time: 0945 Method: Grab Monitor Reading (ppm): 1.3	4-6'	Dark brown	Slightly moist, fine grained sandy silt.

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-146-20
Sample Location: SB-146
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 10/1/12 Time: 0955 Method: Grab Monitor Reading (ppm): 1.0	18-20'	Cream mottled purple	Slightly moist, medium to high plasticity Clay

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-147-10
Sample Location: SB-147
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/28/12 Time: 1315 Method: Grab Monitor Reading (ppm): 1.5	8-10'	Light gray	Dry, Silty fine grained sand

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-147-24
Sample Location: SB-147
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/28/12 Time: 1330 Method: grab Monitor Reading (ppm): 1.8	22-24'	Purple	Slightly moist medium to high plasticity clay w/ sand & silt veins

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-148-02
Sample Location: SB-148
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/27/12 Time: 1300 Method: Grab Monitor Reading (ppm): 0.1	0-2'	Dark Gray	Slightly moist clayey Silt w/ Some gravel

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-14-16
Sample Location: SB 14B
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/27/12 Time: 1315 Method: grab Monitor Reading (ppm): 1.6	14-16'	Dark gray	Dry medium to high plasticity Clay

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-149-08
Sample Location: SB-149
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/24/12 Time: 1035 Method: Grab Monitor Reading (ppm): 0.5	6-8	Cream/brn	Wet, medium graded SAND

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): AC

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-149-28
Sample Location: SB-149
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/24/12 Time: 1050 Method: Geo Monitor Reading (ppm): 5.2	26-28'	Gray	Slightly moist fine grained sand w/ trace silt

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-150-02
Sample Location: SB150
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/24/12 Time: 1345 Method: Grab Monitor Reading (ppm): 0.0	0-2'	light brown	Very slightly moist Silty Sand w/ trace organics.

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-150-18
Sample Location: SB-150
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/24/12 Time: 1400 Method: Grab Monitor Reading (ppm): 1.3	16-18'	Gray mottled light brn	Fine grained sandy silt w/ sand + clay. Moist

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-151-10
Sample Location: SB-151
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/27/12 Time: 1100 Method: Grab Monitor Reading (ppm): 0.2	8-10	Gray	Saturated fine to medium grained sand

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-151-20
Sample Location: SB-151
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/27/12 Time: 1115 Method: Grab Monitor Reading (ppm): 0.0	18-20	Cream mottled light brown	Slightly moist silty sand

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-152-10
Sample Location: SB-152
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/26/12 Time: 1040 Method: Grab Monitor Reading (ppm): 0.3	8-10'	Gray	Moist, medium grained sand

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-152-28
Sample Location: SB-152
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/26/12 Time: 1055 Method: Grab Monitor Reading (ppm): 0.6	26-28'	Gray mottled brown	Sand & clay w/ mostly Silt. Slightly moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-153-02
Sample Location: SB-153
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/25/12 Time: 1445 Method: Grab Monitor Reading (ppm): 0.0	0-2'	Dark brown	Slightly moist fine grained sandy silt.

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit		
GRO	4 oz glass jar		
SVOCs, Metals, and DRO	8 oz glass jar		

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-153-24
Sample Location: SB 153
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/25/12 Time: 1500 Method: Grab Monitor Reading (ppm): 0.2	22-24'	Gray	Moist silty sand w/ trace clay

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-154-02
Sample Location: SB-154
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/25/12 Time: 1240 Method: Grab Monitor Reading (ppm): 0.0	0-2	Dark brown	Slightly moist, fine grained sandy silt.

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-154-16
Sample Location: SB-154
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/25/12 Time: 1310 Method: grab Monitor Reading (ppm): 0.6	14-16'	Gray mottled brown	Moist to wet SAND w/ some Silt + clay lenses.

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-155-10
Sample Location: SB-155
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/25/12 Time: 1040 Method: Grab Monitor Reading (ppm): 0.0	8-10'	Gray	Moist to wet fine to medium grained SAND w/ trace silt.

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Soil and Water
Project No.: 112IC04136 - 04

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-155-02
Sample Location: SB 155
Sampled By: S. Cameron
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/25/12 Time: 1020 Method: Grab Monitor Reading (ppm): 0.0	0-2'	Dark brn	very slightly moist fine grained Sandy silt w/ trace gravel & Organics

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core Kit	✓	
GRO	4 oz glass jar	✓	
SVOCs, Metals, and DRO	8 oz glass jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Charac.
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-9-8-10
Sample Location: Middle River, MD
Sampled By: W. ONeil
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/12/12 Time: 1820 Method: Rotosonic Core Monitor Reading (ppm): 2.5	8-10'	gray orange	Sandy clay, fairly soft, slightly moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	terra core kit	✓	
GRO	4oz glass	✓	
SVOCs, metals, DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-10-2-4
Sample Location: Middle River, MD
Sampled By: W. ONeil
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/13/12 Time: 0920 Method: Rotosonic core Monitor Reading (ppm): 0.4	2-4	lt. brown	coarse sand to clayey sand w/ gravel at top, v. slightly moist to wet

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4 oz glass	✓	
SVOCs, metals, DRO	8 oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

20-22

Page 1 of 1

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-10-20-22
Sample Location: Middle River MD
Sampled By: W. Conrell
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/13/12 Time: 0930 Method: Rotosonic core Monitor Reading (ppm): 0.7	20-22'	gray to red brown	clay, stiff, dry

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4oz glass	✓	
SVOCs, metals, DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-11-0-2
Sample Location: Middle River, MD
Sampled By: W. ONeil
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/13/12 Time: 1535 Method: Vibrosonic core Monitor Reading (ppm): 0.6	0'-2'	brown to dark brown	gravel fill to clayey sand/ sandy clay, pliable, moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4oz glass	✓	
SVOCs, metals, DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.

Signature(s):

Tetra Tech NUS, Inc

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-11-2-4
Sample Location: Middle River, MD
Sampled By: W. Orrell
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/13/12 Time: 1345 Method: Rotosonic Core Monitor Reading (ppm): 0.4	2-4'	dark brown	Clayey sand to sandy clay, pliable moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

Analysis	Container Requirements	Collected	Other
TOCs	terra core kit	✓	
GRO	4oz glass	✓	
SVOCs, metals, DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-12-2-4
Sample Location: Middle Rivers MD
Sampled By: W. O'Neill
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/17/12 Time: 2-4 Method: Roto Sonic Core Monitor Reading (ppm):	2-4'	brown	silty sand, soft v. slightly moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs			
GRO			
SVOCs, metals, DRO			

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP supplemental characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-12-10-12
Sample Location: Middle River MD
Sampled By: W. Oniell
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/17/12 Time: Method: Rotosonic core Monitor Reading (ppm):	10-12'	Hi orange/ red	clay, stiff, dry

COMPOSITE SAMPLE DATA:

	Time	Depth interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs		✓	
GRO		✓	
SVOCs, metals, DRO		✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-13-0-2
Sample Location: Middle River, MD
Sampled By: W. ONELL
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/13/12 Time: 1915 Method: Roto Sonic Core Monitor Reading (ppm): 0.0	~~Brown to Dark Brown~~ 0-2'	~~Dark~~ DARK BROWN TO BROWN	SAND to silty SAND, friable to soft, slightly moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
DRO, SVOCs, metals	8oz glass	✓	
GRO	4oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-13-2-4
Sample Location: Middle River, MD
Sampled By: W. O'Neill
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/13/12 Time: 1925 Method: Rotosonic Core Monitor Reading (ppm): 0.0	2-4	lt. Brown to orange brown	sand, soft, moist

COMPOSITE SAMPLE DATA:

	Time	Depth interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4oz glass	✓	
SVOCs, metals, DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-14-8-10
Sample Location: Middle River, MD
Sampled By: LW • ONeil
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/14/12 Time: 1100 Method: Rotosonic core Monitor Reading (ppm): 2.2	8-10'	lt. brown red brown	sandy clay to clayey sand, fairly stiff, slightly moist to moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit		
GRO	4 oz glass		
SVOCs, metals, DRO	8 oz glass		

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-14-10-12
Sample Location: Middle River, MD
Sampled By: W. O'Neill
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/14/12 Time: 1110 Method: Rotosonic Core Monitor Reading (ppm): 8.2	10-12'	lt. brown-red brown to orange	Sandy clay to clayey sand to clay, fairly stiff to stiff, v. slightly moist to moist to dry

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4 oz glass	✓	
SVOCs, Metals, DRO	8 oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-B-10-11
Sample Location: Middle River, MD
Sampled By: W. O'Neill
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/17/12 Time: 0950 Method: Roto Sonic Core Monitor Reading (ppm): 3.3	10-11	lt. gray orange	silty clay stiff to dry (some sand is on sample)

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
SVOCs, metals, DRO	8 oz glass	✓	
GRO	4 oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-15-6-8
Sample Location: Middle River MD
Sampled By: W. ONeil
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/17/12 Time: 0940 Method: Roto Sonic Core Monitor Reading (ppm): 1.8	6-8	gray orange	silty sand, Friable V. Slightly moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4oz glass	✓	
SVOCs, metals, DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-16-2-4
Sample Location: Middle River MD
Sampled By: CW - ONWell
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/14/12 Time: 1530 Method: Rotosonic core Monitor Reading (ppm): 10.1	2-4'	~~Black~~ orange brown ~~grey~~	Sandy clay to clayey sand, pliable, very slightly moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4oz glass	✓	
SVOCs, metals, DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-16-16-18
Sample Location: Middle River, MD
Sampled By: W. ONeill
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/14/12 Time: 1540 Method: roto sonic core Monitor Reading (ppm): 4.9	16'-18'	lt. gray	silty clay, stiff, dry

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	terra core kit	✓	
GRO	4oz glass	✓	
SVOCs, metals, DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-17-14-16
Sample Location:
Sampled By:
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/11/12 Time: 1150 Method: Retosonic core Monitor Reading (ppm): 0.8	14'-16'	lt. gray orange	very slightly moist silty clay to gray clay w/ sand, wet to dense stiff clay

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4 oz glass	✓	
SVOCs, metals, DRO	8 oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech I US, Inc

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-17-24-26
Sample Location:
Sampled By:
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/11/12 Time: 1200 Method: Rotasonic core Monitor Reading (ppm): 1.3	24'-26'	gray	soft wet silty sand to wet silty sand

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4 oz glass	✓	
SVOCs, metals, DRO	8 oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle If Applicable:

MS/MSD	Duplicate ID No.

Signature(s):

Tetra Tech NUS, Inc

SOIL & SEDIMENT SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: GSP Supplemental Charact.
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-18-22-24
Sample Location: Middle River MD
Sampled By: LWN
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/11/12 Time: 1730 Method: Rotosonic Core Monitor Reading (ppm): 2.8	22-24'	lt. gray	silty clay to silty sand v. slightly moist to wet

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4oz glass	✓	
SVOCs / metals / DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.

Signature(s):

Tetra Tech NUS, Inc

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Charact.
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-18-28-30
Sample Location: Middle River, MD
Sampled By: WBN
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/11/12 Time: 1740 Method: Rotosonic core Monitor Reading (ppm): 2.6	28-30'	lt gray to orange	silty clay to silty sand vs slightly moist to wet

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4oz glass	✓	
SVOCs, metals, DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.

Signature(s): [signature]

Tetra Tech NUS, Inc

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterizat
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-19-12-14
Sample Location: Middle River MD
Sampled By: W. ONTEY
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/12/12 Time: 1520 Method: Rotasonic Core Monitor Reading (ppm): 12	12-14'	gray brown to gray	Slightly moist clayey silt to stiff dry clay

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

Analysis	Container Requirements	Collected	Other
VOCs	terracore kit	✓	
GRO	4oz glass	✓	
SVOCs, metals, DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW-19-14-16
Sample Location: middle River, MD
Sampled By: W. Onie H
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/12/12 Time: 1530 Method: Rotosonic core Monitor Reading (ppm):	14-16	dark gray	clay, stiff, dry

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit		
GRO	4oz glass		
SVOCs, metals, DRO	8oz glass		

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.

Signature(s):

Tetra Tech NUS, Inc

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW20-0-2
Sample Location: Middle River, MD
Sampled By: Wonell
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/12/12 Time: 0920 Method: Rotosonic Core Monitor Reading (ppm): 0.0	0-2'	red brown	poorly sorted silty to gravelly sand, dry

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

Analysis	Container Requirements	Collected	Other
VOCs	Terra Core kit	✓	
GRO	4 oz glass	✓	
SVOCs, metals, DRO	8 oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Supplemental Characterization
Project No.:

[] Surface Soil
[X] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-MW20-4-6
Sample Location: Middle River, MD
Sampled By: W. ONeil
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/12/12 Time: 1015 Method: Rotosonic Core Monitor Reading (ppm): 0.0	4'-6'	dark gray to orange	silty to gravelly sand & silty clay, v. slightly moist to slightly moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

Analysis	Container Requirements	Collected	Other
VOCs	terra core kit	✓	
GRO	4oz glass	✓	
SVOCs, metals, DRO	8oz glass	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.

Signature(s):

APPENDIX D—MONITORING-WELL DEVELOPMENT RECORDS, BORING LOGS, AND WELL CONSTRUCTION LOGS

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: GSP-MW-9
Site: Middle River, MD
Date Installed: 9/12/12
Date Developed: 9/15/12
Dev. Method: pump
Pump Type: 12V. Submersible

Depth to Bottom (ft.): 20'
Static Water Level Before (ft.): 9.35
Static Water Level After (ft.):
Screen Length (ft.): 10'
Specific Capacity:
Casing ID (in.): 2"

Responsible Personnel: W. Onzell
Drilling Co.: Boart Longyear
Project Name: GSP Supplemental Characterization
Project Number:

* OR- over range

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units µS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.)
1650		0						Start
1654	—	1	11.49	18.91	6.7	839	OR*	flow 0.25
1657		2	12.62	19.40	6.47	783	"	" 0.33
1700		3	13.72	19.14	6.18	775	"	" 0.33
1704		4	14.68	18.84	5.99	800	"	" 0.25
1708		5	15.20	18.62	5.89	811	"	" 0.25
1711		6	15.59	18.37	5.81	814	"	" 0.33 increased flow @ 1714
1715		Dry	awaiting	recharge				
1727		recharged	12				restart @ 1728	
1731		7	13.99	17.90	5.75	796	"	
1735		8	15.42	17.99	5.75	797	"	increased flow & pumped dry
1748		12	12.00					restarted pump
1806		13	13.90	17.62	5.70	864	"	
1809		14	15.29	17.95	5.80	802	"	
1812		15	16.59	17.96	5.91	809	"	
1815		16	17.60	17.88	5.90	826	"	
1818		17	17.70	17.73	5.81	815	"	
1825		19	17.89	17.80	5.73	814	"	

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: GSP-MW-9
Site: Middle River MD
Date Installed: 9/12/12
Date Developed: 9/15/12
Dev. Method: pump
Pump Type: 12V. Submersible

Depth to Bottom (ft.): 20'
Static Water Level Before (ft.): 9.35'
Static Water Level After (ft.):
Screen Length (ft.): 10'
Specific Capacity:
Casing ID (in.): 2"

Responsible Personnel: W. Oniell
Drilling Co.: Boart Longyear
Project Name: GSP supplementary Characterization
Project Number:

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units: µS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.)
1830	—	21	17.89	17.85	5.70	813	3391	
1838	—	23	17.89	17.84	5.69	813	1927	
1846	—	25	17.89	17.88	5.67	811	911	
1854	—	27	17.89	17.94	5.66	810	136	
1918	—	33	17.89	17.90	5.64	811	93.5	Stop due to darkness

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: GSP-MW-10
Site: Middle River, MD
Date Installed: 9/13/12
Date Developed: 9/18/12
Dev. Method: pump
Pump Type: 12V. submersible

Depth to Bottom (ft.): 21.51
Static Water Level Before (ft.): 4.38
Static Water Level After (ft.):
Screen Length (ft.): 10'
Specific Capacity:
Casing ID (in.): 2.4

Responsible Personnel: W. O'Neill
Drilling Co.: Brant Longyear
Project Name: GSP Supplemental Characterization
Project Number:

* Upper range = 4000 NTU

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units µS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.)
1511	0	0	3.29	—	—	—	—	~~START~~
1531								Start
1541		8	below pump				74000*	Stop - recharge 8 min/ft.
1622		9	15.0	18.18	5.69	390	325	restart DO 5.61 ORP 104.3
1627		10	below pump	18.25	5.31	438	304.7	5.34 116.5
1631	Dry							
1718	restart	11	16.6	17.84	5.17	344	94.6	get reading @ 1720
1725		12	below pump	18.18	4.98	348	815	Dry @ 1727
1817		13	16.5	17.73	5.17	331	109	get reading @ 1618
1820		14	17.75	17.82	5.21	348	29.5	
1822		15	18.84	17.83	5.23	352	48.1	
			Done					

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: GSP-MW-11
Site: Middle River MD
Date Installed:
Date Developed: 9/15/12
Dev. Method: pump
Pump Type: 12v submersible

Depth to Bottom (ft.): 15'
Static Water Level Before (ft.): 5.95
Static Water Level After (ft.):
Screen Length (ft.): 10'
Specific Capacity:
Casing ID (in.): 2"

Responsible Personnel: W. Oniell
Drilling Co.: Brant Longyear
Project Name: GSP supplemental characterization
Project Number:

* OR -> over range

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units µS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.)
0850	—	0	below pump	23.65	6.88	2946	OR*	Pumped dry @ 0855
0915		"	"	22.91	6.75	2459	"	
0922	Dry →	Recharged above pump @ 0924						Restart w/ pump flow @ 0.15-0.2
0935		"	"	21.97	6.51	2400	"	
0955		10.5	"	21.90	6.21	32	67.9	well pumped dry & increased turbidity @ 0956
1015			"	21.99	6.19	1875	OR	flow ≈ 0.15 gpm
1028	Dry →	restart 1033						
1035				21.82	6.14	1779	~~OR~~	1251
1041	DRY →							
1052				21.82	6.14	1223	915	
1100		19.0		22.20	6.11	1447	53	
1103		19.5		22.26	6.11	1465	45	
1106		21		22.25	6.11	1456	49	Developed

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: GSP-MW-12
Site: Middlebrook MD
Date Installed: 9/17/12
Date Developed: 9/19/12
Dev. Method: pump
Pump Type: 12V. submersible

Depth to Bottom (ft.): 28'
Static Water Level Before (ft.): 7.57
Static Water Level After (ft.):
Screen Length (ft.): 15'
Specific Capacity:
Casing ID (in.): 2"

Responsible Personnel: W. Oneill
Drilling Co.: Boart Longyear
Project Name: GSP Supplemental Characterization
Project Number:

* OR = overrange > 4000 NTU

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units µS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.)	DO mg/L	ORP mV
1622	0	0	7.57	—	—	—	—	~~START~~		
1623							* OR			
1650	0	50	8.93				OR			
1704	0	80	8.92	20.12	N/A	1537	2007	ph not working	1.21	74.3
1732	0	130	8.89				OR			
1803	0	180	8.85				OR			
1837	0	230	8.78				OR			
1852	0	250	8.79	18.78	N/A	1372	3356		0.85	42.6
1900	0	260	8.78	19.13	N/A	1355	1274		0.87	20.7
1908	0	270	8.78	19.23	N/A	1334	683		0.91	17.8
1916	0	280	8.78	19.27	N/A	1329	546		0.63	15.3

Stopped

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: GSP-MW-13
Site: Middle River MD
Date Installed: 9/13/12
Date Developed: 9/15/12
Dev. Method: pump
Pump Type: 12V. Submersible

Depth to Bottom (ft.): 23'
Static Water Level Before (ft.): 5.64
Static Water Level After (ft.):
Screen Length (ft.): 10'
Specific Capacity:
Casing ID (in.): 2"

Responsible Personnel: W. Orwell
Drilling Co.: Board Longyear
Project Name: GSP Supplemental Characterization
Project Number:

OR - OVER RANGE

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units ~~µS/cm~~)	Turbidity (NTU)	Remarks (odor, color, etc.)
1130	—	0	—	—	—	—	—	—
1140		5.7	7.78	23.26	6.94	230	OR*	Flow 0.40 gpm
1150		8	7.88	23.43	6.83	246	"	
1200		12	7.82	23.37	6.78	236	"	
1210		16	7.82	23.46	6.77	234	"	
1220		20	7.82	23.49	6.76	240	"	
1230		24	7.79	23.57	6.73	252	"	
1232		25	—					~~value~~ raised flow to 1.25 gpm
1236		30	12.38	23.21	6.54	281	"	
1244		40	12.92	23.20	6.49	270	"	
1252		50	13.52	23.17	6.43	281	"	
1300		60	14.18	23.19	6.40	275	"	
1308		70	14.92	23.07	6.33	278	"	
1316		80	15.90	22.86	6.25	279	"	
1324		90	16.58	22.83	6.22	275	"	
1330		91	increased flow to pump dry			@ 1331 -	recharged	to OTW=7 @ 1335
1351	restart							
1401		111	14.22	23.41	6.68	286	"	
1411		131	16.75	22.95	6.40	302	"	
1419		147	18.25	23.50	6.40	303	"	Turbidity too high

Continued →

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: GSP-MW-13
Site: Middle River MD
Date Installed: 9/13/12
Date Developed: 9/15/12 & 9/18/12
Dev. Method: pump
Pump Type: 12V sub.

Depth to Bottom (ft.): 23'
Static Water Level Before (ft.): 5.64' 9/15/12
Static Water Level After (ft.):
Screen Length (ft.): 10'
Specific Capacity:
Casing ID (in.): 2"

Responsible Personnel: W. Orrell
Drilling Co.: Boart Longyear
Project Name: GSP supplemental characterization
Project Number:

* OR - Overrange > 4000 NTU

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units µS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.)
9/18/12 0931	0	147	5.70					pumping @ ≈ 2 gpm
0940	—	162	12.12				*OR	
1003	~~Dry~~	212	stopped pumping				"	Restart @ 1005
1033		267					"	color change from lt. brown to whitish tan
1111		320	18.54				"	
1132		370	18.73				3460	
1202		426	20.02				2722	Stop for lunch @ 1206
1231	restart	~~[illegible]~~					~~[illegible]~~	
1300		470	18.59				3394	
			Stop development					

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: GSP-MW-14
Site: Middle River MD
Date Installed: 9/14/12
Date Developed: 9/16/12
Dev. Method: bailer
Pump Type: N/A

Depth to Bottom (ft.): 12'
Static Water Level Before (ft.): 11.51
Static Water Level After (ft.): 0
Screen Length (ft.): 5'
Specific Capacity: N/A
Casing ID (in.): 2"

Responsible Personnel: W. O'Neill
Drilling Co.: Boart Longyear
Project Name: GSP Supplemental Characterization
Project Number:

	Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks (odor, color, etc.)
	1620		<1 pint	11.51					Bailed dry
									well needs
9/18/12	1007		3/4 gallon	10.48'				808	more time to
									produce water
9/19/12	1700		1 3/8	8.38					
	0752								
9/20/12	~~0828~~		1 3/4	8.28					
	~~1430~~			~~N/A~~	~~bailed ~1 cup from well~~				~~~4.5" water in well~~
	1148			N/A - 4-5" water in well					Bailed dry @ 1150 After recovery ~1 cup
	1610			" "	"	"			" " 1614 "
9/21/12	0725		2 1/4	8" in well					Bailed dry @ 0729

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: GSP-MW-15
Site: Middle River MD
Date Installed: 9/17/12
Date Developed: 9/18/12
Dev. Method: Pump
Pump Type: 12v Submersible

Depth to Bottom (ft.):
Static Water Level Before (ft.): 7.00
Static Water Level After (ft.):
Screen Length (ft.): 10'
Specific Capacity:
Casing ID (in.): 2"

Responsible Personnel: W. O'Neil
Drilling Co.: Boart Longyear
Project Name: GSP Supplemental Characterization
Project Number:

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units µS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.)	
1421	0	0	6.84						
1434		18	N/A below pump	19.67	5.75	307	35.7	DO mg/L	ORP
1439		22	"	22.82	5.59	306	30.0	N/A	72.4
1444		26	"	22.95	5.53	304	21.2	5.83	75.4
1449		31	"	22.99	5.41	303	17.6	5.54	74.1
1454		36	"	23.04	5.55	303	20.4	5.54	72.7
			DONE						

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: GSP-MW-16
Site: Middle Rouge MD
Date Installed: 9/14/12
Date Developed: 9/18/12
Dev. Method: pump
Pump Type: 12 v. submersible

Depth to Bottom (ft.): 23'
Static Water Level Before (ft.): 6.82'
Static Water Level After (ft.):
Screen Length (ft.): 10'
Specific Capacity:
Casing ID (in.): 2"

Responsible Personnel: W. O'Neill
Drilling Co.: Boart Longyear
Project Name: GSP supplemental characterization
Project Number:

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units ~~µS/cm~~)	Turbidity (NTU)	Remarks (odor, color, etc.)
0740	0	0	6.82					
0747	—	13	13.3					
0750	—	27	13.55	20.17	5.57	379	2399	will check parameters to water clears
0805	—	55	13.25				390	
0828	—	100	13.05	20.23	5.09	358	882	
0856	—	150	11.88	20.00	5.03	354	984	DO mg/L ORP mv
0910	—	180	12.89	19.93	4.82	352	138	1.14 59.2
0913	—	186	12.50	19.81	4.80	351	10.67	1.13 56.8
0916	—	189	12.51	19.82	4.79	350	7.14	1.16 58.4
			Done @	0916				

33.5 Start
4" H2O

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: GSP-MW-17
Site: Middle River MD
Date Installed: 9/11/12
Date Developed: 9/20/12
Dev. Method: pump
Pump Type: 12v. Submersible

Depth to Bottom (ft.): 28'
Static Water Level Before (ft.): 5.82'
Static Water Level After (ft.):
Screen Length (ft.): 15'
Specific Capacity:
Casing ID (in.): 2"

Responsible Personnel: W. ONeil
Drilling Co.: Brant Lungren
Project Name: GSP Supplemental Characterization
Project Number:

*OR - overrange

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units µS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.)
0830	6'	0	4.72'					
0834	6'							
0838	6'	2	13.92	18.03	7.26	1178	115	flow 0.5 gpm - dry @ 0839 Awaiting recharge
0932	6'		9.46					restart
0937	6'	3	14.11	17.57	7.40	1289	OR	flow @ 0.2 gpm
0944	5.5'	4	16.24	17.64	7.18	1469	118	
0951	5.5'	5	17.60	17.90	7.36	1614	OR	> 1/8 gpm
1000	5.5'	6	19.72	17.92	7.11	1878	OR	
1009	5.5'	6.75	—	17.69	6.93	1122	OR	dry - Awaiting recharge
1014	restarting & pumping at fast speed to try to clear out well							
	Not enough water awaiting for recharge							
1037	recharged to only 19.5'				will	return	later	or tomorrow
1709			9.65	set up	airlift	on	well	Start @ 1721 - 1722 stop

Good well

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: GSP-MW-17
Site: Middle River, MD
Date Installed: 9/17/12
Date Developed: 9/19/12
Dev. Method: pump
Pump Type: 12V submersible

Depth to Bottom (ft.): 30
Static Water Level Before (ft.): 5.32
Static Water Level After (ft.):
Screen Length (ft.): 15'
Specific Capacity:
Casing ID (in.): 2"

Responsible Personnel: W. O'Neill
Drilling Co.: Boart Longyear
Project Name: GSP Supplemental Characterization
Project Number:

* OR = over range > 4000 NTU

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units µS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.) Dough	ORP	
1333	0	0					*OR			pumping @ 1.5 gpm
1340	dry	9				92				
1442		10	8.42	16.09	N/A		2668	2.31	N/A	Flow @ 1.5 gpm
1450	stop	turbid - slowly flow			stop @		1502	to	allow	recharge
1505	restart	18	25.00	18.29	N/A	203	967	5.93	121.5	pH not working
1510	0	19	25.73	16.68	N/A	138	670	6.07	143.6	
1515		20	26.17	17.21	5.24	113	752	5.63	152.3	
1520		21	26.61	16.57	5.66	107	769	5.57	153.2	
1525		22	27.13	16.59	N/A	104	725	5.99	153.3	pH not working
1530		22.5	Below pump	17.14	NA	100	152	5.26	152.2	
1535		23.5	27.29	18.41	N/A	100	59	5.32	149.2	Flow 1.6 gpm
1540		24.5	below pump	18.31	N/A	106	52	5.31	140.2	
1545		25	"	18.44	N/A	107	46	5.31	144.7	

Done

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: GSP-MW-18
Site: Middle River, MD
Date Installed: 9/11/12
Date Developed: 9/12/12 & 9/13/12
Dev. Method: pump
Pump Type: 12V submersible

Depth to Bottom (ft.): 30'
Static Water Level Before (ft.): 3.89
Static Water Level After (ft.): ____
Screen Length (ft.): 15'
Specific Capacity: ____
Casing ID (in.): 2

Responsible Personnel: W. ONeill
Drilling Co.: Boart Longyear
Project Name: GSP Supplemental Characterization
Project Number: ____

* OR = over-range > 400 NTU

9/13/12

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units µS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.) Donut	OR mid	
1112	—	28.5	26.32	15.47	5.62	900	1409	5.14	66.8	
1122	—	30	Below pump	15.37	5.79	894	1297	5.35	68.3	
1124	~~Increased~~ 32		increased flow to 2 gpm & pumped well dry							
1154	—	31	26.13	16.03	5.94	778	*OR	5.08	66.6	
1159	—	31.5	below pump	15.18	5.81	749	96	4.36	82.1	
1204	0	32	"	15.41	5.70	854	879	5.45	95.6	
1206	0	32.25	Dry	- wait for recharge						
1300	0	32.5	25.28	15.73	5.90	848	54	4.57	89.1	restart @ 1258
1305	0	33	26.52	15.18	5.79	830	34	4.98	99.3	
1310	0	33.5	Below pump	15.38	5.77	852	47	5.24	103.6	
				Done						

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: GSP-MW-18
Site: Middle River, MD
Date Installed: 9/11/12
Date Developed: 9/16/12
Dev. Method: pump
Pump Type: 12V. Submersible

Depth to Bottom (ft.): 30'
Static Water Level Before (ft.): 3.89'
Static Water Level After (ft.):
Screen Length (ft.): 15'
Specific Capacity:
Casing ID (in.): 2"

Responsible Personnel: W. Oneck
Drilling Co.: Boart Longyear
Project Name: GSP supplemental characterization
Project Number:

* over range

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units ~~µS/cm~~)	Turbidity (NTU)	Remarks (odor, color, etc.)	DO mg/L	ORP mV
1112	← start	0	2.61					W/ pump in well		
1115	1'	2	14.52	16.08	5.76	629	OR	Flow 1.5 gpm		
1118	1'	4	18.80	15.92	5.76	681	OR	" " "		
1124	1.0	6	21.42	15.64	5.63	709	OR	Flow 1/3 gpm		
1130	1.0	8	N/A 25'	14.69	5.69	719	OR			
1135	dry	9.0	waiting	for	recharge					
1255			21.50							
1302		10	N/A	14.36	5.76	596	OR	Appear to have cleared		
1264	– Dry	11	Awaiting	recharge.				most of 1" of sed from well.		
1337	tried to pump	again,	but	needs	to	recharge	more			
1348	restart pumping	stops	in a	1 min.						
1520	restart	Dry	@ 1522	After	pumping	4 gallons	Total	15 gallons		
1620		16	23.68	restart	pump	Dry @	1622	– still turbid	OR	
9/18/12 0918			3.69'							
0946			2.32'	14.49	5.36	829	>1000	Start	4.15	32.2
0952	dry	26	BP*	Wait	for	recharge		Flow 2		
1052			22.62	14.57	5.83	671	2493	V8 gpm	3.75	11.8
1102	0	27	24.9	15.17	5.20	810	1396	"	4.16	41.5

* BP- below pump

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: GSP-MW-~~20~~ 19
Site: Middle River, MD
Date Installed: 9/12/12
Date Developed: 9/16/12
Dev. Method: ~~Sub. Pump~~
Pump Type: ~~12-V submersible~~

Depth to Bottom (ft.): 15.54'
Static Water Level Before (ft.): 14.92'
Static Water Level After (ft.):
Screen Length (ft.): 10'
Specific Capacity:
Casing ID (in.): 2"

Responsible Personnel: Walter O'Neill
Drilling Co.: Boart Longyear
Project Name: GSP Supplemental characterization
Project Number:

Hand bailed poly bailer

	Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units ____)	Turbidity (NTU)	Remarks (odor, color, etc.)
	0735			14.92'					0.62' of water in well
	0745	Bailed dry < 1 cup							
	1340	Bailed dry < 1 cup – well had recovered ~4-5"							
9/18/12	1354		0.75	14.18				81.7	water relatively clear
9/19/12	0903		1.25	12.49				772	Bailed dry @ 0909
9/24/12	0742		1.5	12.49					Dry @ 0746
	1140		1.5	N/A 4-5" water in well					Dry @ 1142 after recov ~1 cup
	1606		1.5	" "		"			" 1608 " " "
9/24/12	0720		2.0	8" water in well					Bailed dry @ 1724

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: GSP-MW-20
Site: Middle River MD
Date Installed: 9/11/12
Date Developed: 9/16/12
Dev. Method: Bailer
Pump Type: N/A

Depth to Bottom (ft.): 15'
Static Water Level Before (ft.): 11.52
Static Water Level After (ft.):
Screen Length (ft.): 10'
Specific Capacity:
Casing ID (in.): 2"

Responsible Personnel: W. O'Neill
Drilling Co.: Boart Longyear
Project Name: GSP Supplemental Characterization
Project Number:

mg/L DO = 7.84 mV ORP = 81.9

	Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units µS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.)
	1445		0	11.52					Start Bailing
	1501		1.5	0.0					Bailed dry
9/19/12	0759			11.7				51	set up to pump well
	0808		1.5	12.75*				~~1063~~	less water because bailer was in well
	0816	Dry	2.0	~~18.05~~ BP	18.05	5.99	516	1063	waiting for recharge
	0846			BP				2292	pumped ~ 8 oz after ½ hour recharge
	0859		2.5						have bailed till dry - addl. ½ gallon
9/20/12	0731		2.75	11.71					
	1130		2.75	N/A	4-5" of water in well				Bailed dry @ 11:34 after removing ~ 1 cup water
	1550		2.75	"	"	"	"		1 to 1' 1552 " "
9/21/12	0711		3.0	8" from bottom	8" water in well				~~Bailed~~ Bailed dry @ 1717

* BP - Below pump

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic
BORING No.: GSP-MW-9
DATE: 9/12/12
GEOLOGIST: W. O'Neil
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	0						Brown sandy soil w/ gravel, dry		0.7				
							gray orange silty clay friable, dry		0.0				
	5								0.0				
							gray orange sand to silty sand soft, wet		0.5				
							gray orange sandy clay, fairly soft, slightly moist		2.5				
	10						gray orange silty sand soft wet		0.6				
							light gray sand soft wet		0.0				
	15						orange sand soft, wet		0.0				
							red sand soft, wet		0.5				
	20						orange gray clay to silty clay stiff, v. slightly moist w/ sand @ 22.5-23.5 & 24.5-26		0.3				
									0.0				
	25								0.3				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ✓ No _____ Well I.D. #: GSP-MW-9

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic

BORING No.: GSP-MW-9
DATE: 9/12/12
GEOLOGIST: W. Oneil
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25						orange, gray clay to silty clay stiff, v. slightly moist with sand at 24.5 to 26, 27.~~10~~ 27.5, 28.5-29 and 29.5-30		0.3				
									0.0				
									0.2				
	30												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ____ Well I.D. #: GSP-MW-9

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic

BORING No.: GSP-MW-10
DATE: 9/13/12
GEOLOGIST: W. ONeil
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	0						Brown soil w/ rootlets mostly dry						
							lt. brown poorly sorted silt to gravel, dry						
							lt. brown coarse sand w/ gravel, v. slightly moist						
							lt. brown clayey sand fairly soft, wet						
	5												
							lt. brown coarse sand, soft, wet						
							gray orange coarse sand soft, wet						
	10						gray, red, orange sandy clay, pliable, slightly moist						
							red gray silty sand, soft moist						
							gray red orange sandy clay, pliable, slightly moist						
							gray, red clayey to silty sand, moist						
	15						gray sandy clay pliable v. slightly moist						
							red gray silty sand soft moist						
	20												
							gray to red brown clay stiff, dry						
	25												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ____ Well I.D. #: GSP-MW-10

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Bart Longyear
DRILLING RIG: Spider Sonic

BORING No.: GSP-MW-10
DATE: 9/13/12
GEOLOGIST: W. ONeil
DRILLER: Larry Hansberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25						gray to red brown clay, stiff, dry						
							red clay stiff, dry						
							dark gray clay stiff, dry w/ 3" slightly moist sandy clay at base						
	30												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ____ Well I.D. #: GSP-MW-10

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Beart Longyear
DRILLING RIG: Spider Sonic

BORING No.: GSP-MW-11
DATE: 9/13/11
GEOLOGIST: W. ONeil
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	0												
							CONCrete						
							Brown gravel Fill, wet		0.6				
							DARK BROWN Clayey SAND to SANDY clay pliable / moist		0.4				
	5						BROWN SAND, COARSE soft, wet		0.2				
							gray brown sandy clay, pliable, slightly moist						
							GRAY SAND, COARSE SOFT, wet		0.0				
							gray sandy clay pliable slightly moist w/ wet SAND at 9.75 to 10.25		0.3				
	10						gray sandy clay soft, moist		0.0				
							red sandy clay soft moist						
							red gray sand soft, wet		0.0				
	15								0.0				
							gray orange clay stiff dry		0.0				
							gray brown clay stiff, dry		0.0				
	20						lt. gray clay stiff, dry		0.0				
							lt. gray/orange clay stiff dry		0.0				
	25								0.0				

* When rock conng, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ____ Well I.D. #: GSP-MW-11

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic

BORING No.: GSP-MW-11
DATE: 9/13/11
GEOLOGIST: W. O'Neil
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25						lt. gray orange clay stiff, dry		0.0				
							red/gray clay stiff, dry		0.0				
							dark gray clay stiff, dry		0.0				
	30												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ____ Well I.D. #: GSP-MW-11

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic

BORING No.: GSP-MW-12
DATE: 9/17/12
GEOLOGIST: W. Owell
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks (PID/FID Reading (ppm))	Sample	Sampler BZ	Borehole**	Driller BZ**
	0						Brown soil, dry		1.1				
							Brown sandy silt, soft, dry						
							Brown silty sand, soft v. slightly moist		1.6				
							gray orange sandy clay stiff v. slightly moist						
	5						orange sandy clay to clayey sand friable, v. slightly moist		0.8				
							lt. tan clay stiff, friable, dry		0.7				
	10						lt. tan to orange red clay, stiff, dry		0.8				
									1.2				
									1.2				
	15						lt. brown silty sand soft, moist to wet w/ intermittent clay lenses @ 15' + 16.5'		0.7				
									1.2				
									0.9				
	20								1.1				
									1.0				
	25								0.6				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.2

Converted to Well: Yes X No ____ Well I.D. #: GSP-MW-12

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Brart Longyear
DRILLING RIG: Spider Sonic

BORING No.: GSP-MW-12
DATE: 9/17/12
GEOLOGIST: W. Orrell
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25						lt. brown silty sand, soft, moist to wet		0.6				
									0.9				
							lt. gray silty clay fairly stiff slightly moist		0.6				
	30												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.2

Converted to Well: Yes X No _____ Well I.D. #: GSP-MW-12

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: CSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: BOART Longyear
DRILLING RIG: Spider Sonic

BORING No.: GSP-MW-13
DATE: 9/13/12
GEOLOGIST: W. ONeill
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
	0						1.5" Asphalt over 10" concrete, dry						
							DARK BROWN SILTY SAND friable, slightly moist						
							Brown mod SAND to silty sand w/ gravel soft slightly moist		PID=0.0 for all at 2' intervals starting @ 0 (eg. 0-2', 2-4', etc.)				
	5												
							light brown to orange brown silty SAND soft moist near top wet after 8' v. silty in small lenses						
	10												
	15												
	20												
	25						lt. gray CLAY w/ orange streaks stiff, dry						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ____ Well I.D. #: GSP-MW-13

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic

BORING No.: GSP-MW-13
DATE: 9/13/12
GEOLOGIST: Wiowell
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25												
							lt. gray CLAY						
							w/ orange streaks						
							with wet sand @						
							25.5-26', 27-28' &						
							29.5-30'						
	30												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ____ Well I.D. #: GSP-MW-13

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic

BORING No.: GSP-MW-14
DATE: 9/14/12
GEOLOGIST: W. Owen
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks (PID/FID Reading (ppm))	Sample	Sampler BZ	Borehole**	Driller BZ**
	0						~10% concrete		0.7				
							lt. brown sandy gravel, dry						
							lt. brown med sand, very slightly moist		1.4				
	5								1.4				
							gray silty clay w/ orange streaks, stiff dry		1.6				
							lt. brown to red brown sandy clay to clayey sand, fairly stiff, slightly moist to moist		2.2				
	10								3.2				
							red orange clay stiff dry						
							orange clay, stiff, dry		2.0				
	15								0.7				
							red orange clay stiff, dry		0.6				
									1.6				
	20												
									1.5				
									1.1				
	25								1.4				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ____ Well I.D. #: GSP-MW-14

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: CASP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic

BORING No.: GSP-MW-14
DATE: 9/14/12
GEOLOGIST: W. ONeil
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25						red orange clay stiff, dry		1.1				
									1.1				
							Dark gray clay, stiff dry		1.0				
	30												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ____ Well I.D. #: GSP-MW-14

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP supplemental characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic

BORING No.: GSP-MW-15
DATE: 9/17/12
GEOLOGIST: W. ONeil
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	0						Asphalt						
							tan to red/orange v. coarse sand slightly moist		1.7				
							tan to red/orange silty sand, friable, v. slightly moist		1.1				
	5								1.3				
							red orange silty to clayey sand, ~~friable~~, v slightly moist stiff		1.8				
							gray orange silty sand, friable, v. slightly moist						
							red brown silty to clayey sand, fairly stiff, v. slightly moist		1.0				
	10						lt. gray orange silty clay, stiff dry		3.3				
							lt. brown to orange brown med to coarse silty sand, soft		1.3				
	15								1.3				
							wet, 1" to 24 clay balls @ 18' 19'		0.7				
	20								1.0				
							lt. brown to med brown clay stiff dry		0.6				
	25								0.3				
									1.1				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.1

Converted to Well: Yes X No _____ Well I.D. #: GSP-MW-15

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Bart Longyear
DRILLING RIG: Spider Sonic

BORING No.: GSP-MW-15
DATE: 9/17/12
GEOLOGIST: W. Antell
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25						red brown clay, stiff, friable dry		1.1				
									1.2				
							red brown clay, stiff, dry		1.1				
	30												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.1

Converted to Well: Yes X No _____ Well I.D. #: GSP-MW-15

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic

BORING No.: GSP-MW-16
DATE: 9/14/12
GEOLOGIST: Will O'Neil
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
	0						ASPHALT						
							tan to lt. gray silty gravel, damp						
							Dark gray sandy silt friable v. slightly moist						
							orange/brown sandy clay to clayey sand friable v. slightly moist						
	5						red/orange coarse sand soft, slightly moist						
							orange/brown sandy clay w/ moist sand lens @ 6-6.5						
	10						orange silty sand soft wet						
							lt. gray orange clay, stiff, dry						
	15						lt. gray silty clay stiff, dry w/ wet sand @ 18.5-19.5						
	20						lt. gray orange sand, soft, wet						
							lt. gray clay, stiff, dry						
							tan/orange/gray, sand soft, wet						
	25												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse re d.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ____ Well I.D #: GSP-MW-16

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic

BORING No: GSP-MW-16
DATE: 9/14/12
GEOLOGIST: W. ONeil
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25						tan/orange/gray sand, soft wet						
	30						red/gray/orange sandy clay, pliable moist						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse re :.

Drilling Area Background (ppm): 0.0

Remarks:

Converted to Well: Yes X No ____ Well I.D #: GSP-MW-16

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic

BORING No: GSP-MW-17*
DATE: 9/17/12
GEOLOGIST: W. ONeil
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
	0						Brown soil w/ silt + gravel						
							v. slightly moist						
							gray sandy clay grading into clayey sand, pliable, slightly moist						
							gray sandy silt, slightly plastic moist						
	5						lt. gray ~~clay~~ silty sand, soft, wet						
							lt. gray clay stiff, dry						
							brown/gray silty sand, soft, wet						
							gray clay to silty clay, stiff, very slightly moist to dry						
	10												
							gray orange sandy clay stiff, v. slightly moist						
							orange gray silty sand, soft, moist						
							lt. gray clay stiff, dry						
	15												
	20						lt. gray silty clay slightly pliable, slightly moist						
							gray orange silty sand, soft, wet						
							gray orange sandy clay, firm stiff, v. slightly moist						
							gray orange silty sand, soft, wet						
	25						gray orange sandy clay, pliable v. slightly moist						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse re 1.

Remarks: * redrilled 10' NW of initial location

Drilling Area Background (ppm): 0.1

Converted to Well: Yes ✓ No _____ Well I.D #: GSP-MW-17

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP SUPPLEMENTAL CHARACTERIZATION
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic

BORING No: GSP-MW-17
DATE: 9/17/12
GEOLOGIST: W. Dwell
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25						gray orange sandy clay, friable, v. slightly moist, 3" gray wet sand lenses @ 25.5 & 26						
							gray orange silty clay, friable, v. slightly moist						
							ft. gray silty to sandy clay, fairly stiff, very slightly moist w/ soft, wet, gray silty sand @ 28.5-29'						
	30												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse re d.

Drilling Area Background (ppm): 0.1

Remarks:

Converted to Well: Yes X No ____ Well I.D #: GSP-MW-17

Tetra Tech NUS, Inc.

BORING LOG

ABANDONED

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic Foto Sonic

BORING No.: GSP-MW-17
DATE: 9/11/12
GEOLOGIST: W. O'Niell
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks (PID/FID Reading (ppm))	Sample	Sampler BZ	Borehole**	Driller BZ**
	0						Brown soil, damp		0.3				
							light gray, poorly sorted silt to gravel, dry		0.6				
							GRAY, CLAYEY SAND SOFT, WET		0.6				
	5												
							gray/orange silty sand soft, wet		0.1				
							lt. gray silty clay, dense, slightly pliable, v. slightly moist		0.3				
	10												
							lt. gray clayey sand soft moist		0.2				
							lt. gray & orange mottled silty clay, v. slightly moist		0.0				
	15						gray orange clayey sand wet, fairly soft		0.8				
							gray clay, stiff, dry						
							GRAY silty clay Dense stiff very slightly moist		0.1				
									0.0				
	20												
							Gray brown silty & clayey sand, fairly soft wet		0.1				
							GRAY BROWN, SILTY CLAY, fairly stiff v. slightly moist		0.6				
	25						gray silty ~~clay~~ sand soft wet		1.3				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No _____ Well I.D. #: GSP-MW-17

Tetra Tech NUS, Inc.

BORING LOG

ABANDONED

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic Rotosonic

BORING No.: GSP-MW-17
DATE: 9/11/12
GEOLOGIST: W. O'Neil
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25						gray silty clay, dense stiff, v. slightly moist		1.3				
							gray, orange clay to sandy clay, fairly stiff, moist		0.4				
							gray/orange silty clay. stiff, v. slightly moist						
							gray orange ~~silty clay~~ sandy clay, moist, fairly stiff						
							gray orange, silty clay, stiff, v. slightly moist		0.1				
	30						gray orange sandy clay, fairly stiff/moist						
							gray orange silty clay, stiff, v. slightly moist						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No _____ Well I.D. #: GSP-MW-17

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spiller Sonic

BORING No.: GSP-MW-18
DATE: 9/11/12
GEOLOGIST: W. ONeil
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
	0						Brown soil dry						
							gray poorly sorted silt to gravel, dry		1.1				
							gray orange silty to sandy clay, stiff v. slight moisture						
							light gray silty sand, soft, moist		0.0				
	5								0.1				
							lt. orange silty sand soft, wet						
							light orange sand, soft, wet		0.0				
							lt. gray silty to sandy clay, stiff, v. slightly moist		0.0				
	10						lt. gray orange silty sand, soft wet						
							lt. gray orange silty clay, stiff, very slightly moist		0.0				
							lt. gray silty sand, soft wet						
							light gray orange silty clay, stiff		0.3				
	15								0.5				
							very slightly moist w/ 0.5' sand lenses 17' & 19'		1.1				
									1.1				
	20												
							light gray sand soft, wet		1.2				
							lt. gray silty clay stiff, v. slightly moist		2.8				
							lt. gray orange silty sand, soft, wet						
	25						light gray silty clay stiff v. slightly moist		1.1				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ____ Well I.D. #: GSP-MW-18

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic

BORING No.: GSP-MW-18
DATE: 9/11/12
GEOLOGIST: W. Orrell
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25						light gray silty clay, stiff, very slightly moist		1.1				
							lt. gray silty sand		2.0				
							lt. gray silty clay, stiff, very slightly moist						
							lt. gray/orange silty sand, soft, wet		2.6				
	30						light gray orange silty sandy clay, fairly stiff, moist						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 12.0

Converted to Well: Yes X No ____ Well I.D. #: GSP-MW-18

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP supplemental characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic

BORING No.: GSP-MW-19
DATE: 9/12/12
GEOLOGIST: W. O'Neil
DRILLER: Larry Hausberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	0						DARK BROWN SOIL & Gravel Fill		0.0				
							red brown silty clay, friable, dry						
							gray/orange silty clay, stiff, dry		1.0				
							lt. gray orange sandy clay, v. slightly moist						
	5						dark		0.1				
							gray clay						
							dense, stiff, dry		0				
							med gray orange clay dense, stiff, dry		0				
	10												
							med gray orange silt to pliable slightly moist		1.1				
							gray brown clayey silt w/0.25' sand lens at base slightly moist		1.2				
							DARK gray silty clay, stiff, slightly moist						
	15								1.3				
							DARK gray clay, stiff dry		0.8				
									1.1				
	20												
									0.0				
							DARK gray silty to sandy clay, pliable		0.0				
	25						v. slightly moist		0.0				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ____ Well I.D. #: GSP-MW-19

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic

BORING No.: GSP-MW-19
DATE: 9/12/12
GEOLOGIST: W. O'Neill
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25						dark gray silty clay stiff very slightly moist		0.0				
							gray sand lens, wet		0.0				
							dark gray silty to sandy clay, plastic						
							gray sand lens, wet		0.0				
	30						dark gray silty to sandy clay, plastic very slightly moist						
							Note: 27.5 to 30' is dark gray silty to sandy clay, plastic, v. slightly moist w/ 0.25' gray sand lenses (wet) @ 27.75 & 28.75'						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ____ Well I.D. #: GSP-MW-19

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic
BORING No.: GSP-MW-20
DATE: 9/12/12
GEOLOGIST: W. Orrell
DRILLER: Larry Hansberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
	0						Brown soil, damp		0.0				
							red brown very poorly sorted silty & gravelly sand, dry		0.0				
	5						gray orange silty clay, v. slightly moist		0.0				
							No recovery		N/A				
									N/A				
	10						lt. brown/gray orange sand to silty sand, soft, wet		0.0				
							lt. red brown silty sand very soft, wet, w/ gravel						
							lt. red brown ~~silty~~ to gray clayey silt pliable moist		0.0				
	15								0.0				
							Dark gray clay, stiff dry		0.0				
	20								0.0				
									0.0				
									0.0				
	25								0.0				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Sampled 0'-2' & 4-6 (last interval above water table

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No _____ Well I.D. #: GSP-MW20

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Supplemental Characterization
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic

BORING No.: GSP-MW-20
DATE: 9/12/12
GEOLOGIST: W. ONeil
DRILLER: Larry Hunskerger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25												
							DARK GRAY CLAY		0.0				
							Stiff, dry		0.0				
							Dark gray clayey sand to sandy clay, soft to pliable wet to moist		0.0				
	30						Dark gray clay, stiff, dry						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ____ Well I.D. #: GSP-MW-20

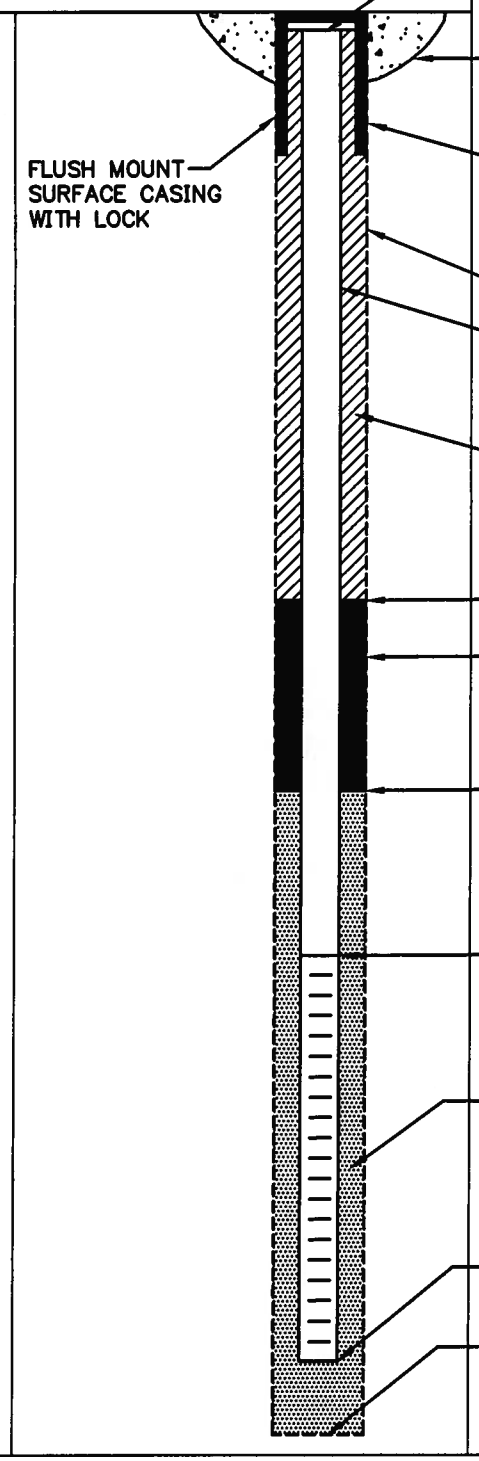
WELL NO.: GSP-MW-9

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

Tetra Tech NUS, Inc.

* Pad installed later

PROJECT GSP Supplemental Characterization	LOCATION Middle River, MD	DRILLER Larry Hunsberger
PROJECT NO.	BORING GSP-MW-9	DRILLING METHOD Roto Sonic
DATE BEGUN 9/12/12	DATE COMPLETED 9/13/12 *	DEVELOPMENT METHOD
FIELD GEOLOGIST W. Onrell		
GROUND ELEVATION	DATUM	



ELEVATION TOP OF RISER: _____

TYPE OF SURFACE SEAL: High strength concrete

TYPE OF PROTECTIVE CASING: Steel, round

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: Portland cement/ bentonite gel grout

ELEVATION/DEPTH TOP OF SEAL: / 6

TYPE OF SEAL: bentonite chips

ELEVATION/DEPTH TOP OF SAND: / 8

ELEVATION/DEPTH TOP OF SCREEN: / 10

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 0.01" x 10'

TYPE OF SAND PACK: #1 silica

DIAMETER OF HOLE IN BEDROCK: N/A

ELEVATION / DEPTH BOTTOM OF SCREEN: / 20

ELEVATION / DEPTH BOTTOM OF SAND: / 20.6

ELEVATION/DEPTH BOTTOM OF HOLE: / 30

BACKFILL MATERIAL BELOW SAND: Bentonite chips

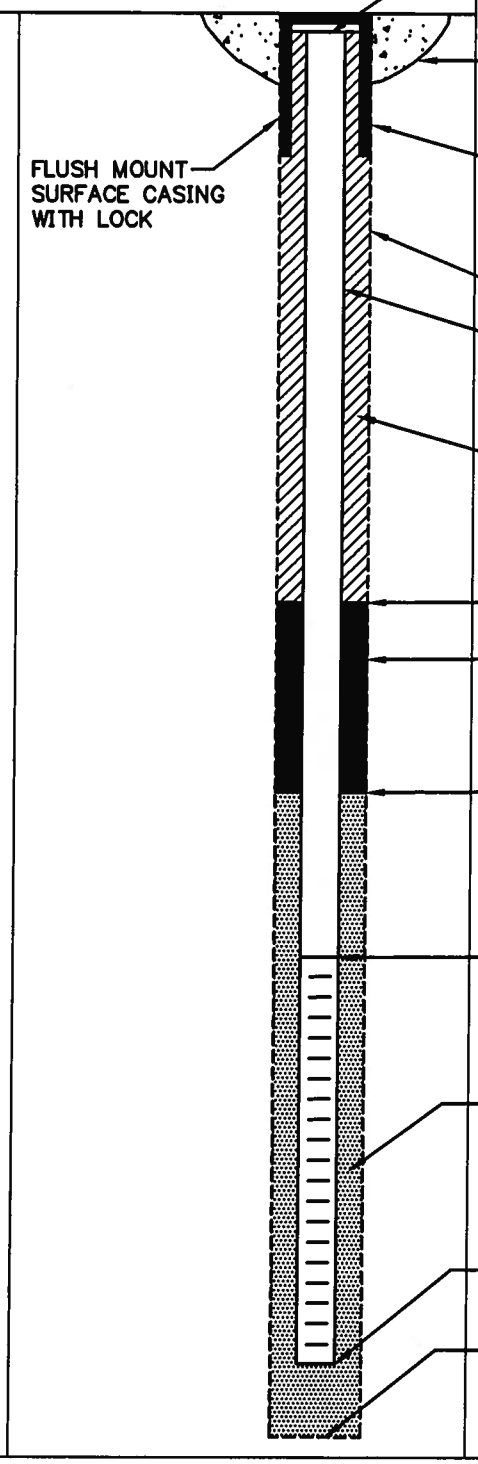
ACAD:FORM_MWFM.dwg 07/20/99 INL

WELL NO.: GSP-MW-10

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT: GSP Supplemental Characterization	LOCATION: Middle River MD	DRILLER: Larry Hunsberger
PROJECT NO.:	BORING: GSP-MW-10	DRILLING METHOD: Roto Sonic
DATE BEGUN: 9/13/12	DATE COMPLETED:	
FIELD GEOLOGIST: W. ONDELL		DEVELOPMENT METHOD:
GROUND ELEVATION:	DATUM:	



ELEVATION TOP OF RISER:

TYPE OF SURFACE SEAL: High strength concrete

TYPE OF PROTECTIVE CASING: Steel, round

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: Portland cement bentonite gel grout

ELEVATION/DEPTH TOP OF SEAL: 8

TYPE OF SEAL: Bentonite chips

ELEVATION/DEPTH TOP OF SAND: 10

ELEVATION/DEPTH TOP OF SCREEN: 12

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 0.01" X 10'

TYPE OF SAND PACK: #1 silica

DIAMETER OF HOLE IN BEDROCK: N/A

ELEVATION / DEPTH BOTTOM OF SCREEN: 22

ELEVATION / DEPTH BOTTOM OF SAND: 22.6

ELEVATION/DEPTH BOTTOM OF HOLE: 30

BACKFILL MATERIAL BELOW SAND: Bentonite chips

ACAD: FORM_MWFM.dwg 07/20/99 INL

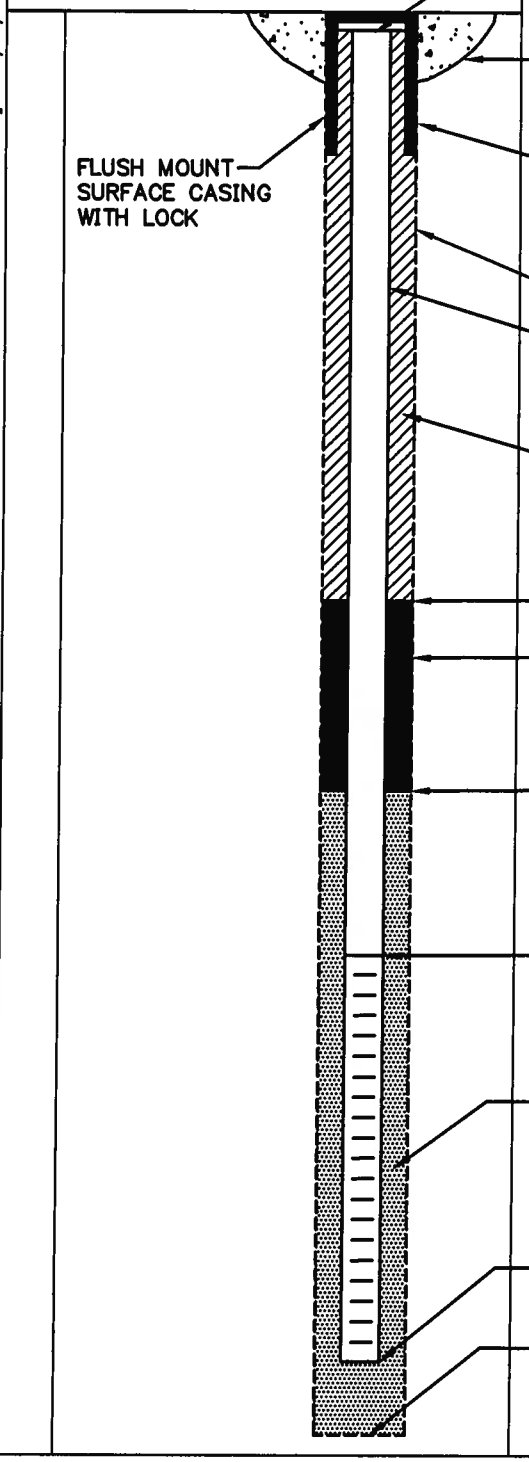
WELL NO.: GSP-MW-11

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

* Pad to installed later

PROJECT GSP Supplemental Characterization	LOCATION	DRILLER Larry Hanshberger
PROJECT NO.	BORING GSP-MW-11	DRILLING METHOD Roto Sonic
DATE BEGUN 9/13/12	DATE COMPLETED 9/13/12 *	DEVELOPMENT METHOD
FIELD GEOLOGIST W. ONeil		
GROUND ELEVATION	DATUM	



ELEVATION TOP OF RISER: _____

TYPE OF SURFACE SEAL: High strength concrete

TYPE OF PROTECTIVE CASING: Steel, round

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: Bentonite chips too shallow for grout

ELEVATION/DEPTH TOP OF SEAL: 11

TYPE OF SEAL: bentonite chips

ELEVATION/DEPTH TOP OF SAND: 13

ELEVATION/DEPTH TOP OF SCREEN: 15

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 0.01" x 10'

TYPE OF SAND PACK: #1 silica

DIAMETER OF HOLE IN BEDROCK: N/A

ELEVATION / DEPTH BOTTOM OF SCREEN: 115

ELEVATION / DEPTH BOTTOM OF SAND: 115.5

ELEVATION/DEPTH BOTTOM OF HOLE: 130

BACKFILL MATERIAL BELOW SAND: Bentonite chips

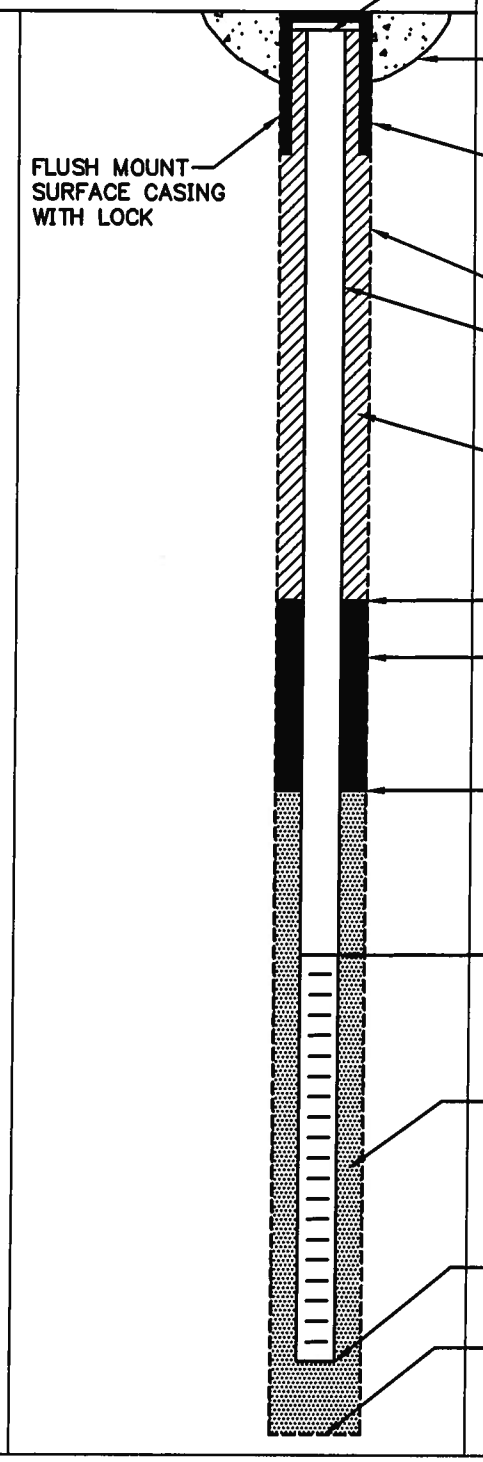
ACAD:FORM_MWFM.dwg 07/20/99 INL

WELL NO.: GSP-MW-12

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT GSP Supplemental Characterization	LOCATION Middle River MD	DRILLER Larry Hunsberger
PROJECT NO.	BORING GSP-MW-12	DRILLING METHOD Roto Sonic
DATE BEGUN 9/17/12	DATE COMPLETED	
FIELD GEOLOGIST W. Oswell		DEVELOPMENT METHOD
GROUND ELEVATION	DATUM	



ELEVATION TOP OF RISER:

TYPE OF SURFACE SEAL: High Strength Concrete

TYPE OF PROTECTIVE CASING: Steel, round

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: Portland cement/ bentonite gel grout

ELEVATION/DEPTH TOP OF SEAL: /9

TYPE OF SEAL: bentonite chips

ELEVATION/DEPTH TOP OF SAND: /11

ELEVATION/DEPTH TOP OF SCREEN: /13

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 0.01" X

TYPE OF SAND PACK: #1 Silica

DIAMETER OF HOLE IN BEDROCK: N/A

ELEVATION / DEPTH BOTTOM OF SCREEN: /28

ELEVATION / DEPTH BOTTOM OF SAND: /30

ELEVATION/DEPTH BOTTOM OF HOLE: /30

BACKFILL MATERIAL BELOW SAND: Sand

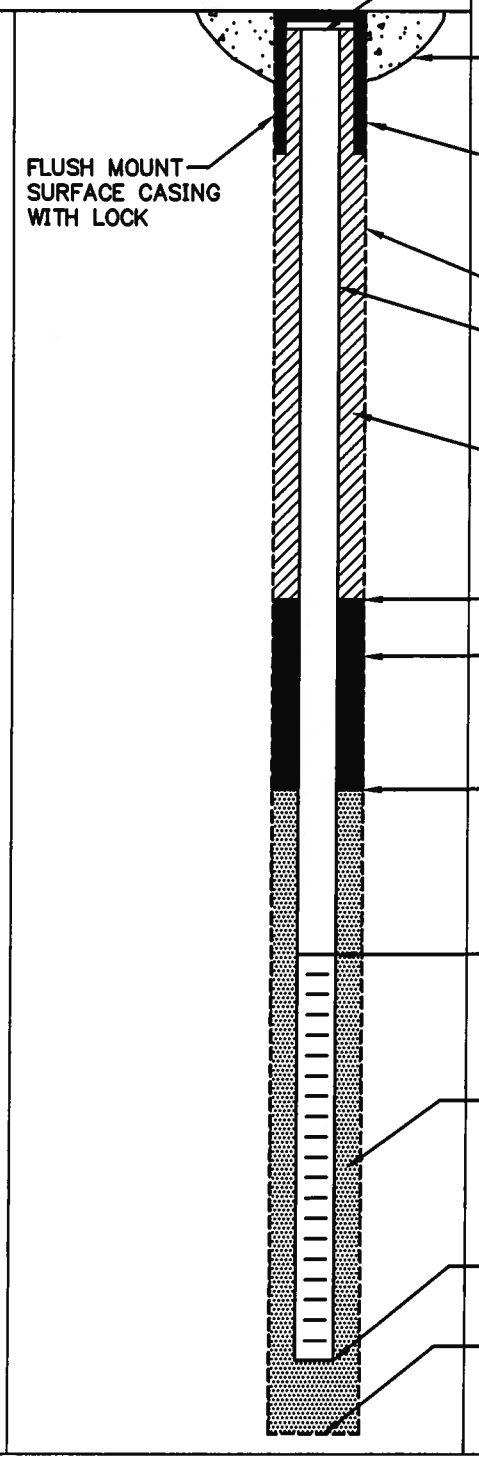
ACAD:FORM_MWFM.dwg 07/20/99 INL

WELL NO.: GSP-MW-13

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT GSP Supplemental Characterization	LOCATION Middle River MD	DRILLER Larry Hunsberger
PROJECT NO.	BORING GSP-MW-13'	DRILLING METHOD Roto Sonic
DATE BEGUN 9/13/12	DATE COMPLETED 9/14/12	
FIELD GEOLOGIST W. ONeil		DEVELOPMENT METHOD
GROUND ELEVATION	DATUM	



ELEVATION TOP OF RISER: _____

TYPE OF SURFACE SEAL: High Strength Concrete

TYPE OF PROTECTIVE CASING: Steel, round

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: portland cement/ bentonite gel grout

ELEVATION/DEPTH TOP OF SEAL: 18.5'

TYPE OF SEAL: Bentonite chips

ELEVATION/DEPTH TOP OF SAND: 11'

ELEVATION/DEPTH TOP OF SCREEN: 13'

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 0.01" X

TYPE OF SAND PACK: #1 SILICA

DIAMETER OF HOLE IN BEDROCK: N/A

ELEVATION / DEPTH BOTTOM OF SCREEN: 23'

ELEVATION / DEPTH BOTTOM OF SAND: 23.5'

ELEVATION/DEPTH BOTTOM OF HOLE: 30'

BACKFILL MATERIAL BELOW SAND: Bentonite Chips

ACAD:FORM_MWFM.dwg 07/20/99 INL

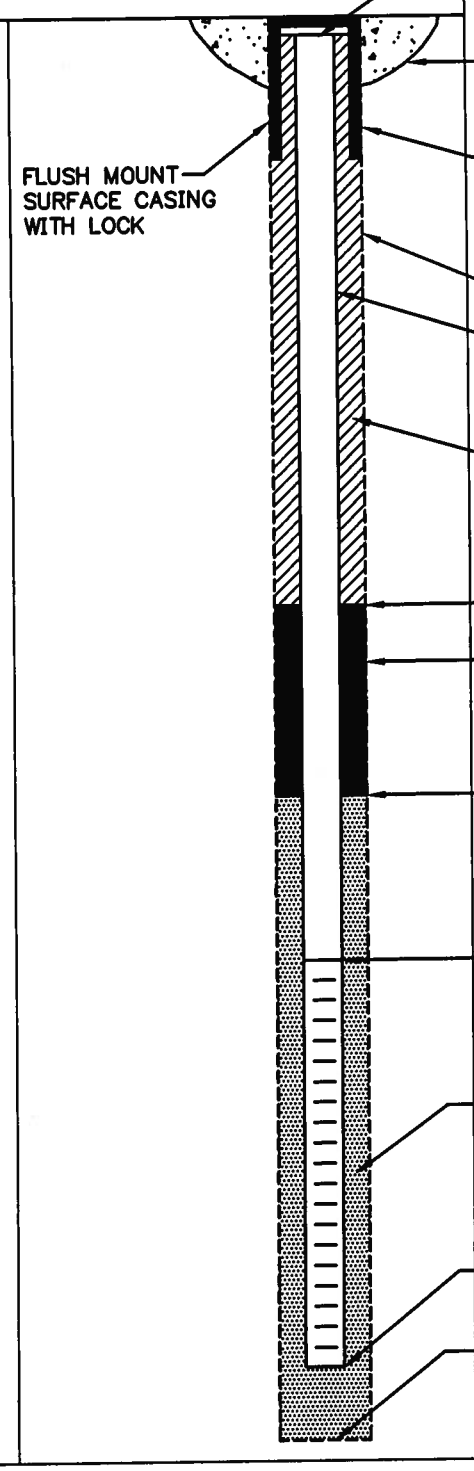
WELL NO.: GSP-MW-14

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

Tetra Tech NUS, Inc.

* Pad installed later

PROJECT: GSP Supplemental Characterization	LOCATION: Middle River MD	DRILLER: Larry Hansberger
PROJECT NO.:	BORING: GSP-MW-14	DRILLING METHOD: Roto Sonic
DATE BEGUN: 9/14/12	DATE COMPLETED: 9/14/12*	DEVELOPMENT METHOD:
FIELD GEOLOGIST: W. Ondell		
GROUND ELEVATION:	DATUM:	



ELEVATION TOP OF RISER:

TYPE OF SURFACE SEAL: High strength concrete

TYPE OF PROTECTIVE CASING: steel, round

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: Portland cement/ bentonite gel grout

ELEVATION/DEPTH TOP OF SEAL: /3

TYPE OF SEAL: bentonite chips

ELEVATION/DEPTH TOP OF SAND: /5

ELEVATION/DEPTH TOP OF SCREEN: /7

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 0.01" X 5'

TYPE OF SAND PACK: #1 SILICA

DIAMETER OF HOLE IN BEDROCK: N/A

ELEVATION / DEPTH BOTTOM OF SCREEN: /12

ELEVATION / DEPTH BOTTOM OF SAND: /12.5

ELEVATION/DEPTH BOTTOM OF HOLE: /30

BACKFILL MATERIAL BELOW SAND: bentonite chips

ACAD:FORM_MWFM.dwg 07/20/99 INL

WELL NO.: GSP-MW-15

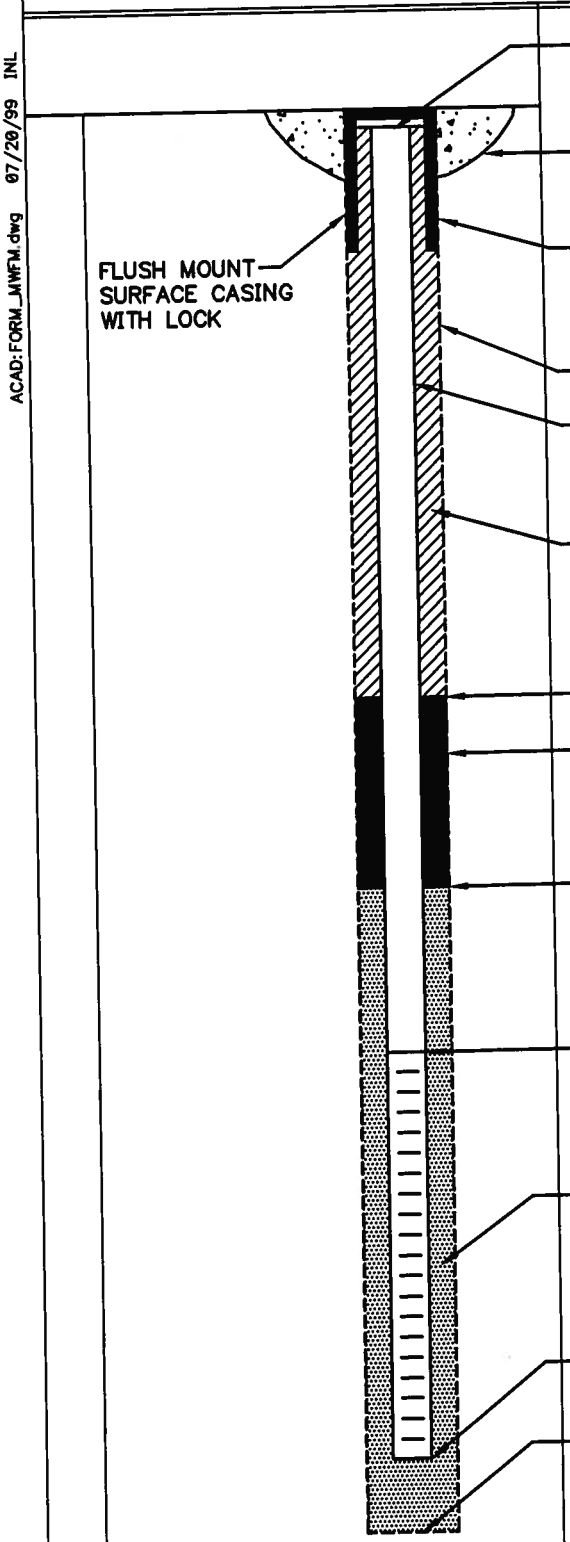
Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT GSP Supplemental Characterization
PROJECT NO.
DATE BEGUN 9/17/12
FIELD GEOLOGIST W. Conner
GROUND ELEVATION

LOCATION Middle River, MD
BORING GSP-MW-15
DATE COMPLETED
DATUM

DRILLER Larry Hunsberger
DRILLING METHOD Roto Sonic
DEVELOPMENT METHOD



ELEVATION TOP OF RISER:

TYPE OF SURFACE SEAL: High strength concrete

TYPE OF PROTECTIVE CASING: round, steel

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: Portland cement/ bentonite gel grout

ELEVATION/DEPTH TOP OF SEAL: / 6'

TYPE OF SEAL: Bentonite chips

ELEVATION/DEPTH TOP OF SAND: / 8'

ELEVATION/DEPTH TOP OF SCREEN: / 10'

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 0.01" X 10'

TYPE OF SAND PACK: #1 Silica

DIAMETER OF HOLE IN BEDROCK: N/A

ELEVATION / DEPTH BOTTOM OF SCREEN: / 20'

ELEVATION / DEPTH BOTTOM OF SAND: / 20.5'

ELEVATION/DEPTH BOTTOM OF HOLE: / 30'

BACKFILL MATERIAL BELOW SAND: Bentonite Chips

ACAD:FORM_MWFM.dwg 07/20/99 INL

WELL NO.: GSP-MW-16

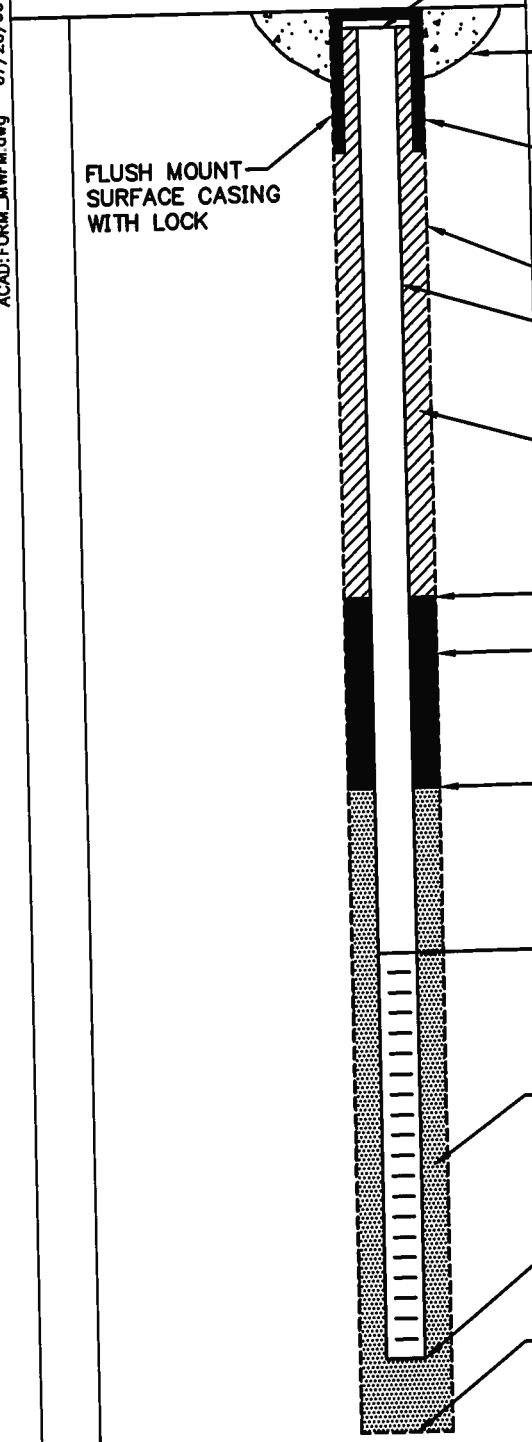
OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

Tetra Tech NUS, Inc.

PROJECT: GSP Supplemental Characterization
PROJECT NO.:
DATE BEGUN: 9/14/12
FIELD GEOLOGIST:
GROUND ELEVATION:

LOCATION: Middle River, MD
BORING: GSP-MW-16
DATE COMPLETED: 9/14/2
DATUM:

DRILLER: Larry Hunsberger
DRILLING METHOD: Roto sonic
DEVELOPMENT METHOD:



ELEVATION TOP OF RISER:

TYPE OF SURFACE SEAL: High Strength Concrete

TYPE OF PROTECTIVE CASING: Steel, round

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: Portland cement/ bentonite gel grout

ELEVATION/DEPTH TOP OF SEAL: / 14.5

TYPE OF SEAL: Bentonite Chips

ELEVATION/DEPTH TOP OF SAND: / 17

ELEVATION/DEPTH TOP OF SCREEN: / 20

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 0.01" X 10'

TYPE OF SAND PACK: #1 Silica

DIAMETER OF HOLE IN BEDROCK: N/A

ELEVATION / DEPTH BOTTOM OF SCREEN: / 30

ELEVATION / DEPTH BOTTOM OF SAND: / 30

ELEVATION/DEPTH BOTTOM OF HOLE: / 30

BACKFILL MATERIAL BELOW SAND: N/A

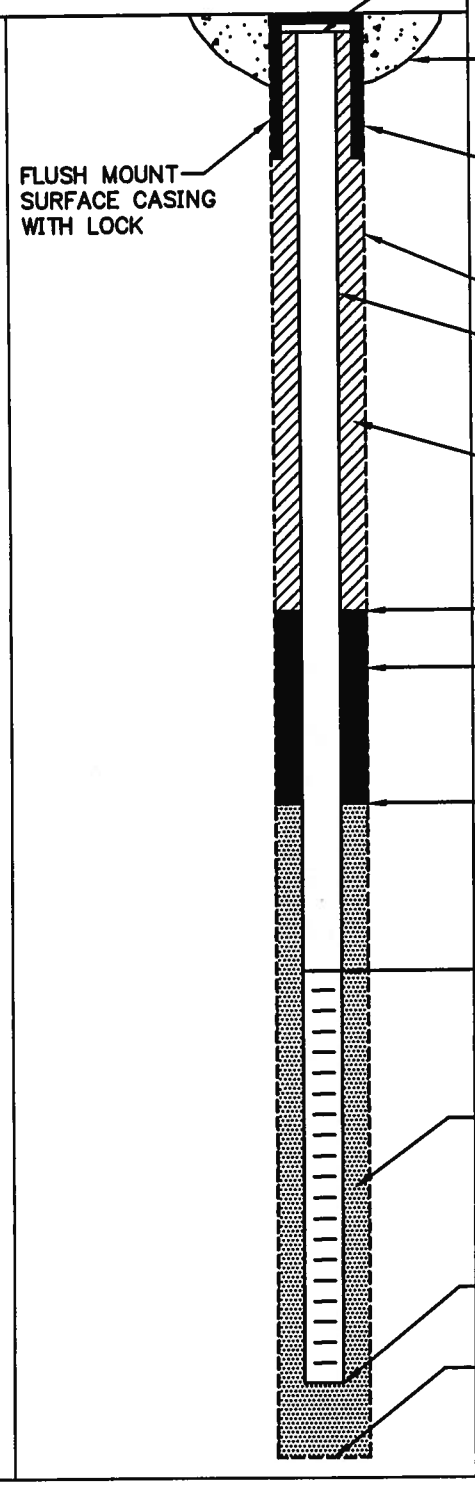
ACAD:FORM_MWFM.dwg 07/20/99 INL

WELL NO.: GSP-MW-17*
re installation of well initially installed on 9/11/12

OVERBURDEN MONITORING WELL SHEET FLUSH - MOUNT

Tetra Tech NUS, Inc.

PROJECT GSP Supplemental Characterization	LOCATION Middle River, MD	DRILLER Larry Hunsberger
PROJECT NO.	BORING GSP-MW-17	DRILLING METHOD Roto Sonic
DATE BEGUN 9/17/12	DATE COMPLETED	DEVELOPMENT METHOD
FIELD GEOLOGIST W. ONeill		
GROUND ELEVATION	DATUM	



ELEVATION TOP OF RISER:

TYPE OF SURFACE SEAL: High Strength Concrete

TYPE OF PROTECTIVE CASING: Steel, round

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: portland cement/ bentonite gel grout

ELEVATION/DEPTH TOP OF SEAL: /11

TYPE OF SEAL: Bentonite Chips

ELEVATION/DEPTH TOP OF SAND: /13

ELEVATION/DEPTH TOP OF SCREEN: /15

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 0.01" X 15'

TYPE OF SAND PACK: #1 Silica

DIAMETER OF HOLE IN BEDROCK: N/A

ELEVATION / DEPTH BOTTOM OF SCREEN: /30

ELEVATION / DEPTH BOTTOM OF SAND: /30

ELEVATION/DEPTH BOTTOM OF HOLE: /30

BACKFILL MATERIAL BELOW SAND: N/A

ACAD:FORM_MWFM.dwg 07/28/99 INL

WELL NO.: GSP-MW-17

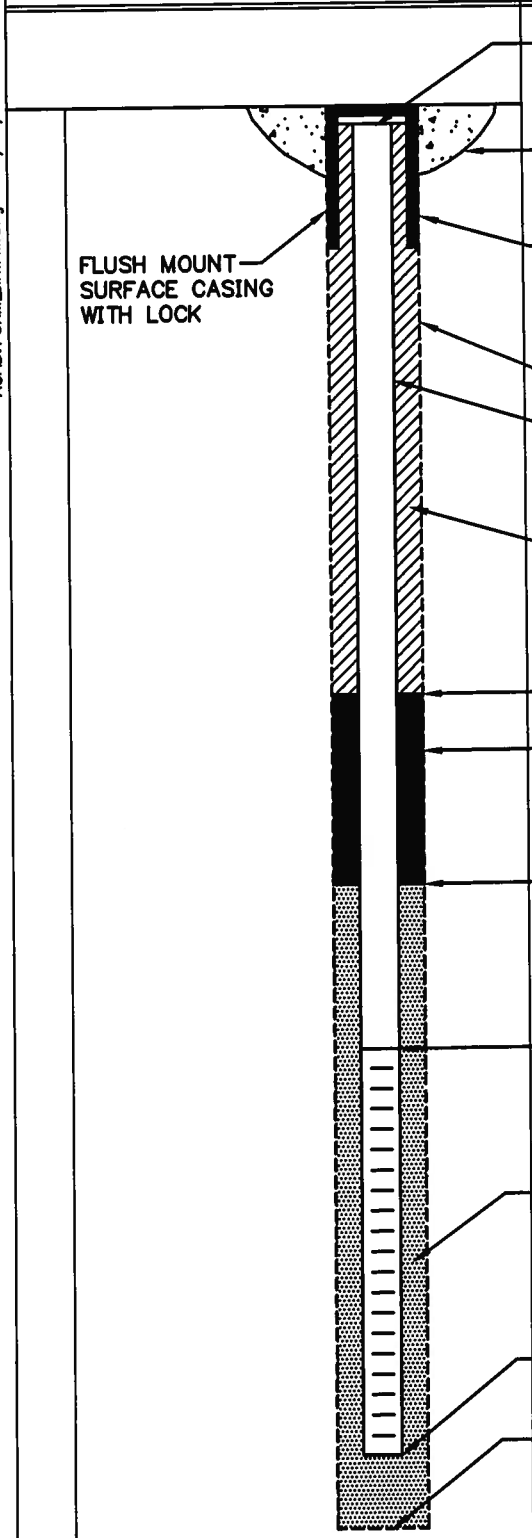
OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

Tetra Tech NUS, Inc.

* Pad not set on 9/11/12

PROJECT GSP Supplemental Char/AC. LOCATION Middle River MD
PROJECT NO. BORING GSP-MW-17
DATE BEGUN 9/11/12 DATE COMPLETED 9/11/12 *
FIELD GEOLOGIST W. ONeil
GROUND ELEVATION DATUM

DRILLER Larry Hunsberger
DRILLING METHOD Roto Sonic
DEVELOPMENT METHOD



ELEVATION TOP OF RISER:

TYPE OF SURFACE SEAL: High strength concrete

TYPE OF PROTECTIVE CASING: Steel - round

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: Portland cement/bentonite gel grout

ELEVATION/DEPTH TOP OF SEAL: /9

TYPE OF SEAL: Bentonite chips

ELEVATION/DEPTH TOP OF SAND: /11

ELEVATION/DEPTH TOP OF SCREEN: /13

TYPE OF SCREEN: 2" PVC

SLOT SIZE x LENGTH: 0.01" x 15'

TYPE OF SAND PACK: #1 silica sand

DIAMETER OF HOLE IN BEDROCK: N/A

ELEVATION / DEPTH BOTTOM OF SCREEN: /28'

ELEVATION / DEPTH BOTTOM OF SAND: /30'

ELEVATION/DEPTH BOTTOM OF HOLE: /30'

BACKFILL MATERIAL BELOW SAND: #1 sand

ACAD:FORM_MWFM.dwg 07/20/99 INL

WELL NO.: GSP-MW-18

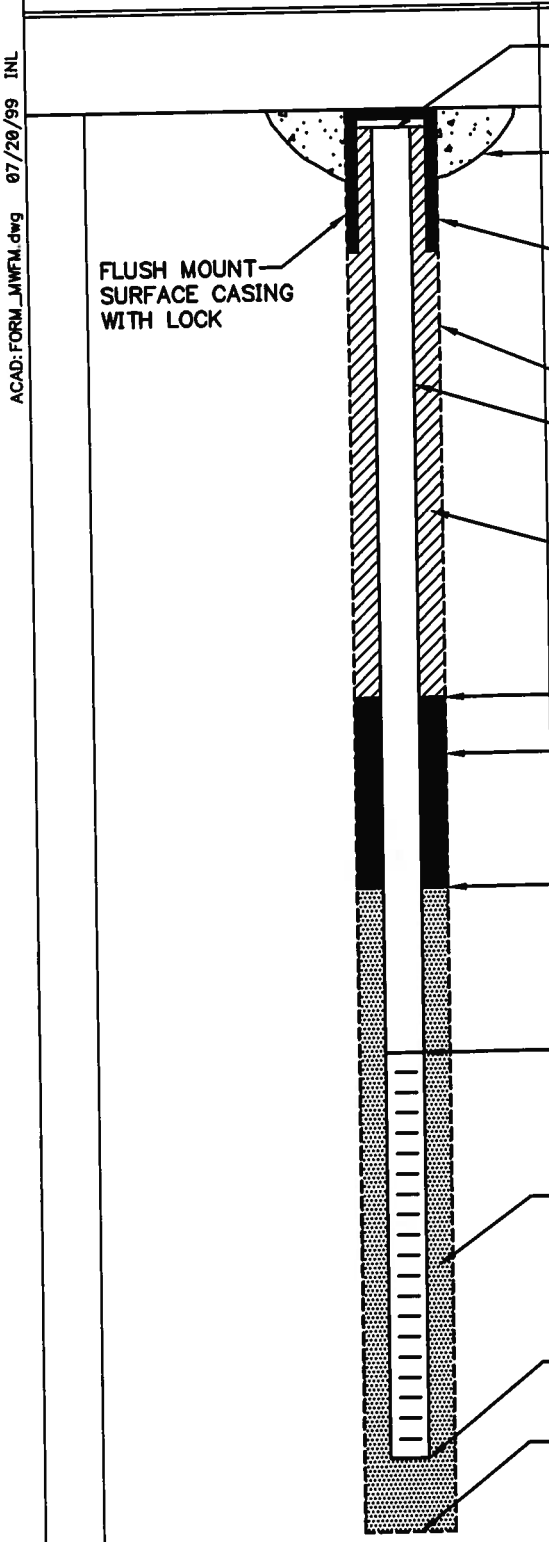
OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

Tetra Tech NUS, Inc.

* Pad not set 9/11/12

PROJECT GSP Supplemental Charac.
PROJECT NO.
DATE BEGUN 9/11/12
FIELD GEOLOGIST W. ONrell
GROUND ELEVATION
LOCATION Middle River, MD
BORING GSP-MW-18
DATE COMPLETED 9/11/12 *
DATUM

DRILLER Larry Hunsberger
DRILLING METHOD Rotosonic
DEVELOPMENT METHOD



ELEVATION TOP OF RISER:

TYPE OF SURFACE SEAL: High strength Concrete

TYPE OF PROTECTIVE CASING: steel - round

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: Portland cement/ bentonite gel grout

ELEVATION/DEPTH TOP OF SEAL: / 11'

TYPE OF SEAL: bentonite chips

ELEVATION/DEPTH TOP OF SAND: / 13'

ELEVATION/DEPTH TOP OF SCREEN: / 15'

TYPE OF SCREEN: PVC 2"

SLOT SIZE x LENGTH: 0.01" X 15'

TYPE OF SAND PACK: #1 Silica

DIAMETER OF HOLE IN BEDROCK: N/A

ELEVATION / DEPTH BOTTOM OF SCREEN: / 30'

ELEVATION / DEPTH BOTTOM OF SAND: / 30'

ELEVATION/DEPTH BOTTOM OF HOLE: / 30'

BACKFILL MATERIAL BELOW SAND: N/A

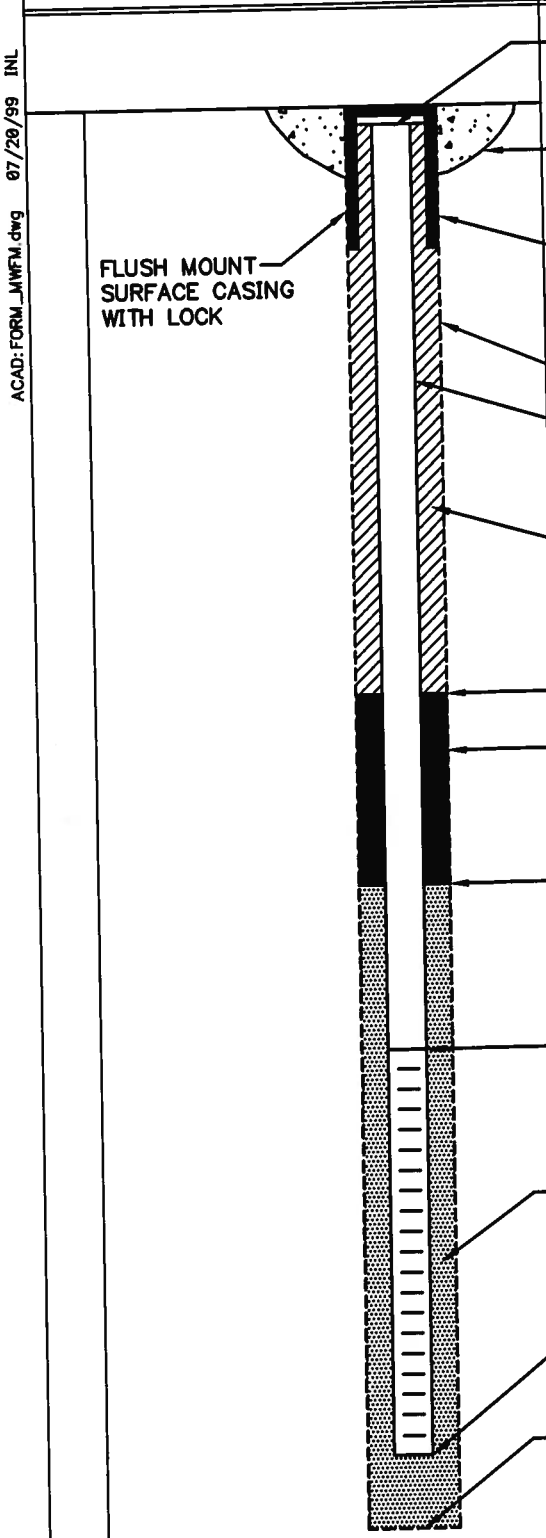
ACAD: FORM_MWFM.dwg 07/20/99 INL

WELL NO.: GSP-MW-19

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

Tetra Tech NUS, Inc.

PROJECT: GSP Supplemental Characterization	LOCATION: Middle River, MD	DRILLER: Larry Hunsberger
PROJECT NO.:	BORING: GSP-MW-19	DRILLING METHOD: Roto Sonic
DATE BEGUN: 9/12/12	DATE COMPLETED:	DEVELOPMENT METHOD:
FIELD GEOLOGIST: W. Oneil		
GROUND ELEVATION:	DATUM:	



ELEVATION TOP OF RISER:

TYPE OF SURFACE SEAL: High strength Concrete

TYPE OF PROTECTIVE CASING: Steel, round

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: 2"

RISER PIPE I.D.: PVC

TYPE OF BACKFILL/SEAL: ~~Neat cement~~ ~~bentonite gel grout~~ bentonite chips too shallow for grout

ELEVATION/DEPTH TOP OF SEAL: / 2

TYPE OF SEAL: bentonite chips

ELEVATION/DEPTH TOP OF SAND: / 4

ELEVATION/DEPTH TOP OF SCREEN: / 6

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 0.01 x 10'

TYPE OF SAND PACK: #1 SILICA

DIAMETER OF HOLE IN BEDROCK: N/A

ELEVATION / DEPTH BOTTOM OF SCREEN: / 16

ELEVATION / DEPTH BOTTOM OF SAND: / 16.5

ELEVATION/DEPTH BOTTOM OF HOLE: / 30

BACKFILL MATERIAL BELOW SAND: bentonite chips

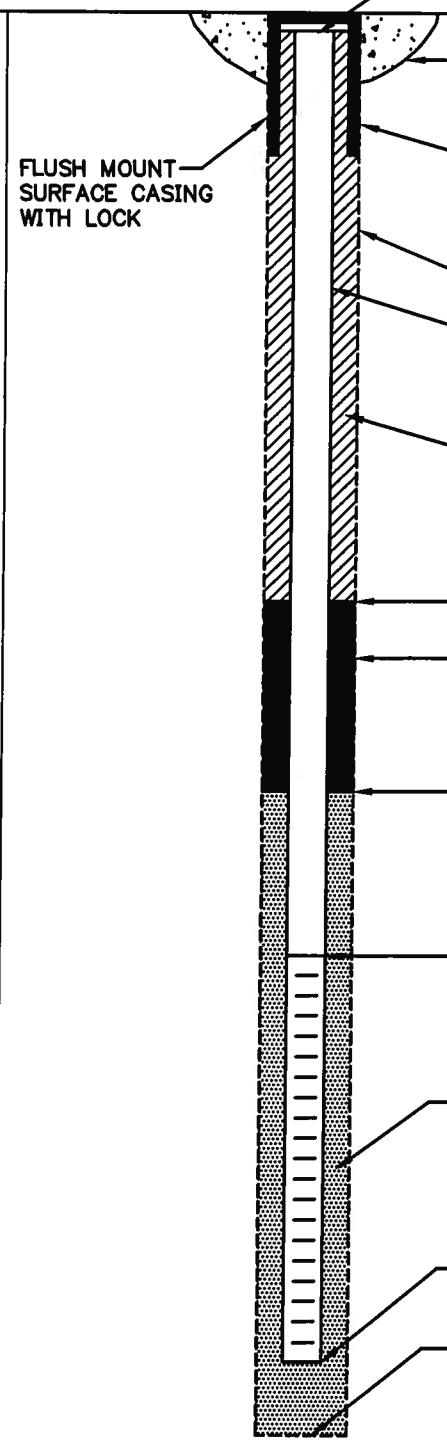
ACAD: FORM_MWFM.dwg 07/20/99 INL

WELL NO.: GSP-MW20

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT: GSP Supplemental Characterization	LOCATION: Middle River, MD	DRILLER: Larry Hunsberger
PROJECT NO.:	BORING: GSP-MW20	DRILLING METHOD: Roto Sonic
DATE BEGUN: 9/12/12	DATE COMPLETED:	DEVELOPMENT METHOD:
FIELD GEOLOGIST: W. ONeil		
GROUND ELEVATION:	DATUM:	



ELEVATION TOP OF RISER:

TYPE OF SURFACE SEAL: High strength concrete

TYPE OF PROTECTIVE CASING: Steel - round

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: ~~Portland cement/bentonite gel grout~~ bentonite chips - too shallow for grout

ELEVATION/DEPTH TOP OF SEAL: / 1

TYPE OF SEAL: Bentonite chips

ELEVATION/DEPTH TOP OF SAND: / 3

ELEVATION/DEPTH TOP OF SCREEN: / 5

TYPE OF SCREEN: PVC - 2"

SLOT SIZE x LENGTH: 0.01" X 10'

TYPE OF SAND PACK: #1 silica

DIAMETER OF HOLE IN BEDROCK: N/A

ELEVATION / DEPTH BOTTOM OF SCREEN: / 15

ELEVATION / DEPTH BOTTOM OF SAND: / 15.5

ELEVATION/DEPTH BOTTOM OF HOLE: / 30'

BACKFILL MATERIAL BELOW SAND: bentonite chips

ACAD:FORM_MWFM.dwg 07/20/99 INL

APPENDIX E—GROUNDWATER-LEVEL MEASUREMENT FORMS, GROUNDWATER SAMPLE LOGS, AND LOW-FLOW PURGE DATA SHEETS

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112FC040021-02

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP mw1-042612
Sample Location: mw1
Sampled By: Walt P
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 4-26-12								
Time: 1014								
Method: Peristaltic pump		6.19	1.54	13.25	10.2	1.20	0.9	6

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-26-12								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	Low	Flow	Purge		
Total Well Depth (TD):								
Static Water Level (WL): 5.60				Data	Sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 0923								
End Purge (hrs): 1009								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
Total PPM	HNO3	1 - 500 ml Poly	✓
Diss PPM	HNO3	1 - 500 ml Poly	✓
1,4 Dioxane	—	2 - 1L Ambers	✓
DRO	—	2 - 1L Ambers	✓
GRO	HCl	2 - 40 ml VOA	✓
Perchlorate	—	1 - 250 ml Poly	✓
Hex Chrom	—	1 - 250 ml Poly	✓

OBSERVATIONS / NOTES:

Hex Chrom collected @ 1325

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Walt P

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC04021-02

WELL ID.: GSP-MW1-042612
DATE: 4-26-12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0923	5.60	—	—	—	—	—	—	—	—	Initial, no odor
0924	5.85	300	5.94	1.37	118	1.83	16.63	155	0.7	Cloudy water
0929	6.25	200	6.25	1.50	108	1.33	15.14	52	0.7	
0934	6.40	100	6.26	1.52	88.4	1.27	14.63	36	0.8	
0944	6.85	100	6.26	1.55	70.5	1.28	13.67	18	0.8	
0954	7.25	100	6.23	1.55	28.7	1.27	13.18	11	0.8	
0959	7.30	100	6.20	1.56	10.1	1.27	13.06	10	0.8	Clear water
1004	7.35	100	6.20	1.55	9.98	1.22	13.20	8	0.8	
1009	7.40	100	6.19	1.54	10.2	1.20	13.25	6	0.8	
			pH	Parameters		stabilize				
				Sampling	Begins					

SIGNATURE(S): _____

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC04021-02

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW2-042612
Sample Location: MW2
Sampled By: Matt P.
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 4-26-12								
Time: 1225								
Method: Peristaltic pump	Clear	4.57	0.042	13.37	8.22	1.52	0.0	ORP 216

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-26-12								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2" PVC								
Total Well Depth (TD):			See	low	flow	purge		
Static Water Level (WL): 6.80								
One Casing Volume(gal/L):			Data	Sheet				
Start Purge (hrs): 1128								
End Purge (hrs): 1220								
Total Purge Time (min): 50								
Total Vol. Purged (gal/L): 1.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
Total PPM	HNO3	1 - 500 ml Poly	✓
Diss PPM	HNO3	1 - 500 ml Poly	—
1,4 Dioxane	—	2 - 1L Ambers	—
DRO	~~Hcl~~ —	2 - 1L Ambers	—
GRO	HCl	2 - 40 ml VOA	—
Perchlorate	—	1 - 250 ml Poly	—
Hex Chrom	—	1 - 250 ml Poly	—
	—		

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Matt P.

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Montour State Airport
PROJECT NUMBER: 112IC04021-02

WELL ID.: GSP-MW2-042612
DATE: 4-26-12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1128	6.80	—	—	—	—	—	—	—	—	
1130	7.40	300	5.84	0.095	127	3.02	13.61	102	0.0	Initially muddy
1135	7.70	100	4.97	0.080	102	2.38	13.58	168	0.0	Cloudy water
1140	8.11	100	4.85	0.063	99.7	2.08	13.51	196	0.0	
1150	8.75	100	4.64	0.049	81.3	1.81	13.31	203	0.0	
1200	9.25	100	4.58	0.046	31.3	1.70	13.29	213	0.0	
1210	9.75	100	4.56	0.044	8.30	1.60	13.34	215	0.0	Clean water
1215	9.80	100	4.57	0.043	8.20	1.55	13.36	215	0.0	
1220	9.85	100	4.57	0.042	8.22	1.52	13.37	216	0.0	

Well parameters stabilize

Sampling Begins

SIGNATURE(S): [illegible]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Marion State Airport
Project No.: 112IC04021-02

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW3-042612
Sample Location: MW 3
Sampled By: Walt P
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 4-26-12								
Time: 1440								
Method: Peristaltic pump	Clear	5.11	0.048	13.08	6.6	1.51	0.0	204

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-26-12								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):			See	low	flow	purge		
Static Water Level (WL): 3.41								
One Casing Volume(gal/L):			Data		Sheet			
Start Purge (hrs): 1333								
End Purge (hrs): 1435								
Total Purge Time (min): 62								
Total Vol. Purged (gal/L): 2.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
Total PPM	HNO3	1 - 500 ml Poly	✓
Diss PPM	HNO3	1 - 500 ml Poly	✓
1,4 Dioxane	—	2 - 1L Ambers	✓
DRO	—	2 - 1L Ambers	✓
GRO	HCl	2 - 1L 40 ml VOA	✓
Perchlorate	—	1 - 250 ml Poly	✓
Hex Chrom	—	1 - 250 ml Poly	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD — Duplicate ID No.:

Signature(s): Walt P

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC04021-02

WELL ID.: GSP-MW3-042612
DATE: 4-26-12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1333	3.41	—	—	—	—	—	—	—	—	Initial, no odor
1335	3.95	300	5.38	0.059	105	4.34	13.52	223	0.0	Cloudy water
1340	4.18	200	4.95	0.058	42.9	2.13	13.62	234	0.0	
1345	4.32	200	4.99	0.055	23.3	1.67	13.36	228	0.0	
1355	4.50	100	5.00	0.052	15.6	1.65	13.28	219	0.0	
1405	4.88	100	5.06	0.052	11.2	1.63	13.25	213	0.0	
1415	5.00	100	5.08	0.050	8.7	1.60	13.22	208	0.0	Clear water
1425	5.10	100	5.10	0.048	6.6	1.55	13.19	205	0.0	
1430	5.10	100	5.11	0.048	6.5	1.53	13.20	204	0.0	
1435	5.10	100	5.11	0.048	6.6	1.51	13.08	204	0.0	
			VOA	Parameters		Stabilize				
				Sampling		Begins				

SIGNATURE(S): [illegible]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112EC04021-02

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW4-042712
Sample Location: MW4
Sampled By: Walt P
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 4-27-12								
Time: 1353								
Method: Peristaltic pump	Clear	5.52	1.15	14.60	9.84	1.52	0.6	139

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-27-12								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge data sheet						
Total Well Depth (TD):								
Static Water Level (WL): 3.20								
One Casing Volume(gal/L):								
Start Purge (hrs): 1301								
End Purge (hrs): 1348								
Total Purge Time (min): 47								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 – 40 ml VOA	✓
Total PAH	HNO3	1 – 500 ml Poly	✓
Diss PAH	HNO3	1 – 500 ml Poly	✓
1,4 Dioxane	—	2 – 1L Ambers	✓
DRO	—	2 – 1L Ambers	✓
GRO	HCl	2 – 40 ml VOA	✓
Perchlorate	—	1 – 250 ml Poly	✓
Hex Chrom	—	1 – 250 ml Poly	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD ✓ | Duplicate ID No.:

Signature(s): Walt P

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC04021-02

WELL ID.: GSP-MW4-042712
DATE: 4-27-12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1301	3.20	—	—	—	—	—	—	—	—	
1303	3.60	300	5.53	1.04	367	6.21	16.60	231	0.5	Initial, no odor
1308	3.60	200	5.46	1.09	157	1.87	16.36	202	0.5	Cloudy Water
1313	3.60	200	5.48	1.12	80.9	1.60	15.72	180	0.6	
1323	3.60	200	5.50	1.14	30.0	1.57	15.00	160	0.6	
1333	3.60	200	5.52	1.14	13.1	1.55	14.75	148	0.6	
1338	3.60	200	5.52	1.15	9.80	1.54	14.63	142	0.6	Clear Water
1343	3.60	200	5.52	1.15	9.70	1.53	14.61	138	0.6	
1348	3.60	200	5.52	1.15	9.84	1.52	14.60	139	0.6	
			Well	Parameters		Stabilize				
				Sampling		Begins				

SIGNATURE(S): [illegible]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW Sampling
Project No.: 112G04051

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW5-043012
Sample Location: GSP-MW5
Sampled By: SRC
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Sal
Date: 4/30/12	Visual	Standard	mS/cm	°C	NTU	mg/l	mV	%
Time: 1030								
Method: Peri Pump	Clear	5.56	0.615	14.54	15.6	0.43	150	0.3

PURGE DATA:

Date: 4/30/12	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	Salinity	TDS
Method: Peri Pump		See Low Flow Purge Data Sheet						
Monitor Reading (ppm): —								
Well Casing Diameter & Material 2" PVC								
Total Well Depth (TD): 39.38								
Static Water Level (WL): 4.91								
One Casing Volume(gal/L):								
Start Purge (hrs): 0955								
End Purge (hrs): 1105								
Total Purge Time (min): 70								
Total Vol. Purged (gal/L): 3 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
Total metals	HNO_3	1-500 mL plastic	✓
Dissolved Metals	HNO_3	1-500 mL plastic	✓
1,4 Dioxane	—	2-1L Ambers	✓
Perchlorate	—	1-250 mL plastic	✓
GRO + DRO	HCl/None	2-40 mL vials / 2-1L Ambers	✓
Hexavalent Chromium	—	1-250 mL plastic	

OBSERVATIONS / NOTES:

Hex chrom collected @ 1220

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport GW
PROJECT NUMBER: 112I004021

WELL ID.: GSP-MW5-043012
DATE: 4/30/12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0955	4.91	—	—	—	—	—	—	—	—	
1000	5.20	250	5.76	0.677	9.95	1.78	18.03	208	0.3	
1005	5.25	200	5.67	0.655	14.6	1.20	15.94	200	0.3	
1010	5.25	200	5.65	0.631	14.8	1.12	15.50	185	0.3	
1015	5.25	200	5.63	0.615	14.7	1.06	15.02	169	0.3	
1020	5.25	200	5.62	0.615	15.3	1.00	14.88	162	0.3	
1025	5.25	200	5.58	0.615	15.5	0.98	14.69	157	0.3	
1030	5.25	200	5.56	0.615	15.6	0.93	14.54	160	0.3	
Sampling VOCs, Total + Dissolved Metals, 1,4-Dioxane, Perchlorate, GRO + DRO, + Hex chrom.										

SIGNATURE(S): [illegible]

PAGE 1 OF 1

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW Sampling
Project No.: 112IC04021

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW6-043012
Sample Location: GSP-MW6
Sampled By: SRC
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/30/12	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Sal
Time: 1145	Visual	Standard	mS/cm	°C	NTU	mg/l	mV	%
Method: Peri Pump	Clear	6.89	0.982	11.92	4.17	3.45	157	0.5

PURGE DATA:

Date: 4/30/12	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	Salinity	TDS
Method: Peri Pump		See Low Flow						
Monitor Reading (ppm): —								
Well Casing Diameter & Material 2" PVC		Purge Data Sheet						
Total Well Depth (TD): 22.31								
Static Water Level (WL): 3.13								
One Casing Volume(gal/L):								
Start Purge (hrs): 1110								
End Purge (hrs): 1210								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 2 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	—	2-1L Ambers	✓
Perchlorate	—	1-250 mL plastic	✓
GRO + DRO	HCl / None	2-40mL vials / 2-1L Ambers	✓
Hexavalent Chromium	—	1-250mL plastic	✓

OBSERVATIONS / NOTES:

Hex Chrom collected @ 1210

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW
PROJECT NUMBER: 112IC04021

WELL ID.: GSP-MW6-043012
DATE: 4/30/12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1110	3.13	—	—	—	—	—	—	—	—	
1115	3.78	250	6.52	0.900	42.7	7.74	13.18	167	0.5	
1120	3.99	200	6.82	0.961	35.1	4.55	12.51	155	0.5	
1125	4.19	200	6.86	0.971	17.3	3.11	12.18	148	0.5	
1130	4.25	200	6.87	0.973	12.4	3.01	12.04	149	0.5	
1135	4.36	200	6.89	0.975	9.44	2.95	11.95	150	0.5	
1140	4.37	200	6.89	0.979	8.40	3.16	11.93	150	0.5	
1145	4.39	200	6.89	0.982	4.17	3.45	11.92	157	0.5	
Sampling VOCs, Total + Dissolved Metals, 1,4-Dioxane, GRO + DRO, Perchlorate, + Hex chrom										

SIGNATURE(S): [illegible]

PAGE 1 OF 1

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Manatee State Airport
Project No.: 112EC04021-02

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW7-042712
Sample Location: MW7
Sampled By: Walt P
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 4-27-12								
Time: 1014								
Method: Peristaltic pump								

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-27-12								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See	low	flow	purge			
Total Well Depth (TD):								
Static Water Level (WL): 3.40			Data	Sheet				
One Casing Volume(gal/L):								
Start Purge (hrs): 0922								
End Purge (hrs): 1009								
Total Purge Time (min): 47								
Total Vol. Purged (gal/L) 1.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
Total PPM	HNO3	1 - 500 ml Poly	✓
Diss PPM	HNO3	1 - 500 ml Poly	✓
1,4 Dioxane	—	2 - 1L Ambers	✓
DRO	—	2 - 1L Ambers	✓
GRO	HCl	2 - 40 ml VOA	✓
Perchlorate	—	1 - 250 ml Poly	✓
Hex Chrom	—	1 - 250 ml Poly	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD — Duplicate ID No.:

Signature(s): Walt P

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC04021-02

WELL ID.: GSP-MW7-042712
DATE: 4-27-12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0922	3.40	—	—	—	—	—	—	—	—	Initial, no odor
0924	4.15	300	5.16	0.401	110	2.99	15.21	266	0.2	Cloudy water
0929	4.75	150	5.51	0.363	90.4	1.62	14.57	241	0.2	
0934	5.10	100	5.57	0.355	76.3	1.47	13.82	236	0.2	
0944	5.60	100	5.56	0.352	59.7	1.36	13.01	230	0.2	
0954	5.95	100	5.51	0.350	50.9	1.36	12.82	226	0.2	
0959	6.00	100	5.55	0.348	11.18	1.36	12.99	221	0.2	Slightly cloudy
1004	6.00	100	5.53	0.347	11.0	1.32	12.92	220	0.2	
1009	6.00	100	5.53	0.346	11.2	1.36	12.99	218	0.2	

Well Parameters Stabilize

Sampling Begins

SIGNATURE(S): [illegible]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC04021-02

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW8-042712
Sample Location: MW8
Sampled By: Walt P.
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 4-27-12								
Time: 1203								ORP
Method: Peristaltic pump	Clear	4.48	0.193	16.60	8.5	2.59	0.1	267

PURGE DATA:

Date: 4-27-12	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2" PVC		See	low	flow	purge			
Total Well Depth (TD):								
Static Water Level (WL): 4.16			Data	Sheet				
One Casing Volume(gal/L):								
Start Purge (hrs): 1112								
End Purge (hrs): 1158								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 1.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
Total PPM	HNO3	1 - 500 ml Poly	✓
Diss PPM	HNO3	1 - 500 ml Poly	✓
1,4 Dioxane	—	2 - 1L Ambers	✓
DRO	—	2 - 1L Ambers	✓
GRO	HCl	2 - 40 ml VOA	✓
Perchlorate	—	1 - 250 ml Poly	✓
Hex Chrom	—	1 - 250 ml Poly	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Walt P.

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC04021-02

WELL ID.: GSP-MW8-042712
DATE: 4-27-12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1112	4.16	—	—	—	—	—	—	—	—	Initial, moderate
1113	4.75	300	4.92	0.206	28.8	4.33	16.07	259	0.1	Slightly cloudy
1118	5.60	150	4.50	0.203	26.4	3.24	15.65	278	0.1	
1123	6.25	100	4.47	0.201	22.8	2.92	15.49	278	0.1	
1133	7.30	100	4.47	0.196	20.6	2.67	15.41	275	0.1	
1143	7.50	100	4.47	0.194	17.5	2.61	15.65	276	0.1	
1148	7.60	100	4.48	0.193	8.0	2.56	15.95	268	0.1	Clean water
1153	7.65	100	4.48	0.193	8.0	2.58	16.05	267	0.1	
1158	7.70	100	4.48	0.193	8.2	2.59	16.10	267	0.1	

Well Parameters Stabilized

Sampling Begins

SIGNATURE(S): Walt R

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Greenten Strawberry Point
Project No.: 112TC04136

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW09-100512
Sample Location: MW09
Sampled By: Walt P
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 10-5-12								
Time: 1302								
Method: Peristaltic pump	Clear	4.31	961	19.96	4.70	0.39	0.42	3.0

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 10-5-12								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 9.73								
One Casing Volume(gal/L):								
Start Purge (hrs): 1211								
End Purge (hrs): 1257								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.0								

See low flow purge data sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml Poly VOA	✓
GRO	HCl	2 - 40 ml Poly VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss metals	HNO3	1 - 500 ml Poly	✓
SVOC, 1,4 Dioxane	—	2 - 1L Ambers	✓
DRO	—	2 - 1L Ambers	✓
~~Heterotrophs~~	—	—	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Walt P

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Greater Strawberry Point
PROJECT NUMBER: 112IC04136

WELL ID.: GSP-MW09-100512
DATE: 10-5-12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1211	9.73	300	—	—	—	—	—	—	—	
1212	10.00	300	7.29	876	12.71	3.80	19.49	-0.6	0.43	Initial, no odor
1217	10.00	200	6.43	833	9.24	1.04	19.69	7.6	0.41	Slightly cloudy
1222	10.15	200	6.32	821	8.03	0.69	19.59	5.9	0.40	Clear water
1232	10.32	150	6.34	849	7.43	0.47	19.64	-1.7	0.42	
1242	10.35	100	6.32	859	5.78	0.41	19.79	0.8	0.42	
1247	10.35	100	6.31	860	4.83	0.41	19.97	2.4	0.42	
1252	10.35	100	6.28	863	4.65	0.40	20.06	3.7	0.43	
1257	10.35	100	6.31	861	4.70	0.39	19.96	3.0	0.42	
			Well Parameters Stabilize							
			Sampling Begins							

SIGNATURE(S): [illegible]

PAGE 2 OF 2

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Greater Strawberry Point
Project No.: 112EC04136-04

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW10-100912
Sample Location: MW10
Sampled By: Walt P
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 10-9-12								
Time: 1015								
Method: Peristaltic pump	Clear	5.61	419	17.07	2.92	3.11	0.20	130.3

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 10-9-12								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 4.45		Data Sheet						
One Casing Volume(gal/L):								
Start Purge (hrs): 0839								
End Purge (hrs): 1010								
Total Purge Time (min): 90								
Total Vol. Purged (gal/L): 3.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
GRO	HCl	2 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss metals	HNO3	1 - 500 ml Poly	✓
SVOCs, 1,4 Dioxane	—	2 - 1L Ambers	✓
DRO	—	2 - 1L Ambers	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Walt P

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Greater Strawberry Point
PROJECT NUMBER: 112FC04136-04

WELL ID.: GSP-MW10-100912
DATE: ~~100912~~ 10-9-12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0837	4.45	300	—	—	—	—	—	—	—	Initial, no odor
0840	4.89	300	7.09	502	4.57	6.81	17.31	75.4	0.25	Clean water
0845	5.70	250	5.81	507	6.03	3.16	17.34	109.8	0.25	
0850	6.20	150	5.72	507	6.37	2.70	17.18	114.8	0.25	
0900	6.95	100	5.74	507	3.55	2.59	17.06	116.9	0.25	
0910	7.60		5.80	495	4.44	2.62	17.07	119.6	0.24	
0915	7.85		5.79	488	4.18	2.58	16.91	120.5	0.24	
0920	8.03		5.77	481	4.08	2.59	16.89	121.6	0.23	
0925	8.25		5.77	478	3.19	2.63	16.81	121.5	0.23	
0935	8.60		5.75	465	3.10	2.81	16.78	123.1	0.22	
0945	8.90		5.71	450	3.00	2.98	16.79	125.9	0.22	
0955	9.10		5.67	437	2.95	2.92	16.98	127.8	0.21	
1005	9.40		5.62	421	2.91	3.13	17.01	129.9	0.20	
1010	9.50		5.66	418	2.92	3.11	17.07	130.3	0.20	

Well did not stabilize
90 min max purge per workplan
Sampling Begins

SIGNATURE(S): Matt R

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Greenten Strawberry Point
Project No.: 112IC04136

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW11-100512
Sample Location: MW11
Sampled By: Walt P.
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 10-5-12								
Time: 1028								
Method: Peristaltic pump	Clear	6.52	4317	22.46	8.97	0.37	2.30	-68.2

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 10-5-12								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See Low Flow Purge Data Sheet						
Total Well Depth (TD):								
Static Water Level (WL): 6.40								
One Casing Volume(gal/L):								
Start Purge (hrs): 0852								
End Purge (hrs): 1023								
Total Purge Time (min): 90								
Total Vol. Purged (gal/L): 3.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
GRO	HCl	2 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss metals	HNO3	1 - 500 ml Poly	✓
SVOCs, 1,4 Dioxane	—	2 - 1L Ambers	✓
DRO	—	2 - 1L Ambers	✓

OBSERVATIONS / NOTES:

Circle If Applicable:

MS/MSD	Duplicate ID No.:
—	

Signature(s): Walt P.

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Greater Strawberry Point
PROJECT NUMBER: 112IC04136-

WELL ID.: GSP-MW11-100512
DATE: 10-5-12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0852	6.40	300	—	—	—	—	—	—	—	Initial pump action
0853	6.70	300	7.39	3139	6.28	3.84	22.22	-81.9	1.62	Clean Water
0858	6.91	300	6.66	3083	7.09	1.89	22.30	-81.4	1.61	
0903	7.20	200	6.67	3033	6.80	1.32	22.31	-87.0	1.58	
0913	7.30	150	6.73	2820	6.08	0.78	22.26	-91.2	1.49	
0923	7.40	150	6.72	3053	8.91	0.44	22.29	-92.4	1.60	
0928	7.40	150	6.69	3209	8.15	0.41	22.25	-90.5	1.68	
0933	7.40	150	6.68	3332	8.78	0.39	22.24	-88.7	1.75	
0938	7.40	150	6.65	3481	9.52	0.35	22.23	-87.2	1.83	
0948	7.41	150	6.61	3779	12.39	0.33	22.31	-83.5	2.00	Slightly Cloudy
0958	7.41	150	6.59	3954	12.27	0.32	22.35	-79.9	2.05	
1008	7.41	150	6.56	4110	12.45	0.32	22.33	-76.1	2.19	
1018	7.41	150	6.54	4244	11.48	0.34	22.44	-71.2	2.26	
1023	7.41	150	6.52	4317	8.97	0.37	22.46	-68.2	2.30	Clean water

Well Parameters did not Stabilize
90 min max Purge time Moving Plans
Sample Begins

SIGNATURE(S): [illegible]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Greater Strawberry Point
Project No.: 112IC04136-04

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW12-100812
Sample Location: MW12
Sampled By: Walt P
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 10-8-12								
Time: 1121								
Method: Peristaltic pump	Clear	6.42	1343	19.04	2.06	0.48	0.68	100.6

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 10-8-12								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 8.00								
One Casing Volume(gal/L):								
Start Purge (hrs): 1030								
End Purge (hrs): 1116								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.0								

SEE Low flow purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
GRO	HCl	2 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss metals	HNO3	1 - 500 ml Poly	✓
SVOCs / 1,4 Dioxane	—	2 - 1L Ambers	✓
DRO	—	2 - 1L Ambers	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Walt P

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Greater Strawberry Point
PROJECT NUMBER: 112IC04136-04

WELL ID.: GSP-MW12-100812
DATE: 10-8-12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1030	4.00	300	—	—	—	—	—	—	—	
1031	4.03	300	6.44	1249	10.46	6.38	18.28	116.9	0.63	Initial, muddy
1036		200	6.46	1338	3.81	1.36	18.56	108.3	0.67	Clear water
1041			6.44	1352	2.54	1.06	18.93	106.4	0.68	
1051			6.43	1347	2.30	0.71	19.19	103.7	0.68	
1101			6.43	1342	2.09	0.55	18.86	102.0	0.67	
1106			6.42	1345	2.05	0.49	18.89	101.8	0.68	
1111			6.42	1344	2.03	0.48	19.00	101.3	0.67	
1116			6.42	1343	2.06	0.48	19.04	100.6	0.68	

Well parameters stabilize

Sampling Begins

SIGNATURE(S): Matt Pe

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Gresham Strawberry Point
Project No.: 112IC04136.04

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW13-100812
Sample Location: MW13
Sampled By: Walt P
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 10-8-12								
Time: 0929								
Method: Peristaltic pump	Cloudy	6.73	168	21.39	113	3.47	0.08	83.5

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 10-8-12								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2" PVC			See	low flow		purge		
Total Well Depth (TD):								
Static Water Level (WL): 6.10			Data	sheet				
One Casing Volume(gal/L):								
Start Purge (hrs): 0838								
End Purge (hrs): 0924								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
GRO	HCl	2 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss metals	HNO3	1 - 500 ml Poly	✓
SVOCs 1,4 Dioxane	—	2 - 1L Ambers	✓
DRO	—	2 - 1L Ambers	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): Walt P

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Greater Strawberry Point
PROJECT NUMBER: 112IC04136-04

WELL ID.: GSP-MW13-100812
DATE: 10-8-12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0838	6.60	300	—	—	—	—	—	—	—	Initial, no odor
0839	6.30	300	8.80	126	74.2	4.95	21.48	0.8	0.06	Cloudy water
0844	6.25	250	7.67	122	79.0	4.02	21.50	51.4	0.06	
0849			7.23	134	100.4	3.58	21.32	61.1	0.06	
0854			6.89	147	113	3.61	21.28	72.0	0.07	
0909			6.79	157	115	3.42	21.59	76.0	0.07	
0914			6.76	165	112	3.48	21.58	79.0	0.08	
0919			6.75	168	117	3.40	21.58	81.4	0.08	
0924			6.73	168	113	3.47	21.39	83.5	0.08	
			Well parameters				stabilize			
				Sampling	Begins					

SIGNATURE(S): [illegible]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Greater Strawberry Point
Project No.: 112EC04136-04

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP mw14-100912
Sample Location: mw14
Sampled By: Walt P
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 10-11-12								
Time: 0900								
Method: Peristaltic pump	Clear	6.65	340	21.45	2.35	0.77	0.16	53.4

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 10-9-12								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2" PVC								
Total Well Depth (TD):		See low flow purge						
Static Water Level (WL): 5.85								
One Casing Volume(gal/L):		Data sheet						
Start Purge (hrs): 1112								
End Purge (hrs): 1233								
Total Purge Time (min): ~~35~~ 80								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	10-11-12
GRO	HCl	2 - 40 ml VOA	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓
SVOCs, 1,4 Dioxane	—	2 - 1L Ambers	↓
PAD	—	2 - 1L Ambers	↓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Walt P

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Greater Strawberry Point
PROJECT NUMBER: 112EC04136-04

WELL ID.: GSP-MW14-100912
DATE: 10-9-12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1112	5.85	300	—	—	—	—	—	—	—	Partial, no odor
1113	6.40	300	6.63	408	3.48	3.18	21.57	160.9	0.20	Clear Water
1118	7.60	100	6.92	411	3.06	1.59	21.23	111.9	0.20	
1123	7.40	100	6.94	411	2.99	1.35	21.66	108.1	0.20	
1133	7.95	100	7.03	411	3.31	1.66	21.78	102.0	0.20	
1143	8.45	100	7.08	413	3.03	1.86	21.59	99.5	0.20	
1153	9.00	100	7.07	407	2.60	1.16	21.60	95.4	0.20	
1203	9.60	100	6.89	375	2.36	0.98	21.54	90.7	0.18	
1213	10.00	100	6.78	366	3.36	0.80	21.50	72.4	0.17	
1223	10.80	100	6.65	340	2.35	0.71	21.45	53.4	0.16	
1233	Dry	100								

Well went dry let Recharge 80% before Sampling begins

SIGNATURE(S): [illegible]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Greater Strawberry Point
Project No.: 112TC04636-02

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW15-100912
Sample Location: MW15
Sampled By: Walt P.
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 10-9-12								
Time: 1430								
Method: Peristaltic pump	Clear	6.03	511	21.77	3.25	0.53	0.24	87.8

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 10-9-12								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 7.50			Data	Sheet				
One Casing Volume(gal/L):								
Start Purge (hrs): 1339								
End Purge (hrs): 1425								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
GRO	HCl	2 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss metals	HNO3	1 - 500 ml Poly	✓
SVOCs, 1,4 Dioxane	—	2 - 1L Ambers	✓
DRO	—	2 - 1L Ambers	✓
			✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Walt Pe

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Greater Strawberry Point
PROJECT NUMBER: 112IC04136-04

WELL ID.: GSP-MW15-100812
DATE: 10-8-12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1339	7.50	300	—	—	—	—	—	—	—	Initial, no odor
1340	7.40	300	7.05	556	3.98	2.85	21.24	59.5	0.27	Clear water
1345	7.70	250	6.21	541	4.68	1.09	21.32	84.8	0.26	
1350	7.70	250	6.10	537	5.37	0.83	21.50	89.4	0.26	
1400	7.70	250	6.05	532	6.69	0.62	21.83	91.1	0.26	
1410	7.70	250	6.04	523	4.80	0.53	22.01	89.6	0.25	
1415	7.70	250	6.04	513	3.35	0.53	21.87	87.7	0.25	
1420	7.70	250	6.04	512	3.20	0.54	21.86	87.5	0.24	
1425	7.70	250	6.03	511	3.25	0.53	21.77	87.8	0.24	
			pH Parameters Stabilize							
				Sampling Begins						

SIGNATURE(S): [illegible]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Greater Strawberry Point.
Project No.: 112IC04136-04

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW16-101012
Sample Location: MW16
Sampled By: Walt P
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 10-10-12								
Time: 1526								
Method: Peristaltic pump	Clear	4.45	354	27.54	5.35	0.38	0.17	180.9

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 10-10-12								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 8.25								
One Casing Volume(gal/L):								
Start Purge (hrs): 1435								
End Purge (hrs): 1521								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.0								

See low flow purge data sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
GRO	HCl	2 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss metals	HNO3	1 - 500 ml Poly	✓
SVOCs, 1,4 Dioxane	—	2 - 1L Ambers	✓
DRO	—	2 - 1L Ambers	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD —

Duplicate ID No.:

Signature(s): Walt P

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Greater Strawberry Point
PROJECT NUMBER: 112FC04136-04

WELL ID.: GSP-MW16-101012
DATE: 10-10-12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1435	8.25	300	—	—	—	—	—	—	—	Initial, no odor
1436	8.35	300	5.18	350	8.71	3.85	24.53	121.6	0.16	Clear water
1441	8.35	250	4.72	337	7.04	1.21	24.50	120.0	0.16	
1446	8.35	250	4.64	334	5.94	0.82	23.81	124.4	0.16	
1456	8.35	250	4.49	345	6.01	0.53	23.57	153.9	0.16	
1506	8.35	250	4.46	351	6.53	0.43	23.52	172.6	0.17	
1511	8.35	250	4.44	353	5.43	0.40	23.37	176.9	0.17	
1516	8.35	250	4.45	352	5.40	0.39	23.46	179.4	0.17	
1521	8.35	250	4.45	354	5.35	0.38	23.54	180.9	0.17	
			Well Parameters Stabilize							
				Sampling Begins						

SIGNATURE(S): [illegible]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Greater Strawberry Point
Project No.: 112FC04136-04

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP mw17-101012
Sample Location: mw17
Sampled By: Walt P
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 10-10-12								
Time: 1008								
Method: Peristaltic pump	Clear	5.69	338	~~375~~ 17.20	5.75	1.55	0.16	56.2

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 10-10-12								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See Low Flow Purge Data Sheet						
Total Well Depth (TD):								
Static Water Level (WL): 5.55								
One Casing Volume(gal/L):								
Start Purge (hrs): 0917								
End Purge (hrs): 1003								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 1.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
GRO	HCl	2 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss metals	HNO3	1 - 500 ml Poly	✓
SVOCs, 1,4 Dioxane	—	2 - 1L Ambers	✓
DRO	—	2 - 1L Ambers	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	

Signature(s): Walt P

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Greater Strawberry Point
PROJECT NUMBER: 112IC04136

WELL ID.: GSP-MW17-101012
DATE: 10-10-12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0917	5.55	300	—	—	—	—	—	—	—	Initial, no odor
0919	6.10	300	7.22	298	12.4	3.73	17.56	63.5	0.14	Sl. silty Cloudy
0923	6.60	200	5.87	284	7.61	2.76	17.43	97.2	0.14	Clear water
0928	6.90	100	5.52	300	6.76	2.33	17.21	98.7	0.14	
0938	7.10	100	5.53	319	6.73	2.04	16.91	87.3	0.15	
0948	7.30	100	5.57	328	5.77	1.69	16.67	71.6	0.16	
0958	7.30	100	5.66	336	5.70	1.56	16.77	65.1	0.16	
0958	7.30	100	5.65	337	5.80	1.50	17.13	58.8	0.17	
1003	7.30	100	5.69	338	5.75	1.55	17.20	56.2	0.16	
	Well Parameters Stabilized									
	Sampling Begins									

SIGNATURE(S): Water

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Greater Strawberry Point
Project No.: 112EC04136.04

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW18-101012
Sample Location: MW18
Sampled By: Walt P
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 10-10-12								
Time: 1258								
Method: Peristaltic pump	Clear	5.14	824	16.93	8.30	3.86	0.41	97.2

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 10-10-12								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 3.85			Data sheet					
One Casing Volume(gal/L):								
Start Purge (hrs): 1122								
End Purge (hrs): 1253								
Total Purge Time (min): 90								
Total Vol. Purged (gal/L): 20								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss metals	HNO3	1 - 500 ml Poly	✓
GRO	HCl	2 - 40 ml VOA	✓
SVOCs, 1,4 Dioxane	—	2 - 1L Ambers	✓
DRO	—	2 - 1L Ambers	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Walt P

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Greater Strawberry Point
PROJECT NUMBER: 112IC04136-04

WELL ID.: GSP-MW18-101012
DATE: 10-10-12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1122	3.85	300	—	—	—	—	—	—	—	Initial, no odor
1123	4.32	300	5.90	831	12.3	4.93	17.06	119.4	0.41	Slightly Cloudy
1128	5.07	100	5.05	833	13.9	4.40	17.16	122.9	0.41	
1133	5.79	100	5.04	833	11.5	4.11	17.35	116.4	0.41	
1143	6.80	100	5.07	831	11.9	4.03	17.45	108.2	0.41	
1153	7.90	100	5.08	828	11.5	3.99	17.12	103.7	0.41	
1203	8.80	100	5.09	827	11.0	3.93	17.22	102.0	0.41	
1213	9.75	100	5.12	824	10.81	3.91	16.88	99.7	0.41	
1223	10.50	100	5.12	822	9.67	3.86	16.74	99.4	0.41	Clear water
1233	11.40	100	5.14	823	8.90	3.85	17.01	97.8	0.41	
1243	11.90	100	5.14	824	8.50	3.81	16.92	97.4	0.41	
1253	12.30	100	5.14	824	8.30	3.86	16.93	97.2	0.41	

Well parameters did not stabilize

90 min max purge time Work plan

Sampling Begins

SIGNATURE(S): [illegible]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Greater Strawberry Point
Project No.: 112FC04136-04

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW19-100912
Sample Location: MW19
Sampled By: Walt P.
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 10-11-12								
Time: 1130								
Method: Peristaltic Pump	Clear	4.93	154	19.06	4.00	3.20	0.07	188.4

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 10-9-12								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):			SEE	Low	Flow	Purge		
Static Water Level (WL): 9.60								
One Casing Volume(gal/L):			Data	Sheet				
Start Purge (hrs): 1315								
End Purge (hrs): 1421								
Total Purge Time (min): 65								
Total Vol. Purged (gal/L): 2.2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	10-11-12
GRO	HCl	2 - 40 ml VOA	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓
SVOCs, 1,4 Dioxane	—	2 - 1L Ambers	↓
DRO	—	2 - 1L Ambers	↓

OBSERVATIONS / NOTES:

Circle If Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Walt P.

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Greater Strawberry Point
PROJECT NUMBER: 112IC04136-04

WELL ID.: GSP-MW19-100912
DATE: 10-9-12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1315	9.10	300	—	—	—	—	—	—	—	Initial, no odor
1316	9.32	200	6.71	197	7.64	5.81	19.03	120.3	0.09	Clear water
1321	9.65	100	5.45	193	7.91	4.02	19.20	139.0	0.09	
1326	9.95	100	5.30	192	7.34	3.99	19.29	146.0	0.09	
1336	10.65	100	5.37	203	5.19	4.36	19.61	148.6	0.10	
1346	11.30	100	5.25	183	3.80	4.68	19.56	158.6	0.09	
1356	12.10	100	5.17	170	2.95	4.51	19.31	168.7	0.08	
1406	12.80	100	5.09	161	3.72	3.61	19.11	175.8	0.08	
1416	13.40	100	4.93	154	4.00	3.20	19.06	188.4	0.07	
1421	Dry	100								

Well went dry let Recharge
go 9la before Sampling Begins

SIGNATURE(S): Walt R

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Greater Strawberry Point
Project No.: 112SC04136-04

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW20-100912
Sample Location: MW 20
Sampled By: Walt P.
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 10-11-12								
Time: 1330								
Method: Peristaltic pump	Slightly	5.89	410	18.89	11.0	0.46	0.20	61.0

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 10-9-12								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See	Low flow	purge				
Total Well Depth (TD):								
Static Water Level (WL): 9.80			Data	sheet				
One Casing Volume(gal/L):								
Start Purge (hrs): 1424								
End Purge (hrs): 1515								
Total Purge Time (min): 50								
Total Vol. Purged (gal/L): 1.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	10-11-12
GRO	HCl	2 - 40 ml VOA	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
SVOCs, 1,4 Dioxane	—	2 - 1L Ambers	
DRO	—	2 - 1L Ambers	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): Walt P.

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Greater Strawberry Point
PROJECT NUMBER: 112IC04136-04

WELL ID.: GSP-MW20-100912
DATE: 10-9-12

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1424	9.80	300	~~5.71~~	—	—	—	—	—	—	Initial, no odor
1425	10.00	300	5.82	387	10.66	3.79	18.56	85.3	0.19	Slightly cloudy
1430	10.26	200	5.81	388	11.19	1.12	18.54	65.4	0.19	
1435	10.55	100	5.79	385	11.10	0.81	19.01	63.3	0.18	
1445	11.00	100	5.83	376	10.04	0.69	18.54	68.8	0.18	
1455	11.60	100	5.86	382	9.44	0.54	19.57	68.1	0.18	
1505	12.20	100	5.85	387	10.56	0.47	18.55	64.6	0.19	
1515	Dry	100	5.85	400	11.0	0.46	19.99	61.0	0.20	

Well went dry 1st Recharge 90% before Sampling Begins

SIGNATURE(S): [illegible]

APPENDIX F—CHEMICAL DATA TABLES

LOCATION	GSP-MW-01		GSP-MW-02		GSP-MW-03		GSP-MW-04		GSP-MW-05	
SAMPLE ID	**GSP-MW01-042612**	**GSP-MW1-042612**	**GSP-MW02-042612**	**GSP-MW2-042612**	**GSP-MW03-042612**	**GSP-MW3-042612**	**GSP-MW04-043012**	**GSP-MW4-042712**	**GSP-MW05-043012**	**GSP-MW5-043012**
SAMPLE DATE	**20120426**	**20120426**	**20120426**	**20120426**	**20120426**	**20120426**	**20120430**	**20120427**	**20120430**	**20120430**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
TOP DEPTH	**-9999**	**-9999**	**-9999**	**-9999**	**-9999**	**-9999**	**-9999**	**-9999**	**-9999**	**-9999**
BOTTOM DEPTH	**-9999**	**-9999**	**-9999**	**-9999**	**-9999**	**-9999**	**-9999**	**-9999**	**-9999**	**-9999**
DISSOLVED METALS (UG/L)										
ANTIMONY	NA	0.19 B	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U
ARSENIC	NA	5.6	NA	0.92 J	NA	5.5	NA	6.4	NA	3.5 J
BARIUM	NA	76	NA	9.9 K	NA	9.5 K	NA	27	NA	21
BERYLLIUM	NA	0.2 UL	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	1.4
CADMIUM	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.31 J
CHROMIUM	NA	0.82 J	NA	0.71 U	NA	0.71 U	NA	0.71 U	NA	0.78 J
COBALT	NA	9.4	NA	12	NA	16	NA	11	NA	29
COPPER	NA	1 B	NA	1.7 B	NA	0.67 B	NA	0.5 B	NA	0.34 B
LEAD	NA	0.18 U	NA	0.18 U	NA	0.18 U	NA	0.18 U	NA	0.18 U
MERCURY	NA	0.12 U	NA	0.12 U	NA	0.12 U	NA	0.12 U	NA	0.12 U
MOLYBDENUM	NA	2.2 B	NA	0.093 U	NA	0.25 B	NA	0.14 B	NA	0.35 B
NICKEL	NA	8.9	NA	12	NA	15	NA	1.1 J	NA	19
SELENIUM	NA	0.72 J	NA	0.57 U	NA	0.57 U	NA	0.58 J	NA	2.7 J
SILVER	NA	0.08 U	NA	0.08 U	NA	0.08 U	NA	0.08 U	NA	0.08 U
THALLIUM	NA	0.3 B	NA	0.16 B	NA	0.5 B	NA	0.26 B	NA	0.26 B
TUNGSTEN	NA	0.37 U	NA	0.37 U	NA	0.41 B	NA	0.37 U	NA	0.37 U
VANADIUM	NA	1 J	NA	0.44 U	NA	0.44 U	NA	0.44 U	NA	1.8 J
ZINC	NA	25 B	NA	27 B	NA	51	NA	2.3 U	NA	25
METALS (UG/L)										
ANTIMONY	NA	0.18 B	NA	0.13 U	NA	0.27 B	NA	0.13 U	NA	0.13 U
ARSENIC	NA	5.7	NA	0.99 J	NA	6	NA	6.5	NA	3.4 J
BARIUM	NA	73	NA	10	NA	9.9 K	NA	27	NA	21
BERYLLIUM	NA	0.2 UL	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	1.3
CADMIUM	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.32 J
CHROMIUM	NA	0.86 J	NA	0.71 U	NA	0.71 U	NA	0.71 U	NA	2.2
COBALT	NA	9.3	NA	12	NA	17	NA	11	NA	26
COPPER	NA	1.6 B	NA	1.3 B	NA	1.8 B	NA	0.59 B	NA	4.9
LEAD	NA	0.18 U	NA	0.18 U	NA	0.18 U	NA	0.18 U	NA	0.39 J
MERCURY	NA	0.12 U	NA	0.12 U	NA	0.12 U	NA	0.12 U	NA	0.12 U
MOLYBDENUM	NA	2.1 B	NA	0.13 B	NA	0.84 B	NA	0.26 B	NA	0.34 B
NICKEL	NA	8.6	NA	12	NA	16	NA	0.94 J	NA	17
SELENIUM	NA	0.59 J	NA	0.57 U	NA	0.57 U	NA	0.57 U	NA	2.2 J
SILVER	NA	0.08 U	NA	0.08 U	NA	0.08 U	NA	0.08 U	NA	0.08 U
THALLIUM	NA	0.16 B	NA	0.21 B	NA	0.88 B	NA	0.35 B	NA	0.14 U
TUNGSTEN	NA	0.37 U	NA	0.37 U	NA	1 B	NA	0.37 U	NA	0.37 U
VANADIUM	NA	0.8 J	NA	0.44 U	NA	0.55 J	NA	0.44 U	NA	4.4 J
ZINC	NA	25 B	NA	27 B	NA	51	NA	2.3 U	NA	28
MISCELLANEOUS PARAMETERS (UG/L)										
HEXAVALENT CHROMIUM	0.02 U	NA	0.02 U	NA	0.02 U	NA	0.02 U	NA	0.02 U	NA
PERCHLORATE	NA	0.082 U	NA	0.082 U	NA	0.082 U	NA	0.082 U	NA	0.16 J
PETROLEUM HYDROCARBONS (UG/L)										
TPH (C06-C10)	NA	33 B	NA	40 B	NA	41 B	NA	55 B	NA	37 B
TPH (C10-C32)	NA	240 J	NA	230 U	NA	240 U	NA	330 J	NA	1200
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	0.47 U	NA	0.48 U	NA	0.49 U	NA	0.48 U	NA	0.47 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	GSP-MW-01		GSP-MW-02		GSP-MW-03		GSP-MW-04		GSP-MW-05	
SAMPLE ID	**GSP-MW01-042612**	**GSP-MW1-042612**	**GSP-MW02-042612**	**GSP-MW2-042612**	**GSP-MW03-042612**	**GSP-MW3-042612**	**GSP-MW04-043012**	**GSP-MW4-042712**	**GSP-MW05-043012**	**GSP-MW5-043012**
SAMPLE DATE	**20120426**	**20120426**	**20120426**	**20120426**	**20120426**	**20120426**	**20120430**	**20120427**	**20120430**	**20120430**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	GSP-MW-01		GSP-MW-02		GSP-MW-03		GSP-MW-04		GSP-MW-05	
SAMPLE ID	GSP-MW01-042612	GSP-MW1-042612	GSP-MW02-042612	GSP-MW2-042612	GSP-MW03-042612	GSP-MW3-042612	GSP-MW04-043012	GSP-MW4-042712	GSP-MW05-043012	GSP-MW5-043012
SAMPLE DATE	20120426	20120426	20120426	20120426	20120426	20120426	20120430	20120427	20120430	20120430
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)										
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/L)										
1,1,1,2-TETRACHLOROETHANE	NA	0.23 U	NA	0.23 U	NA	0.23 U	NA	0.23 U	NA	0.23 U
1,1,1-TRICHLOROETHANE	NA	0.22 U	NA	0.22 U	NA	0.22 U	NA	0.22 U	NA	0.22 U
1,1,2,2-TETRACHLOROETHANE	NA	0.18 U	NA	0.18 U	NA	0.18 U	NA	0.18 U	NA	0.18 U
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	0.28 U	NA	0.28 U	NA	0.28 U	NA	0.28 U	NA	0.28 U
1,1-DICHLOROETHANE	NA	0.15 U	NA	0.15 U	NA	0.15 U	NA	0.15 U	NA	0.15 U
1,1-DICHLOROETHENE	NA	0.19 U	NA	0.19 U	NA	0.19 U	NA	0.19 U	NA	0.19 U
1,1-DICHLOROPROPENE	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U
1,2,3-TRICHLOROBENZENE	NA	0.17 U	NA	0.17 U	NA	0.17 U	NA	0.17 U	NA	0.17 U
1,2,3-TRICHLOROPROPANE	NA	0.43 U	NA	0.43 U	NA	0.43 U	NA	0.43 U	NA	0.43 U
1,2,3-TRIMETHYLBENZENE	NA	0.0059 U	NA	0.0059 U	NA	0.0059 U	NA	0.0059 U	NA	0.0059 U
1,2,4-TRICHLOROBENZENE	NA	0.15 U	NA	0.15 U	NA	0.15 U	NA	0.15 U	NA	0.15 U
1,2,4-TRIMETHYLBENZENE	NA	0.12 U	NA	0.12 U	NA	0.12 U	NA	0.12 U	NA	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	NA	0.67 U	NA	0.67 U	NA	0.67 U	NA	0.67 U	NA	0.67 U
1,2-DIBROMOETHANE	NA	0.24 U	NA	0.24 U	NA	0.24 U	NA	0.24 U	NA	0.24 U
1,2-DICHLOROBENZENE	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U
1,2-DICHLOROETHANE	NA	0.22 U	NA	0.22 U	NA	0.22 U	NA	0.22 U	NA	0.22 U
1,2-DICHLOROPROPANE	NA	0.18 U	NA	0.18 U	NA	0.18 U	NA	0.18 U	NA	0.18 U
1,3-DICHLOROBENZENE	NA	0.14 U	NA	0.14 U	NA	0.14 U	NA	0.14 U	NA	0.14 U
1,3-DICHLOROPROPANE	NA	0.16 U	NA	0.16 U	NA	0.16 U	NA	0.16 U	NA	0.16 U
1,4-DICHLOROBENZENE	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U
2,2-DICHLOROPROPANE	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U
2-BUTANONE	NA	0.57 U	NA	0.57 U	NA	0.57 U	NA	0.57 U	NA	0.57 U
2-CHLOROETHYL VINYL ETHER	NA	0.99 U	NA	0.99 U	NA	0.99 U	NA	0.99 U	NA	0.99 U
2-CHLOROTOLUENE	NA	0.11 U	NA	0.11 U	NA	0.11 U	NA	0.11 U	NA	0.11 U
2-HEXANONE	NA	0.41 U	NA	0.41 U	NA	0.41 U	NA	0.41 U	NA	0.41 U
4-CHLOROTOLUENE	NA	0.18 U	NA	0.18 U	NA	0.18 U	NA	0.18 U	NA	0.18 U
4-ISOPROPYLTOLUENE	NA	0.12 U	NA	0.12 U	NA	0.12 U	NA	0.12 U	NA	0.12 U
4-METHYL-2-PENTANONE	NA	0.32 U	NA	0.32 U	NA	0.32 U	NA	0.32 U	NA	0.32 U
ACETONE	NA	1.1 U	NA	1.1 U	NA	1.1 U	NA	1.6 J	NA	1.1 U
BENZENE	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U
BROMOBENZENE	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U
BROMOCHLOROMETHANE	NA	0.29 U	NA	0.29 U	NA	0.29 U	NA	0.29 U	NA	0.29 U
BROMODICHLOROMETHANE	NA	0.15 U	NA	0.15 U	NA	0.15 U	NA	0.15 U	NA	0.15 U
BROMOFORM	NA	0.64 U	NA	0.64 U	NA	0.64 U	NA	0.64 U	NA	0.64 U
BROMOMETHANE	NA	0.41 U	NA	0.41 U	NA	0.41 U	NA	0.41 U	NA	0.41 U
CARBON DISULFIDE	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 J
CARBON TETRACHLORIDE	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	1.9
CHLOROBENZENE	NA	0.15 U	NA	0.15 U	NA	0.15 U	NA	0.15 U	NA	0.15 U
CHLORODIBROMOMETHANE	NA	0.18 U	NA	0.18 U	NA	0.18 U	NA	0.18 U	NA	0.18 U
CHLOROETHANE	NA	0.29 U	NA	0.29 U	NA	0.29 U	NA	0.29 U	NA	0.29 U
CHLOROFORM	NA	0.16 U	NA	0.16 U	NA	0.16 U	NA	0.16 U	NA	0.68 J
CHLOROMETHANE	NA	0.3 U	NA	0.3 U	NA	0.3 U	NA	0.3 U	NA	0.3 U
CIS-1,2-DICHLOROETHENE	NA	0.27 J	NA	0.17 U	NA	0.17 U	NA	1.7	NA	0.17 U
CIS-1,3-DICHLOROPROPENE	NA	0.14 U	NA	0.14 U	NA	0.14 U	NA	0.14 U	NA	0.14 U
DIBROMOMETHANE	NA	0.28 U	NA	0.28 U	NA	0.28 U	NA	0.28 U	NA	0.28 U
DICHLORODIFLUOROMETHANE	NA	0.31 U	NA	0.31 U	NA	0.31 U	NA	0.31 U	NA	0.31 U
DIISOPROPYL ETHER	NA	1.5 U	NA	1.5 U	NA	1.5 U	NA	1.5 U	NA	1.5 U
ETHYL TERT-BUTYL ETHER	NA	0.11 U	NA	0.11 U	NA	0.11 U	NA	0.11 U	NA	0.11 U
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	0.17 U	NA	0.17 U	NA	0.17 U	NA	0.17 U	NA	0.17 U

LOCATION	GSP-MW-01		GSP-MW-02		GSP-MW-03		GSP-MW-04		GSP-MW-05	
SAMPLE ID	**GSP-MW01-042612**	**GSP-MW1-042612**	**GSP-MW02-042612**	**GSP-MW2-042612**	**GSP-MW03-042612**	**GSP-MW3-042612**	**GSP-MW04-043012**	**GSP-MW4-042712**	**GSP-MW05-043012**	**GSP-MW5-043012**
SAMPLE DATE	**20120426**	**20120426**	**20120426**	**20120426**	**20120426**	**20120426**	**20120430**	**20120427**	**20120430**	**20120430**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
HEXACHLOROBUTADIENE	NA	0.3 U	NA	0.3 U	NA	0.3 U	NA	0.3 U	NA	0.3 U
ISOPROPYLBENZENE	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U
M+P-XYLENES	NA	0.24 U	NA	0.24 U	NA	0.24 U	NA	0.24 U	NA	0.24 U
METHYL TERT-BUTYL ETHER	NA	0.17 U	NA	0.17 U	NA	0.17 U	NA	0.17 U	NA	0.17 U
METHYLENE CHLORIDE	NA	0.33 U	NA	0.33 U	NA	0.33 U	NA	0.33 U	NA	0.33 U
NAPHTHALENE	NA	0.24 U	NA	0.24 U	NA	0.24 U	NA	0.24 U	NA	0.24 U
N-BUTYLBENZENE	NA	0.12 U	NA	0.12 U	NA	0.12 U	NA	0.12 U	NA	0.12 U
N-PROPYLBENZENE	NA	0.14 U	NA	0.14 U	NA	0.14 U	NA	0.14 U	NA	0.14 U
O-XYLENE	NA	0.14 U	NA	0.14 U	NA	0.14 U	NA	0.14 U	NA	0.14 U
SEC-BUTYLBENZENE	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	2 R	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.5 R
STYRENE	NA	0.11 U	NA	0.11 U	NA	0.11 U	NA	0.11 U	NA	0.11 U
TERT-AMYL METHYL ETHER	NA	0.067 U	NA	0.067 U	NA	0.067 U	NA	0.067 U	NA	0.067 U
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U
TERTIARY-BUTYL ALCOHOL	NA	3.9 UR	NA	3.9 UR	NA	3.9 UR	NA	3.9 UR	NA	3.9 UR
TETRACHLOROETHENE	NA	0.29 U	NA	0.29 U	NA	0.29 U	NA	0.29 U	NA	0.29 U
TOLUENE	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U
TOTAL XYLENES	NA	0.28 U	NA	0.28 U	NA	0.28 U	NA	0.28 U	NA	0.28 U
TRANS-1,2-DICHLOROETHENE	NA	0.19 U	NA	0.19 U	NA	0.19 U	NA	0.19 U	NA	0.19 U
TRANS-1,3-DICHLOROPROPENE	NA	0.19 U	NA	0.19 U	NA	0.19 U	NA	0.19 U	NA	0.19 U
TRICHLOROETHENE	NA	0.81 J	NA	0.17 U	NA	0.17 U	NA	5.1	NA	0.17 U
TRICHLOROFLUOROMETHANE	NA	0.21 U	NA	0.21 U	NA	0.21 U	NA	0.21 U	NA	0.21 U
VINYL ACETATE	NA	0.19 UR	NA	0.19 UR	NA	0.19 UR	NA	0.19 UR	NA	0.19 UR
VINYL CHLORIDE	NA	0.22 U	NA	0.22 U	NA	0.22 U	NA	0.53 J	NA	0.22 U

LOCATION	GSP-MW-06		GSP-MW-07		GSP-MW-08		GSP-MW-09	GSP-MW-10	GSP-MW-11	GSP-MW-12
SAMPLE ID	GSP-MW06-043012	GSP-MW6-043012	GSP-MW07-043012	GSP-MW7-042712	GSP-MW08-043012	GSP-MW8-042712	GSP-MW09-100512	GSP-MW10-100912	GSP-MW11-100512	GSP-MW12-100812
SAMPLE DATE	20120430	20120430	20120430	20120427	20120430	20120427	20121005	20121009	20121005	20121008
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)										
ANTIMONY	NA	0.76 J	NA	0.28 B	NA	0.13 U	0.24 B	0.2 J	1.4 B	2.2
ARSENIC	NA	2.1 J	NA	1.4 J	NA	0.58 J	0.62 J	0.4 UL	21	1.3 J
BARIUM	NA	40	NA	45	NA	49	100	110	1400	140
BERYLLIUM	NA	0.2 U	NA	0.2 U	NA	0.36 J	0.2 U	0.42 J	1 U	0.2 U
CADMIUM	NA	0.13 U	NA	0.13 U	NA	0.2 B	0.13 U	0.22 B	0.13 U	0.13 U
CHROMIUM	NA	0.71 U	NA	0.71 U	NA	0.71 U	0.71 UL	0.71 UL	1.7 J	0.71 UL
COBALT	NA	0.45 J	NA	6.3	NA	12	3.2	18	2.6	1
COPPER	NA	4.1	NA	1.5 B	NA	3.8 K	0.66 B	5.1 K	1.2 B	1.8 B
LEAD	NA	0.18 U	NA	0.18 U	NA	0.48 B	0.18 U	0.18 U	0.18 U	0.18 U
MERCURY	NA	0.12 U	NA	0.12 U	NA	0.12 U	0.12 U	0.19 J	0.12 U	0.12 U
MOLYBDENUM	NA	2.2 B	NA	0.76 B	NA	0.15 B	1.5 B	0.093 U	4.8 J	1.3 J
NICKEL	NA	1.2 J	NA	7.2	NA	16	2.3 K	19	2.8 K	1.7 J
SELENIUM	NA	13	NA	0.57 U	NA	4.7 J	0.57 U	0.57 U	0.72 J	0.57 U
SILVER	NA	0.08 U	NA	0.08 U	NA	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
THALLIUM	NA	0.2 B	NA	0.47 B	NA	0.23 B	0.26 B	0.26 B	0.3 B	0.14 U
TUNGSTEN	NA	0.37 U	NA	0.47 B	NA	0.37 U	NA	NA	NA	NA
VANADIUM	NA	6.5 J	NA	0.71 J	NA	0.44 U	0.44 UL	0.44 UL	5.2 J	6.4 J
ZINC	NA	460	NA	760	NA	72	5.5 B	33 B	6.1 B	7.6 B
METALS (UG/L)										
ANTIMONY	NA	0.92 J	NA	0.41 B	NA	0.13 B	0.36 B	0.31 J	0.27 B	2.2
ARSENIC	NA	4 J	NA	1.4 J	NA	0.85 J	0.84 J	0.4 UL	22	1.3 J
BARIUM	NA	42	NA	44	NA	48	100	110	1400	140
BERYLLIUM	NA	0.2 U	NA	0.22 J	NA	0.35 J	0.2 U	0.45 J	0.2 U	0.2 U
CADMIUM	NA	0.13 U	NA	0.13 U	NA	0.13 U	0.13 U	0.22 B	0.22 J	0.13 U
CHROMIUM	NA	0.71 U	NA	0.71 U	NA	0.71 U	0.71 UL	0.71 UL	2.3 L	0.71 UL
COBALT	NA	0.56 J	NA	6.4	NA	11	3.3	18	2.8	0.95 J
COPPER	NA	5	NA	1.9 B	NA	3.4 K	0.54 B	3.5 B	0.92 B	1.4 B
LEAD	NA	0.18 U	NA	0.28 B	NA	0.53 B	0.18 U	0.2 J	0.5 B	0.18 U
MERCURY	NA	0.12 U	NA	0.12 U	NA	0.12 U	0.19 B	0.31 J	0.12 U	0.12 U
MOLYBDENUM	NA	2.7 B	NA	1.2 B	NA	0.24 B	1.6 B	0.093 U	4.6 J	1.3 J
NICKEL	NA	1.3 J	NA	7.1	NA	15	2.1 K	19	2.8 K	0.92 B
SELENIUM	NA	14	NA	0.83 J	NA	4.4 J	0.57 U	0.57 U	1.2 J	0.57 U
SILVER	NA	0.08 U	NA	0.08 U	NA	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
THALLIUM	NA	0.25 B	NA	0.82 B	NA	0.32 B	0.17 B	0.33 B	0.46 B	0.14 B
TUNGSTEN	NA	0.37 U	NA	1 B	NA	0.37 U	NA	NA	NA	NA
VANADIUM	NA	8.5 J	NA	0.92 J	NA	0.44 U	0.44 UL	0.44 UL	6.1 J	6.5 J
ZINC	NA	530	NA	730	NA	77	17 B	32 B	5.6 B	5.4 B
MISCELLANEOUS PARAMETERS (UG/L)										
HEXAVALENT CHROMIUM	0.118	NA	0.11	NA	0.097	NA	NA	NA	NA	NA
PERCHLORATE	NA	0.082 U	NA	0.082 U	NA	0.45 J	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)										
TPH (C06-C10)	NA	41 B	NA	96 B	NA	57 B	78 B	45 B	54 B	57 B
TPH (C10-C32)	NA	490	NA	240 U	NA	230 U	230 U	230 U	690	230 U
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	0.77 U	0.76 U	0.78 U	0.76 U
1,4-DIOXANE	NA	0.47 U	NA	0.47 U	NA	0.48 U	0.47 U	0.47 U	0.48 U	0.47 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	0.38 U	0.38 U	0.39 U	0.38 U
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	0.29 U	0.29 U	0.29 U	0.29 U
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	0.77 U	0.76 U	0.78 U	0.76 U
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	0.77 U	0.76 U	0.78 U	0.76 U
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	0.77 U	0.76 U	0.78 U	0.76 U
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	2.3 U	2.3 U	2.3 U	2.3 U
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	0.26 U	0.26 U	0.26 U	0.26 U
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	0.77 U	0.76 U	0.78 U	0.76 U
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	0.097 U	0.095 U

LOCATION	GSP-MW-06		GSP-MW-07		GSP-MW-08		GSP-MW-09	GSP-MW-10	GSP-MW-11	GSP-MW-12
SAMPLE ID	GSP-MW06-043012	GSP-MW6-043012	GSP-MW07-043012	GSP-MW7-042712	GSP-MW08-043012	GSP-MW8-042712	GSP-MW09-100512	GSP-MW10-100912	GSP-MW11-100512	GSP-MW12-100812
SAMPLE DATE	20120430	20120430	20120430	20120427	20120430	20120427	20121005	20121009	20121005	20121008
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	0.28 U	0.28 U	0.28 U	0.28 U
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	0.11 J	0.095 U
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	0.77 U	0.76 U	0.78 U	0.76 U
2-NITROANILINE	NA	NA	NA	NA	NA	NA	0.77 U	0.76 U	0.78 U	0.76 U
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	0.27 U	0.27 U	0.27 U	0.27 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	0.72 U	0.71 U	0.73 U	0.71 U
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	0.36 U	0.35 U	0.36 U	0.35 U
3-NITROANILINE	NA	NA	NA	NA	NA	NA	0.27 U	0.27 U	0.27 U	0.27 U
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	2.3 U	2.3 U	2.3 U	2.3 U
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	0.77 U	0.76 U	0.78 U	0.76 U
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	0.77 U	0.76 U	0.78 U	0.76 U
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	0.77 U	0.76 U	0.78 U	0.76 U
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	0.29 U	0.29 U	0.29 U	0.29 U
4-NITROANILINE	NA	NA	NA	NA	NA	NA	0.77 U	0.76 U	0.78 U	0.76 U
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	2.3 U	2.3 U	2.3 U	2.3 U
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	9.1	0.095 U
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	0.097 U	0.095 U
ACETOPHENONE	NA	NA	NA	NA	NA	NA	0.33 U	0.32 U	0.33 U	0.32 U
ANTHRACENE	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	0.57	0.095 U
ATRAZINE	NA	NA	NA	NA	NA	NA	0.33 U	0.32 U	0.33 U	0.32 U
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	0.097 U	0.095 U
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	0.097 U	0.095 U
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.37 U
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	0.097 U	0.095 U
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	0.097 U	0.095 U
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	0.097 U	0.095 U
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	0.097 U	0.095 U
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	0.097 U	0.095 U
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	0.31 U	0.3 U	0.31 U	0.3 U
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	0.097 U	0.095 U
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	0.77 U	2.5	0.78 U	0.76 U
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	0.77 U	0.76 U	0.78 U	0.76 U
CAPROLACTAM	NA	NA	NA	NA	NA	NA	0.77 U	0.76 U	0.78 U	0.76 U
CARBAZOLE	NA	NA	NA	NA	NA	NA	0.27 U	0.27 U	0.27 U	0.27 U
CHRYSENE	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	0.097 U	0.095 U
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	0.097 U	0.095 U
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	1.8	0.095 U
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	0.58 U	0.57 U	0.58 U	0.57 U
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	0.28 U	0.28 U	0.28 U	0.28 U
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	0.64 U	0.64 U	0.65 U	0.64 U
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	0.77 U	0.76 U	0.78 U	0.76 U
FLUORANTHENE	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	0.27	0.095 U
FLUORENE	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	5.9	0.095 U
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	0.097 U	0.095 U
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	0.26 U	0.26 U	0.26 U	0.26 U
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	0.77 U	0.76 U	0.78 U	0.76 U
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	0.77 U	0.76 U	0.78 U	0.76 U
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	0.097 U	0.095 U
ISOPHORONE	NA	NA	NA	NA	NA	NA	0.26 U	0.26 U	0.26 U	0.26 U
NAPHTHALENE	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	1.4	0.095 U
NITROBENZENE	NA	NA	NA	NA	NA	NA	0.038 U	0.038 U	0.039 U	0.038 U
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA	0.3 U	0.3 U	0.3 U	0.3 U
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	0.77 U	0.76 U	0.78 U	0.76 U
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	0.3 U	0.3 U	0.3 U	0.3 U
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	2.3 U	2.3 U	2.3 U	2.3 U
PHENANTHRENE	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	1.1	0.095 U
PHENOL	NA	NA	NA	NA	NA	NA	0.58 U	0.57 U	0.58 U	0.57 U
PYRENE	NA	NA	NA	NA	NA	NA	0.096 U	0.095 U	0.097 U	0.095 U

LOCATION	GSP-MW-06		GSP-MW-07		GSP-MW-08		GSP-MW-09	GSP-MW-10	GSP-MW-11	GSP-MW-12
SAMPLE ID	GSP-MW06-043012	GSP-MW6-043012	GSP-MW07-043012	GSP-MW7-042712	GSP-MW08-043012	GSP-MW8-042712	GSP-MW09-100512	GSP-MW10-100912	GSP-MW11-100512	GSP-MW12-100812
SAMPLE DATE	20120430	20120430	20120430	20120427	20120430	20120427	20121005	20121009	20121005	20121008
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)										
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	1.1 NJ	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	0.21 NJ	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	1.3 R	5.1 R	NA	NA
VOLATILES (UG/L)										
1,1,1,2-TETRACHLOROETHANE	NA	0.23 U	NA	0.92 U	NA	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,1,1-TRICHLOROETHANE	NA	0.22 U	NA	0.88 U	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	NA	0.18 U	NA	0.72 U	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	0.28 U	NA	1.1 U	NA	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1-DICHLOROETHANE	NA	0.15 U	NA	0.6 U	NA	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,1-DICHLOROETHENE	NA	0.19 U	NA	0.76 U	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	NA	0.13 U	NA	0.52 U	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2,3-TRICHLOROBENZENE	NA	0.17 U	NA	0.68 U	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
1,2,3-TRICHLOROPROPANE	NA	0.43 U	NA	1.7 U	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
1,2,3-TRIMETHYLBENZENE	NA	0.0059 U	NA	0.024 U	NA	0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U
1,2,4-TRICHLOROBENZENE	NA	0.15 U	NA	0.6 U	NA	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2,4-TRIMETHYLBENZENE	NA	0.12 U	NA	0.48 U	NA	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	NA	0.67 U	NA	2.7 U	NA	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
1,2-DIBROMOETHANE	NA	0.24 U	NA	0.96 U	NA	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,2-DICHLOROBENZENE	NA	0.13 U	NA	0.52 U	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2-DICHLOROETHANE	NA	0.22 U	NA	0.88 U	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROPROPANE	NA	0.18 U	NA	0.72 U	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-DICHLOROBENZENE	NA	0.14 U	NA	0.56 U	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,3-DICHLOROPROPANE	NA	0.16 U	NA	0.64 U	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,4-DICHLOROBENZENE	NA	0.13 U	NA	0.52 U	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,2-DICHLOROPROPANE	NA	0.13 U	NA	0.52 U	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2-BUTANONE	NA	0.57 U	NA	2.3 U	NA	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
2-CHLOROETHYL VINYL ETHER	NA	0.99 U	NA	4 UR	NA	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
2-CHLOROTOLUENE	NA	0.11 U	NA	0.44 U	NA	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
2-HEXANONE	NA	0.41 U	NA	1.6 U	NA	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
4-CHLOROTOLUENE	NA	0.18 U	NA	0.72 U	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-ISOPROPYLTOLUENE	NA	0.12 U	NA	0.48 U	NA	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
4-METHYL-2-PENTANONE	NA	0.32 U	NA	1.3 U	NA	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
ACETONE	NA	1.1 U	NA	4.4 U	NA	1.1 U	5.9 B	3.8 J	5.3 B	1.1 U
BENZENE	NA	0.13 U	NA	0.52 U	NA	0.13 U	0.13 U	4.1	0.14 J	0.13 U
BROMOBENZENE	NA	0.13 U	NA	0.52 U	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
BROMOCHLOROMETHANE	NA	0.29 U	NA	1.2 U	NA	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
BROMODICHLOROMETHANE	NA	0.15 U	NA	0.6 U	NA	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
BROMOFORM	NA	0.64 U	NA	2.6 U	NA	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
BROMOMETHANE	NA	0.41 U	NA	1.6 U	NA	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
CARBON DISULFIDE	NA	0.13 U	NA	0.52 U	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
CARBON TETRACHLORIDE	NA	0.13 U	NA	0.52 U	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROBENZENE	NA	0.15 U	NA	0.6 U	NA	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
CHLORODIBROMOMETHANE	NA	0.18 U	NA	0.72 U	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
CHLOROETHANE	NA	0.29 U	NA	1.2 U	NA	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
CHLOROFORM	NA	0.16 U	NA	0.64 U	NA	0.16 U	0.16 U	0.47 J	0.16 U	0.33 J
CHLOROMETHANE	NA	0.3 U	NA	1.2 U	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CIS-1,2-DICHLOROETHENE	NA	0.17 U	NA	1.4 J	NA	0.17 U	0.17 U	1.1	0.17 U	0.21 J
CIS-1,3-DICHLOROPROPENE	NA	0.14 U	NA	0.56 U	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
DIBROMOMETHANE	NA	0.28 U	NA	1.1 U	NA	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
DICHLORODIFLUOROMETHANE	NA	0.31 U	NA	1.2 U	NA	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
DIISOPROPYL ETHER	NA	1.5 U	NA	6 U	NA	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
ETHYL TERT-BUTYL ETHER	NA	0.11 U	NA	0.44 U	NA	0.11 U	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	0.11 U	0.11 U	0.11 U	0.11 U
ETHYLBENZENE	NA	0.17 U	NA	0.68 U	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U

LOCATION	GSP-MW-06		GSP-MW-07		GSP-MW-08		GSP-MW-09	GSP-MW-10	GSP-MW-11	GSP-MW-12
SAMPLE ID	**GSP-MW06-043012**	**GSP-MW6-043012**	**GSP-MW07-043012**	**GSP-MW7-042712**	**GSP-MW08-043012**	**GSP-MW8-042712**	**GSP-MW09-100512**	**GSP-MW10-100912**	**GSP-MW11-100512**	**GSP-MW12-100812**
SAMPLE DATE	**20120430**	**20120430**	**20120430**	**20120427**	**20120430**	**20120427**	**20121005**	**20121009**	**20121005**	**20121008**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
HEXACHLOROBUTADIENE	NA	0.3 U	NA	1.2 U	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
ISOPROPYLBENZENE	NA	0.13 U	NA	0.52 U	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
M+P-XYLENES	NA	0.24 U	NA	0.96 U	NA	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	NA	0.17 U	NA	0.68 U	NA	0.17 U	0.17 U	0.32 J	0.17 U	0.17 U
METHYLENE CHLORIDE	NA	0.33 U	NA	1.3 U	NA	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	NA	0.24 U	NA	0.96 U	NA	0.24 U	0.24 U	0.24 U	3	0.24 U
N-BUTYLBENZENE	NA	0.12 U	NA	0.48 U	NA	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
N-PROPYLBENZENE	NA	0.14 U	NA	0.56 U	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
O-XYLENE	NA	0.14 U	NA	0.56 U	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
SEC-BUTYLBENZENE	NA	0.13 U	NA	0.52 U	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	1.2 R	NA	5.8 R	NA	1.4 R	NA	NA	NA	NA
STYRENE	NA	0.11 U	NA	0.44 U	NA	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	NA	0.067 U	NA	0.27 U	NA	0.067 U	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA	NA	0.067 U	0.067 U	0.067 U	0.067 U
TERT-BUTYLBENZENE	NA	0.13 U	NA	0.52 U	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
TERTIARY-BUTYL ALCOHOL	NA	3.9 UR	NA	16 UR	NA	3.9 UR	3.9 UR	3.9 UR	3.9 UR	3.9 UR
TETRACHLOROETHENE	NA	0.29 U	NA	1.2 U	NA	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
TOLUENE	NA	0.13 U	NA	0.52 U	NA	0.13 U	0.21 B	0.25 J	0.13 U	0.13 U
TOTAL XYLENES	NA	0.28 U	NA	1.1 U	NA	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
TRANS-1,2-DICHLOROETHENE	NA	0.19 U	NA	0.76 U	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	NA	0.19 U	NA	0.76 U	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
TRICHLOROETHENE	NA	0.17 U	NA	110	NA	0.17 U	0.17 U	0.21 J	0.17 U	1.4
TRICHLOROFLUOROMETHANE	NA	0.21 U	NA	0.84 U	NA	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
VINYL ACETATE	NA	0.19 UR	NA	0.76 UR	NA	0.19 UR	0.19 UR	0.19 UR	0.19 UR	0.19 UR
VINYL CHLORIDE	NA	0.22 U	NA	0.88 U	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U

LOCATION	GSP-MW-13	GSP-MW-14	GSP-MW-15	GSP-MW-16	GSP-MW-17	GSP-MW-18	GSP-MW-19	GSP-MW-20
SAMPLE ID	GSP-MW13-100812	GSP-MW14-101112	GSP-MW15-100812	GSP-MW16-101012	GSP-MW17-101012	GSP-MW18-101012	GSP-MW19-101112	GSP-MW20-101112
SAMPLE DATE	20121008	20121011	20121008	20121010	20121010	20121010	20121011	20121011
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)								
ANTIMONY	0.6 B	0.59 J	0.13 U	0.13 U	0.13 U	0.14 J	0.22 J	0.32 J
ARSENIC	1.2 J	1.3 J	0.4 U	0.73 J	0.4 UL	0.4 UL	0.48 J	4.2 J
BARIUM	4.1 B	77	43	170	57	210	130	170
BERYLLIUM	0.2 U	0.2 U	0.2 U	1.7	0.2 U	1	0.25 J	0.2 U
CADMIUM	0.13 U	0.13 U	0.13 U	0.43 B	0.17 B	1.8	0.58 B	0.13 U
CHROMIUM	0.71 UL	0.71 UL	0.71 UL	0.8 J	0.92 J	0.71 UL	0.71 UL	3.4 L
COBALT	0.072 B	0.31 B	4.8	30	14	80	71	7
COPPER	1.2 B	0.75 B	1.1 B	30 K	4.4 K	18 K	3.3 B	0.81 B
LEAD	0.18 U	0.18 U	0.18 U	0.24 J	0.18 U	0.18 U	0.61 J	0.18 U
MERCURY	0.12 U	0.12 J	0.12 U	0.12 U	0.14 J	0.12 J	0.12 J	0.12 U
MOLYBDENUM	5.9 J	6.2 J	0.093 UL	0.093 U	0.093 U	0.093 U	0.093 UL	2.4 J
NICKEL	1.3 B	0.8 J	6.1	19	20	60	120	6.5
SELENIUM	2.6 J	0.57 U	2.3 J	1.6 J	0.57 U	1.4 J	0.57 U	1.4 J
SILVER	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
THALLIUM	0.14 B	0.16 B	0.15 B	0.19 B	0.17 B	0.31 B	0.38 B	0.14 U
TUNGSTEN	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	0.83 J	0.44 UL	0.44 UL	0.99 J	0.44 UL	0.44 UL	0.44 UL	2.1 J
ZINC	2.6 B	6.2 B	7.4 B	41 B	23 B	92	1400	17 B
METALS (UG/L)								
ANTIMONY	0.73 J	0.36 J	0.13 U	0.13 U	0.15 J	0.18 J	0.17 J	0.36 J
ARSENIC	5.4 L	0.44 J	0.4 UL	0.57 J	0.4 UL	0.55 J	0.52 J	4.8 J
BARIUM	33 B	80	43	170	58	200	170	180
BERYLLIUM	0.26 J	0.2 U	0.2 U	1.7	0.2 U	1.1	0.34 J	0.2 U
CADMIUM	0.13 U	0.13 U	0.13 J	0.45 B	0.18 B	1.7	0.87 J	0.13 U
CHROMIUM	17	0.71 UL	0.71 UL	0.71 UL	0.92 J	0.71 UL	0.87 J	3.6 L
COBALT	1.9	0.21 B	4.9	30	14	77	100	6.7
COPPER	6.7	0.81 B	0.5 B	32 K	4.2 K	18 K	4 K	1.3 B
LEAD	7.4	0.18 U	0.18 U	0.26 J	0.18 U	0.22 J	0.92 J	0.37 J
MERCURY	0.15 B	0.12 U	0.17 B	0.12 U	0.12 U	0.12 J	0.12 J	0.16 B
MOLYBDENUM	5.8 J	4.8 J	0.093 UL	0.093 U	0.093 U	0.093 U	0.093 UL	2.4 J
NICKEL	5.6	0.54 J	5.6	19	20	57	180	5.7
SELENIUM	2.6 J	0.65 J	2.4 J	1.5 J	0.57 U	1.5 J	0.57 U	1.4 J
SILVER	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
THALLIUM	0.28 B	0.23 B	0.16 B	0.22 B	0.2 B	0.18 B	0.42 B	0.14 U
TUNGSTEN	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	23 L	0.44 UL	0.44 UL	0.87 J	0.44 UL	0.44 UL	0.44 UL	2 J
ZINC	29 B	3.9 B	5.4 B	40 B	21 B	89	2100	15 B
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
TPH (C06-C10)	61 B	30 B	53 B	43 B	33 B	120 B	48 B	31 B
TPH (C10-C32)	230 U	270 J	230 U	230 U	230 U	390 J	250 U	840
SEMIVOLATILES (UG/L)								
1,1-BIPHENYL	0.78 U	1.2 U	0.77 U	0.78 U	0.77 U	0.77 U	1.1 U	0.8 U
1,4-DIOXANE	0.48 U	0.74 U	0.47 U	0.48 U	0.47 U	0.47 U	0.64 U	0.49 U
2,2'-OXYBIS(1-CHLOROPROPANE)	0.39 U	0.61 U	0.38 U	0.39 U	0.38 U	0.38 U	0.53 U	0.4 U
2,4,5-TRICHLOROPHENOL	0.29 U	0.45 U	0.29 U	0.29 U	0.29 U	0.29 U	0.39 U	0.3 U
2,4,6-TRICHLOROPHENOL	0.78 U	1.2 U	0.77 U	0.78 U	0.77 U	0.77 U	1.1 U	0.8 U
2,4-DICHLOROPHENOL	0.78 U	1.2 U	0.77 U	0.78 U	0.77 U	0.77 U	1.1 U	0.8 U
2,4-DIMETHYLPHENOL	0.78 U	1.2 U	0.77 U	0.78 U	0.77 U	0.77 U	1.1 U	0.8 U
2,4-DINITROPHENOL	2.4 U	3.6 U	2.3 U	2.3 U	2.3 U	2.3 U	3.2 U	2.4 U
2,4-DINITROTOLUENE	0.26 U	0.41 U	0.26 U	0.26 U	0.26 U	0.26 U	0.36 U	0.85 J
2,6-DINITROTOLUENE	0.78 U	1.2 U	0.77 U	0.78 U	0.77 U	0.77 U	1.1 U	0.93 J
2-CHLORONAPHTHALENE	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U

LOCATION	GSP-MW-13	GSP-MW-14	GSP-MW-15	GSP-MW-16	GSP-MW-17	GSP-MW-18	GSP-MW-19	GSP-MW-20
SAMPLE ID	GSP-MW13-100812	GSP-MW14-101112	GSP-MW15-100812	GSP-MW16-101012	GSP-MW17-101012	GSP-MW18-101012	GSP-MW19-101112	GSP-MW20-101112
SAMPLE DATE	20121008	20121011	20121008	20121010	20121010	20121010	20121011	20121011
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	0.28 U	0.44 U	0.28 U	0.28 U	0.28 U	0.28 U	0.38 U	0.29 U
2-METHYLNAPHTHALENE	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
2-METHYLPHENOL	0.78 U	1.2 U	0.77 U	0.78 U	0.77 U	0.77 U	1.1 U	0.8 U
2-NITROANILINE	0.78 U	1.2 U	0.77 U	0.78 U	0.77 U	0.77 U	1.1 U	0.8 U
2-NITROPHENOL	0.27 U	0.42 U	0.27 U	0.27 U	0.27 U	0.27 U	0.37 U	0.28 U
3&4-METHYLPHENOL	0.74 U	1.1 U	0.72 U	0.73 U	0.72 U	0.72 U	0.99 U	0.75 U
3,3'-DICHLOROBENZIDINE	0.36 U	0.56 U	0.36 U	0.36 U	0.36 U	0.36 U	0.49 U	0.37 U
3-NITROANILINE	0.27 U	0.42 U	0.27 U	0.27 U	0.27 U	0.27 U	0.37 U	0.28 U
4,6-DINITRO-2-METHYLPHENOL	2.4 U	3.6 U	2.3 U	2.3 U	2.3 U	2.3 U	3.2 U	2.4 U
4-BROMOPHENYL PHENYL ETHER	0.78 U	1.2 U	0.77 U	0.78 U	0.77 U	0.77 U	1.1 U	0.8 U
4-CHLORO-3-METHYLPHENOL	0.78 U	1.2 U	0.77 U	0.78 U	0.77 U	0.77 U	1.1 U	0.8 U
4-CHLOROANILINE	0.78 U	1.2 U	0.77 U	0.78 U	0.77 U	0.77 U	1.1 U	0.8 U
4-CHLOROPHENYL PHENYL ETHER	0.29 U	0.45 U	0.29 U	0.29 U	0.29 U	0.29 U	0.39 U	0.3 U
4-NITROANILINE	0.78 U	1.2 U	0.77 U	0.78 U	0.77 U	0.77 U	1.1 U	0.8 U
4-NITROPHENOL	2.4 U	3.6 U	2.3 U	2.3 U	2.3 U	2.3 U	3.2 U	2.4 U
ACENAPHTHENE	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
ACENAPHTHYLENE	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
ACETOPHENONE	0.33 U	0.52 U	0.33 U	0.33 U	0.33 U	0.33 U	0.45 U	0.34 U
ANTHRACENE	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
ATRAZINE	0.33 U	0.52 U	0.33 U	0.33 U	0.33 U	0.33 U	0.45 U	0.34 U
BAP EQUIVALENT-HALFND	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
BAP EQUIVALENT-POS	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
BENZALDEHYDE	0.38 U	0.59 U	0.37 U	0.38 U	0.37 U	0.37 U	0.51 U	0.39 U
BENZO(A)ANTHRACENE	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
BENZO(A)PYRENE	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
BENZO(B)FLUORANTHENE	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
BENZO(G,H,I)PERYLENE	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
BENZO(K)FLUORANTHENE	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
BIS(2-CHLOROETHOXY)METHANE	0.31 U	0.48 U	0.31 U	0.31 U	0.31 U	0.31 U	0.42 U	0.32 U
BIS(2-CHLOROETHYL)ETHER	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
BIS(2-ETHYLHEXYL)PHTHALATE	0.78 U	2.5 J	0.77 U	0.78 U	0.77 U	0.77 U	10	0.8 U
BUTYL BENZYL PHTHALATE	0.78 U	1.2 U	0.77 U	0.78 U	0.77 U	0.77 U	1.1 U	0.8 U
CAPROLACTAM	0.78 U	1.2 U	0.77 U	0.78 U	0.77 U	4 J	1.1 J	0.8 U
CARBAZOLE	0.27 U	0.42 U	0.27 U	0.27 U	0.27 U	0.27 U	0.37 U	0.28 U
CHRYSENE	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
DIBENZO(A,H)ANTHRACENE	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
DIBENZOFURAN	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
DIETHYL PHTHALATE	0.59 U	0.91 U	0.58 U	0.58 U	0.58 U	0.58 U	0.79 U	0.6 U
DIMETHYL PHTHALATE	0.28 U	0.44 U	0.28 U	0.28 U	0.28 U	0.28 U	0.38 U	0.29 U
DI-N-BUTYL PHTHALATE	0.66 U	1 U	0.64 U	0.65 U	0.64 U	0.64 U	0.88 U	0.67 U
DI-N-OCTYL PHTHALATE	0.78 U	1.2 U	0.77 U	0.78 U	0.77 U	0.77 U	1.1 U	0.8 U
FLUORANTHENE	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
FLUORENE	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
HEXACHLOROBENZENE	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
HEXACHLOROBUTADIENE	0.26 U	0.41 U	0.26 U	0.26 U	0.26 U	0.26 U	0.36 U	0.27 U
HEXACHLOROCYCLOPENTADIENE	0.78 U	1.2 U	0.77 U	0.78 U	0.77 U	0.77 U	1.1 U	0.8 U
HEXACHLOROETHANE	0.78 U	1.2 U	0.77 U	0.78 U	0.77 U	0.77 U	1.1 U	0.8 U
INDENO(1,2,3-CD)PYRENE	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
ISOPHORONE	0.26 U	0.41 U	0.26 U	0.26 U	0.26 U	0.26 U	0.36 U	0.27 U
NAPHTHALENE	0.098 U	0.15 U	0.096 U	0.097 U	0.097 J	3.3	0.13 U	0.4
NITROBENZENE	0.039 U	0.061 U	0.038 U	0.039 U	0.038 U	0.038 U	0.053 U	0.04 U
N-NITROSODIMETHYLAMINE	0.3 U	0.47 U	0.3 U	0.3 U	0.3 U	0.3 U	0.41 U	0.31 U
N-NITROSO-DI-N-PROPYLAMINE	0.78 U	1.2 U	0.77 U	0.78 U	0.77 U	0.77 U	1.1 U	0.8 U
N-NITROSODIPHENYLAMINE	0.3 U	0.47 U	0.3 U	0.3 U	0.3 U	0.3 U	0.41 U	0.31 U
PENTACHLOROPHENOL	2.4 U	3.6 U	2.3 U	2.3 U	2.3 U	2.3 U	3.2 U	2.4 U
PHENANTHRENE	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U
PHENOL	0.59 U	0.91 U	0.58 U	0.58 U	0.58 U	0.58 U	0.79 U	0.6 U
PYRENE	0.098 U	0.15 U	0.096 U	0.097 U	0.096 U	0.096 U	0.13 U	0.1 U

LOCATION	GSP-MW-13	GSP-MW-14	GSP-MW-15	GSP-MW-16	GSP-MW-17	GSP-MW-18	GSP-MW-19	GSP-MW-20
SAMPLE ID	GSP-MW13-100812	GSP-MW14-101112	GSP-MW15-100812	GSP-MW16-101012	GSP-MW17-101012	GSP-MW18-101012	GSP-MW19-101112	GSP-MW20-101112
SAMPLE DATE	20121008	20121011	20121008	20121010	20121010	20121010	20121011	20121011
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-HEXANOL, 2-ETHYL-	NA	6.3 NJ	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	1.2 B
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	27 NJ	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/L)								
1,1,1,2-TETRACHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	1.5 U	0.23 U	0.23 U
1,1,1-TRICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	1.5 U	0.22 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	1.2 U	0.18 U	0.18 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	1.9 U	0.28 U	0.28 U
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	1 U	0.15 U	0.15 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	1.3 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.87 U	0.13 U	0.13 U
1,2,3-TRICHLOROBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	1.1 U	0.17 U	0.17 U
1,2,3-TRICHLOROPROPANE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	2.9 U	0.43 U	0.43 U
1,2,3-TRIMETHYLBENZENE	0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.039 U	0.0059 U	0.0059 U
1,2,4-TRICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	1 U	0.15 U	0.15 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.8 U	0.12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	4.5 U	0.67 U	0.67 U
1,2-DIBROMOETHANE	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	1.6 U	0.24 U	0.24 U
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.87 U	0.13 U	0.13 U
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	0.41 J	13	0.22 U	0.22 U
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	1.2 U	0.18 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.93 U	0.14 U	0.14 U
1,3-DICHLOROPROPANE	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.1 U	0.16 U	0.16 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.87 U	0.13 U	0.13 U
2,2-DICHLOROPROPANE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.87 U	0.13 U	0.13 U
2-BUTANONE	0.57 U	0.68 J	0.57 U	0.57 U	0.57 U	3.8 U	0.57 U	1.1 J
2-CHLOROETHYL VINYL ETHER	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	6.6 U	0.99 U	0.99 U
2-CHLOROTOLUENE	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.73 U	0.11 U	0.11 U
2-HEXANONE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	2.7 U	0.41 U	0.41 U
4-CHLOROTOLUENE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	1.2 U	0.18 U	0.18 U
4-ISOPROPYLTOLUENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.8 U	0.12 U	0.12 U
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	2.1 U	0.32 U	0.32 U
ACETONE	1.1 U	1.9 J	2.5 J	1.1 U	3.5 J	7.3 U	1.8 J	16
BENZENE	0.13 U	0.14 J	0.13 U	0.19 J	0.13 U	0.87 U	0.13 U	0.13 U
BROMOBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.87 U	0.13 U	0.13 U
BROMOCHLOROMETHANE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	1.9 U	0.29 U	0.29 U
BROMODICHLOROMETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	1 U	0.15 U	0.15 U
BROMOFORM	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	4.3 U	0.64 U	0.64 U
BROMOMETHANE	0.41 U	0.48 J	0.41 U	0.41 U	0.41 U	2.7 U	0.72 J	0.41 U
CARBON DISULFIDE	0.13 U	0.26 J	0.13 U	0.13 U	0.13 U	0.87 U	0.3 J	0.23 J
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U	0.71 J	0.13 U	0.87 U	0.13 U	0.13 U
CHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	1 U	0.15 U	0.15 U
CHLORODIBROMOMETHANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	1.2 U	0.18 U	0.18 U
CHLOROETHANE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	1.9 U	0.29 U	0.29 U
CHLOROFORM	0.16 U	0.36 J	0.16 U	0.16 U	0.33 J	1.1 U	0.39 J	0.16 U
CHLOROMETHANE	0.3 U	0.54 J	0.3 U	0.3 U	0.51 J	2 U	0.67 J	0.3 U
CIS-1,2-DICHLOROETHENE	0.17 U	0.17 U	0.17 U	6	1	34	0.17 U	0.17 U
CIS-1,3-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.93 U	0.14 U	0.14 U
DIBROMOMETHANE	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	1.9 U	0.28 U	0.28 U
DICHLORODIFLUOROMETHANE	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	2.1 U	0.31 U	0.31 U
DIISOPROPYL ETHER	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	10 U	1.5 U	1.5 U
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.73 U	0.11 U	0.11 U
ETHYLBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	1.1 U	0.17 U	0.19 J

LOCATION	GSP-MW-13	GSP-MW-14	GSP-MW-15	GSP-MW-16	GSP-MW-17	GSP-MW-18	GSP-MW-19	GSP-MW-20
SAMPLE ID	GSP-MW13-100812	GSP-MW14-101112	GSP-MW15-100812	GSP-MW16-101012	GSP-MW17-101012	GSP-MW18-101012	GSP-MW19-101112	GSP-MW20-101112
SAMPLE DATE	20121008	20121011	20121008	20121010	20121010	20121010	20121011	20121011
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	2 U	0.3 U	0.3 U
ISOPROPYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.87 U	0.13 U	0.13 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	1.6 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.17 U	0.17 U	0.17 U	3 J	0.17 U	1.1 U	0.17 U	0.17 U
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.2 U	0.33 U	0.33 U
NAPHTHALENE	0.24 U	0.24 U	0.24 U	0.47 J	0.24 U	1.6 U	0.24 U	1.2 B
N-BUTYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.8 U	0.12 U	0.12 U
N-PROPYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.93 U	0.14 U	0.14 U
O-XYLENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.93 U	0.14 U	0.14 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.87 U	0.13 U	0.13 U
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.73 U	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.067 U	0.27 J	0.067 U	0.45 U	0.067 U	0.067 U
TERT-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.87 U	0.13 U	0.13 U
TERTIARY-BUTYL ALCOHOL	3.9 UR	3.9 UR	3.9 UR	3.9 UR	3.9 UR	26 UR	3.9 UR	3.9 UR
TETRACHLOROETHENE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	1.9 U	0.29 U	0.29 U
TOLUENE	0.13 U	0.14 J	0.28 J	0.13 U	0.48 J	0.93 J	0.13 U	0.99 J
TOTAL XYLENES	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	1.9 U	0.28 U	0.28 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	1.3 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	1.3 U	0.19 U	0.19 U
TRICHLOROETHENE	0.17 U	0.3 J	0.17 U	17	4.9	170	0.17 U	0.17 U
TRICHLOROFLUOROMETHANE	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	1.4 U	0.21 U	0.21 U
VINYL ACETATE	0.19 UR	0.19 UR	0.19 UR	0.19 UR	0.19 UR	1.3 UR	0.19 UR	0.19 UR
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	4.7 J	0.22 U	0.22 U

LOCATION	GSP-MW-09		GSP-MW-10		GSP-MW-11		GSP-MW-12		GSP-MW-13	
SAMPLE ID	**GSP-MW-9-0-2**	**GSP-MW-9-8-10**	**GSP-MW-10-20-22**	**GSP-MW-10-2-4**	**GSP-MW-11-0-2**	**GSP-MW-11-2-4**	**GSP-MW-12-10-12**	**GSP-MW-12-2-4**	**GSP-MW-13-0-2**	**GSP-MW-13-2-4**
SAMPLE DATE	**20120912**	**20120912**	**20120913**	**20120913**	**20120913**	**20120913**	**20120917**	**20120917**	**20120913**	**20120913**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
TOP DEPTH	**0**	**8**	**20**	**2**	**0**	**2**	**10**	**2**	**0**	**2**
BOTTOM DEPTH	**2**	**10**	**22**	**4**	**2**	**4**	**12**	**4**	**2**	**4**
METALS (MG/KG)										
ANTIMONY	0.35 UL	0.35 UL	0.37 UL	0.4 UL	0.4 UL	0.4 UL	0.42 U	0.43 U	0.42 UL	0.48 UL
ARSENIC	1.9	0.84 J	0.57 J	1.7	3	1.7	6.2	3.4	1.1 J	0.37 U
BARIUM	25	5.1 J	7.3 J	7.7 J	21	24	4.6 J	5.5 J	12 J	1.1 J
BERYLLIUM	0.064 J	0.039 U	0.06 J	0.044 U	0.048 J	0.073 J	0.046 U	0.047 U	0.046 U	0.053 U
CADMIUM	0.36 J	0.033 U	0.034 U	0.037 U	0.037 U	0.037 U	0.039 U	0.04 U	0.039 U	0.044 U
CHROMIUM	9.1	3.5	8.4	4.3	8.9	5.9	25	12	5	0.48 J
COBALT	1.5	0.16 J	0.17 J	0.64 J	2.6	2.1	0.34 J	0.35 J	0.74 J	0.2 U
COPPER	68	1.6 J	5	2 J	4.4 L	2.6 L	5.2 L	4.1 L	2.4 J	0.91 UL
LEAD	24	1	2.2	1.8	4.8	3.7	2.2	2.2	7.7	0.43 J
MERCURY	0.075 J	0.016 J	0.052 J	0.022 J	0.036 J	0.037 J	0.02 J	0.023 J	0.037 J	0.019 J
MOLYBDENUM	0.67 B	0.25 B	0.26 U	0.28 U	0.52 B	0.34 B	0.55 B	0.72 B	0.39 B	0.33 U
NICKEL	4.3	0.44 J	0.72 J	0.92 J	4.2	3.3 J	0.29 U	0.79 J	2.1 J	0.33 U
SELENIUM	0.41 J	0.41 U	0.43 U	0.46 U	0.46 U	0.55 J	0.49 U	0.5 U	0.49 U	0.55 U
SILVER	0.09 U	0.091 U	0.095 U	0.1 U	1.3	0.1 U	0.11 U	0.11 U	0.11 U	0.12 U
THALLIUM	0.58 B	0.5 UL	0.52 UL	0.57 UL	0.57 UL	0.56 UL	0.59 UL	0.61 UL	0.59 UL	0.68 UL
VANADIUM	12 J	4.8 J	11 J	7.5 J	15 J	9.9 J	18	22	8.7 J	0.51 J
ZINC	63 K	1.7 J	2.7 J	6.3 K	15 K	12 K	2.4 J	3.6 J	12 K	1.2 U
PETROLEUM HYDROCARBONS (MG/KG)										
TPH (C10-C32)	50	11 U	13 B	11 U	17 J	60	11 U	10 U	11 U	12 U
PETROLEUM HYDROCARBONS (UG/KG)										
TPH (C06-C10)	47 U	52 U	55 U	52 U	50 U	51 J	56 U	52 U	52 U	62 U
SEMIVOLATILES (UG/KG)										
1,1-BIPHENYL	28 U	31 U	33 U	30 U	29 U	150 U	33 U	31 U	31 U	36 U
1,4-DIOXANE	23 U	25 U	27 U	24 U	24 U	120 U	27 U	25 U	25 U	30 U
2,2'-OXYBIS(1-CHLOROPROPANE)	9.9 U	11 U	12 U	11 U	10 U	53 U	12 U	11 U	11 U	13 U
2,4,5-TRICHLOROPHENOL	26 U	29 U	31 U	28 U	27 U	140 U	31 U	28 U	28 U	34 U
2,4,6-TRICHLOROPHENOL	83 U	92 U	98 U	89 U	86 U	450 U	98 U	91 U	91 U	110 U
2,4-DICHLOROPHENOL	21 U	23 U	24 U	22 U	22 U	110 U	24 U	23 U	23 U	27 U
2,4-DIMETHYLPHENOL	21 U	23 U	24 U	22 U	22 U	110 U	24 U	23 U	23 U	27 U
2,4-DINITROPHENOL	83 U	92 U	98 U	89 U	86 U	450 U	98 U	91 U	91 U	110 U
2,4-DINITROTOLUENE	28 U	31 U	33 U	30 U	29 U	150 U	33 U	31 U	31 U	36 U
2,6-DINITROTOLUENE	22 U	24 U	26 U	23 U	23 U	120 U	26 U	24 U	24 U	28 U
2-CHLORONAPHTHALENE	3.4 U	3.8 U	4 U	3.7 U	3.6 U	19 U	4 U	3.8 U	3.7 U	4.4 U
2-CHLOROPHENOL	28 U	31 U	33 U	30 U	29 U	150 U	33 U	31 U	31 U	36 U
2-METHYLNAPHTHALENE	4.3 J	3.8 U	4 U	3.7 U	3.6 U	19 U	4 U	3.8 U	3.7 U	4.4 U
2-METHYLPHENOL	83 U	92 U	98 U	89 U	86 U	450 U	98 U	91 U	91 U	110 U
2-NITROANILINE	9.4 U	10 U	11 U	10 U	9.8 U	51 U	11 U	10 U	10 U	12 U
2-NITROPHENOL	28 U	31 U	33 U	30 U	29 U	150 U	33 U	31 U	31 U	36 U
3&4-METHYLPHENOL	21 U	23 U	24 U	22 U	22 U	110 U	24 U	23 U	23 U	27 U
3,3'-DICHLOROBENZIDINE	19 U	21 U	22 U	20 U	19 U	100 U	22 U	21 U	20 U	24 U
3-NITROANILINE	17 U	18 U	20 U	18 U	17 U	90 U	20 U	18 U	18 U	21 U
4,6-DINITRO-2-METHYLPHENOL	83 U	92 U	98 U	89 U	86 U	450 U	98 U	91 U	91 U	110 U
4-BROMOPHENYL PHENYL ETHER	13 U	15 U	16 U	14 U	14 U	73 U	16 U	15 U	15 U	17 U
4-CHLORO-3-METHYLPHENOL	22 U	24 U	26 U	23 U	23 U	120 U	26 U	24 U	24 U	28 U
4-CHLOROANILINE	18 U	19 U	21 U	19 U	18 U	96 U	21 U	19 U	19 U	23 U
4-CHLOROPHENYL PHENYL ETHER	13 U	15 U	16 U	14 U	14 U	73 U	16 U	15 U	15 U	17 U
4-NITROANILINE	27 U	30 U	32 U	29 U	28 U	150 U	32 U	30 U	30 U	35 U
4-NITROPHENOL	83 U	92 U	98 U	89 U	86 U	450 U	98 U	91 U	91 U	110 U
ACENAPHTHENE	22	3.8 U	4 U	3.7 U	13	290	4 U	3.8 U	3.7 U	4.4 U
ACENAPHTHYLENE	7.6	3.8 U	4 U	3.7 U	3.6 U	19 U	4 U	3.8 U	3.7 U	4.4 U
ACETOPHENONE	9.5 U	11 U	11 U	10 U	9.9 U	52 U	11 U	10 U	10 U	12 U
ANTHRACENE	77	3.8 U	4 U	3.7 U	31	910 J	4 U	3.8 U	3.7 U	4.4 U
ATRAZINE	9.4 U	10 U	11 U	10 U	9.8 U	51 U	11 U	10 U	10 U	12 U
BAP EQUIVALENT-HALFND	606.07	3.8 U	4 U	60.519	112.57	2215.1	4 U	3.8 U	3.7 U	4.4 U
BAP EQUIVALENT-POS	604.37	3.8 U	4 U	58.669	110.77	2205.6	4 U	3.8 U	3.7 U	4.4 U
BENZALDEHYDE	12 U	14 U	15 U	13 U	13 U	67 U	15 U	14 U	14 U	16 U
BENZO(A)ANTHRACENE	400	3.8 U	4 U	39	110	2700 J	4 U	3.8 U	3.7 U	4.4 U
BENZO(A)PYRENE	460	3.8 U	4 U	46	84	1600 J	4 U	3.8 U	3.7 U	4.4 U
BENZO(B)FLUORANTHENE	740	3.8 U	4 U	55	110	2600 J	4 U	3.8 U	3.7 U	4.4 U
BENZO(G,H,I)PERYLENE	310	3.8 U	4 U	21	35	650 J	4 U	3.8 U	3.7 U	4.4 U
BENZO(K)FLUORANTHENE	290	3.8 U	4 U	23	56	1000 J	4 U	3.8 U	3.7 U	4.4 U
BIS(2-CHLOROETHOXY)METHANE	23 U	25 U	27 U	24 U	24 U	120 U	27 U	25 U	25 U	30 U

LOCATION	GSP-MW-09		GSP-MW-10		GSP-MW-11		GSP-MW-12		GSP-MW-13	
SAMPLE ID	**GSP-MW-9-0-2**	**GSP-MW-9-8-10**	**GSP-MW-10-20-22**	**GSP-MW-10-2-4**	**GSP-MW-11-0-2**	**GSP-MW-11-2-4**	**GSP-MW-12-10-12**	**GSP-MW-12-2-4**	**GSP-MW-13-0-2**	**GSP-MW-13-2-4**
SAMPLE DATE	**20120912**	**20120912**	**20120913**	**20120913**	**20120913**	**20120913**	**20120917**	**20120917**	**20120913**	**20120913**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
BIS(2-CHLOROETHYL)ETHER	2.1 U	2.3 U	2.4 U	2.2 U	2.2 U	11 U	2.4 U	2.3 U	2.3 U	2.7 U
BIS(2-ETHYLHEXYL)PHTHALATE	23 J	22 U	23 U	21 U	21 U	110 U	23 U	22 U	22 U	26 U
BUTYL BENZYL PHTHALATE	10 U	11 U	12 U	11 U	11 U	56 U	12 U	11 U	11 U	13 U
CAPROLACTAM	38 U	42 U	45 U	41 U	40 U	210 U	45 U	42 U	42 U	50 U
CARBAZOLE	45 J	31 U	33 U	30 U	29 U	290	33 U	31 U	31 U	36 U
CHRYSENE	470	1.3 U	1.3 U	39	110	2600 J	1.3 U	1.3 U	1.2 U	1.5 U
DIBENZO(A,H)ANTHRACENE	3.4 U	3.8 U	4 U	3.7 U	3.6 U	19 U	4 U	3.8 U	3.7 U	4.4 U
DIBENZOFURAN	9.8 J	3.8 U	4 U	3.7 U	7 J	180 J	4 U	3.8 U	3.7 U	4.4 U
DIETHYL PHTHALATE	17 U	18 U	20 U	18 U	17 U	90 U	20 U	18 U	18 U	21 U
DIMETHYL PHTHALATE	190	19 U	21 U	19 U	18 U	96 U	21 U	19 U	19 U	23 U
DI-N-BUTYL PHTHALATE	16 U	17 U	18 U	17 U	16 U	84 U	18 U	17 U	17 U	20 U
DI-N-OCTYL PHTHALATE	28 U	31 U	33 U	30 U	29 U	150 U	33 U	31 U	31 U	36 U
FLUORANTHENE	800	3.8 U	4 U	23	250	6600	4 U	3.8 U	3.7 U	4.4 U
FLUORENE	21	3.8 U	4 U	3.7 U	17	470	4 U	3.8 U	3.7 U	4.4 U
HEXACHLOROBENZENE	2.2 U	2.4 U	2.6 U	2.3 U	2.3 U	12 U	2.6 U	2.4 U	2.4 U	2.8 U
HEXACHLOROBUTADIENE	28 U	31 U	33 U	30 U	29 U	150 U	33 U	31 U	31 U	36 U
HEXACHLOROCYCLOPENTADIENE	28 U	31 U	33 U	30 U	29 U	150 U	33 U	31 U	31 U	36 U
HEXACHLOROETHANE	9.3 U	10 U	11 U	10 U	9.7 U	51 U	11 U	10 U	10 U	12 U
INDENO(1,2,3-CD)PYRENE	270	3.8 U	4 U	30	41	630 J	4 U	3.8 U	3.7 U	4.4 U
ISOPHORONE	13 U	15 U	16 U	14 U	14 U	73 U	16 U	15 U	15 U	17 U
NAPHTHALENE	8.4	4 J	4 U	3.7 U	3.6 U	30 J	4 U	3.8 U	3.7 U	4.4 U
NITROBENZENE	2.3 U	2.5 U	2.7 U	2.4 U	2.4 U	12 U	2.7 U	2.5 U	2.5 U	3 U
N-NITROSODIMETHYLAMINE	17 U	18 U	20 U	18 U	17 U	90 U	20 U	18 U	18 U	21 U
N-NITROSO-DI-N-PROPYLAMINE	28 U	31 U	33 U	30 U	29 U	150 U	33 U	31 U	31 U	36 U
N-NITROSODIPHENYLAMINE	22 U	24 U	26 U	23 U	23 U	120 U	26 U	24 U	24 U	28 U
PENTACHLOROPHENOL	83 U	92 U	98 U	89 U	86 U	450 U	98 U	91 U	91 U	110 U
PHENANTHRENE	300	3.8 U	4 U	3.7 U	80	2500 J	4 U	3.8 U	3.7 U	4.4 U
PHENOL	28 U	31 U	33 U	30 U	29 U	150 U	33 U	31 U	31 U	36 U
PYRENE	740	3.8 U	4 U	20	200	5000	4 U	3.8 U	3.7 U	4.4 U
TCLP HERBICIDES (MG/L)										
2,4,5-TP (SILVEX)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)										
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP PESTICIDE/PCBS (UG/L)										
CHLORDANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)										
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP VOLATILES (MG/L)										
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	GSP-MW-09		GSP-MW-10		GSP-MW-11		GSP-MW-12		GSP-MW-13	
SAMPLE ID	**GSP-MW-9-0-2**	**GSP-MW-9-8-10**	**GSP-MW-10-20-22**	**GSP-MW-10-2-4**	**GSP-MW-11-0-2**	**GSP-MW-11-2-4**	**GSP-MW-12-10-12**	**GSP-MW-12-2-4**	**GSP-MW-13-0-2**	**GSP-MW-13-2-4**
SAMPLE DATE	**20120912**	**20120912**	**20120913**	**20120913**	**20120913**	**20120913**	**20120917**	**20120917**	**20120913**	**20120913**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/KG)										
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPROPANE	NA	NA	NA	NA	NA	NA	NA	6.8 NJ	NA	NA
2-OCTENE, 2-METHYL-6-METHYLENE-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONITRILE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXANE	NA	2.8 NJ	NA	2.8 NJ	1.8 NJ	NA	2 NJ	NA	NA	NA
ISOPROPANOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	12 NJ	NA	NA	NA	1.5 NJ	3 NJ	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)										
1,1,1,2-TETRACHLOROETHANE	0.74 U	0.64 U	0.61 U	0.62 U	0.56 U	0.55 U	0.73 U	0.63 U	0.63 U	0.77 U
1,1,1-TRICHLOROETHANE	0.67 U	0.57 U	0.55 U	0.56 U	0.51 U	0.5 U	0.66 U	0.57 U	0.57 U	0.69 U
1,1,2,2-TETRACHLOROETHANE	0.41 U	0.35 U	0.34 U	0.34 U	0.31 U	0.3 U	0.4 U	0.35 U	0.35 U	0.42 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1.6 U	1.3 U	1.3 U	1.3 U	1.2 U	1.2 U	1.5 U	1.3 U	1.3 U	1.6 U
1,1-DICHLOROETHANE	0.43 U	0.37 U	0.36 U	0.36 U	0.33 U	0.32 U	0.42 U	0.37 U	0.37 U	0.44 U
1,1-DICHLOROETHENE	0.71 J	0.53 U	0.55 J	0.52 U	0.47 U	0.82 J	0.85 J	0.63 J	0.53 U	0.64 U
1,1-DICHLOROPROPENE	0.36 U	0.31 U	0.3 U	0.3 U	0.27 U	0.27 U	0.35 U	0.3 U	0.31 U	0.37 U
1,2,3-TRICHLOROBENZENE	0.46 U	0.39 U	0.38 U	0.38 U	0.34 U	0.34 U	0.44 U	0.39 U	0.39 U	0.47 U
1,2,3-TRICHLOROPROPANE	1.1 U	0.92 U	0.89 U	0.9 U	0.81 U	0.8 U	1.1 U	0.91 U	0.92 U	1.1 U
1,2,3-TRIMETHYLBENZENE	0.2 U	0.17 U	0.17 U	0.17 U	0.15 U	0.15 U	0.2 U	0.17 U	0.17 U	0.21 U
1,2,4-TRICHLOROBENZENE	0.32 U	0.28 U	0.27 U	0.27 U	0.24 U	0.24 U	0.32 U	0.27 U	0.28 U	0.33 U
1,2,4-TRIMETHYLBENZENE	0.78 U	0.67 U	0.64 U	0.65 U	0.59 U	0.58 U	0.76 U	0.66 U	0.66 U	0.8 U
1,2-DIBROMO-3-CHLOROPROPANE	1.6 U	1.3 U	1.3 U	1.3 U	1.2 U	1.2 U	1.5 U	1.3 U	1.3 U	1.6 U
1,2-DIBROMOETHANE	0.6 U	0.51 U	0.49 U	0.5 U	0.45 U	0.44 U	0.59 U	0.51 U	0.51 U	0.62 U
1,2-DICHLOROBENZENE	0.43 U	0.37 U	0.36 U	0.36 U	0.33 U	0.32 U	0.42 U	0.37 U	0.37 U	0.44 U
1,2-DICHLOROETHANE	0.41 U	0.35 U	0.34 U	0.34 U	0.31 U	0.3 U	0.4 U	0.35 U	0.35 U	0.42 U
1,2-DICHLOROPROPANE	0.83 U	0.71 U	0.68 U	0.69 U	0.62 U	0.61 U	0.81 U	0.7 U	0.71 U	0.85 U
1,3-DICHLOROBENZENE	0.42 U	0.36 U	0.35 U	0.35 U	0.32 U	0.31 U	0.41 U	0.36 U	0.36 U	0.43 U
1,3-DICHLOROPROPANE	0.41 U	0.35 U	0.34 U	0.34 U	0.31 U	0.3 U	0.4 U	0.35 U	0.35 U	0.42 U
1,4-DICHLOROBENZENE	0.79 U	0.68 U	0.65 U	0.66 U	0.6 U	0.59 U	0.77 U	0.67 U	0.67 U	0.82 U
2,2-DICHLOROPROPANE	1.1 U	0.96 U	0.93 U	0.94 U	0.85 U	0.83 U	1.1 U	0.95 U	0.96 U	1.2 U
2-BUTANONE	1.7 U	1.4 U	1.5 J	1.4 U	2.6 J	11 J	1.6 U	1.4 U	1.4 U	1.7 U
2-CHLOROETHYL VINYL ETHER	1.7 U	1.4 U	1.4 U	1.4 U	1.3 U	1.2 U	1.6 U	1.4 U	1.4 U	1.7 U
2-CHLOROTOLUENE	0.48 U	0.41 U	0.4 U	0.4 U	0.36 U	0.36 U	0.47 U	0.41 U	0.41 U	0.49 U
2-HEXANONE	0.76 U	0.65 U	0.62 U	0.63 U	0.57 U	0.56 U	0.74 U	0.64 U	0.64 U	0.78 U
4-CHLOROTOLUENE	0.49 U	0.42 U	0.41 U	0.41 U	0.37 U	0.36 U	0.48 U	0.42 U	0.42 U	0.51 U
4-ISOPROPYLTOLUENE	0.25 U	0.22 U	0.21 U	0.21 U	0.19 U	0.19 U	0.25 U	0.21 U	0.21 U	0.26 U
4-METHYL-2-PENTANONE	0.65 U	0.55 U	0.53 U	0.54 U	0.49 U	0.48 U	0.63 U	0.55 U	0.55 U	0.67 U
ACETONE	7.6 U	7.3 B	18 B	33	43	95	28 B	17 B	6.4 U	7.8 U
BENZENE	0.28 U	0.24 U	2 J	0.23 U	0.21 U	0.2 U	0.27 U	0.23 U	0.24 U	0.28 U
BROMOBENZENE	0.4 U	0.34 U	0.33 U	0.33 U	0.3 U	0.29 U	0.39 U	0.34 U	0.34 U	0.41 U
BROMOCHLOROMETHANE	0.85 U	0.73 U	0.7 U	0.71 U	0.64 U	0.63 U	0.83 U	0.72 U	0.73 U	0.88 U
BROMODICHLOROMETHANE	0.34 U	0.29 U	0.28 U	0.28 U	0.25 U	0.25 U	0.33 U	0.28 U	0.29 U	0.35 U
BROMOFORM	0.4 U	0.34 U	0.33 U	0.33 U	0.3 U	0.29 U	0.39 U	0.34 U	0.34 U	0.41 U
BROMOMETHANE	0.65 U	0.55 U	0.53 U	0.54 U	0.49 U	0.48 U	0.63 U	0.55 U	0.55 U	0.67 U
CARBON DISULFIDE	0.53 U	0.45 U	0.44 U	0.44 U	0.46 J	0.53 J	0.52 U	0.45 U	0.45 U	0.54 U
CARBON TETRACHLORIDE	0.44 U	0.38 U	0.37 U	0.37 U	0.33 U	0.33 U	0.43 U	0.38 U	0.38 U	0.46 U
CHLOROBENZENE	0.4 U	0.34 U	0.33 U	0.33 U	0.3 U	0.29 U	0.39 U	0.34 U	0.34 U	0.41 U
CHLORODIBROMOMETHANE	0.66 U	0.56 U	0.54 U	0.55 U	0.5 U	0.49 U	0.64 U	0.56 U	0.56 U	0.68 U
CHLOROETHANE	1 U	0.88 U	0.85 U	0.86 U	0.78 U	0.76 U	1 U	0.87 U	0.88 U	1.1 U

LOCATION	GSP-MW-09		GSP-MW-10		GSP-MW-11		GSP-MW-12		GSP-MW-13	
SAMPLE ID	**GSP-MW-9-0-2**	**GSP-MW-9-8-10**	**GSP-MW-10-20-22**	**GSP-MW-10-2-4**	**GSP-MW-11-0-2**	**GSP-MW-11-2-4**	**GSP-MW-12-10-12**	**GSP-MW-12-2-4**	**GSP-MW-13-0-2**	**GSP-MW-13-2-4**
SAMPLE DATE	**20120912**	**20120912**	**20120913**	**20120913**	**20120913**	**20120913**	**20120917**	**20120917**	**20120913**	**20120913**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
CHLOROFORM	0.35 U	0.3 U	0.29 U	0.29 U	0.26 U	0.26 U	0.34 U	0.29 U	0.3 U	0.36 U
CHLOROMETHANE	0.49 U	1.4 J	0.41 U	0.41 U	0.37 U	0.36 U	0.48 U	0.42 U	0.42 U	0.51 U
CIS-1,2-DICHLOROETHENE	0.43 U	0.37 U	0.64 J	0.36 U	0.33 U	0.32 U	0.42 U	0.37 U	0.37 U	0.44 U
CIS-1,3-DICHLOROPROPENE	0.41 U	0.35 U	0.34 U	0.34 U	0.31 U	0.3 U	0.4 U	0.35 U	0.35 U	0.42 U
DIBROMOMETHANE	0.76 U	0.65 U	0.62 U	0.63 U	0.57 U	0.56 U	0.74 U	0.64 U	0.64 U	0.78 U
DICHLORODIFLUOROMETHANE	0.6 U	0.51 U	0.49 U	0.5 U	0.45 U	0.44 U	0.59 U	0.51 U	0.51 U	0.62 U
DIISOPROPYL ETHER	1.8 U	1.5 U	1.5 U	1.5 U	1.4 U	1.3 U	1.8 U	1.5 U	1.5 U	1.9 U
ETHYL TERT-BUTYL ETHER	0.26 U	0.23 U	0.22 U	0.22 U	0.2 U	0.2 U	0.26 U	0.22 U	0.22 U	0.27 U
ETHYLBENZENE	0.31 U	0.27 U	0.26 U	0.26 U	0.23 U	0.23 U	0.3 U	0.26 U	0.27 U	0.32 U
HEXACHLOROBUTADIENE	1.4 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.4 U	1.2 U	1.2 U	1.5 U
ISOPROPYLBENZENE	0.19 U	0.16 U	0.16 U	0.16 U	0.14 U	0.14 U	0.19 U	0.16 U	0.16 U	0.2 U
M+P-XYLENES	1.4 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.4 U	1.2 U	1.2 U	1.5 U
METHYL TERT-BUTYL ETHER	0.52 U	0.44 U	0.43 U	0.43 U	0.39 U	0.38 U	0.5 U	0.44 U	0.44 U	0.53 U
METHYLENE CHLORIDE	0.8 U	0.69 U	0.66 U	0.67 U	0.61 U	0.6 U	0.78 U	0.68 U	0.68 U	0.83 U
NAPHTHALENE	0.58 B	0.36 B	0.3 B	0.37 B	0.31 B	1.7 B	0.22 U	0.19 U	0.33 B	0.36 B
N-BUTYLBENZENE	0.28 U	0.24 U	0.23 U	0.23 U	0.21 U	0.2 U	0.27 U	0.23 U	0.24 U	0.28 U
N-PROPYLBENZENE	0.48 U	0.41 U	0.4 U	0.4 U	0.36 U	0.36 U	0.47 U	0.41 U	0.41 U	0.49 U
O-XYLENE	0.42 U	0.36 U	0.35 U	0.35 U	0.32 U	0.31 U	0.41 U	0.36 U	0.36 U	0.43 U
SEC-BUTYLBENZENE	0.22 U	0.18 U	0.18 U	0.18 U	0.16 U	0.16 U	0.21 U	0.18 U	0.18 U	0.22 U
STYRENE	0.18 U	0.15 U	0.15 U	0.15 U	0.14 U	0.13 U	0.18 U	0.15 U	0.15 U	0.19 U
TERT-AMYL METHYL ETHER	0.44 U	0.38 U	0.37 U	0.37 U	0.33 U	0.33 U	0.43 U	0.38 U	0.38 U	0.46 U
TERT-BUTYLBENZENE	0.35 U	0.3 U	0.29 U	0.29 U	0.26 U	0.26 U	0.34 U	0.29 U	0.3 U	0.36 U
TERTIARY-BUTYL ALCOHOL	9.1 UR	7.8 UR	7.5 UR	7.6 UR	6.9 UR	6.8 UR	8.9 UR	7.7 UR	7.8 UR	9.4 UR
TETRACHLOROETHENE	0.62 U	0.53 U	0.51 U	0.52 U	0.47 U	0.46 U	0.72 J	0.53 U	1 J	0.64 U
TOLUENE	1.4 J	0.3 J	3.4 J	0.45 J	0.26 J	1 J	0.32 U	1.2 J	0.75 J	1.7 J
TOTAL XYLENES	0.8 U	0.69 U	0.66 U	0.67 U	0.61 U	0.6 U	0.78 U	0.68 U	0.68 U	0.83 U
TRANS-1,2-DICHLOROETHENE	0.49 U	0.42 U	0.41 U	0.41 U	0.37 U	0.36 U	0.48 U	0.42 U	0.42 U	0.51 U
TRANS-1,3-DICHLOROPROPENE	0.65 U	0.55 U	0.53 U	0.54 U	0.49 U	0.48 U	0.63 U	0.55 U	0.55 U	0.67 U
TRICHLOROETHENE	0.5 U	0.43 U	0.42 U	0.42 U	0.38 U	0.37 U	0.56 J	0.43 U	0.49 J	0.89 J
TRICHLOROFLUOROMETHANE	0.41 U	0.35 U	0.34 U	0.34 U	0.31 U	0.3 U	0.4 U	0.35 U	0.35 U	0.42 U
VINYL ACETATE	0.3 UR	0.26 UR	0.25 UR	0.25 UR	0.23 UR	0.22 UR	0.29 UR	0.25 UR	0.26 UR	0.31 UR
VINYL CHLORIDE	0.47 U	0.4 U	0.39 U	0.39 U	0.35 U	0.35 U	0.46 U	0.4 U	0.4 U	0.48 U

LOCATION	GSP-MW-14		GSP-MW-15		GSP-MW-16		GSP-MW-17		GSP-MW-18	
SAMPLE ID	**GSP-MW-14-10-12**	**GSP-MW-14-8-10**	**GSP-MW-15-10-11**	**GSP-MW-15-6-8**	**GSP-MW-16-16-18**	**GSP-MW-16-2-4**	**GSP-MW-17-14-16**	**GSP-MW-17-24-26**	**GSP-MW-18-22-24**	**GSP-MW-18-28-30**
SAMPLE DATE	**20120914**	**20120914**	**20120917**	**20120917**	**20120914**	**20120914**	**20120911**	**20120911**	**20120911**	**20120911**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
TOP DEPTH	**10**	**8**	**10**	**6**	**16**	**2**	**14**	**24**	**22**	**28**
BOTTOM DEPTH	**12**	**10**	**11**	**8**	**18**	**4**	**16**	**26**	**24**	**30**
METALS (MG/KG)										
ANTIMONY	1.9 B	0.42 UL	0.37 U	0.34 U	0.42 UL	0.39 UL	0.48 U	0.48 B	0.49 B	0.65 B
ARSENIC	12	2.5	0.61 J	1.8	0.54 J	2.2	0.37 U	5.1	0.61 J	1.6
BARIUM	5.8 J	4.7 J	7.1 J	11 J	4.9 J	23	2.5 J	3.5 J	3.9 J	6.5 J
BERYLLIUM	0.044 U	0.046 U	0.041 U	0.045 J	0.046 U	0.073 J	0.053 U	0.042 U	0.05 U	0.041 U
CADMIUM	0.037 U	0.046 J	0.034 U	0.031 U	0.043 J	0.036 U	0.044 U	0.035 U	0.042 U	0.034 U
CHROMIUM	120	6.4	5.2	8.9	2.6	7.3	1.5 L	27	7.6	7.8
COBALT	2.2	0.54 J	0.16 J	1	0.34 J	2	0.2 U	0.27 J	0.35 J	0.61 J
COPPER	5.3	7.3	1.1 J	3.6 L	1.3 J	2.1 J	0.9 U	6.8	1.5 J	2.7
LEAD	12	1.3	1.8	2.3	1.2	4.2	0.89 J	1.5	0.92 J	1.8
MERCURY	0.022 J	0.026 J	0.018 U	0.017 J	0.015 U	0.028 J	0.02 J	0.016 U	0.016 U	0.05 J
MOLYBDENUM	1.1 J	0.51 B	0.26 U	0.31 B	0.29 U	0.37 B	0.33 U	0.54 B	0.31 U	0.26 U
NICKEL	0.41 J	0.95 J	0.26 U	1.6 J	0.39 J	4.1	0.33 U	0.27 J	0.38 J	0.63 J
SELENIUM	0.55 J	0.48 U	0.43 U	0.39 U	0.48 U	0.45 U	0.55 U	0.44 U	0.52 U	0.43 U
SILVER	0.1 U	0.11 U	0.095 U	0.087 U	0.12 J	0.1 U	0.12 UL	0.097 UL	0.12 UL	0.094 UL
THALLIUM	0.57 UL	0.59 UL	0.52 UL	0.48 UL	0.59 UL	0.55 UL	0.67 U	0.54 U	0.64 U	0.52 U
VANADIUM	160 J	11 J	4.6	14	3.4 J	12 J	2.6	19	9.1	29
ZINC	3.1 J	3.9 J	1.2 J	4.5	1.1 U	9.5 K	1.2 U	1.2 J	1.9 J	3.5 J
PETROLEUM HYDROCARBONS (MG/KG)										
TPH (C10-C32)	15 B	14 B	11 U	9.9 U	11 U	11 B	13 B	16 B	18 B	18 B
PETROLEUM HYDROCARBONS (UG/KG)										
TPH (C06-C10)	55 U	53 U	53 U	49 U	53 U	52 U	63 B	59 B	53 U	53 U
SEMIVOLATILES (UG/KG)										
1,1-BIPHENYL	32 U	31 U	31 U	29 U	31 U	30 U	34 U	32 U	31 U	31 U
1,4-DIOXANE	26 U	25 U	25 U	24 U	26 U	24 U	27 U	26 U	25 U	25 U
2,2'-OXYBIS(1-CHLOROPROPANE)	11 U	11 U	11 U	10 U	11 U	11 U	12 U	11 U	11 U	11 U
2,4,5-TRICHLOROPHENOL	30 U	29 U	29 U	27 U	29 U	28 U	31 U	29 U	29 U	29 U
2,4,6-TRICHLOROPHENOL	96 U	92 U	91 U	86 U	93 U	89 U	100 U	94 U	92 U	91 U
2,4-DICHLOROPHENOL	24 U	23 U	23 U	21 U	23 U	22 U	25 U	24 U	23 U	23 U
2,4-DIMETHYLPHENOL	24 U	23 U	23 U	21 U	23 U	22 U	25 U	24 U	23 U	23 U
2,4-DINITROPHENOL	96 U	92 U	91 U	86 U	93 U	89 U	100 U	94 U	92 U	91 U
2,4-DINITROTOLUENE	32 U	31 U	31 U	29 U	31 U	30 U	34 U	32 U	31 U	31 U
2,6-DINITROTOLUENE	25 U	24 U	24 U	23 U	24 U	23 U	26 U	25 U	24 U	24 U
2-CHLORONAPHTHALENE	4 U	3.8 U	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
2-CHLOROPHENOL	32 U	31 U	31 U	29 U	31 U	30 U	34 U	32 U	31 U	31 U
2-METHYLNAPHTHALENE	4 U	3.8 U	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
2-METHYLPHENOL	96 U	92 U	91 U	86 U	93 U	89 U	100 U	94 U	92 U	91 U
2-NITROANILINE	11 U	10 U	10 U	9.8 U	11 U	10 U	11 U	11 U	11 U	10 U
2-NITROPHENOL	32 U	31 U	31 U	29 U	31 U	30 U	34 U	32 U	31 U	31 U
3&4-METHYLPHENOL	24 U	23 U	23 U	21 U	23 U	22 U	25 U	24 U	23 U	23 U
3,3'-DICHLOROBENZIDINE	22 U	21 U	21 U	19 U	21 U	20 U	22 U	21 U	21 U	21 U
3-NITROANILINE	19 U	18 U	18 U	17 U	19 U	18 U	20 U	19 U	18 U	18 U
4,6-DINITRO-2-METHYLPHENOL	96 U	92 U	91 U	86 U	93 U	89 U	100 U	94 U	92 U	91 U
4-BROMOPHENYL PHENYL ETHER	16 U	15 U	15 U	14 U	15 U	14 U	16 U	15 U	15 U	15 U
4-CHLORO-3-METHYLPHENOL	25 U	24 U	24 U	23 U	24 U	23 U	26 U	25 U	24 U	24 U
4-CHLOROANILINE	20 U	20 U	19 U	18 U	20 U	19 U	21 U	20 U	20 U	19 U
4-CHLOROPHENYL PHENYL ETHER	16 U	15 U	15 U	14 U	15 U	14 U	16 U	15 U	15 U	15 U
4-NITROANILINE	31 U	30 U	30 U	28 U	30 U	29 U	32 U	31 U	30 U	30 U
4-NITROPHENOL	96 U	92 U	91 U	86 U	93 U	89 U	100 U	94 U	92 U	91 U
ACENAPHTHENE	4 U	3.8 U	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
ACENAPHTHYLENE	4 U	3.8 U	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
ACETOPHENONE	11 U	11 U	11 U	9.9 U	11 U	10 U	11 U	11 U	11 U	11 U
ANTHRACENE	4 U	3.8 U	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
ATRAZINE	11 U	10 U	10 U	9.8 U	11 U	10 U	11 U	11 U	11 U	10 U
BAP EQUIVALENT-HALFND	18.9074	15.48965	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
BAP EQUIVALENT-POS	16.6874	13	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
BENZALDEHYDE	14 U	14 U	14 U	13 U	14 U	13 U	15 U	14 U	14 U	14 U
BENZO(A)ANTHRACENE	8.9	3.8 U	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
BENZO(A)PYRENE	15	13	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
BENZO(B)FLUORANTHENE	7.9 J	3.8 U	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
BENZO(G,H,I)PERYLENE	4 U	3.8 U	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
BENZO(K)FLUORANTHENE	4 U	3.8 U	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
BIS(2-CHLOROETHOXY)METHANE	26 U	25 U	25 U	24 U	26 U	24 U	27 U	26 U	25 U	25 U

LOCATION	GSP-MW-14		GSP-MW-15		GSP-MW-16		GSP-MW-17		GSP-MW-18	
SAMPLE ID	**GSP-MW-14-10-12**	**GSP-MW-14-8-10**	**GSP-MW-15-10-11**	**GSP-MW-15-6-8**	**GSP-MW-16-16-18**	**GSP-MW-16-2-4**	**GSP-MW-17-14-16**	**GSP-MW-17-24-26**	**GSP-MW-18-22-24**	**GSP-MW-18-28-30**
SAMPLE DATE	**20120914**	**20120914**	**20120917**	**20120917**	**20120914**	**20120914**	**20120911**	**20120911**	**20120911**	**20120911**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
BIS(2-CHLOROETHYL)ETHER	2.4 U	2.3 U	2.3 U	2.1 U	2.3 U	2.2 U	2.5 U	2.4 U	2.3 U	2.3 U
BIS(2-ETHYLHEXYL)PHTHALATE	23 U	22 U	22 U	20 U	42 J	21 U	24 U	22 U	22 U	22 U
BUTYL BENZYL PHTHALATE	12 U	12 U	11 U	11 U	12 U	11 U	12 U	12 U	12 U	11 U
CAPROLACTAM	44 U	43 U	42 U	40 U	43 U	41 U	46 U	44 U	43 U	42 U
CARBAZOLE	32 U	31 U	31 U	29 U	31 U	30 U	34 U	32 U	31 U	31 U
CHRYSENE	7.4 J	1.3 U	1.3 U	1.2 U	1.3 U	1.2 U	1.4 U	1.3 U	1.3 U	1.3 U
DIBENZO(A,H)ANTHRACENE	4 U	3.8 U	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
DIBENZOFURAN	4 U	3.8 U	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
DIETHYL PHTHALATE	19 U	18 U	18 U	17 U	19 U	18 U	20 U	19 U	18 U	18 U
DIMETHYL PHTHALATE	20 U	20 U	19 U	18 U	20 U	19 U	21 U	20 U	20 U	19 U
DI-N-BUTYL PHTHALATE	18 U	17 U	17 U	16 U	17 U	17 U	19 U	18 U	17 U	17 U
DI-N-OCTYL PHTHALATE	32 U	31 U	31 U	29 U	31 U	30 U	34 U	32 U	31 U	31 U
FLUORANTHENE	19	9	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
FLUORENE	4 U	3.8 U	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
HEXACHLOROBENZENE	2.5 U	2.4 U	2.4 U	2.3 U	2.4 U	2.3 U	2.6 U	2.5 U	2.4 U	2.4 U
HEXACHLOROBUTADIENE	32 U	31 U	31 U	29 U	31 U	30 U	34 U	32 U	31 U	31 U
HEXACHLOROCYCLOPENTADIENE	32 U	31 U	31 U	29 U	31 U	30 U	34 U	32 U	31 U	31 U
HEXACHLOROETHANE	11 U	10 U	10 U	9.7 U	10 U	10 U	11 U	11 U	10 U	10 U
INDENO(1,2,3-CD)PYRENE	4 U	3.8 U	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
ISOPHORONE	16 U	15 U	15 U	14 U	15 U	14 U	16 U	15 U	15 U	15 U
NAPHTHALENE	4 U	3.8 U	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
NITROBENZENE	2.6 U	2.5 U	2.5 U	2.4 U	2.6 U	2.4 U	2.7 U	2.6 U	2.5 U	2.5 U
N-NITROSODIMETHYLAMINE	19 U	18 U	18 U	17 U	19 U	18 U	20 U	19 U	18 U	18 U
N-NITROSO-DI-N-PROPYLAMINE	32 U	31 U	31 U	29 U	31 U	30 U	34 U	32 U	31 U	31 U
N-NITROSODIPHENYLAMINE	25 U	24 U	24 U	23 U	24 U	23 U	26 U	25 U	24 U	24 U
PENTACHLOROPHENOL	96 U	92 U	91 U	86 U	93 U	89 U	100 U	94 U	92 U	91 U
PHENANTHRENE	13	5.5 J	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
PHENOL	32 U	31 U	31 U	29 U	31 U	30 U	34 U	32 U	31 U	31 U
PYRENE	15	7.5 J	3.8 U	3.5 U	3.8 U	3.7 U	4.1 U	3.9 U	3.8 U	3.8 U
TCLP HERBICIDES (MG/L)										
2,4,5-TP (SILVEX)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)										
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP PESTICIDE/PCBS (UG/L)										
CHLORDANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)										
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP VOLATILES (MG/L)										
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	GSP-MW-14		GSP-MW-15		GSP-MW-16		GSP-MW-17		GSP-MW-18	
SAMPLE ID	**GSP-MW-14-10-12**	**GSP-MW-14-8-10**	**GSP-MW-15-10-11**	**GSP-MW-15-6-8**	**GSP-MW-16-16-18**	**GSP-MW-16-2-4**	**GSP-MW-17-14-16**	**GSP-MW-17-24-26**	**GSP-MW-18-22-24**	**GSP-MW-18-28-30**
SAMPLE DATE	**20120914**	**20120914**	**20120917**	**20120917**	**20120914**	**20120914**	**20120911**	**20120911**	**20120911**	**20120911**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/KG)										
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	7.4 NJ	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-OCTENE, 2-METHYL-6-METHYLENE-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONITRILE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXANE	NA	7.9 NJ	8.5 NJ	4.2 NJ	2.2 NJ	NA	NA	2 NJ	NA	NA
ISOPROPANOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	1.4 NJ	NA	NA	NA	1.6 NJ	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	20 NJ	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)										
1,1,1,2-TETRACHLOROETHANE	0.67 U	0.61 U	0.61 U	0.61 U	0.58 U	0.58 U	0.59 U	0.56 U	0.61 U	0.58 U
1,1,1-TRICHLOROETHANE	0.6 U	0.55 U	0.55 U	0.55 U	0.52 U	0.53 U	0.53 U	0.5 U	0.55 U	0.53 U
1,1,2,2-TETRACHLOROETHANE	0.37 U	0.33 U	0.34 U	0.33 U	0.32 U	0.32 U	0.32 U	0.31 U	0.33 U	0.32 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1.4 U	1.3 U	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U
1,1-DICHLOROETHANE	0.39 U	0.35 U	0.36 U	0.35 U	0.33 U	0.34 U	0.34 U	0.32 U	0.35 U	0.34 U
1,1-DICHLOROETHENE	0.9 J	6	0.52 U	0.51 U	0.48 U	0.49 U	0.61 J	0.47 U	0.74 J	0.49 U
1,1-DICHLOROPROPENE	0.32 U	0.29 U	0.3 U	0.29 U	0.28 U	0.28 U	0.29 U	0.27 U	0.29 U	0.28 U
1,2,3-TRICHLOROBENZENE	0.41 U	0.37 U	0.38 U	0.37 U	0.35 U	0.36 U	0.36 U	0.34 U	0.37 U	0.36 U
1,2,3-TRICHLOROPROPANE	0.97 U	0.88 U	0.89 U	0.88 U	0.84 U	0.85 U	0.86 U	0.81 U	0.88 U	0.85 U
1,2,3-TRIMETHYLBENZENE	0.18 U	0.17 U	0.17 U	0.17 U	0.16 U	0.16 U	0.16 U	0.15 U	0.17 U	0.16 U
1,2,4-TRICHLOROBENZENE	0.29 U	0.27 U	0.27 U	0.26 U	0.25 U	0.25 U	0.26 U	0.24 U	0.26 U	0.25 U
1,2,4-TRIMETHYLBENZENE	0.7 U	0.64 U	0.64 U	0.63 U	0.6 U	0.61 U	0.62 U	0.59 U	0.64 U	0.61 U
1,2-DIBROMO-3-CHLOROPROPANE	1.4 U	1.3 U	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U
1,2-DIBROMOETHANE	0.54 U	0.49 U	0.5 U	0.49 U	0.47 U	0.47 U	0.48 U	0.45 U	0.49 U	0.47 U
1,2-DICHLOROBENZENE	0.39 U	0.35 U	0.36 U	0.35 U	0.33 U	0.34 U	0.34 U	0.32 U	0.35 U	0.34 U
1,2-DICHLOROETHANE	0.37 U	0.33 U	0.34 U	0.33 U	0.32 U	0.32 U	0.35 J	0.31 U	5.4	4.1 J
1,2-DICHLOROPROPANE	0.74 U	0.68 U	0.68 U	0.67 U	0.64 U	0.65 U	0.66 U	0.62 U	0.68 U	0.65 U
1,3-DICHLOROBENZENE	0.38 U	0.34 U	0.35 U	0.34 U	0.33 U	0.33 U	0.33 U	0.32 U	0.34 U	0.33 U
1,3-DICHLOROPROPANE	0.37 U	0.33 U	0.34 U	0.33 U	0.32 U	0.32 U	0.32 U	0.31 U	0.33 U	0.32 U
1,4-DICHLOROBENZENE	0.71 U	0.65 U	0.65 U	0.64 U	0.61 U	0.62 U	0.63 U	0.59 U	0.65 U	0.62 U
2,2-DICHLOROPROPANE	1 U	0.92 U	0.93 U	0.92 U	0.87 U	0.88 U	0.89 U	0.85 U	0.92 U	0.89 U
2-BUTANONE	2.1 J	3.2 J	1.4 J	1.5 J	1.3 U	5.7 J	1.3 U	1.3 U	1.4 U	1.3 U
2-CHLOROETHYL VINYL ETHER	1.5 U	1.4 U	1.4 U	1.4 U	1.3 U	1.3 U	1.3 U	1.3 U	1.4 U	1.3 U
2-CHLOROTOLUENE	0.43 U	0.39 U	0.4 U	0.39 U	0.37 U	0.38 U	0.38 U	0.36 U	0.39 U	0.38 U
2-HEXANONE	0.68 U	0.62 U	0.62 U	0.62 U	0.59 U	0.59 U	0.6 U	0.57 U	0.62 U	0.59 U
4-CHLOROTOLUENE	0.44 U	0.4 U	0.41 U	0.4 U	0.38 U	0.39 U	0.39 U	0.37 U	0.4 U	0.39 U
4-ISOPROPYLTOLUENE	0.23 U	0.21 U	0.21 U	0.21 U	0.2 U	0.2 U	0.2 U	0.19 U	0.21 U	0.2 U
4-METHYL-2-PENTANONE	0.58 U	0.53 U	0.54 U	0.53 U	0.5 U	0.51 U	0.51 U	0.49 U	0.53 U	0.51 U
ACETONE	33	150	180 B	14 B	72	140	6 U	54	15 B	7.3 B
BENZENE	0.25 U	0.23 U	0.23 U	0.22 U	0.21 U	0.22 U	0.22 U	0.21 U	0.28 J	0.22 U
BROMOBENZENE	0.36 U	0.32 U	0.33 U	0.32 U	0.31 U	0.31 U	0.31 U	0.3 U	0.32 U	0.31 U
BROMOCHLOROMETHANE	0.77 U	0.7 U	0.7 U	0.69 U	0.66 U	0.67 U	0.67 U	0.64 U	0.7 U	0.67 U
BROMODICHLOROMETHANE	0.3 U	0.28 U	0.28 U	0.27 U	0.26 U	0.26 U	0.27 U	0.25 U	0.27 U	0.26 U
BROMOFORM	0.36 U	0.32 U	0.33 U	0.32 U	0.31 U	0.31 U	0.31 U	0.3 U	0.32 U	0.31 U
BROMOMETHANE	0.58 U	0.53 U	0.54 U	0.53 U	0.5 U	0.51 U	0.51 U	0.49 U	0.53 U	0.51 U
CARBON DISULFIDE	0.47 U	0.43 U	0.44 U	0.43 U	0.41 U	0.41 U	0.42 U	0.4 U	0.43 U	0.41 U
CARBON TETRACHLORIDE	0.4 U	0.36 U	0.37 U	0.36 U	0.34 U	0.35 U	0.35 U	0.33 U	0.36 U	0.35 U
CHLOROBENZENE	0.36 U	0.32 U	0.33 U	0.32 U	0.31 U	0.31 U	0.31 U	0.3 U	0.32 U	0.31 U
CHLORODIBROMOMETHANE	0.59 U	0.54 U	0.54 U	0.54 U	0.51 U	0.52 U	0.52 U	0.5 U	0.54 U	0.52 U
CHLOROETHANE	0.93 U	0.85 U	0.85 U	0.84 U	0.8 U	0.81 U	0.82 U	0.77 U	0.84 U	0.81 U

LOCATION	GSP-MW-14		GSP-MW-15		GSP-MW-16		GSP-MW-17		GSP-MW-18	
SAMPLE ID	**GSP-MW-14-10-12**	**GSP-MW-14-8-10**	**GSP-MW-15-10-11**	**GSP-MW-15-6-8**	**GSP-MW-16-16-18**	**GSP-MW-16-2-4**	**GSP-MW-17-14-16**	**GSP-MW-17-24-26**	**GSP-MW-18-22-24**	**GSP-MW-18-28-30**
SAMPLE DATE	**20120914**	**20120914**	**20120917**	**20120917**	**20120914**	**20120914**	**20120911**	**20120911**	**20120911**	**20120911**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
CHLOROFORM	0.31 U	0.29 U	0.29 U	0.28 U	0.27 U	0.27 U	0.28 U	0.26 U	0.89 J	0.27 U
CHLOROMETHANE	0.44 U	0.4 U	0.41 U	0.4 U	0.38 U	0.39 U	0.39 U	0.37 U	0.4 U	0.39 U
CIS-1,2-DICHLOROETHENE	0.39 U	0.35 U	0.36 U	0.35 U	0.33 U	0.34 U	1.3 J	0.32 U	25	9.9
CIS-1,3-DICHLOROPROPENE	0.37 U	0.33 U	0.34 U	0.33 U	0.32 U	0.32 U	0.32 U	0.31 U	0.33 U	0.32 U
DIBROMOMETHANE	0.68 U	0.62 U	0.62 U	0.62 U	0.59 U	0.59 U	0.6 U	0.57 U	0.62 U	0.59 U
DICHLORODIFLUOROMETHANE	0.54 U	0.49 U	0.5 U	0.49 U	0.47 U	0.47 U	0.48 U	0.45 U	0.49 U	0.47 U
DIISOPROPYL ETHER	1.6 U	1.5 U	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U
ETHYL TERT-BUTYL ETHER	0.24 U	0.22 U	0.22 U	0.21 U	0.2 U	0.21 U	0.21 U	0.2 U	0.22 U	0.21 U
ETHYLBENZENE	0.28 U	0.26 U	0.26 U	0.25 U	0.24 U	0.24 U	0.25 U	0.23 U	0.25 U	0.25 U
HEXACHLOROBUTADIENE	1.3 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U
ISOPROPYLBENZENE	0.17 U	0.16 U	0.16 U	0.16 U	0.15 U	0.15 U	0.15 U	0.14 U	0.16 U	0.15 U
M+P-XYLENES	1.3 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U
METHYL TERT-BUTYL ETHER	0.46 U	0.42 U	0.43 U	0.42 U	0.4 U	0.4 U	0.41 U	0.39 U	0.42 U	0.41 U
METHYLENE CHLORIDE	0.72 U	0.66 U	0.66 U	0.65 U	0.62 U	0.63 U	0.64 U	0.6 U	0.66 U	0.63 U
NAPHTHALENE	0.33 B	0.27 B	0.19 U	0.19 U	0.3 B	0.28 B	1.3 B	0.23 B	9.2	1.4 B
N-BUTYLBENZENE	0.25 U	0.23 U	0.23 U	0.22 U	0.21 U	0.22 U	0.22 U	0.21 U	0.23 U	0.22 U
N-PROPYLBENZENE	0.43 U	0.39 U	0.4 U	0.39 U	0.37 U	0.38 U	0.38 U	0.36 U	0.39 U	0.38 U
O-XYLENE	0.38 U	0.34 U	0.35 U	0.34 U	0.33 U	0.33 U	0.33 U	0.32 U	0.34 U	0.33 U
SEC-BUTYLBENZENE	0.19 U	0.18 U	0.18 U	0.18 U	0.17 U	0.17 U	0.17 U	0.16 U	0.18 U	0.17 U
STYRENE	0.16 U	0.15 U	0.15 U	0.21 B	0.14 U	0.14 U	0.14 U	0.14 U	0.15 U	0.14 U
TERT-AMYL METHYL ETHER	0.4 U	0.36 U	0.37 U	0.36 U	0.34 U	0.35 U	0.35 U	0.33 U	0.36 U	0.35 U
TERT-BUTYLBENZENE	0.31 U	0.29 U	0.29 U	0.28 U	0.27 U	0.27 U	0.28 U	0.26 U	0.28 U	0.27 U
TERTIARY-BUTYL ALCOHOL	8.2 UR	7.5 UR	7.5 UR	7.4 UR	7.1 UR	7.2 UR	7.2 UR	6.8 UR	7.5 UR	7.2 UR
TETRACHLOROETHENE	0.56 U	0.51 U	0.52 U	0.51 U	0.53 J	0.49 U	0.49 U	0.47 U	0.51 U	0.49 U
TOLUENE	3.2 J	0.35 J	0.27 U	0.3 J	0.25 U	1 J	1.4 J	0.25 J	1.7 J	0.99 J
TOTAL XYLENES	0.72 U	0.66 U	0.66 U	0.65 U	0.62 U	0.63 U	0.64 U	0.6 U	0.66 U	0.63 U
TRANS-1,2-DICHLOROETHENE	0.44 U	0.4 U	0.41 U	0.4 U	0.38 U	0.39 U	0.39 U	0.37 U	0.79 J	0.39 U
TRANS-1,3-DICHLOROPROPENE	0.58 U	0.53 U	0.54 U	0.53 U	0.5 U	0.51 U	0.51 U	0.49 U	0.53 U	0.51 U
TRICHLOROETHENE	1.1 J	0.57 J	0.42 U	0.41 U	1.3 J	0.5 J	2.4 J	0.38 U	110	53
TRICHLOROFLUOROMETHANE	0.37 U	0.33 U	0.34 U	0.33 U	0.32 U	0.32 U	0.32 U	0.31 U	0.33 U	0.32 U
VINYL ACETATE	0.27 UR	0.25 UR	0.25 UR	0.24 UR	0.23 UR	0.24 UR	0.24 UR	0.23 UR	0.25 UR	0.24 UR
VINYL CHLORIDE	0.42 U	0.38 U	0.39 U	0.38 U	0.36 U	0.37 U	0.37 U	0.35 U	4 J	1.2 J

LOCATION	GSP-MW-19		GSP-MW-20		GSP-SB-131		GSP-SB-132		GSP-SB-133	
SAMPLE ID	**GSP-MW-19-12-14**	**GSP-MW-19-14-16**	**GSP-MW-20-0-2**	**GSP-MW-20-4-6**	**GSP-SB-131-12'-14'**	**GSP-SB-131-14'-18.5'**	**GSP-SB-132-30'-32'**	**GSP-SB-132-35'-36.5'**	**GSP-SB-133-16'-18.5'**	**GSP-SB-133-8'-10.5'**
SAMPLE DATE	**20120912**	**20120912**	**20120912**	**20120912**	**20120907**	**20120907**	**20120906**	**20120906**	**20120907**	**20120907**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**NA**	**NA**	**NA**	**NA**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
TOP DEPTH	**12**	**14**	**0**	**4**	**12**	**14**	**30**	**35**	**16**	**8**
BOTTOM DEPTH	**14**	**16**	**2**	**6**	**14**	**18.5**	**32**	**36.5**	**18.5**	**10.5**
METALS (MG/KG)										
ANTIMONY	0.43 U	0.39 U	0.71 B	0.36 U	0.69 B	0.38 B	0.54 B	0.35 UL	0.41 UL	0.61 B
ARSENIC	4.9	2	3.9	2.8	2.9	1.3 J	1.2 J	0.68 J	1.1 J	4.4
BARIUM	9.7 J	16 J	46	19	8.4 J	1.4 J	11 J	2.2 J	13 J	8.6 J
BERYLLIUM	0.059 J	0.36 J	0.37 J	0.056 J	0.044 U	0.041 U	0.052 U	0.039 U	0.12 J	0.04 U
CADMIUM	0.039 U	0.094 J	0.2 J	0.051 J	0.037 U	0.034 U	0.044 U	0.033 U	0.038 U	0.034 U
CHROMIUM	13	19	16	10	13	4.4	6.5	4	8.1	36
COBALT	1.5	13	4	1.3	0.2 J	0.15 U	0.69 J	0.15 U	0.24 J	0.62 J
COPPER	4.4	20	16	9.6	9.3	2.4	2.5 J	1.3 J	8.6	8
LEAD	6.5	3.7	28	9.2	2.3	0.77 J	2.7	0.7 J	3.6	5
MERCURY	0.017 U	0.016 U	0.39	0.086 J	0.021 U	0.018 U	0.035 J	0.017 U	0.017 U	0.043 J
MOLYBDENUM	0.3 U	0.71 B	0.25 U	0.27 B	0.28 U	0.45 B	0.33 U	0.33 B	0.29 U	0.26 B
NICKEL	4.9	16	7.7	2.7 J	0.46 J	0.26 U	0.37 J	0.25 U	0.73 J	0.82 J
SELENIUM	0.49 U	0.44 U	0.42 U	0.42 U	0.46 U	0.43 U	0.54 U	0.41 U	0.48 U	0.42 U
SILVER	0.11 UL	0.099 UL	0.31 J	0.093 UL	0.1 UL	0.095 UL	0.12 UL	0.091 UL	0.11 UL	0.093 UL
THALLIUM	0.6 U	0.67 J	0.52 U	0.51 U	0.56 U	0.52 U	0.67 U	0.5 U	0.58 U	0.51 U
VANADIUM	28	34	24	24	17 J	6.4 J	9.5 J	5.9 J	9.9 J	45 J
ZINC	25	100	48	20	3 J	0.95 U	2.5 J	0.91 U	3.6 J	3.3 J
PETROLEUM HYDROCARBONS (MG/KG)										
TPH (C10-C32)	27 B	25 B	94	110	16 B	17 B	12 U	11 B	17 B	17 B
PETROLEUM HYDROCARBONS (UG/KG)										
TPH (C06-C10)	120 B	71 B	140 B	190 B	56 U	56 U	63 J	56 U	53 U	55 U
SEMIVOLATILES (UG/KG)										
1,1-BIPHENYL	33 U	31 U	30 U	62 U	33 U	33 U	34 U	33 U	31 U	33 U
1,4-DIOXANE	27 U	26 U	24 U	50 U	27 U	27 U	28 U	27 U	25 U	27 U
2,2'-OXYBIS(1-CHLOROPROPANE)	12 U	11 U	10 U	22 U	12 U	12 U	12 U	11 U	11 U	11 U
2,4,5-TRICHLOROPHENOL	31 U	29 U	27 U	57 U	31 U	30 U	31 U	30 U	29 U	30 U
2,4,6-TRICHLOROPHENOL	99 U	93 U	88 U	180 U	98 U	97 U	100 U	97 U	92 U	97 U
2,4-DICHLOROPHENOL	25 U	23 U	22 U	46 U	25 U	24 U	25 U	24 U	23 U	24 U
2,4-DIMETHYLPHENOL	25 U	23 U	22 U	46 U	25 U	24 U	25 U	24 U	23 U	24 U
2,4-DINITROPHENOL	99 U	93 U	88 U	180 U	98 U	97 U	100 U	97 U	92 U	97 U
2,4-DINITROTOLUENE	33 U	31 U	30 U	62 U	33 U	33 U	34 U	33 U	31 U	33 U
2,6-DINITROTOLUENE	26 U	24 U	23 U	48 U	26 U	25 U	26 U	25 U	24 U	25 U
2-CHLORONAPHTHALENE	4.1 U	3.8 U	3.6 U	7.5 U	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
2-CHLOROPHENOL	33 U	31 U	30 U	62 U	33 U	33 U	34 U	33 U	31 U	33 U
2-METHYLNAPHTHALENE	4.1 U	3.8 U	18	58	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
2-METHYLPHENOL	99 U	93 U	88 U	180 U	98 U	97 U	100 U	97 U	92 U	97 U
2-NITROANILINE	11 U	11 U	10 U	21 U	11 U	11 U	11 U	11 U	11 U	11 U
2-NITROPHENOL	33 U	31 U	30 U	62 U	33 U	33 U	34 U	33 U	31 U	33 U
3&4-METHYLPHENOL	25 U	23 U	22 U	46 U	25 U	24 U	25 U	24 U	23 U	24 U
3,3'-DICHLOROBENZIDINE	22 U	21 U	20 U	41 U	22 U	22 U	23 U	22 U	21 U	22 U
3-NITROANILINE	20 U	19 U	18 U	37 U	20 U	19 U	20 U	19 U	18 U	19 U
4,6-DINITRO-2-METHYLPHENOL	99 U	93 U	88 U	180 U	98 U	97 U	100 U	97 U	92 U	97 U
4-BROMOPHENYL PHENYL ETHER	16 U	15 U	14 U	30 U	16 U	16 U	16 U	16 U	15 U	16 U
4-CHLORO-3-METHYLPHENOL	26 U	24 U	23 U	48 U	26 U	25 U	26 U	25 U	24 U	25 U
4-CHLOROANILINE	21 U	20 U	19 U	39 U	21 U	21 U	21 U	21 U	20 U	21 U
4-CHLOROPHENYL PHENYL ETHER	16 U	15 U	14 U	30 U	16 U	16 U	16 U	16 U	15 U	16 U
4-NITROANILINE	32 U	30 U	29 U	59 U	32 U	32 U	33 U	31 U	30 U	31 U
4-NITROPHENOL	99 U	93 U	88 U	180 U	98 U	97 U	100 U	97 U	92 U	97 U
ACENAPHTHENE	4.1 U	3.8 U	59	150	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
ACENAPHTHYLENE	4.1 U	3.8 U	14	11 J	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
ACETOPHENONE	11 U	11 U	10 U	21 U	11 U	11 U	12 U	11 U	11 U	11 U
ANTHRACENE	4.1 U	3.8 U	130	400	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
ATRAZINE	11 U	11 U	10 U	21 U	11 U	11 U	11 U	11 U	11 U	11 U
BAP EQUIVALENT-HALFND	4.1 U	5.59965	781.11	926.05	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
BAP EQUIVALENT-POS	4.1 U	1.4	781.11	922.3	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
BENZALDEHYDE	15 U	14 U	13 U	27 U	15 U	15 U	15 U	14 U	14 U	14 U
BENZO(A)ANTHRACENE	4.1 U	3.8 U	570	840	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
BENZO(A)PYRENE	4.1 U	3.8 U	550	700	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
BENZO(B)FLUORANTHENE	4.1 U	14	820	1100	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
BENZO(G,H,I)PERYLENE	4.1 U	3.8 U	210 J	220 J	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
BENZO(K)FLUORANTHENE	4.1 U	3.8 U	350	450	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
BIS(2-CHLOROETHOXY)METHANE	27 U	26 U	24 U	50 U	27 U	27 U	28 U	27 U	25 U	27 U

LOCATION	GSP-MW-19		GSP-MW-20		GSP-SB-131		GSP-SB-132		GSP-SB-133	
SAMPLE ID	GSP-MW-19-12-14	GSP-MW-19-14-16	GSP-MW-20-0-2	GSP-MW-20-4-6	GSP-SB-131-12'-14'	GSP-SB-131-14'-18.5'	GSP-SB-132-30'-32'	GSP-SB-132-35'-36.5'	GSP-SB-133-16'-18.5'	GSP-SB-133-8'-10.5'
SAMPLE DATE	20120912	20120912	20120912	20120912	20120907	20120907	20120906	20120906	20120907	20120907
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	SB	SB	SB	SB	SB	SB
BIS(2-CHLOROETHYL)ETHER	2.5 U	2.3 U	2.2 U	4.6 U	2.5 U	2.4 U	2.5 U	2.4 U	2.3 U	2.4 U
BIS(2-ETHYLHEXYL)PHTHALATE	36 J	24 J	21 U	57 J	23 U	23 U	24 U	23 U	22 U	23 U
BUTYL BENZYL PHTHALATE	72 J	12 U	11 U	23 U	12 U	12 U	13 U	12 U	12 U	12 U
CAPROLACTAM	46 U	43 U	41 U	84 U	46 U	45 U	77 J	45 U	43 U	45 U
CARBAZOLE	33 U	31 U	53 J	130	33 U	33 U	34 U	33 U	31 U	33 U
CHRYSENE	1.4 U	1.3 U	610	800	1.4 U	1.3 U	1.4 U	1.3 U	1.3 U	1.3 U
DIBENZO(A,H)ANTHRACENE	4.1 U	3.8 U	69 J	7.5 U	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
DIBENZOFURAN	4.1 U	3.8 U	22 J	94 J	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
DIETHYL PHTHALATE	20 U	19 U	18 U	37 U	20 U	19 U	20 U	19 U	18 U	19 U
DIMETHYL PHTHALATE	21 U	20 U	19 U	39 U	21 U	21 U	21 U	21 U	20 U	21 U
DI-N-BUTYL PHTHALATE	19 U	17 U	16 U	34 U	18 U	18 U	19 U	18 U	17 U	18 U
DI-N-OCTYL PHTHALATE	33 U	31 U	30 U	62 U	33 U	33 U	34 U	33 U	31 U	33 U
FLUORANTHENE	12	3.8 U	1200	1900	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
FLUORENE	4.1 U	3.8 U	49	220	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
HEXACHLOROBENZENE	2.6 U	2.4 U	2.3 U	4.8 U	2.6 U	2.5 U	2.6 U	2.5 U	2.4 U	2.5 U
HEXACHLOROBUTADIENE	33 U	31 U	30 U	62 U	33 U	33 U	34 U	33 U	31 U	33 U
HEXACHLOROCYCLOPENTADIENE	33 U	31 U	30 U	62 U	33 U	33 U	34 U	33 U	31 U	33 U
HEXACHLOROETHANE	11 U	10 U	9.9 U	21 U	11 U	11 U	11 U	11 U	10 U	11 U
INDENO(1,2,3-CD)PYRENE	4.1 U	3.8 U	190	230	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
ISOPHORONE	16 U	15 U	14 U	30 U	16 U	16 U	16 U	16 U	15 U	16 U
NAPHTHALENE	4.1 U	3.8 U	23	87	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
NITROBENZENE	2.7 U	2.6 U	2.4 U	5 U	2.7 U	2.7 U	2.8 U	2.7 U	2.5 U	2.7 U
N-NITROSODIMETHYLAMINE	20 U	19 U	18 U	37 U	20 U	19 U	20 U	19 U	18 U	19 U
N-NITROSO-DI-N-PROPYLAMINE	33 U	31 U	30 U	62 U	33 U	33 U	34 U	33 U	31 U	33 U
N-NITROSODIPHENYLAMINE	26 U	24 U	23 U	48 U	26 U	25 U	26 U	25 U	24 U	25 U
PENTACHLOROPHENOL	99 U	93 U	88 U	180 U	98 U	97 U	100 U	97 U	92 U	97 U
PHENANTHRENE	4.1 U	3.8 U	560	1400	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
PHENOL	33 U	31 U	30 U	62 U	33 U	33 U	34 U	33 U	31 U	33 U
PYRENE	34	3.8 U	1000	1500	4.1 U	4 U	4.1 U	4 U	3.8 U	4 U
TCLP HERBICIDES (MG/L)										
2,4,5-TP (SILVEX)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)										
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP PESTICIDE/PCBS (UG/L)										
CHLORDANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)										
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP VOLATILES (MG/L)										
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	GSP-MW-19		GSP-MW-20		GSP-SB-131		GSP-SB-132		GSP-SB-133	
SAMPLE ID	GSP-MW-19-12-14	GSP-MW-19-14-16	GSP-MW-20-0-2	GSP-MW-20-4-6	GSP-SB-131-12'-14'	GSP-SB-131-14'-18.5'	GSP-SB-132-30'-32'	GSP-SB-132-35'-36.5'	GSP-SB-133-16'-18.5'	GSP-SB-133-8'-10.5'
SAMPLE DATE	20120912	20120912	20120912	20120912	20120907	20120907	20120906	20120906	20120907	20120907
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	SB	SB	SB	SB	SB	SB
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/KG)										
1-METHYLNAPHTHALENE	NA	NA	NA	4.4 NJ	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	6.7 NJ	NA	NA	NA	NA	NA	NA
2-NITROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-OCTENE, 2-METHYL-6-METHYLENE-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONITRILE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE	NA	11 NJ	NA	21 NJ	NA	NA	NA	NA	NA	NA
ETHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXANE	NA	12 NJ	11 NJ	2.8 NJ	NA	NA	NA	NA	NA	NA
ISOPROPANOL	NA	5.9 NJ	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	1.6 NJ	3.6 NJ	1.5 NJ	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)										
1,1,1,2-TETRACHLOROETHANE	0.77 U	0.59 U	0.67 U	0.51 U	0.58 U	0.58 U	0.64 U	0.65 U	0.55 U	0.57 U
1,1,1-TRICHLOROETHANE	0.7 U	0.53 U	0.61 U	0.46 U	0.53 U	0.52 U	0.57 U	0.59 U	0.49 U	0.51 U
1,1,2,2-TETRACHLOROETHANE	0.42 U	0.32 UJ	0.37 U	0.28 U	0.32 U	0.32 U	0.35 U	0.36 U	0.3 U	0.31 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1.6 U	1.2 U	1.4 U	1.1 U	1.2 U	1.2 U	1.3 U	1.4 U	1.1 U	1.2 U
1,1-DICHLOROETHANE	0.45 U	0.34 U	0.39 U	0.3 U	0.34 U	0.34 U	0.37 U	0.38 U	0.32 U	0.33 U
1,1-DICHLOROETHENE	0.65 U	0.49 U	0.56 U	0.43 U	0.49 U	0.49 U	0.53 U	0.55 U	0.46 U	0.48 U
1,1-DICHLOROPROPENE	0.37 U	0.28 U	0.32 U	0.25 U	0.28 U	0.28 U	0.31 U	0.32 U	0.26 U	0.28 U
1,2,3-TRICHLOROBENZENE	0.47 U	0.36 UJ	0.41 U	0.31 U	0.36 U	0.36 U	0.39 U	0.4 U	0.33 U	0.35 U
1,2,3-TRICHLOROPROPANE	1.1 U	0.85 UJ	0.97 U	0.74 U	0.85 U	0.84 U	0.92 U	0.95 U	0.79 U	0.83 U
1,2,3-TRIMETHYLBENZENE	0.21 U	0.16 U	0.18 U	0.15 J	0.16 U	0.16 U	0.17 U	0.18 U	0.15 U	0.16 U
1,2,4-TRICHLOROBENZENE	0.34 U	0.26 UJ	0.29 U	0.22 U	0.25 U	0.25 U	0.28 U	0.28 U	0.24 U	0.25 U
1,2,4-TRIMETHYLBENZENE	0.81 U	0.62 UJ	0.7 U	0.53 U	0.61 U	0.61 U	0.67 U	0.68 U	0.57 U	0.6 U
1,2-DIBROMO-3-CHLOROPROPANE	1.6 U	1.2 UJ	1.4 U	1.1 U	1.2 U	1.2 U	1.3 U	1.4 U	1.1 U	1.2 U
1,2-DIBROMOETHANE	0.62 U	0.47 U	0.54 U	0.41 U	0.47 U	0.47 U	0.51 U	0.53 U	0.44 U	0.46 U
1,2-DICHLOROBENZENE	0.45 U	0.34 UJ	0.39 U	0.3 U	0.34 U	0.34 U	0.37 U	0.38 U	0.32 U	0.33 U
1,2-DICHLOROETHANE	0.42 U	0.32 U	0.37 U	0.28 U	0.32 U	0.32 U	0.35 U	0.36 U	0.3 U	0.31 U
1,2-DICHLOROPROPANE	0.86 U	0.65 U	0.75 U	0.57 U	0.65 U	0.64 U	0.71 U	0.73 U	0.61 U	0.63 U
1,3-DICHLOROBENZENE	0.44 U	0.33 UJ	0.38 U	0.29 U	0.33 U	0.33 U	0.36 U	0.37 U	0.31 U	0.32 U
1,3-DICHLOROPROPANE	0.42 U	0.32 U	0.37 U	0.28 U	0.32 U	0.32 U	0.35 U	0.36 U	0.3 U	0.31 U
1,4-DICHLOROBENZENE	0.82 U	0.63 UJ	0.71 U	0.54 U	0.62 U	0.62 U	0.68 U	0.69 U	0.58 U	0.61 U
2,2-DICHLOROPROPANE	1.2 U	0.89 U	1 U	0.77 U	0.89 U	0.88 U	0.96 U	0.99 U	0.83 U	0.86 U
2-BUTANONE	1.7 U	5.7 J	1.5 U	4.6 J	1.3 U	1.9 J	1.4 U	1.6 B	1.2 U	1.3 U
2-CHLOROETHYL VINYL ETHER	1.7 U	1.3 U	1.5 U	1.1 U	1.3 U	1.3 U	1.4 U	1.5 U	1.2 U	1.3 U
2-CHLOROTOLUENE	0.5 U	0.38 UJ	0.43 U	0.33 U	0.38 U	0.37 U	0.41 U	0.42 U	0.35 U	0.37 U
2-HEXANONE	0.78 U	0.6 U	0.68 U	0.52 U	0.59 U	0.59 U	0.65 U	0.66 U	0.55 U	0.58 U
4-CHLOROTOLUENE	0.51 U	0.39 UJ	0.44 U	0.34 U	0.39 U	0.38 U	0.42 U	0.43 U	0.36 U	0.38 U
4-ISOPROPYLTOLUENE	0.26 U	0.2 UJ	0.23 U	0.17 U	0.2 U	0.2 U	0.22 U	0.22 U	0.18 U	0.19 U
4-METHYL-2-PENTANONE	0.67 U	0.51 U	0.58 U	0.44 U	0.51 U	0.5 U	0.55 U	0.57 U	0.48 U	0.5 U
ACETONE	12 J	250	150	91	5.9 U	13 J	6.5 U	9.1 J	5.5 U	5.8 U
BENZENE	0.29 U	0.22 U	0.25 U	0.19 U	0.22 U	0.21 U	0.24 U	0.34 J	0.2 U	0.21 U
BROMOBENZENE	0.41 U	0.31 UJ	0.36 U	0.27 U	0.31 U	0.31 U	0.34 U	0.35 U	0.29 U	0.3 U
BROMOCHLOROMETHANE	0.88 U	0.67 U	0.77 U	0.58 U	0.67 U	0.66 U	0.73 U	0.75 U	0.63 U	0.65 U
BROMODICHLOROMETHANE	0.35 U	0.27 U	0.3 U	0.23 U	0.26 U	0.26 U	0.29 U	0.29 U	0.25 U	0.26 U
BROMOFORM	0.41 U	0.31 U	0.36 U	0.27 U	0.31 U	0.31 U	0.34 U	0.35 U	0.29 U	0.3 U
BROMOMETHANE	0.67 U	0.51 U	0.58 U	0.44 U	0.51 U	0.5 U	0.55 U	0.57 U	0.48 U	0.5 U
CARBON DISULFIDE	0.55 U	1.7 J	0.48 U	0.36 U	0.41 U	0.41 U	0.45 U	0.46 U	0.39 U	0.4 U
CARBON TETRACHLORIDE	0.46 U	0.35 U	0.4 U	0.3 U	0.35 U	0.35 U	0.38 U	0.39 U	0.33 U	0.34 U
CHLOROBENZENE	0.41 U	0.31 U	0.36 U	0.27 U	0.31 U	0.31 U	0.34 U	0.35 U	0.29 U	0.3 U
CHLORODIBROMOMETHANE	0.68 U	0.52 U	0.59 U	0.45 U	0.52 U	0.51 U	0.56 U	0.58 U	0.48 U	0.5 U
CHLOROETHANE	1.1 U	0.82 U	0.93 U	0.7 U	0.81 U	0.8 U	0.88 U	0.91 U	0.76 U	0.79 U

LOCATION	GSP-MW-19		GSP-MW-20		GSP-SB-131		GSP-SB-132		GSP-SB-133	
SAMPLE ID	**GSP-MW-19-12-14**	**GSP-MW-19-14-16**	**GSP-MW-20-0-2**	**GSP-MW-20-4-6**	**GSP-SB-131-12'-14'**	**GSP-SB-131-14'-18.5'**	**GSP-SB-132-30'-32'**	**GSP-SB-132-35'-36.5'**	**GSP-SB-133-16'-18.5'**	**GSP-SB-133-8'-10.5'**
SAMPLE DATE	**20120912**	**20120912**	**20120912**	**20120912**	**20120907**	**20120907**	**20120906**	**20120906**	**20120907**	**20120907**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**NA**	**NA**	**NA**	**NA**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
CHLOROFORM	0.36 U	0.27 U	0.31 U	0.24 U	0.27 U	0.27 U	0.3 U	0.31 U	0.26 U	0.27 U
CHLOROMETHANE	0.51 U	0.39 U	0.44 U	0.34 U	0.39 U	0.38 U	0.42 U	0.43 U	0.36 U	0.38 U
CIS-1,2-DICHLOROETHENE	0.45 U	0.34 U	0.39 U	0.3 U	0.34 U	0.34 U	0.37 U	0.38 U	0.32 U	0.33 U
CIS-1,3-DICHLOROPROPENE	0.42 U	0.32 U	0.37 U	0.28 U	0.32 U	0.32 U	0.35 U	0.36 U	0.3 U	0.31 U
DIBROMOMETHANE	0.78 U	0.6 U	0.68 U	0.52 U	0.59 U	0.59 U	0.65 U	0.66 U	0.55 U	0.58 U
DICHLORODIFLUOROMETHANE	0.62 U	0.47 U	0.54 U	0.41 U	0.47 U	0.47 U	0.51 U	0.53 U	0.44 U	0.46 U
DIISOPROPYL ETHER	1.9 U	1.4 U	1.6 U	1.2 U	1.4 U	1.4 U	1.5 U	1.6 U	1.3 U	1.4 U
ETHYL TERT-BUTYL ETHER	0.27 U	0.21 U	0.24 U	0.18 U	0.21 U	0.21 U	0.23 U	0.23 U	0.19 U	0.2 U
ETHYLBENZENE	0.32 U	0.25 U	0.28 U	0.21 U	0.24 U	0.24 U	0.27 U	0.27 U	0.23 U	0.24 U
HEXACHLOROBUTADIENE	1.5 U	1.1 UJ	1.3 U	0.98 U	1.1 U	1.1 U	1.2 U	1.3 U	1.1 U	1.1 U
ISOPROPYLBENZENE	0.2 U	0.15 U	0.17 U	0.13 U	0.15 U	0.15 U	0.16 U	0.17 U	0.14 U	0.15 U
M+P-XYLENES	1.5 U	1.1 U	1.3 U	0.98 U	1.1 U	1.1 U	1.2 U	1.3 U	1.1 U	1.1 U
METHYL TERT-BUTYL ETHER	0.53 U	0.41 U	0.46 U	0.35 U	0.4 U	0.4 U	0.44 U	0.45 U	0.38 U	0.39 U
METHYLENE CHLORIDE	0.83 U	0.64 U	0.72 U	0.55 U	0.63 U	0.63 U	0.69 U	0.71 U	0.59 U	0.61 U
NAPHTHALENE	0.63 B	0.83 B	0.33 B	15	0.18 U	1.1 B	0.21 B	0.2 B	0.17 B	0.17 U
N-BUTYLBENZENE	0.29 U	0.22 UJ	0.25 U	0.19 U	0.22 U	0.21 U	0.24 U	0.24 U	0.2 U	0.21 U
N-PROPYLBENZENE	0.5 U	0.38 UJ	0.43 U	0.33 U	0.38 U	0.37 U	0.41 U	0.42 U	0.35 U	0.37 U
O-XYLENE	0.44 U	0.33 U	0.38 U	0.29 U	0.33 U	0.33 U	0.36 U	0.37 U	0.31 U	0.32 U
SEC-BUTYLBENZENE	0.22 U	0.17 UJ	0.19 U	0.15 U	0.17 U	0.17 U	0.18 U	0.19 U	0.16 U	0.17 U
STYRENE	0.19 U	0.14 U	0.16 U	0.12 U	0.14 U	0.29 J	0.15 U	0.16 U	0.13 U	0.14 U
TERT-AMYL METHYL ETHER	0.46 U	0.35 U	0.4 U	0.3 U	0.35 U	0.35 U	0.38 U	0.39 U	0.33 U	0.34 U
TERT-BUTYLBENZENE	0.36 U	0.27 UJ	0.31 U	0.24 U	0.27 U	0.27 U	0.3 U	0.31 U	0.26 U	0.27 U
TERTIARY-BUTYL ALCOHOL	9.5 UR	10 J	8.2 UR	6.2 UR	7.2 UR	7.1 UR	7.8 UR	8 UR	6.7 UR	7 UR
TETRACHLOROETHENE	0.65 U	0.49 U	0.56 U	0.43 U	0.49 U	0.49 U	0.53 U	0.55 U	0.46 U	0.48 U
TOLUENE	0.54 J	0.32 J	0.29 U	0.23 J	0.84 J	0.73 J	0.76 J	1.5 J	0.75 J	1 J
TOTAL XYLENES	0.83 U	0.64 U	0.72 U	0.55 U	0.63 U	0.63 U	0.69 U	0.71 U	0.59 U	0.61 U
TRANS-1,2-DICHLOROETHENE	0.51 U	0.39 U	0.44 U	0.34 U	0.39 U	0.38 U	0.42 U	0.43 U	0.36 U	0.38 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.51 U	0.58 U	0.44 U	0.51 U	0.5 U	0.55 U	0.57 U	0.48 U	0.5 U
TRICHLOROETHENE	0.52 U	0.4 U	0.45 U	0.34 U	0.4 U	1.2 J	26	60	0.37 U	0.53 J
TRICHLOROFLUOROMETHANE	0.42 U	0.32 U	0.37 U	0.28 U	0.32 U	0.32 U	0.35 U	0.36 U	0.3 U	0.31 U
VINYL ACETATE	0.31 UR	0.24 UR	0.27 UR	0.2 UR	0.24 UR	0.23 UR	0.26 UR	0.26 UR	0.22 UR	0.23 UR
VINYL CHLORIDE	0.49 U	0.37 U	0.42 U	0.32 U	0.37 U	0.36 U	0.4 U	0.41 U	0.34 U	0.36 U

LOCATION	GSP-SB-134		GSP-SB-135		GSP-SB-136		GSP-SB-137		GSP-SB-138	
SAMPLE ID	**GSP-SB-134-25'-27'**	**GSP-SB-134-27'-31'**	**GSP-SB-135-0'-2.5'**	**GSP-SB-135-10.5'-12'**	**GSP-SB-136-02**	**GSP-SB-136-10**	**GSP-SB-137-04**	**GSP-SB-137-18**	**GSP-SB-138-20-22**	**GSP-SB-138-24-26**
SAMPLE DATE	**20120906**	**20120906**	**20120907**	**20120907**	**20120914**	**20120914**	**20120926**	**20120926**	**20120921**	**20120921**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**SB**	**SB**	**SB**	**SB**	**SS**	**SB**	**SB**	**SB**	**SB**	**SB**
TOP DEPTH	**25**	**27**	**0**	**10.5**	**0**	**8**	**2**	**16**	**20**	**24**
BOTTOM DEPTH	**27**	**31**	**2.5**	**12**	**2**	**10**	**4**	**18**	**22**	**26**
METALS (MG/KG)										
ANTIMONY	0.69 B	0.53 B	0.34 UL	0.73 B	0.39 UL	0.61 B	0.43 UL	0.43 UL	0.46 UL	0.73 J
ARSENIC	1.7	0.52 J	1.5	21	2	1.7	1.7	2.5	1 J	3.9
BARIUM	2 J	4.9 J	6 J	5 J	27	4.8 J	14 J	4.9 J	7.9 J	4 J
BERYLLIUM	0.044 U	0.048 U	0.037 U	0.038 U	0.096 J	0.044 U	0.082 J	0.047 UL	0.051 U	0.05 U
CADMIUM	0.037 U	0.04 U	0.031 U	0.032 U	0.12 J	0.036 U	0.039 U	0.04 U	0.042 U	0.047 J
CHROMIUM	3.5	6.3	3.6	35	7.8	3.9	7.2	11	8.7 J	44 J
COBALT	0.59 J	0.23 J	0.65 J	0.64 J	2.3	0.4 J	0.83 J	0.18 U	0.41 J	0.19 U
COPPER	1.3 J	3	2 J	5.3	15	1.8 J	2.6 J	1.5 J	2.5 J	0.87 U
LEAD	1.6	2.8	1.8	5.7	9.3	1.2	3	2.3	2.6	6
MERCURY	0.019 U	0.017 U	0.019 J	0.02 U	0.039 J	0.018 U	0.019 U	0.023 J	0.019 U	0.015 U
MOLYBDENUM	0.28 U	0.3 U	0.23 U	0.35 B	0.67 B	0.35 B	0.3 U	0.3 U	0.32 U	0.51 J
NICKEL	0.28 U	0.38 J	1.1 J	0.63 J	4.4	1.6 J	2.1 J	0.33 J	0.47 J	0.32 U
SELENIUM	0.46 U	0.5 U	0.39 U	1 J	0.45 U	0.46 U	0.49 U	0.49 U	0.53 U	0.77 J
SILVER	0.1 UL	0.11 UL	0.086 UL	0.089 UL	0.2 J	0.1 U	0.11 UL	0.11 UL	0.12 U	0.12 U
THALLIUM	0.56 U	0.62 U	0.48 U	0.49 U	0.86 B	0.56 UL	0.6 U	0.6 U	0.65 U	0.64 U
VANADIUM	11 J	5.7 J	7.4 J	61 J	12 J	5.9 J	10	8.5	8.6 J	77 J
ZINC	1.5 J	2.1 J	4.3	3.3 J	25 K	3.6 J	6.7	1.6 J	1.9 J	1.3 J
PETROLEUM HYDROCARBONS (MG/KG)										
TPH (C10-C32)	17 B	15 B	13 B	18 B	11 B	11 B	10 U	11 U	11 U	19 B
PETROLEUM HYDROCARBONS (UG/KG)										
TPH (C06-C10)	240	54 U	52 U	56 U	49 U	51 U	51 U	56 U	59 B	54 U
SEMIVOLATILES (UG/KG)										
1,1-BIPHENYL	34 U	32 U	31 U	32 U	29 U	30 U	30 U	32 U	32 U	32 U
1,4-DIOXANE	27 U	26 U	25 U	26 U	23 U	24 U	25 U	26 U	26 U	26 U
2,2'-OXYBIS(1-CHLOROPROPANE)	12 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	11 U	11 U
2,4,5-TRICHLOROPHENOL	31 U	29 U	28 U	30 U	27 U	28 U	28 U	30 U	30 U	29 U
2,4,6-TRICHLOROPHENOL	99 U	94 U	91 U	96 U	85 U	89 U	89 U	96 U	96 U	94 U
2,4-DICHLOROPHENOL	25 U	24 U	23 U	24 U	21 U	22 U	22 U	24 U	24 U	24 U
2,4-DIMETHYLPHENOL	25 U	24 U	23 U	24 U	21 U	22 U	22 U	24 U	24 U	24 U
2,4-DINITROPHENOL	99 U	94 U	91 U	96 U	85 U	89 U	89 U	96 U	96 U	94 U
2,4-DINITROTOLUENE	34 U	32 U	31 U	32 U	29 U	30 U	30 U	32 U	32 U	32 U
2,6-DINITROTOLUENE	26 U	25 U	24 U	25 U	22 U	23 U	23 U	25 U	25 U	25 U
2-CHLORONAPHTHALENE	4.1 U	3.9 U	3.8 U	4 U	3.5 U	3.7 U	3.7 U	4 U	3.9 U	3.9 U
2-CHLOROPHENOL	34 U	32 U	31 U	32 U	29 U	30 U	30 U	32 U	32 U	32 U
2-METHYLNAPHTHALENE	4.1 U	3.9 U	3.8 U	4 U	3.5 U	3.7 U	3.7 U	4 U	3.9 U	3.9 U
2-METHYLPHENOL	99 U	94 U	91 U	96 U	85 U	89 U	89 U	96 U	96 U	94 U
2-NITROANILINE	11 U	11 U	10 U	11 U	9.7 U	10 U	10 U	11 U	11 U	11 U
2-NITROPHENOL	34 U	32 U	31 U	32 U	29 U	30 U	30 U	32 U	32 U	32 U
3&4-METHYLPHENOL	25 U	24 U	23 U	24 U	21 U	22 U	22 U	24 U	24 U	24 U
3,3'-DICHLOROBENZIDINE	22 U	21 U	20 U	22 U	19 U	20 U	20 U	22 U	22 U	21 U
3-NITROANILINE	20 U	19 U	18 U	19 U	17 U	18 U	18 U	19 U	19 U	19 U
4,6-DINITRO-2-METHYLPHENOL	99 U	94 U	91 U	96 U	85 U	89 U	89 U	96 U	96 U	94 U
4-BROMOPHENYL PHENYL ETHER	16 U	15 U	15 U	16 U	14 U	14 U	15 U	16 U	16 U	15 U
4-CHLORO-3-METHYLPHENOL	26 U	25 U	24 U	25 U	22 U	23 U	23 U	25 U	25 U	25 U
4-CHLOROANILINE	21 U	20 U	19 U	20 U	18 U	19 U	19 U	20 U	20 U	20 U
4-CHLOROPHENYL PHENYL ETHER	16 U	15 U	15 U	16 U	14 U	14 U	15 U	16 U	16 U	15 U
4-NITROANILINE	32 U	31 U	30 U	31 U	28 U	29 U	29 U	31 U	31 U	31 U
4-NITROPHENOL	99 U	94 U	91 U	96 U	85 U	89 U	89 U	96 U	96 U	94 U
ACENAPHTHENE	4.1 U	3.9 U	3.8 U	4 U	3.6 J	3.7 U	3.7 U	4 U	3.9 U	3.9 U
ACENAPHTHYLENE	4.1 U	3.9 U	3.8 U	4 U	4.8 J	3.7 U	3.7 U	4 U	3.9 U	3.9 U
ACETOPHENONE	11 U	11 U	10 U	11 U	9.8 U	10 U	10 U	11 U	11 U	11 U
ANTHRACENE	4.1 U	3.9 U	3.8 U	4 U	13	3.7 U	3.7 U	4 U	3.9 U	3.9 U
ATRAZINE	11 U	11 U	10 U	11 U	9.7 U	10 U	10 U	11 U	11 U	11 U
BAP EQUIVALENT-HALFND	4.1 U	3.9 U	3.8 U	4 U	121.309	3.7 U	3.7 U	4 U	3.9 U	3.9 U
BAP EQUIVALENT-POS	4.1 U	3.9 U	3.8 U	4 U	119.559	3.7 U	3.7 U	4 U	3.9 U	3.9 U
BENZALDEHYDE	15 U	14 U	14 U	14 U	13 U	13 U	13 U	14 U	14 U	14 U
BENZO(A)ANTHRACENE	4.1 U	3.9 U	3.8 U	4 U	85	3.7 U	3.7 U	4 U	3.9 U	3.9 U
BENZO(A)PYRENE	4.1 U	3.9 U	3.8 U	4 U	94	3.7 U	3.7 U	4 U	3.9 U	3.9 U
BENZO(B)FLUORANTHENE	4.1 U	3.9 U	3.8 U	4 U	110	3.7 U	3.7 U	4 U	3.9 U	3.9 U
BENZO(G,H,I)PERYLENE	4.1 U	3.9 U	3.8 U	4 U	62 J	3.7 U	3.7 U	4 U	3.9 U	3.9 U
BENZO(K)FLUORANTHENE	4.1 U	3.9 U	3.8 U	4 U	46	3.7 U	3.7 U	4 U	3.9 U	3.9 U
BIS(2-CHLOROETHOXY)METHANE	27 U	26 U	25 U	26 U	23 U	24 U	25 U	26 U	26 U	26 U

LOCATION	GSP-SB-134		GSP-SB-135		GSP-SB-136		GSP-SB-137		GSP-SB-138	
SAMPLE ID	**GSP-SB-134-25'-27'**	**GSP-SB-134-27'-31'**	**GSP-SB-135-0'-2.5'**	**GSP-SB-135-10.5'-12'**	**GSP-SB-136-02**	**GSP-SB-136-10**	**GSP-SB-137-04**	**GSP-SB-137-18**	**GSP-SB-138-20-22**	**GSP-SB-138-24-26**
SAMPLE DATE	**20120906**	**20120906**	**20120907**	**20120907**	**20120914**	**20120914**	**20120926**	**20120926**	**20120921**	**20120921**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**SB**	**SB**	**SB**	**SB**	**SS**	**SB**	**SB**	**SB**	**SB**	**SB**
BIS(2-CHLOROETHYL)ETHER	2.5 U	2.4 U	2.3 U	2.4 U	2.1 U	2.2 U	2.2 U	2.4 U	2.4 U	2.4 U
BIS(2-ETHYLHEXYL)PHTHALATE	24 U	22 U	39 J	23 U	25 J	21 U	21 J	23 U	23 U	22 U
BUTYL BENZYL PHTHALATE	12 U	12 U	11 U	12 U	11 U	11 U	11 U	12 U	12 U	12 U
CAPROLACTAM	46 U	44 U	42 U	44 U	39 U	41 U	41 U	44 U	44 U	44 U
CARBAZOLE	34 U	32 U	31 U	32 U	29 U	30 U	30 U	32 U	32 U	32 U
CHRYSENE	1.4 U	1.3 U	1.3 U	1.3 U	99	1.2 U	1.2 U	1.3 U	1.3 U	1.3 U
DIBENZO(A,H)ANTHRACENE	4.1 U	3.9 U	3.8 U	4 U	3.5 U	3.7 U	3.7 U	4 U	3.9 U	3.9 U
DIBENZOFURAN	4.1 U	3.9 U	3.8 U	4 U	3.5 U	3.7 U	3.7 U	4 U	3.9 U	3.9 U
DIETHYL PHTHALATE	20 U	19 U	18 U	19 U	17 U	18 U	18 U	19 U	19 U	19 U
DIMETHYL PHTHALATE	21 U	20 U	19 U	20 U	18 U	19 U	19 U	20 U	20 U	20 U
DI-N-BUTYL PHTHALATE	19 U	18 U	17 U	18 U	16 U	17 U	17 U	18 U	18 U	18 U
DI-N-OCTYL PHTHALATE	34 U	32 U	31 U	32 U	29 U	30 U	30 U	32 U	32 U	32 U
FLUORANTHENE	4.1 U	3.9 U	3.8 U	4 U	160	3.7 U	3.7 U	4 U	3.9 U	3.9 U
FLUORENE	4.1 U	3.9 U	3.8 U	4 U	3.5 U	3.7 U	3.7 U	4 U	3.9 U	3.9 U
HEXACHLOROBENZENE	2.6 U	2.5 U	2.4 U	2.5 U	2.2 U	2.3 U	2.3 U	2.5 U	2.5 U	2.5 U
HEXACHLOROBUTADIENE	34 U	32 U	31 U	32 U	29 U	30 U	30 U	32 U	32 U	32 U
HEXACHLOROCYCLOPENTADIENE	34 U	32 U	31 U	32 U	29 U	30 U	30 U	32 U	32 U	32 U
HEXACHLOROETHANE	11 U	11 U	10 U	11 U	9.6 U	10 U	10 U	11 U	11 U	11 U
INDENO(1,2,3-CD)PYRENE	4.1 U	3.9 U	3.8 U	4 U	55	3.7 U	3.7 U	4 U	3.9 U	3.9 U
ISOPHORONE	16 U	15 U	15 U	16 U	14 U	14 U	15 U	16 U	16 U	15 U
NAPHTHALENE	4.1 U	3.9 U	3.8 U	4 U	4.6 J	3.7 U	3.7 U	4 U	3.9 U	3.9 U
NITROBENZENE	2.7 U	2.6 U	2.5 U	2.6 U	2.3 U	2.4 U	2.5 U	2.6 U	2.6 U	2.6 U
N-NITROSODIMETHYLAMINE	20 U	19 U	18 U	19 U	17 U	18 U	18 U	19 U	19 U	19 U
N-NITROSO-DI-N-PROPYLAMINE	34 U	32 U	31 U	32 U	29 U	30 U	30 U	32 U	32 U	32 U
N-NITROSODIPHENYLAMINE	26 U	25 U	24 U	25 U	22 U	23 U	23 U	25 U	25 U	25 U
PENTACHLOROPHENOL	99 U	94 U	91 U	96 U	85 U	89 U	89 U	96 U	96 U	94 U
PHENANTHRENE	4.1 U	3.9 U	3.8 U	4 U	50	3.7 U	3.7 U	4 U	3.9 U	3.9 U
PHENOL	34 U	32 U	31 U	32 U	29 U	30 U	30 U	32 U	32 U	32 U
PYRENE	4.1 U	3.9 U	3.8 U	4 U	170	3.7 U	3.7 U	4 U	3.9 U	3.9 U
TCLP HERBICIDES (MG/L)										
2,4,5-TP (SILVEX)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)										
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP PESTICIDE/PCBS (UG/L)										
CHLORDANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)										
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP VOLATILES (MG/L)										
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	GSP-SB-134		GSP-SB-135		GSP-SB-136		GSP-SB-137		GSP-SB-138	
SAMPLE ID	GSP-SB-134-25'-27'	GSP-SB-134-27'-31'	GSP-SB-135-0'-2.5'	GSP-SB-135-10.5'-12'	GSP-SB-136-02	GSP-SB-136-10	GSP-SB-137-04	GSP-SB-137-18	GSP-SB-138-20-22	GSP-SB-138-24-26
SAMPLE DATE	20120906	20120906	20120907	20120907	20120914	20120914	20120926	20120926	20120921	20120921
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SS	SB	SB	SB	SB	SB
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/KG)										
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-OCTENE, 2-METHYL-6-METHYLENE-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONITRILE	NA	180 NJ	NA	NA	NA	NA	NA	NA	NA	NA
BROMOETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXANE	NA	NA	NA	1.2 NJ	1.6 NJ	NA	NA	NA	NA	NA
ISOPROPANOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	45 NJ	NA	3.6 NJ	NA	13 NJ	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)										
1,1,1,2-TETRACHLOROETHANE	11 U	8.7 U	0.44 U	0.61 UJ	0.6 U	0.56 U	0.47 U	0.53 U	0.58 U	0.62 U
1,1,1-TRICHLOROETHANE	26 U	20 U	0.39 U	0.55 UJ	0.54 U	0.51 U	0.42 U	0.47 U	0.52 U	0.56 U
1,1,2,2-TETRACHLOROETHANE	11 U	8.5 U	0.24 U	0.33 UJ	0.33 U	0.31 U	0.26 U	0.29 U	0.32 U	0.34 U
1,1,2-TRICHLOROTRIFLUOROETHANE	48 U	37 U	0.92 U	1.3 UJ	1.3 U	1.2 U	0.98 U	1.1 U	1.2 U	1.3 U
1,1-DICHLOROETHANE	21 U	16 U	0.25 U	0.35 UJ	0.35 U	0.33 U	0.27 U	0.31 U	0.34 U	0.36 U
1,1-DICHLOROETHENE	22 U	17 U	0.37 U	0.51 UJ	0.72 J	0.47 U	0.39 U	0.44 U	0.49 U	0.52 U
1,1-DICHLOROPROPENE	12 U	9.6 U	0.21 U	0.29 UJ	0.29 U	0.27 U	0.23 U	0.25 U	0.28 U	0.3 U
1,2,3-TRICHLOROBENZENE	12 U	9.6 U	0.27 U	0.37 UJ	0.37 U	0.35 U	0.29 U	0.32 U	0.36 U	0.38 U
1,2,3-TRICHLOROPROPANE	26 U	20 U	0.63 U	0.88 UJ	0.87 U	0.82 U	0.68 U	0.76 U	0.84 U	0.9 U
1,2,3-TRIMETHYLBENZENE	0.21 U	0.16 U	0.12 U	0.17 UJ	0.17 U	0.15 U	0.13 U	0.14 U	0.16 U	0.17 U
1,2,4-TRICHLOROBENZENE	17 J	7 U	0.19 U	0.26 UJ	0.26 U	0.25 U	0.2 U	0.23 U	0.25 U	0.27 U
1,2,4-TRIMETHYLBENZENE	6.2 U	4.8 U	0.46 U	0.64 UJ	0.63 U	0.59 U	0.49 U	0.55 U	0.61 U	0.65 U
1,2-DIBROMO-3-CHLOROPROPANE	62 U	48 U	0.92 U	1.3 UJ	1.3 U	1.2 U	0.98 U	1.1 U	1.2 U	1.3 U
1,2-DIBROMOETHANE	12 U	9.6 U	0.35 U	0.49 UJ	0.49 U	0.46 U	0.38 U	0.42 U	0.47 U	0.5 U
1,2-DICHLOROBENZENE	11 U	8.2 U	0.25 U	0.35 UJ	0.35 U	0.33 U	0.27 U	0.31 U	0.34 U	0.36 U
1,2-DICHLOROETHANE	12 U	9.6 U	0.24 U	0.33 UJ	0.33 U	0.31 U	0.26 U	0.29 U	0.32 U	0.34 U
1,2-DICHLOROPROPANE	10 U	7.8 U	0.49 U	0.68 UJ	0.67 U	0.63 U	0.52 U	0.59 U	0.65 U	0.69 U
1,3-DICHLOROBENZENE	7.4 J	6.3 J	0.25 U	0.34 UJ	0.34 U	0.32 U	0.26 U	0.3 U	0.33 U	0.35 U
1,3-DICHLOROPROPANE	27 U	21 U	0.24 U	0.33 UJ	0.33 U	0.31 U	0.26 U	0.29 U	0.32 U	0.34 U
1,4-DICHLOROBENZENE	9.8 U	7.7 U	0.46 U	0.65 UJ	0.64 U	0.6 U	0.5 U	0.56 U	0.62 U	0.66 U
2,2-DICHLOROPROPANE	28 U	22 U	0.66 U	0.92 UJ	0.91 U	0.86 U	0.71 U	0.8 U	0.88 U	0.94 U
2-BUTANONE	53 U	41 U	0.99 U	1.4 UJ	1.4 U	1.3 U	2.3 J	1.2 U	1.3 U	1.4 U
2-CHLOROETHYL VINYL ETHER	53 U	41 U	0.99 U	1.4 UJ	1.4 U	1.3 U	1.1 U	1.2 U	1.3 U	1.4 U
2-CHLOROTOLUENE	11 U	8.6 U	0.28 U	0.39 UJ	0.39 U	0.36 U	0.3 U	0.34 U	0.37 U	0.4 U
2-HEXANONE	25 U	19 U	0.44 U	0.62 UJ	0.61 U	0.57 U	0.48 U	0.53 U	0.59 U	0.63 U
4-CHLOROTOLUENE	12 U	9.5 U	0.29 U	0.4 UJ	0.4 U	0.37 U	0.31 U	0.35 U	0.38 U	0.41 U
4-ISOPROPYLTOLUENE	5.9 U	4.6 U	0.15 U	0.21 UJ	0.2 U	0.19 U	0.16 U	0.18 U	0.2 U	0.21 U
4-METHYL-2-PENTANONE	59 U	46 U	0.38 U	0.53 UJ	0.52 U	0.49 U	0.41 U	0.46 U	0.51 U	0.54 U
ACETONE	210 U	160 U	4.4 U	11 J	6.1 U	5.7 U	34	5.3 U	13 J	23
BENZENE	15 U	11 U	0.16 U	0.26 J	0.22 U	0.21 U	0.17 U	0.22 J	0.22 U	0.34 J
BROMOBENZENE	16 U	12 U	0.23 U	0.32 UJ	0.32 U	0.3 U	0.25 U	0.28 U	0.31 U	0.33 U
BROMOCHLOROMETHANE	16 U	12 U	0.5 U	0.7 UJ	0.69 U	0.65 U	0.54 U	0.6 U	0.66 U	0.71 U
BROMODICHLOROMETHANE	12 U	9.5 U	0.2 U	0.27 UJ	0.27 U	0.25 U	0.21 U	0.24 U	0.26 U	0.28 U
BROMOFORM	23 U	18 U	0.23 U	0.32 UJ	0.32 U	0.3 U	0.25 U	0.28 U	0.31 U	0.33 U
BROMOMETHANE	36 U	28 U	0.38 U	0.53 UJ	0.52 U	0.49 U	0.41 U	0.46 U	0.51 U	0.54 U
CARBON DISULFIDE	15 U	11 U	0.31 U	0.43 UJ	0.43 U	0.4 U	0.33 U	0.37 U	0.41 U	0.44 U
CARBON TETRACHLORIDE	7.9 U	6.1 U	0.26 U	0.36 UJ	0.36 U	0.34 U	0.28 U	0.31 U	0.35 U	0.37 U
CHLOROBENZENE	7.9 U	6.1 U	0.23 U	1.6 J	0.32 U	0.3 U	0.25 U	0.28 U	0.31 U	0.33 U
CHLORODIBROMOMETHANE	15 U	11 U	0.39 U	0.54 UJ	0.53 U	0.5 U	0.42 U	0.47 U	0.51 U	0.55 U
CHLOROETHANE	75 U	58 U	0.61 U	0.84 UJ	0.83 U	0.78 U	0.65 U	0.73 U	0.8 U	0.86 U

LOCATION	GSP-SB-134		GSP-SB-135		GSP-SB-136		GSP-SB-137		GSP-SB-138	
SAMPLE ID	**GSP-SB-134-25'-27'**	**GSP-SB-134-27'-31'**	**GSP-SB-135-0'-2.5'**	**GSP-SB-135-10.5'-12'**	**GSP-SB-136-02**	**GSP-SB-136-10**	**GSP-SB-137-04**	**GSP-SB-137-18**	**GSP-SB-138-20-22**	**GSP-SB-138-24-26**
SAMPLE DATE	**20120906**	**20120906**	**20120907**	**20120907**	**20120914**	**20120914**	**20120926**	**20120926**	**20120921**	**20120921**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**SB**	**SB**	**SB**	**SB**	**SS**	**SB**	**SB**	**SB**	**SB**	**SB**
CHLOROFORM	11 U	8.4 U	0.2 U	0.28 UJ	0.28 U	0.26 U	0.22 U	0.25 U	0.27 U	0.29 U
CHLOROMETHANE	17 U	13 U	0.29 U	0.4 UJ	0.4 U	0.37 U	0.31 U	0.35 U	0.38 U	0.41 U
CIS-1,2-DICHLOROETHENE	8.5 U	6.6 U	0.25 U	0.35 UJ	0.35 U	0.33 U	0.27 U	0.43 J	0.34 U	0.36 U
CIS-1,3-DICHLOROPROPENE	9.7 U	7.6 U	0.24 U	0.33 UJ	0.33 U	0.31 U	0.26 U	0.29 U	0.32 U	0.34 U
DIBROMOMETHANE	17 U	13 U	0.44 U	0.62 UJ	0.61 U	0.57 U	0.48 U	0.53 U	0.59 U	0.63 U
DICHLORODIFLUOROMETHANE	20 U	15 U	0.35 U	0.49 UJ	0.49 U	0.46 U	0.38 U	0.42 U	0.47 U	0.5 U
DIISOPROPYL ETHER	62 U	48 U	1.1 U	1.5 UJ	1.5 U	1.4 U	1.1 U	1.3 U	1.4 U	1.5 U
ETHYL TERT-BUTYL ETHER	0.27 U	0.21 U	0.15 U	0.22 UJ	0.21 U	0.2 U	0.17 U	0.19 U	0.21 U	0.22 U
ETHYLBENZENE	6.6 U	5.2 U	0.18 U	0.25 UJ	0.25 U	0.24 U	0.2 U	0.22 U	0.24 U	0.26 U
HEXACHLOROBUTADIENE	17 U	13 U	0.84 U	1.2 UJ	1.2 U	1.1 U	0.91 U	1 U	1.1 U	1.2 U
ISOPROPYLBENZENE	8 U	6.2 U	0.11 U	0.16 UJ	0.16 U	0.15 U	0.12 U	0.14 U	0.15 U	0.16 U
M+P-XYLENES	8.2 J	6.5 J	0.84 U	1.2 UJ	1.2 U	1.1 U	0.91 U	1 U	1.1 U	1.2 U
METHYL TERT-BUTYL ETHER	8.7 U	6.8 U	0.3 U	0.42 UJ	0.42 U	0.39 U	0.33 U	0.36 U	0.4 U	0.43 U
METHYLENE CHLORIDE	95 U	74 U	0.47 U	0.66 UJ	0.65 U	0.61 U	0.51 U	0.57 U	0.63 U	0.67 U
NAPHTHALENE	22 B	15 B	0.13 B	0.19 UJ	0.63 B	0.32 B	0.14 U	0.16 U	0.18 U	0.19 U
N-BUTYLBENZENE	9.8 U	7.7 U	0.16 U	0.23 UJ	0.22 U	0.21 U	0.17 U	0.2 U	0.22 U	0.23 U
N-PROPYLBENZENE	17 U	13 U	0.28 U	0.39 UJ	0.39 U	0.36 U	0.3 U	0.34 U	0.37 U	0.4 U
O-XYLENE	10 U	8.1 U	0.25 U	0.34 UJ	0.34 U	0.32 U	0.26 U	0.3 U	0.33 U	0.35 U
SEC-BUTYLBENZENE	5.8 U	4.5 U	0.13 U	0.18 UJ	0.17 U	0.16 U	0.14 U	0.15 U	0.17 U	0.18 U
STYRENE	6.9 U	5.4 U	0.11 U	0.15 UJ	0.15 U	0.14 U	0.11 U	0.13 U	0.14 U	0.15 U
TERT-AMYL METHYL ETHER	0.46 U	0.35 U	0.26 U	0.36 UJ	0.36 U	0.34 U	0.28 U	0.31 U	0.35 U	0.37 U
TERT-BUTYLBENZENE	8 U	6.2 U	0.2 U	0.28 UJ	0.28 U	0.26 U	0.22 U	0.25 U	0.27 U	0.29 U
TERTIARY-BUTYL ALCOHOL	300 UR	230 UR	5.4 UR	7.4 UR	7.4 UR	6.9 UR	5.7 UR	6.4 UR	7.1 UR	7.6 UR
TETRACHLOROETHENE	15 U	11 U	0.37 U	0.51 UJ	0.74 J	0.47 U	0.39 U	0.44 U	0.49 U	0.52 U
TOLUENE	21 U	16 U	0.41 J	1.2 J	0.26 J	0.88 J	0.43 J	0.54 J	0.61 J	1.1 J
TOTAL XYLENES	10 U	7.8 U	0.47 U	0.66 UJ	0.65 U	0.61 U	0.51 U	0.57 U	0.63 U	0.67 U
TRANS-1,2-DICHLOROETHENE	11 U	8.8 U	0.29 U	0.4 UJ	0.4 U	0.37 U	0.31 U	0.35 U	0.38 U	0.41 U
TRANS-1,3-DICHLOROPROPENE	25 U	19 U	0.38 U	0.53 UJ	0.52 U	0.49 U	0.41 U	0.46 U	0.51 U	0.54 U
TRICHLOROETHENE	3900	1100	0.3 U	0.41 UJ	1.2 J	0.38 U	0.32 U	0.36 U	0.39 U	0.42 U
TRICHLOROFLUOROMETHANE	20 U	15 U	0.24 U	0.33 UJ	0.33 U	0.31 U	0.26 U	0.29 U	0.32 U	0.34 U
VINYL ACETATE	28 UR	22 UR	0.18 UR	0.24 UR	0.24 UR	0.23 UR	0.19 UR	0.21 UR	0.23 UR	0.25 UR
VINYL CHLORIDE	22 U	17 U	0.27 U	0.38 UJ	0.38 U	0.36 U	0.29 U	0.33 U	0.37 U	0.39 U

LOCATION	GSP-SB-139			GSP-SB-140		GSP-SB-141		GSP-SB-142	
SAMPLE ID	**GSP-SB-139-02**	**GSP-SB-139-20-23**	**GSP-SB-139-32-34.5**	**GSP-SB-140-02**	**GSP-SB-140-08**	**GSP-SB-141-02**	**GSP-SB-141-10**	**GSP-SB-142-20**	**GSP-SB-142-28**
SAMPLE DATE	**20121002**	**20120921**	**20120921**	**20120926**	**20120926**	**20121001**	**20121001**	**20120928**	**20120928**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**SS**	**SB**	**SB**	**SS**	**SB**	**SS**	**SB**	**SB**	**SB**
TOP DEPTH	**0**	**20**	**32**	**0**	**6**	**0**	**8**	**18**	**26**
BOTTOM DEPTH	**2**	**23**	**34.5**	**2**	**8**	**2**	**10**	**20**	**28**
METALS (MG/KG)									
ANTIMONY	NA	0.47 UL	0.39 UL	0.31 UL	0.42 UL	0.46 J	0.35 UL	0.34 UL	2 UL
ARSENIC	NA	1.2 J	3	1.5	0.32 U	11 J	2.7 J	3.1	1.7 J
BARIUM	NA	9.5 J	1.3 J	20	5.9 J	45	6.4 J	21	21
BERYLLIUM	NA	0.051 U	0.043 U	0.16 J	0.046 UL	0.49 J	0.061 J	0.35 J	0.45 J
CADMIUM	NA	0.043 U	0.036 U	0.044 J	0.038 U	0.32 J	0.033 U	0.055 J	0.19 UL
CHROMIUM	NA	5.6 J	8.1 J	5.8	3.7	39 J	9.6 J	14	21
COBALT	NA	0.28 J	0.16 U	1.4	0.17 U	4.6	0.3 J	3.4	14
COPPER	NA	3.3	4.1	3.1	3.3	19	5.2	8.7	29
LEAD	NA	2.3 L	0.63 J	3.9	1.3	30 J	3.8 J	7.7	10
MERCURY	NA	0.02 U	0.017 U	0.016 U	0.02 U	0.51	0.045 J	0.03 J	0.13
MOLYBDENUM	NA	0.32 U	0.28 J	0.36 J	0.29 U	0.52 J	0.4 J	0.31 J	1.4 U
NICKEL	NA	0.67 J	0.27 U	2.7 J	0.46 J	12	0.62 J	6.4	53
SELENIUM	NA	0.54 U	0.45 U	0.35 U	0.48 U	0.46 U	0.41 U	0.39 U	2.4 U
SILVER	NA	0.12 U	0.1 U	0.079 UL	0.11 UL	0.25 J	0.091 U	0.086 UL	0.53 UL
THALLIUM	NA	0.66 U	0.55 U	0.43 U	0.59 U	0.57 U	0.5 U	0.48 U	0.58 U
VANADIUM	NA	6.4 J	7.4 J	9.5	3.6	29	25	26	18
ZINC	NA	2.1 J	1.4 J	11	1.5 J	51	3 J	22	9.1
PETROLEUM HYDROCARBONS (MG/KG)									
TPH (C10-C32)	NA	11 U	11 U	27	11 U	110	11 U	70	11 U
PETROLEUM HYDROCARBONS (UG/KG)									
TPH (C06-C10)	NA	57 U	54 U	50 U	53 U	50 U	53 U	50 U	56 U
SEMIVOLATILES (UG/KG)									
1,1-BIPHENYL	NA	33 U	32 U	30 U	32 U	60 U	32 U	29 U	33 U
1,4-DIOXANE	NA	27 U	26 U	24 U	26 U	49 U	26 U	24 U	27 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	12 U	11 U	10 U	11 U	21 U	11 U	10 U	12 U
2,4,5-TRICHLOROPHENOL	NA	31 U	30 U	28 U	29 U	56 U	29 U	27 U	31 U
2,4,6-TRICHLOROPHENOL	NA	99 U	94 U	88 U	93 U	180 U	94 U	86 U	98 U
2,4-DICHLOROPHENOL	NA	25 U	24 U	22 U	23 U	45 U	24 U	22 U	25 U
2,4-DIMETHYLPHENOL	NA	25 U	24 U	22 U	23 U	45 U	24 U	22 U	25 U
2,4-DINITROPHENOL	NA	99 U	94 U	88 U	93 U	180 U	94 U	86 U	98 U
2,4-DINITROTOLUENE	NA	33 U	32 U	30 U	32 U	60 U	32 U	29 U	33 U
2,6-DINITROTOLUENE	NA	26 U	25 U	23 U	25 U	47 U	25 U	23 U	26 U
2-CHLORONAPHTHALENE	NA	4.1 U	3.9 U	3.6 U	3.9 U	7.3 U	3.9 U	3.6 U	4.1 U
2-CHLOROPHENOL	NA	33 U	32 U	30 U	32 U	60 U	32 U	29 U	33 U
2-METHYLNAPHTHALENE	NA	4.1 U	3.9 U	3.6 U	3.9 U	28	3.9 U	16	4.1 U
2-METHYLPHENOL	NA	99 U	94 U	88 U	93 U	180 U	94 U	86 U	98 U
2-NITROANILINE	NA	11 U	11 U	10 U	11 U	20 U	11 U	9.8 U	11 U
2-NITROPHENOL	NA	33 U	32 U	30 U	32 U	60 U	32 U	29 U	33 U
3&4-METHYLPHENOL	NA	25 U	24 U	22 U	23 U	45 U	24 U	22 U	25 U
3,3'-DICHLOROBENZIDINE	NA	22 U	21 U	20 U	21 U	40 U	21 U	19 U	22 U
3-NITROANILINE	NA	20 U	19 U	18 U	19 U	36 U	19 U	17 U	20 U
4,6-DINITRO-2-METHYLPHENOL	NA	99 U	94 U	88 U	93 U	180 U	94 U	86 U	98 U
4-BROMOPHENYL PHENYL ETHER	NA	16 U	15 U	14 U	15 U	29 U	15 U	14 U	16 U
4-CHLORO-3-METHYLPHENOL	NA	26 U	25 U	23 U	25 U	47 U	25 U	23 U	26 U
4-CHLOROANILINE	NA	21 U	20 U	19 U	20 U	38 U	20 U	18 U	21 U
4-CHLOROPHENYL PHENYL ETHER	NA	16 U	15 U	14 U	15 U	29 U	15 U	14 U	16 U
4-NITROANILINE	NA	32 U	31 U	29 U	30 U	58 U	31 U	28 U	32 U
4-NITROPHENOL	NA	99 U	94 U	88 U	93 U	180 U	94 U	86 U	98 U
ACENAPHTHENE	NA	4.1 U	3.9 U	18	3.9 U	77	3.9 U	16	4.1 U
ACENAPHTHYLENE	NA	4.1 U	3.9 U	3.6 U	3.9 U	29	3.9 U	16	4.1 U
ACETOPHENONE	NA	11 U	11 U	10 U	11 U	20 U	11 U	9.9 U	11 U
ANTHRACENE	NA	4.1 U	3.9 U	38	3.9 U	190	3.9 U	69	4.1 U
ATRAZINE	NA	11 U	11 U	10 U	11 U	20 U	11 U	9.8 U	11 U
BAP EQUIVALENT-HALFND	NA	4.1 U	3.9 U	147.29	3.9 U	1065.84	40.9905	455.78	4.1 U
BAP EQUIVALENT-POS	NA	4.1 U	3.9 U	147.29	3.9 U	1062.19	38.826	453.98	4.1 U
BENZALDEHYDE	NA	15 U	14 U	13 U	14 U	27 U	14 U	13 U	15 U
BENZO(A)ANTHRACENE	NA	4.1 U	3.9 U	150	3.9 U	880	25	340	4.1 U
BENZO(A)PYRENE	NA	4.1 U	3.9 U	100	3.9 U	810	32	360	4.1 U
BENZO(B)FLUORANTHENE	NA	4.1 U	3.9 U	130	3.9 U	1300	43	460	4.1 U
BENZO(G,H,I)PERYLENE	NA	4.1 U	3.9 U	52	3.9 U	320	3.9 U	150	4.1 U
BENZO(K)FLUORANTHENE	NA	4.1 U	3.9 U	66	3.9 U	420	3.9 U	160	4.1 U
BIS(2-CHLOROETHOXY)METHANE	NA	27 U	26 U	24 U	26 U	49 U	26 U	24 U	27 U

LOCATION	GSP-SB-139			GSP-SB-140		GSP-SB-141		GSP-SB-142	
SAMPLE ID	**GSP-SB-139-02**	**GSP-SB-139-20-23**	**GSP-SB-139-32-34.5**	**GSP-SB-140-02**	**GSP-SB-140-08**	**GSP-SB-141-02**	**GSP-SB-141-10**	**GSP-SB-142-20**	**GSP-SB-142-28**
SAMPLE DATE	**20121002**	**20120921**	**20120921**	**20120926**	**20120926**	**20121001**	**20121001**	**20120928**	**20120928**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**SS**	**SB**	**SB**	**SS**	**SB**	**SS**	**SB**	**SB**	**SB**
BIS(2-CHLOROETHYL)ETHER	NA	2.5 U	2.4 U	2.2 U	2.3 U	4.5 U	2.4 U	2.2 U	2.5 U
BIS(2-ETHYLHEXYL)PHTHALATE	NA	23 U	22 U	28 J	22 U	42 U	22 U	21 U	23 U
BUTYL BENZYL PHTHALATE	NA	12 U	12 U	11 U	12 U	22 U	12 U	11 U	12 U
CAPROLACTAM	NA	46 U	44 U	41 U	43 U	82 U	44 U	40 U	45 U
CARBAZOLE	NA	33 U	32 U	30 U	32 U	60 U	32 U	29 U	33 U
CHRYSENE	NA	1.4 U	1.3 U	130	1.3 U	990	26	380	1.4 U
DIBENZO(A,H)ANTHRACENE	NA	4.1 U	3.9 U	14	3.9 U	7.3 U	3.9 U	3.6 U	4.1 U
DIBENZOFURAN	NA	4.1 U	3.9 U	8.7 J	3.9 U	18 J	3.9 U	6.2 J	4.1 U
DIETHYL PHTHALATE	NA	20 U	19 U	18 U	19 U	36 U	19 U	17 U	20 U
DIMETHYL PHTHALATE	NA	21 U	20 U	19 U	20 U	38 U	20 U	18 U	21 U
DI-N-BUTYL PHTHALATE	NA	18 U	18 U	17 U	18 U	33 U	18 U	16 U	18 U
DI-N-OCTYL PHTHALATE	NA	33 U	32 U	30 U	32 U	60 U	32 U	29 U	33 U
FLUORANTHENE	NA	4.1 U	3.9 U	310	3.9 U	1700	41	500	4.1 U
FLUORENE	NA	4.1 U	3.9 U	22	3.9 U	62	3.9 U	23	4.1 U
HEXACHLOROBENZENE	NA	2.6 U	2.5 U	2.3 U	2.5 U	4.7 U	2.5 U	2.3 U	2.6 U
HEXACHLOROBUTADIENE	NA	33 U	32 U	30 U	32 U	60 U	32 U	29 U	33 U
HEXACHLOROCYCLOPENTADIENE	NA	33 U	32 U	30 U	32 U	60 U	32 U	29 U	33 U
HEXACHLOROETHANE	NA	11 U	11 U	9.9 U	11 U	20 U	11 U	9.7 U	11 U
INDENO(1,2,3-CD)PYRENE	NA	4.1 U	3.9 U	45	3.9 U	290	3.9 U	120	4.1 U
ISOPHORONE	NA	16 U	15 U	14 U	15 U	29 U	15 U	14 U	16 U
NAPHTHALENE	NA	4.1 U	3.9 U	3.6 U	3.9 U	33	3.9 U	27	4.1 U
NITROBENZENE	NA	2.7 U	2.6 U	2.4 U	2.6 U	4.9 U	2.6 U	2.4 U	2.7 U
N-NITROSODIMETHYLAMINE	NA	20 U	19 U	18 U	19 U	36 U	19 U	17 U	20 U
N-NITROSO-DI-N-PROPYLAMINE	NA	33 U	32 U	30 U	32 U	60 U	32 U	29 U	33 U
N-NITROSODIPHENYLAMINE	NA	26 U	25 U	23 U	25 U	47 U	25 U	23 U	26 U
PENTACHLOROPHENOL	NA	99 U	94 U	88 U	93 U	180 U	94 U	86 U	98 U
PHENANTHRENE	NA	4.1 U	3.9 U	110	3.9 U	900	14	270	4.1 U
PHENOL	NA	33 U	32 U	30 U	32 U	60 U	32 U	29 U	33 U
PYRENE	NA	4.1 U	3.9 U	240	3.9 U	1800	44	650	4.1 U
TCLP HERBICIDES (MG/L)									
2,4,5-TP (SILVEX)	0.0001 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	0.00021 U	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)									
ARSENIC	0.0034 J	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	0.2 J	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	0.0012 J	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	0.0049 J	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	0.0093 B	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.00012 U	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	0.0041 U	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	0.0022 U	NA	NA	NA	NA	NA	NA	NA	NA
TCLP PESTICIDE/PCBS (UG/L)									
CHLORDANE	0.033 U	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN	0.011 U	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	0.0064 U	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	0.008 U	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	0.0071 UJ	NA	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	0.032 U	NA	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	0.32 U	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)									
1,4-DICHLOROBENZENE	0.00034 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	0.0003 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	0.0008 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	0.00027 U	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	0.0008 U	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	0.00075 U	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	0.0001 U	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	0.00027 U	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	0.0008 U	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	0.00004 U	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	0.0024 U	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	0.00035 U	NA	NA	NA	NA	NA	NA	NA	NA
TCLP VOLATILES (MG/L)									
1,1-DICHLOROETHENE	0.0095 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	0.011 U	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	GSP-SB-139			GSP-SB-140		GSP-SB-141		GSP-SB-142	
SAMPLE ID	**GSP-SB-139-02**	**GSP-SB-139-20-23**	**GSP-SB-139-32-34.5**	**GSP-SB-140-02**	**GSP-SB-140-08**	**GSP-SB-141-02**	**GSP-SB-141-10**	**GSP-SB-142-20**	**GSP-SB-142-28**
SAMPLE DATE	**20121002**	**20120921**	**20120921**	**20120926**	**20120926**	**20121001**	**20121001**	**20120928**	**20120928**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**SS**	**SB**	**SB**	**SS**	**SB**	**SS**	**SB**	**SB**	**SB**
2-BUTANONE	0.029 UR	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	0.0065 U	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	0.0065 U	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	0.0075 U	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	0.008 U	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	0.015 U	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	0.0085 U	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.011 U	NA	NA	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/KG)									
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	4.7 NJ	NA	NA	NA
2-NITROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-OCTENE, 2-METHYL-6-METHYLENE-	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONITRILE	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOETHENE	NA	5.4 NJ	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPANOL	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	1.4 NJ	NA	14 NJ	NA	1.3 NJ	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)									
1,1,1,2-TETRACHLOROETHANE	NA	0.61 U	0.62 U	0.51 U	0.45 U	0.56 U	0.52 U	0.45 U	0.53 U
1,1,1-TRICHLOROETHANE	NA	0.55 U	0.56 U	0.46 U	0.41 U	0.5 U	0.47 U	0.41 U	0.48 U
1,1,2,2-TETRACHLOROETHANE	NA	0.34 U	0.34 U	0.28 U	0.25 U	0.31 U	0.28 U	0.25 U	0.29 U
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	1.3 U	1.3 U	1.1 U	0.95 U	1.2 U	1.1 U	0.95 U	1.1 U
1,1-DICHLOROETHANE	NA	0.36 U	0.36 U	0.3 U	0.26 U	0.32 U	0.3 U	0.26 U	0.31 U
1,1-DICHLOROETHENE	NA	0.51 U	0.52 U	0.43 U	0.38 U	0.47 U	0.43 U	0.38 U	0.45 U
1,1-DICHLOROPROPENE	NA	0.3 U	0.3 U	0.25 U	0.22 U	0.27 U	0.25 U	0.22 U	0.26 U
1,2,3-TRICHLOROBENZENE	NA	0.38 U	0.38 U	0.31 U	0.28 U	0.34 U	0.32 U	0.28 U	0.33 U
1,2,3-TRICHLOROPROPANE	NA	0.89 U	0.9 U	0.74 U	0.66 U	0.81 U	0.75 U	0.66 U	0.77 U
1,2,3-TRIMETHYLBENZENE	NA	0.17 U	0.17 U	0.14 U	0.12 U	0.15 U	0.14 U	0.12 U	0.15 U
1,2,4-TRICHLOROBENZENE	NA	0.27 U	0.27 U	0.22 U	0.2 U	0.4 B	0.22 U	0.2 U	0.23 U
1,2,4-TRIMETHYLBENZENE	NA	0.64 U	0.65 U	0.54 U	0.48 U	0.59 U	0.54 U	0.47 U	0.56 U
1,2-DIBROMO-3-CHLOROPROPANE	NA	1.3 U	1.3 U	1.1 U	0.95 U	1.2 U	1.1 U	0.95 U	1.1 U
1,2-DIBROMOETHANE	NA	0.5 U	0.5 U	0.41 U	0.37 U	0.45 U	0.42 U	0.36 U	0.43 U
1,2-DICHLOROBENZENE	NA	0.36 U	0.36 U	0.3 U	0.26 U	0.32 U	0.3 U	0.26 U	0.31 U
1,2-DICHLOROETHANE	NA	0.34 U	0.34 U	0.28 U	0.25 U	0.31 U	0.28 U	0.25 U	0.29 U
1,2-DICHLOROPROPANE	NA	0.68 U	0.69 U	0.57 U	0.51 U	0.62 U	0.57 U	0.5 U	0.59 U
1,3-DICHLOROBENZENE	NA	0.35 U	0.35 U	0.29 U	0.26 U	0.32 U	0.29 U	0.26 U	0.3 U
1,3-DICHLOROPROPANE	NA	0.34 U	0.34 U	0.28 U	0.25 U	0.31 U	0.28 U	0.25 U	0.29 U
1,4-DICHLOROBENZENE	NA	0.65 U	0.66 U	0.54 U	0.48 U	0.59 U	0.55 U	0.48 U	0.57 U
2,2-DICHLOROPROPANE	NA	0.93 U	0.94 U	0.78 U	0.69 U	0.85 U	0.78 U	0.69 U	0.81 U
2-BUTANONE	NA	1.4 U	1.4 U	7.4 J	1.8 J	1.3 U	1.6 B	1 U	1.2 U
2-CHLOROETHYL VINYL ETHER	NA	1.4 U	1.4 U	1.2 U	1 U	1.3 U	1.2 U	1 U	1.2 U
2-CHLOROTOLUENE	NA	0.4 U	0.4 U	0.33 U	0.29 U	0.36 U	0.33 U	0.29 U	0.34 U
2-HEXANONE	NA	0.62 U	0.63 U	0.52 U	0.46 U	0.57 U	0.52 U	0.46 U	0.54 U
4-CHLOROTOLUENE	NA	0.41 U	0.41 U	0.34 U	0.3 U	0.37 U	0.34 U	0.3 U	0.35 U
4-ISOPROPYLTOLUENE	NA	0.21 U	0.21 U	0.17 U	0.15 U	0.19 U	0.17 U	0.15 U	0.18 U
4-METHYL-2-PENTANONE	NA	0.53 U	0.54 U	0.45 U	0.4 U	0.49 U	0.45 U	0.39 U	0.46 U
ACETONE	NA	7.4 J	18 J	61	60	5.7 U	25 B	4.6 U	35 B
BENZENE	NA	0.23 J	0.23 U	0.19 U	0.17 U	0.21 U	0.19 U	0.17 U	0.2 U
BROMOBENZENE	NA	0.33 U	0.33 U	0.27 U	0.24 U	0.3 U	0.27 U	0.24 U	0.28 U
BROMOCHLOROMETHANE	NA	0.7 U	0.71 U	0.59 U	0.52 U	0.64 U	0.59 U	0.52 U	0.61 U
BROMODICHLOROMETHANE	NA	0.28 U	0.28 U	0.23 U	0.21 U	0.25 U	0.23 U	0.2 U	0.24 U
BROMOFORM	NA	0.33 U	0.33 U	0.27 U	0.24 U	0.3 U	0.27 U	0.24 U	0.28 U
BROMOMETHANE	NA	0.53 U	0.54 U	0.45 U	0.4 U	0.49 U	0.45 U	0.39 U	0.46 U
CARBON DISULFIDE	NA	0.44 U	0.44 U	0.69 J	0.32 U	0.4 U	0.37 U	0.32 U	0.38 U
CARBON TETRACHLORIDE	NA	0.37 U	0.37 U	0.31 U	0.27 U	0.33 U	0.31 U	0.27 U	0.32 U
CHLOROBENZENE	NA	0.64 J	0.33 U	0.27 U	0.24 U	0.3 U	0.27 U	0.24 U	0.28 U
CHLORODIBROMOMETHANE	NA	0.54 U	0.55 U	0.45 U	0.4 U	0.5 U	0.46 U	0.4 U	0.47 U
CHLOROETHANE	NA	0.85 U	0.86 U	0.71 U	0.63 U	0.77 U	0.72 U	0.63 U	0.74 U

LOCATION	GSP-SB-139			GSP-SB-140		GSP-SB-141		GSP-SB-142	
SAMPLE ID	**GSP-SB-139-02**	**GSP-SB-139-20-23**	**GSP-SB-139-32-34.5**	**GSP-SB-140-02**	**GSP-SB-140-08**	**GSP-SB-141-02**	**GSP-SB-141-10**	**GSP-SB-142-20**	**GSP-SB-142-28**
SAMPLE DATE	**20121002**	**20120921**	**20120921**	**20120926**	**20120926**	**20121001**	**20121001**	**20120928**	**20120928**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**SS**	**SB**	**SB**	**SS**	**SB**	**SS**	**SB**	**SB**	**SB**
CHLOROFORM	NA	0.29 U	0.29 U	0.24 U	0.21 U	0.26 U	0.24 U	0.21 U	0.25 U
CHLOROMETHANE	NA	0.41 U	0.41 U	0.34 U	0.3 U	0.37 U	0.34 U	0.3 U	0.35 U
CIS-1,2-DICHLOROETHENE	NA	0.36 U	0.36 U	0.3 U	0.26 U	0.32 U	0.3 U	0.26 U	0.31 U
CIS-1,3-DICHLOROPROPENE	NA	0.34 U	0.34 U	0.28 U	0.25 U	0.31 U	0.28 U	0.25 U	0.29 U
DIBROMOMETHANE	NA	0.62 U	0.63 U	0.52 U	0.46 U	0.57 U	0.52 U	0.46 U	0.54 U
DICHLORODIFLUOROMETHANE	NA	0.5 U	0.5 U	0.41 U	0.37 U	0.45 U	0.42 U	0.36 U	0.43 U
DIISOPROPYL ETHER	NA	1.5 U	1.5 U	1.2 U	1.1 U	1.4 U	1.2 U	1.1 U	1.3 U
ETHYL TERT-BUTYL ETHER	NA	0.22 U	0.22 U	0.18 U	0.16 U	0.2 U	0.18 U	0.16 U	0.19 U
ETHYLBENZENE	NA	0.26 U	0.26 U	0.21 U	0.19 U	0.23 U	0.22 U	0.19 U	0.22 U
HEXACHLOROBUTADIENE	NA	1.2 U	1.2 U	0.99 U	0.88 U	1.1 U	1 U	0.87 U	1 U
ISOPROPYLBENZENE	NA	0.16 U	0.16 U	0.13 U	0.12 U	0.14 U	0.13 U	0.12 U	0.14 U
M+P-XYLENES	NA	1.2 U	1.2 U	0.99 U	0.88 U	1.1 U	1 U	0.87 U	1 U
METHYL TERT-BUTYL ETHER	NA	0.43 U	0.43 U	0.35 U	0.32 U	0.39 U	0.36 U	0.31 U	0.37 U
METHYLENE CHLORIDE	NA	0.66 U	0.67 U	0.55 U	0.49 U	0.6 U	0.56 U	0.49 U	0.58 U
NAPHTHALENE	NA	0.19 U	0.19 U	0.16 U	0.14 U	11 J	0.16 U	0.14 U	0.16 B
N-BUTYLBENZENE	NA	0.23 U	0.23 U	0.19 U	0.17 U	0.21 U	0.19 U	0.17 U	0.2 U
N-PROPYLBENZENE	NA	0.4 U	0.4 U	0.33 U	0.29 U	0.36 U	0.33 U	0.29 U	0.34 U
O-XYLENE	NA	0.35 U	0.35 U	0.29 U	0.26 U	0.32 U	0.29 U	0.26 U	0.3 U
SEC-BUTYLBENZENE	NA	0.18 U	0.18 U	0.15 U	0.13 U	0.16 U	0.15 U	0.13 U	0.15 U
STYRENE	NA	0.15 U	0.15 U	0.12 U	0.11 U	0.14 U	0.12 U	0.11 U	0.13 U
TERT-AMYL METHYL ETHER	NA	0.37 U	0.37 U	0.31 U	0.27 U	0.33 U	0.31 U	0.27 U	0.32 U
TERT-BUTYLBENZENE	NA	0.29 U	0.29 U	0.24 U	0.21 U	0.26 U	0.24 U	0.21 U	0.25 U
TERTIARY-BUTYL ALCOHOL	NA	7.5 UR	7.6 UR	6.3 UR	5.6 UR	6.8 UR	6.3 UR	5.5 UR	6.5 UR
TETRACHLOROETHENE	NA	0.51 U	0.52 U	0.43 U	0.38 U	0.47 U	0.43 U	0.38 U	0.45 U
TOLUENE	NA	0.54 J	0.72 J	1 J	0.9 J	0.73 J	0.67 J	0.39 J	0.5 J
TOTAL XYLENES	NA	0.66 U	0.67 U	0.55 U	0.49 U	0.6 U	0.56 U	0.49 U	0.58 U
TRANS-1,2-DICHLOROETHENE	NA	0.41 U	0.41 U	0.34 U	0.3 U	0.37 U	0.34 U	0.3 U	0.35 U
TRANS-1,3-DICHLOROPROPENE	NA	0.53 U	0.54 U	0.45 U	0.4 U	0.49 U	0.45 U	0.39 U	0.46 U
TRICHLOROETHENE	NA	0.42 U	0.69 J	0.35 U	0.31 U	0.38 U	0.35 U	0.31 U	0.36 U
TRICHLOROFLUOROMETHANE	NA	0.34 U	0.34 U	0.28 U	0.25 U	0.31 U	0.28 U	0.25 U	0.29 U
VINYL ACETATE	NA	0.25 UR	0.25 UR	0.21 UR	0.18 UR	0.23 UR	0.21 UR	0.18 UR	0.21 UR
VINYL CHLORIDE	NA	0.39 U	0.39 U	0.32 U	0.29 U	0.35 U	0.32 U	0.28 U	0.33 U

LOCATION	GSP-SB-143		GSP-SB-144			GSP-SB-145		GSP-SB-146	
SAMPLE ID	**GSP-SB-143-02**	**GSP-SB-143-26**	**GSP-SB-144-05**	**GSP-SB-144-10**	**GSP-SB-144-20**	**GSP-SB-145-06**	**GSP-SB-145-20**	**GSP-SB-146-06**	**GSP-SB-146-20**
SAMPLE DATE	**20120927**	**20120927**	**20121002**	**20120928**	**20120928**	**20121001**	**20121001**	**20121001**	**20121001**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**SS**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
TOP DEPTH	**0**	**24**	**3**	**8**	**18**	**4**	**18**	**4**	**18**
BOTTOM DEPTH	**2**	**26**	**5**	**10**	**20**	**6**	**20**	**6**	**20**
METALS (MG/KG)									
ANTIMONY	0.38 UL	2.2 U	NA	1.8 UL	2.2 UL	0.36 UL	2 UL	0.44 U	2.1 UL
ARSENIC	2.6	5.9 J	NA	4.7 J	1.7 U	3.3 J	4.1 J	2.4	1.9 J
BARIUM	24	12 J	NA	13 J	19 J	30	9.8 J	15 J	16 J
BERYLLIUM	0.87 L	0.36 J	NA	0.13 J	0.5 J	0.42 J	0.28 J	0.23 J	0.24 UL
CADMIUM	0.05 J	0.58 J	NA	0.16 UL	0.2 UL	0.065 J	0.18 U	0.04 U	0.2 UL
CHROMIUM	11	14	NA	8.4	27	15 J	16 J	18	21
COBALT	3.7	17	NA	2.5	6.3	5.4	6.1	1.4	2.5
COPPER	11	21	NA	5.8	45	11	69	7.1	15
LEAD	7.5	15	NA	6.4	6.6	8.7 J	3.5 J	4.7	7.5
MERCURY	0.019 U	0.079 J	NA	0.038 J	0.015 U	0.17	0.027 J	0.11	0.04 J
MOLYBDENUM	0.3 J	1.5 U	NA	1.2 U	1.5 U	0.27 J	1.4 U	0.3 U	1.5 U
NICKEL	8.3	30	NA	3.5 J	9.8	9.2	6.9	2.9 J	3.9 J
SELENIUM	0.44 U	2.6 U	NA	2.1 U	2.5 U	0.42 U	2.3 U	0.5 U	2.5 U
SILVER	0.097 UL	0.11 UL	NA	0.092 UL	0.56 UL	0.093 U	0.1 U	0.11 U	0.55 UL
THALLIUM	0.54 U	0.62 U	NA	0.5 U	0.62 U	0.51 U	0.56 U	0.62 U	0.6 U
VANADIUM	21	28	NA	10	12	26	7.5	45	14
ZINC	28	51	NA	8.1	11	31	6.6	7.1	6.3
PETROLEUM HYDROCARBONS (MG/KG)									
TPH (C10-C32)	190	71	NA	11 U	11 U	230	11 U	61	11 U
PETROLEUM HYDROCARBONS (UG/KG)									
TPH (C06-C10)	50 U	54 U	NA	55 U	73 J	300	56 U	69 J	56 U
SEMIVOLATILES (UG/KG)									
1,1-BIPHENYL	30 U	31 U	NA	33 U	33 U	330	33 U	31 U	33 U
1,4-DIOXANE	24 U	26 U	NA	27 U	27 U	100 U	27 U	25 U	27 U
2,2'-OXYBIS(1-CHLOROPROPANE)	10 U	11 U	NA	11 U	11 U	45 U	11 U	11 U	12 U
2,4,5-TRICHLOROPHENOL	27 U	29 U	NA	30 U	30 U	120 U	30 U	29 U	31 U
2,4,6-TRICHLOROPHENOL	87 U	93 U	NA	97 U	97 U	380 U	97 U	91 U	98 U
2,4-DICHLOROPHENOL	22 U	23 U	NA	24 U	24 U	95 U	24 U	23 U	25 U
2,4-DIMETHYLPHENOL	22 U	23 U	NA	24 U	24 U	95 U	24 U	23 U	25 U
2,4-DINITROPHENOL	87 U	93 U	NA	97 U	97 U	380 U	97 U	91 U	98 U
2,4-DINITROTOLUENE	30 U	31 U	NA	33 U	33 U	130 U	33 U	31 U	33 U
2,6-DINITROTOLUENE	23 U	24 U	NA	25 U	25 U	99 U	25 U	24 U	26 U
2-CHLORONAPHTHALENE	3.6 U	3.8 U	NA	4 U	4 U	16 U	4 U	3.8 U	4.1 U
2-CHLOROPHENOL	30 U	31 U	NA	33 U	33 U	130 U	33 U	31 U	33 U
2-METHYLNAPHTHALENE	10	3.8 U	NA	4 U	4 U	2900	9.9	5.7 J	4.1 U
2-METHYLPHENOL	87 U	93 U	NA	97 U	97 U	380 U	97 U	91 U	98 U
2-NITROANILINE	9.9 U	11 U	NA	11 U	11 U	43 U	11 U	10 U	11 U
2-NITROPHENOL	30 U	31 U	NA	33 U	33 U	130 U	33 U	31 U	33 U
3&4-METHYLPHENOL	22 U	23 U	NA	24 U	24 U	95 U	24 U	23 U	25 U
3,3'-DICHLOROBENZIDINE	20 U	21 U	NA	22 U	22 U	85 U	22 U	21 U	22 U
3-NITROANILINE	17 U	19 U	NA	19 U	19 U	76 U	19 U	18 U	20 U
4,6-DINITRO-2-METHYLPHENOL	87 U	93 U	NA	97 U	97 U	380 U	97 U	91 U	98 U
4-BROMOPHENYL PHENYL ETHER	14 U	15 U	NA	16 U	16 U	61 U	16 U	15 U	16 U
4-CHLORO-3-METHYLPHENOL	23 U	24 U	NA	25 U	25 U	99 U	25 U	24 U	26 U
4-CHLOROANILINE	19 U	20 U	NA	21 U	21 U	80 U	21 U	19 U	21 U
4-CHLOROPHENYL PHENYL ETHER	14 U	15 U	NA	16 U	16 U	61 U	16 U	15 U	16 U
4-NITROANILINE	28 U	30 U	NA	31 U	31 U	120 U	31 U	30 U	32 U
4-NITROPHENOL	87 U	93 U	NA	97 U	97 U	380 U	97 U	91 U	98 U
ACENAPHTHENE	12	3.8 U	NA	4 U	4 U	730	4 U	4.1 J	4.1 U
ACENAPHTHYLENE	14	3.8 U	NA	4 U	4 U	77	4 U	3.8 U	4.1 U
ACETOPHENONE	10 U	11 U	NA	11 U	11 U	44 U	11 U	11 U	11 U
ANTHRACENE	48	3.8 U	NA	4 U	4 U	1100	5.3 J	11	4.1 U
ATRAZINE	9.9 U	11 U	NA	11 U	11 U	43 U	11 U	10 U	11 U
BAP EQUIVALENT-HALFND	419.77	3.8 U	NA	4 U	4 U	1277.2	4 U	7.725	4.1 U
BAP EQUIVALENT-POS	417.97	3.8 U	NA	4 U	4 U	1269.2	4 U	3.716	4.1 U
BENZALDEHYDE	13 U	14 U	NA	15 U	15 U	57 U	14 U	14 U	15 U
BENZO(A)ANTHRACENE	320	3.8 U	NA	4 U	4 U	1200	4 U	16	4.1 U
BENZO(A)PYRENE	330	3.8 U	NA	4 U	4 U	1000	4 U	3.8 U	4.1 U
BENZO(B)FLUORANTHENE	420	3.8 U	NA	4 U	4 U	1100	4 U	21	4.1 U
BENZO(G,H,I)PERYLENE	140	3.8 U	NA	4 U	4 U	330	4 U	3.8 U	4.1 U
BENZO(K)FLUORANTHENE	160	3.8 U	NA	4 U	4 U	490	4 U	3.8 U	4.1 U
BIS(2-CHLOROETHOXY)METHANE	24 U	26 U	NA	27 U	27 U	100 U	27 U	25 U	27 U

LOCATION	GSP-SB-143		GSP-SB-144			GSP-SB-145		GSP-SB-146	
SAMPLE ID	**GSP-SB-143-02**	**GSP-SB-143-26**	**GSP-SB-144-05**	**GSP-SB-144-10**	**GSP-SB-144-20**	**GSP-SB-145-06**	**GSP-SB-145-20**	**GSP-SB-146-06**	**GSP-SB-146-20**
SAMPLE DATE	**20120927**	**20120927**	**20121002**	**20120928**	**20120928**	**20121001**	**20121001**	**20121001**	**20121001**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**SS**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
BIS(2-CHLOROETHYL)ETHER	2.2 U	2.3 U	NA	2.4 U	2.4 U	9.5 U	2.4 U	2.3 U	2.5 U
BIS(2-ETHYLHEXYL)PHTHALATE	21 U	22 U	NA	23 J	23 U	90 U	23 U	22 U	23 U
BUTYL BENZYL PHTHALATE	11 U	12 U	NA	12 U	12 U	47 U	12 U	11 U	12 U
CAPROLACTAM	40 U	43 U	NA	45 U	45 U	170 U	45 U	42 U	46 U
CARBAZOLE	30 U	31 U	NA	33 U	33 U	160 J	33 U	31 U	33 U
CHRYSENE	370	1.3 U	NA	1.3 U	1.3 U	1300	1.3 U	16	1.4 U
DIBENZO(A,H)ANTHRACENE	3.6 U	3.8 U	NA	4 U	4 U	16 U	4 U	3.8 U	4.1 U
DIBENZOFURAN	3.8 J	3.8 U	NA	4 U	4 U	230 J	4 U	3.8 U	4.1 U
DIETHYL PHTHALATE	17 U	19 U	NA	19 U	19 U	76 U	19 U	18 U	20 U
DIMETHYL PHTHALATE	19 U	20 U	NA	21 U	21 U	80 U	21 U	19 U	21 U
DI-N-BUTYL PHTHALATE	16 U	17 U	NA	18 U	18 U	71 U	18 U	17 U	18 U
DI-N-OCTYL PHTHALATE	30 U	31 U	NA	33 U	33 U	130 U	33 U	31 U	33 U
FLUORANTHENE	540	3.8 U	NA	12	4 U	2300	13	39	4.1 U
FLUORENE	13	3.8 U	NA	4 U	4 U	1500	5.8 J	5.8 J	4.1 U
HEXACHLOROBENZENE	2.3 U	2.4 U	NA	2.5 U	2.5 U	9.9 U	2.5 U	2.4 U	2.6 U
HEXACHLOROBUTADIENE	30 U	31 U	NA	33 U	33 U	130 U	33 U	31 U	33 U
HEXACHLOROCYCLOPENTADIENE	30 U	31 U	NA	33 U	33 U	130 U	33 U	31 U	33 U
HEXACHLOROETHANE	9.8 U	10 U	NA	11 U	11 U	43 U	11 U	10 U	11 U
INDENO(1,2,3-CD)PYRENE	120	3.8 U	NA	4 U	4 U	330	4 U	3.8 U	4.1 U
ISOPHORONE	14 U	15 U	NA	16 U	16 U	61 U	16 U	15 U	16 U
NAPHTHALENE	19	3.8 U	NA	4 U	64	4400	11	10	4.1 U
NITROBENZENE	2.4 U	2.6 U	NA	2.7 U	2.7 U	10 U	2.7 U	2.5 U	2.7 U
N-NITROSODIMETHYLAMINE	17 U	19 U	NA	19 U	19 U	76 U	19 U	18 U	20 U
N-NITROSO-DI-N-PROPYLAMINE	30 U	31 U	NA	33 U	33 U	130 U	33 U	31 U	33 U
N-NITROSODIPHENYLAMINE	23 U	24 U	NA	25 U	25 U	99 U	25 U	24 U	26 U
PENTACHLOROPHENOL	87 U	93 U	NA	97 U	97 U	380 U	97 U	91 U	98 U
PHENANTHRENE	190	3.8 U	NA	4 U	4 U	4500	25	40	4.1 U
PHENOL	30 U	31 U	NA	33 U	33 U	130 U	33 U	31 U	33 U
PYRENE	590	3.8 U	NA	12	6.6 J	3000	16	37	4.1 U
TCLP HERBICIDES (MG/L)									
2,4,5-TP (SILVEX)	NA	NA	0.0001 U	NA	NA	0.0001 U	NA	NA	NA
2,4-D	NA	NA	0.0011 B	NA	NA	0.00021 U	NA	NA	NA
TCLP METALS (MG/L)									
ARSENIC	NA	NA	0.014 J	NA	NA	0.024 J	NA	NA	NA
BARIUM	NA	NA	0.13 J	NA	NA	0.16 J	NA	NA	NA
CADMIUM	NA	NA	0.00066 U	NA	NA	0.00066 U	NA	NA	NA
CHROMIUM	NA	NA	0.0045 J	NA	NA	0.004 J	NA	NA	NA
LEAD	NA	NA	0.023 B	NA	NA	0.011 B	NA	NA	NA
MERCURY	NA	NA	0.00012 U	NA	NA	0.00012 U	NA	NA	NA
SELENIUM	NA	NA	0.0041 U	NA	NA	0.0041 U	NA	NA	NA
SILVER	NA	NA	0.0022 U	NA	NA	0.0022 U	NA	NA	NA
TCLP PESTICIDE/PCBS (UG/L)									
CHLORDANE	NA	NA	0.033 U	NA	NA	0.033 U	NA	NA	NA
ENDRIN	NA	NA	0.011 U	NA	NA	0.011 U	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	0.0064 U	NA	NA	0.0064 U	NA	NA	NA
HEPTACHLOR	NA	NA	0.008 U	NA	NA	0.008 U	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	0.0071 UJ	NA	NA	0.0071 UJ	NA	NA	NA
METHOXYCHLOR	NA	NA	0.032 U	NA	NA	0.032 U	NA	NA	NA
TOXAPHENE	NA	NA	0.32 U	NA	NA	0.32 U	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)									
1,4-DICHLOROBENZENE	NA	NA	0.00034 U	NA	NA	0.00034 U	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	0.0003 U	NA	NA	0.0003 U	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	0.0008 U	NA	NA	0.0008 U	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	0.00027 U	NA	NA	0.00027 U	NA	NA	NA
2-METHYLPHENOL	NA	NA	0.0008 U	NA	NA	0.0008 U	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	0.00075 U	NA	NA	0.0014 J	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	0.0001 U	NA	NA	0.0001 U	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	0.00027 U	NA	NA	0.00027 U	NA	NA	NA
HEXACHLOROETHANE	NA	NA	0.0008 U	NA	NA	0.0008 U	NA	NA	NA
NITROBENZENE	NA	NA	0.00004 U	NA	NA	0.00004 U	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	0.0024 U	NA	NA	0.0024 U	NA	NA	NA
PYRIDINE	NA	NA	0.00035 U	NA	NA	0.00035 U	NA	NA	NA
TCLP VOLATILES (MG/L)									
1,1-DICHLOROETHENE	NA	NA	0.019 U	NA	NA	0.0095 U	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	0.022 U	NA	NA	0.011 U	NA	NA	NA

LOCATION	GSP-SB-143		GSP-SB-144			GSP-SB-145		GSP-SB-146	
SAMPLE ID	**GSP-SB-143-02**	**GSP-SB-143-26**	**GSP-SB-144-05**	**GSP-SB-144-10**	**GSP-SB-144-20**	**GSP-SB-145-06**	**GSP-SB-145-20**	**GSP-SB-146-06**	**GSP-SB-146-20**
SAMPLE DATE	**20120927**	**20120927**	**20121002**	**20120928**	**20120928**	**20121001**	**20121001**	**20121001**	**20121001**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**SS**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
2-BUTANONE	NA	NA	0.057 UR	NA	NA	0.029 UR	NA	NA	NA
BENZENE	NA	NA	0.013 U	NA	NA	0.0065 U	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	0.013 U	NA	NA	0.0065 U	NA	NA	NA
CHLOROBENZENE	NA	NA	0.015 U	NA	NA	0.0075 U	NA	NA	NA
CHLOROFORM	NA	NA	0.016 U	NA	NA	0.008 U	NA	NA	NA
TETRACHLOROETHENE	NA	NA	0.029 U	NA	NA	0.015 U	NA	NA	NA
TRICHLOROETHENE	NA	NA	0.017 U	NA	NA	0.0085 U	NA	NA	NA
VINYL CHLORIDE	NA	NA	0.022 U	NA	NA	0.011 U	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/KG)									
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	260 NJ	NA	270 NJ	NA
2-NITROPROPANE	NA	NA	NA	NA	NA	NA	NA	100 NJ	NA
2-OCTENE, 2-METHYL-6-METHYLENE-	NA	NA	NA	NA	NA	1000 NJ	NA	NA	NA
ACETONITRILE	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYL ETHER	NA	NA	NA	NA	NA	NA	NA	12 NJ	NA
HEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPANOL	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	1.3 NJ	410 NJ	NA	97 NJ	NA
N-BUTANOL	NA	NA	NA	NA	NA	620 B	NA	640 B	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)									
1,1,1,2-TETRACHLOROETHANE	0.5 U	0.53 U	NA	0.49 U	0.57 U	8.2 U	0.53 U	7.3 U	0.55 U
1,1,1-TRICHLOROETHANE	0.45 U	0.48 U	NA	0.44 U	0.51 U	19 U	0.48 U	17 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.27 U	0.29 U	NA	0.27 U	0.31 U	8 U	0.29 U	7.1 U	0.3 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1 U	1.1 U	NA	1 U	1.2 U	35 U	1.1 U	31 U	1.2 U
1,1-DICHLOROETHANE	0.29 U	0.31 U	NA	0.28 U	0.33 U	15 U	0.31 U	14 U	0.32 U
1,1-DICHLOROETHENE	0.42 U	0.45 U	NA	0.41 U	0.48 U	16 U	0.44 U	14 U	0.47 U
1,1-DICHLOROPROPENE	0.24 U	0.26 U	NA	0.24 U	0.28 U	9 U	0.25 U	8 U	0.27 U
1,2,3-TRICHLOROBENZENE	0.3 U	0.33 U	NA	0.3 U	0.35 U	9 U	0.32 U	8 U	0.34 U
1,2,3-TRICHLOROPROPANE	0.72 U	0.78 U	NA	0.71 U	0.83 U	19 U	0.76 U	17 U	0.81 U
1,2,3-TRIMETHYLBENZENE	0.14 U	0.15 U	NA	0.13 U	0.16 U	0.15 U	0.14 U	5.5 J	0.15 U
1,2,4-TRICHLOROBENZENE	0.22 U	0.23 U	NA	0.21 U	0.25 U	6.6 U	0.23 U	5.8 U	0.24 U
1,2,4-TRIMETHYLBENZENE	0.52 U	0.56 U	NA	0.51 U	0.6 U	4.5 U	0.55 U	7.2 J	0.58 U
1,2-DIBROMO-3-CHLOROPROPANE	1 U	1.1 U	NA	1 U	1.2 U	45 U	1.1 U	40 U	1.2 U
1,2-DIBROMOETHANE	0.4 U	0.43 U	NA	0.39 U	0.46 U	9 U	0.42 U	8 U	0.45 U
1,2-DICHLOROBENZENE	0.29 U	0.31 U	NA	0.28 U	0.33 U	7.7 U	0.31 U	6.9 U	0.32 U
1,2-DICHLOROETHANE	0.27 U	0.29 U	NA	0.27 U	0.31 U	9 U	0.29 U	8 U	0.3 U
1,2-DICHLOROPROPANE	0.55 U	0.59 U	NA	0.54 U	0.63 U	7.4 U	0.59 U	6.5 U	0.62 U
1,3-DICHLOROBENZENE	0.28 U	0.3 U	NA	0.28 U	0.32 U	4.3 U	0.3 U	3.8 U	0.31 U
1,3-DICHLOROPROPANE	0.27 U	0.29 U	NA	0.27 U	0.31 U	20 U	0.29 U	18 U	0.3 U
1,4-DICHLOROBENZENE	0.53 U	0.57 U	NA	0.52 U	0.61 U	7.2 U	0.56 U	6.4 U	0.59 U
2,2-DICHLOROPROPANE	0.75 U	0.81 U	NA	0.74 U	0.86 U	21 U	0.8 U	18 U	0.84 U
2-BUTANONE	1.1 U	1.2 U	NA	1.1 U	1.3 U	89 J	1.2 U	34 U	1.3 U
2-CHLOROETHYL VINYL ETHER	1.1 U	1.2 U	NA	1.1 U	1.3 U	39 U	1.2 U	34 U	1.3 U
2-CHLOROTOLUENE	0.32 U	0.34 U	NA	0.31 U	0.37 U	8.1 U	0.34 U	7.2 U	0.36 U
2-HEXANONE	0.5 U	0.54 U	NA	0.5 U	0.58 U	18 U	0.53 U	16 U	0.56 U
4-CHLOROTOLUENE	0.33 U	0.35 U	NA	0.32 U	0.38 U	8.9 U	0.35 U	7.9 U	0.37 U
4-ISOPROPYLTOLUENE	0.17 U	0.18 U	NA	0.17 U	0.19 U	26 J	0.18 U	3.8 U	0.19 U
4-METHYL-2-PENTANONE	0.43 U	0.47 U	NA	0.43 U	0.5 U	43 U	0.46 U	38 U	0.48 U
ACETONE	5 U	13 B	NA	8.7 B	40 B	150 U	6.5 B	140 U	11 B
BENZENE	0.18 U	0.2 U	NA	0.18 U	0.21 U	11 U	0.2 U	9.6 U	0.21 U
BROMOBENZENE	0.26 U	0.28 U	NA	0.26 U	0.3 U	12 U	0.28 U	10 U	0.3 U
BROMOCHLOROMETHANE	0.57 U	0.61 U	NA	0.56 U	0.65 U	12 U	0.6 U	10 U	0.64 U
BROMODICHLOROMETHANE	0.22 U	0.24 U	NA	0.22 U	0.26 U	8.9 U	0.24 U	7.9 U	0.25 U
BROMOFORM	0.26 U	0.28 U	NA	0.26 U	0.3 U	17 U	0.28 U	15 U	0.3 U
BROMOMETHANE	0.43 U	0.47 U	NA	0.43 U	0.5 U	26 U	0.46 U	23 U	0.48 U
CARBON DISULFIDE	0.35 U	0.38 U	NA	0.35 U	0.4 U	11 U	0.37 U	9.6 U	0.39 U
CARBON TETRACHLORIDE	0.3 U	0.32 U	NA	0.29 U	0.34 U	5.8 U	0.31 U	5.1 U	0.33 U
CHLOROBENZENE	0.26 U	0.28 U	NA	0.26 U	0.3 U	5.8 U	0.28 U	5.1 U	0.3 U
CHLORODIBROMOMETHANE	0.44 U	0.47 U	NA	0.43 U	0.51 U	11 U	0.47 U	9.6 U	0.49 U
CHLOROETHANE	0.69 U	0.74 U	NA	0.68 U	0.79 U	55 U	0.73 U	49 U	0.77 U

LOCATION	GSP-SB-143		GSP-SB-144			GSP-SB-145		GSP-SB-146	
SAMPLE ID	**GSP-SB-143-02**	**GSP-SB-143-26**	**GSP-SB-144-05**	**GSP-SB-144-10**	**GSP-SB-144-20**	**GSP-SB-145-06**	**GSP-SB-145-20**	**GSP-SB-146-06**	**GSP-SB-146-20**
SAMPLE DATE	**20120927**	**20120927**	**20121002**	**20120928**	**20120928**	**20121001**	**20121001**	**20121001**	**20121001**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**SS**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**	**SB**
CHLOROFORM	0.23 U	0.25 U	NA	0.23 U	0.27 U	7.9 U	0.25 U	7 U	0.26 U
CHLOROMETHANE	0.33 U	0.35 U	NA	0.32 U	0.38 U	13 U	0.35 U	11 U	0.37 U
CIS-1,2-DICHLOROETHENE	0.29 U	0.31 U	NA	0.28 U	0.33 U	6.2 U	0.31 U	5.5 U	0.32 U
CIS-1,3-DICHLOROPROPENE	0.27 U	0.29 U	NA	0.27 U	0.31 U	7.1 U	0.29 U	6.3 U	0.3 U
DIBROMOMETHANE	0.5 U	0.54 U	NA	0.5 U	0.58 U	13 U	0.53 U	11 U	0.56 U
DICHLORODIFLUOROMETHANE	0.4 U	0.43 U	NA	0.39 U	0.46 U	14 U	0.42 U	13 U	0.45 U
DIISOPROPYL ETHER	1.2 U	1.3 U	NA	1.2 U	1.4 U	45 U	1.3 U	40 U	1.3 U
ETHYL TERT-BUTYL ETHER	0.18 U	0.19 U	NA	0.17 U	0.2 U	0.2 U	0.19 U	0.18 U	0.2 U
ETHYLBENZENE	0.21 U	0.22 U	NA	0.2 U	0.24 U	11 J	0.22 U	4.3 U	0.23 U
HEXACHLOROBUTADIENE	0.96 U	1 U	NA	0.94 U	1.1 U	13 U	1 U	11 U	1.1 U
ISOPROPYLBENZENE	0.13 U	0.14 U	NA	0.13 U	0.15 U	5.8 U	0.14 U	5.2 U	0.14 U
M+P-XYLENES	0.96 U	1 U	NA	0.94 U	1.1 U	6.4 B	1 U	5.3 B	1.1 U
METHYL TERT-BUTYL ETHER	0.34 U	0.37 U	NA	0.34 U	0.39 U	6.4 U	0.36 U	5.7 U	0.38 U
METHYLENE CHLORIDE	0.54 U	0.58 U	NA	0.53 U	0.62 U	69 U	0.57 U	61 U	0.6 U
NAPHTHALENE	0.22 B	0.16 U	NA	0.19 B	0.17 U	470 J	0.16 U	740 J	0.17 U
N-BUTYLBENZENE	0.18 U	0.2 U	NA	0.18 U	0.21 U	7.2 U	0.2 U	6.4 U	0.21 U
N-PROPYLBENZENE	0.32 U	0.34 U	NA	0.31 U	0.37 U	13 U	0.34 U	11 U	0.36 U
O-XYLENE	0.28 U	0.3 U	NA	0.28 U	0.32 U	7.6 U	0.3 U	6.8 U	0.31 U
SEC-BUTYLBENZENE	0.14 U	0.16 U	NA	0.14 U	0.17 U	4.2 U	0.15 U	3.7 U	0.16 U
STYRENE	0.12 U	0.13 U	NA	0.12 U	0.14 U	5 U	0.13 U	4.5 U	0.13 U
TERT-AMYL METHYL ETHER	0.3 U	0.32 U	NA	0.29 U	0.34 U	0.33 U	0.31 U	0.29 U	0.33 U
TERT-BUTYLBENZENE	0.23 U	0.25 U	NA	0.23 U	0.27 U	5.8 U	0.25 U	5.2 U	0.26 U
TERTIARY-BUTYL ALCOHOL	6.1 UR	6.6 UR	NA	6 UR	7 UR	220 UR	6.4 UR	190 UR	6.8 UR
TETRACHLOROETHENE	0.42 U	0.45 U	NA	0.41 U	0.48 U	16 B	0.44 U	14 B	0.47 U
TOLUENE	0.43 J	0.44 J	NA	0.59 J	0.51 J	580	0.23 U	14 B	0.85 J
TOTAL XYLENES	0.54 U	0.58 U	NA	0.53 U	0.62 U	7.3 U	0.57 U	6.5 U	0.6 U
TRANS-1,2-DICHLOROETHENE	0.33 U	0.35 U	NA	0.32 U	0.38 U	8.3 U	0.35 U	7.3 U	0.37 U
TRANS-1,3-DICHLOROPROPENE	0.43 U	0.47 U	NA	0.43 U	0.5 U	18 U	0.46 U	16 U	0.48 U
TRICHLOROETHENE	0.34 U	0.36 U	NA	0.33 U	0.39 U	14 B	0.36 U	12 B	0.38 U
TRICHLOROFLUOROMETHANE	0.27 U	0.29 U	NA	0.27 U	0.31 U	14 U	0.29 U	13 U	0.3 U
VINYL ACETATE	0.2 UR	0.22 UR	NA	0.2 UR	0.23 UR	21 UR	0.21 UR	18 UR	0.22 UR
VINYL CHLORIDE	0.31 U	0.34 U	NA	0.31 U	0.36 U	16 U	0.33 U	14 U	0.35 U

LOCATION	GSP-SB-147		GSP-SB-148		GSP-SB-149		GSP-SB-150		GSP-SB-151	
SAMPLE ID	**GSP-SB-147-10**	**GSP-SB-147-24**	**GSP-SB-148-02**	**GSP-SB-148-16**	**GSP-SB-149-08**	**GSP-SB-149-28**	**GSP-SB-150-02**	**GSP-SB-150-18**	**GSP-SB-151-10**	**GSP-SB-151-20**
SAMPLE DATE	**20120928**	**20120928**	**20120927**	**20120927**	**20120924**	**20120924**	**20120924**	**20120924**	**20120927**	**20120927**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**SB**	**SB**	**SS**	**SB**	**SB**	**SB**	**SS**	**SB**	**SB**	**SB**
TOP DEPTH	**8**	**22**	**0**	**14**	**6**	**26**	**0**	**16**	**8**	**18**
BOTTOM DEPTH	**10**	**24**	**2**	**16**	**8**	**28**	**2**	**18**	**10**	**20**
METALS (MG/KG)										
ANTIMONY	0.37 UL	2.1 UL	0.4 UL	1.9 U	0.44 U	0.41 U	0.38 U	0.36 U	0.39 UL	0.47 UL
ARSENIC	1.9	1.6 U	2.9	3.3 J	0.69 J	0.94 J	1.6	0.45 J	0.82 J	0.36 U
BARIUM	8 J	12 J	16 J	10 J	9 J	4.9 J	29	2.1 J	2.2 J	3.7 J
BERYLLIUM	0.067 J	0.31 J	0.11 J	0.27 J	0.049 U	0.045 U	0.27 J	0.039 U	0.043 UL	0.052 UL
CADMIUM	0.034 UL	0.2 UL	0.036 UL	0.17 U	0.041 U	0.038 U	0.048 J	0.033 U	0.036 UL	0.043 UL
CHROMIUM	9.7	17	11	17	5.6	8.2	4.9	3.2	3.6	3.8
COBALT	0.44 J	11	0.64 J	9.8	0.18 U	1.2	0.49 J	0.25 J	0.21 J	0.19 U
COPPER	6.8	22	7.6	32	1.9 J	2 J	3.5	3.9	1.9 J	0.89 J
LEAD	3	2.9 J	6.5	9.2	2 L	1.8 L	8.7	0.76 J	0.63 J	1.1 J
MERCURY	0.039 J	0.025 J	0.016 U	0.081 J	0.02 U	0.018 U	0.019 U	0.018 U	0.018 U	0.018 U
MOLYBDENUM	0.25 U	1.5 U	0.27 U	1.3 U	0.31 U	0.28 U	0.26 U	0.25 J	0.39 J	0.32 U
NICKEL	2.5 J	11	2.3 J	14	0.38 J	0.41 J	1.3 J	0.86 J	0.35 J	0.32 U
SELENIUM	0.42 U	2.5 U	0.46 U	2.2 U	0.51 U	0.47 U	0.44 U	0.41 U	0.45 U	0.54 U
SILVER	0.094 UL	0.55 UL	0.1 UL	0.097 UL	0.11 U	0.11 U	0.097 U	0.091 U	0.1 UL	0.12 UL
THALLIUM	0.52 U	0.6 U	0.56 U	0.53 U	0.63 U	0.58 U	0.53 U	0.5 U	0.55 U	0.66 U
VANADIUM	7.9	12	16	6.9	4.3	14	7.3	7	3.1	4.9
ZINC	5	10	9.2	7.5	1.7 J	1.2 J	6.3	2.4 J	1.3 J	1.2 U
PETROLEUM HYDROCARBONS (MG/KG)										
TPH (C10-C32)	11 U	12 U	72	11 U	11 U	11 U	10 U	11 U	11 U	12 U
PETROLEUM HYDROCARBONS (UG/KG)										
TPH (C06-C10)	69 J	60 J	56 J	98 J	54 U	54 U	52 U	54 U	65 J	70 J
SEMIVOLATILES (UG/KG)										
1,1-BIPHENYL	31 U	34 U	31 U	33 U	32 U	32 U	31 U	32 U	33 U	33 U
1,4-DIOXANE	26 U	27 U	25 U	27 U	26 U	26 U	25 U	26 U	27 U	27 U
2,2'-OXYBIS(1-CHLOROPROPANE)	11 U	12 U	11 U	12 U	11 U	11 U	11 U	11 U	12 U	12 U
2,4,5-TRICHLOROPHENOL	29 U	31 U	28 U	30 U	30 U	29 U	28 U	29 U	31 U	31 U
2,4,6-TRICHLOROPHENOL	93 U	100 U	90 U	97 U	95 U	94 U	91 U	94 U	99 U	98 U
2,4-DICHLOROPHENOL	23 U	25 U	23 U	24 U	24 U	23 U	23 U	24 U	25 U	25 U
2,4-DIMETHYLPHENOL	23 U	25 U	23 U	24 U	24 U	23 U	23 U	24 U	25 U	25 U
2,4-DINITROPHENOL	93 U	100 U	90 U	97 U	95 U	94 U	91 U	94 U	99 U	98 U
2,4-DINITROTOLUENE	31 U	34 U	31 U	33 U	32 U	32 U	31 U	32 U	33 U	33 U
2,6-DINITROTOLUENE	24 U	26 U	24 U	26 U	25 U	25 U	24 U	25 U	26 U	26 U
2-CHLORONAPHTHALENE	3.8 U	4.1 U	3.7 U	4 U	3.9 U	3.9 U	3.7 U	3.9 U	4.1 U	4.1 U
2-CHLOROPHENOL	31 U	34 U	31 U	33 U	32 U	32 U	31 U	32 U	33 U	33 U
2-METHYLNAPHTHALENE	3.8 U	4.1 U	4 J	4 U	3.9 U	3.9 U	3.7 U	3.9 U	4.1 U	4.1 U
2-METHYLPHENOL	93 U	100 U	90 U	97 U	95 U	94 U	91 U	94 U	99 U	98 U
2-NITROANILINE	11 U	11 U	10 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U
2-NITROPHENOL	31 U	34 U	31 U	33 U	32 U	32 U	31 U	32 U	33 U	33 U
3&4-METHYLPHENOL	23 U	25 U	23 U	24 U	24 U	23 U	23 U	24 U	25 U	25 U
3,3'-DICHLOROBENZIDINE	21 U	22 U	20 U	22 U	21 U	21 U	20 U	21 U	22 U	22 U
3-NITROANILINE	19 U	20 U	18 U	19 U	19 U	19 U	18 U	19 U	20 U	20 U
4,6-DINITRO-2-METHYLPHENOL	93 U	100 U	90 U	97 U	95 U	94 U	91 U	94 U	99 U	98 U
4-BROMOPHENYL PHENYL ETHER	15 U	16 U	15 U	16 U	15 U	15 U	15 U	15 U	16 U	16 U
4-CHLORO-3-METHYLPHENOL	24 U	26 U	24 U	26 U	25 U	25 U	24 U	25 U	26 U	26 U
4-CHLOROANILINE	20 U	21 U	19 U	21 U	20 U	20 U	19 U	20 U	21 U	21 U
4-CHLOROPHENYL PHENYL ETHER	15 U	16 U	15 U	16 U	15 U	15 U	15 U	15 U	16 U	16 U
4-NITROANILINE	30 U	32 U	29 U	32 U	31 U	31 U	29 U	31 U	32 U	32 U
4-NITROPHENOL	93 U	100 U	90 U	97 U	95 U	94 U	91 U	94 U	99 U	98 U
ACENAPHTHENE	3.8 U	4.1 U	23	4 U	3.9 U	3.9 U	3.7 U	3.9 U	4.1 U	4.1 U
ACENAPHTHYLENE	3.8 U	4.1 U	3.7 U	4 U	3.9 U	3.9 U	3.7 U	3.9 U	4.1 U	4.1 U
ACETOPHENONE	11 U	11 U	10 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U
ANTHRACENE	3.8 U	4.1 U	62	4 U	3.9 U	3.9 U	10	3.9 U	4.1 U	4.1 U
ATRAZINE	11 U	11 U	10 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U
BAP EQUIVALENT-HALFND	3.8 U	4.1 U	172.02	4 U	3.9 U	3.9 U	58.423	3.9 U	4.1 U	4.1 U
BAP EQUIVALENT-POS	3.8 U	4.1 U	170.17	4 U	3.9 U	3.9 U	56.573	3.9 U	4.1 U	4.1 U
BENZALDEHYDE	14 U	15 U	14 U	15 U	14 U	14 U	14 U	14 U	15 U	15 U
BENZO(A)ANTHRACENE	3.8 U	4.1 U	150	4 U	3.9 U	3.9 U	38	3.9 U	4.1 U	4.1 U
BENZO(A)PYRENE	3.8 U	4.1 U	130	4 U	3.9 U	3.9 U	44	3.9 U	4.1 U	4.1 U
BENZO(B)FLUORANTHENE	3.8 U	4.1 U	190	4 U	3.9 U	3.9 U	57	3.9 U	4.1 U	4.1 U
BENZO(G,H,I)PERYLENE	3.8 U	4.1 U	45	4 U	3.9 U	3.9 U	19 J	3.9 U	4.1 U	4.1 U
BENZO(K)FLUORANTHENE	3.8 U	4.1 U	83	4 U	3.9 U	3.9 U	23	3.9 U	4.1 U	4.1 U
BIS(2-CHLOROETHOXY)METHANE	26 U	27 U	25 U	27 U	26 U	26 U	25 U	26 U	27 U	27 U

LOCATION	GSP-SB-147		GSP-SB-148		GSP-SB-149		GSP-SB-150		GSP-SB-151	
SAMPLE ID	**GSP-SB-147-10**	**GSP-SB-147-24**	**GSP-SB-148-02**	**GSP-SB-148-16**	**GSP-SB-149-08**	**GSP-SB-149-28**	**GSP-SB-150-02**	**GSP-SB-150-18**	**GSP-SB-151-10**	**GSP-SB-151-20**
SAMPLE DATE	**20120928**	**20120928**	**20120927**	**20120927**	**20120924**	**20120924**	**20120924**	**20120924**	**20120927**	**20120927**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**SB**	**SB**	**SS**	**SB**	**SB**	**SB**	**SS**	**SB**	**SB**	**SB**
BIS(2-CHLOROETHYL)ETHER	2.3 U	2.5 U	2.3 U	2.4 U	2.4 U	2.3 U	2.3 U	2.4 U	2.5 U	2.5 U
BIS(2-ETHYLHEXYL)PHTHALATE	22 U	24 U	21 U	23 U	23 U	22 U	22 U	22 U	23 U	23 U
BUTYL BENZYL PHTHALATE	12 U	12 U	11 U	12 U	12 U	12 U	11 U	12 U	12 U	12 U
CAPROLACTAM	43 U	46 U	42 U	45 U	44 U	43 U	42 U	44 U	46 U	46 U
CARBAZOLE	31 U	34 U	31 U	33 U	32 U	32 U	31 U	32 U	33 U	33 U
CHRYSENE	1.3 U	1.4 U	140	1.3 U	1.3 U	1.3 U	43	1.3 U	1.4 U	1.4 U
DIBENZO(A,H)ANTHRACENE	3.8 U	4.1 U	3.7 U	4 U	3.9 U	3.9 U	3.7 U	3.9 U	4.1 U	4.1 U
DIBENZOFURAN	3.8 U	4.1 U	21 J	4 U	3.9 U	3.9 U	3.7 U	3.9 U	4.1 U	4.1 U
DIETHYL PHTHALATE	19 U	20 U	18 U	19 U	19 U	19 U	18 U	19 U	20 U	20 U
DIMETHYL PHTHALATE	20 U	21 U	19 U	21 U	20 U	20 U	19 U	20 U	21 U	21 U
DI-N-BUTYL PHTHALATE	17 U	19 U	17 U	18 U	18 U	18 U	17 U	18 U	19 U	18 U
DI-N-OCTYL PHTHALATE	31 U	34 U	31 U	33 U	32 U	32 U	31 U	32 U	33 U	33 U
FLUORANTHENE	3.8 U	4.1 U	350	4 U	3.9 U	3.9 U	80	3.9 U	4.1 U	4.1 U
FLUORENE	3.8 U	4.1 U	22	4 U	3.9 U	3.9 U	3.7 U	3.9 U	4.1 U	4.1 U
HEXACHLOROBENZENE	2.4 U	2.6 U	2.4 U	2.6 U	2.5 U	2.5 U	2.4 U	2.5 U	2.6 U	2.6 U
HEXACHLOROBUTADIENE	31 U	34 U	31 U	33 U	32 U	32 U	31 U	32 U	33 U	33 U
HEXACHLOROCYCLOPENTADIENE	31 U	34 U	31 U	33 U	32 U	32 U	31 U	32 U	33 UR	33 U
HEXACHLOROETHANE	10 U	11 U	10 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U
INDENO(1,2,3-CD)PYRENE	3.8 U	4.1 U	52	4 U	3.9 U	3.9 U	28	3.9 U	4.1 U	4.1 U
ISOPHORONE	15 U	16 U	15 U	16 U	15 U	15 U	15 U	15 U	16 U	16 U
NAPHTHALENE	3.8 U	6.5 J	7.1 J	4 U	3.9 U	3.9 U	3.7 U	3.9 U	4.1 U	4.1 U
NITROBENZENE	2.6 U	2.7 U	2.5 U	2.7 U	2.6 U	2.6 U	2.5 U	2.6 U	2.7 U	2.7 U
N-NITROSODIMETHYLAMINE	19 U	20 U	18 U	19 U	19 U	19 U	18 U	19 U	20 U	20 U
N-NITROSO-DI-N-PROPYLAMINE	31 U	34 U	31 U	33 U	32 U	32 U	31 U	32 U	33 U	33 U
N-NITROSODIPHENYLAMINE	24 U	26 U	24 U	26 U	25 U	25 U	24 U	25 U	26 U	26 U
PENTACHLOROPHENOL	93 U	100 U	90 U	97 U	95 U	94 U	91 U	94 U	99 U	98 U
PHENANTHRENE	3.8 U	4.1 U	220	4 U	3.9 U	3.9 U	37	3.9 U	4.1 U	4.1 U
PHENOL	31 U	34 U	31 U	33 U	32 U	32 U	31 U	32 U	33 U	33 U
PYRENE	4.5 J	4.1 U	270	4 U	3.9 U	3.9 U	65	3.9 U	4.1 U	4.1 U
TCLP HERBICIDES (MG/L)										
2,4,5-TP (SILVEX)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)										
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP PESTICIDE/PCBS (UG/L)										
CHLORDANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)										
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP VOLATILES (MG/L)										
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	GSP-SB-147		GSP-SB-148		GSP-SB-149		GSP-SB-150		GSP-SB-151	
SAMPLE ID	**GSP-SB-147-10**	**GSP-SB-147-24**	**GSP-SB-148-02**	**GSP-SB-148-16**	**GSP-SB-149-08**	**GSP-SB-149-28**	**GSP-SB-150-02**	**GSP-SB-150-18**	**GSP-SB-151-10**	**GSP-SB-151-20**
SAMPLE DATE	**20120928**	**20120928**	**20120927**	**20120927**	**20120924**	**20120924**	**20120924**	**20120924**	**20120927**	**20120927**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**SB**	**SB**	**SS**	**SB**	**SB**	**SB**	**SS**	**SB**	**SB**	**SB**
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/KG)										
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-OCTENE, 2-METHYL-6-METHYLENE-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONITRILE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPANOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)										
1,1,1,2-TETRACHLOROETHANE	0.47 U	0.53 U	0.52 U	0.52 U	0.49 U	0.56 U	0.62 U	0.52 U	0.58 U	0.5 U
1,1,1-TRICHLOROETHANE	0.42 U	0.48 U	0.47 U	0.47 U	0.44 U	0.5 U	0.56 U	0.47 U	0.52 U	0.45 U
1,1,2,2-TETRACHLOROETHANE	0.26 U	0.29 U	0.28 U	0.28 U	0.27 U	0.31 U	0.34 U	0.28 U	0.32 U	0.27 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.98 U	1.1 U	1.1 U	1.1 U	1 U	1.2 U	1.3 U	1.1 U	1.2 U	1.1 U
1,1-DICHLOROETHANE	0.27 U	0.31 U	0.3 U	0.3 U	0.29 U	0.32 U	0.36 U	0.3 U	0.33 U	0.29 U
1,1-DICHLOROETHENE	0.39 U	0.44 U	0.43 U	0.47 J	0.41 U	0.47 U	0.52 U	0.43 U	0.48 U	0.42 U
1,1-DICHLOROPROPENE	0.23 U	0.26 U	0.25 U	0.25 U	0.24 U	0.27 U	0.3 U	0.25 U	0.28 U	0.24 U
1,2,3-TRICHLOROBENZENE	0.29 U	0.32 U	0.32 U	0.32 U	0.3 U	0.34 U	0.38 U	0.32 U	0.35 U	0.31 U
1,2,3-TRICHLOROPROPANE	0.68 U	0.77 U	0.75 U	0.75 U	0.71 U	0.81 U	0.9 U	0.75 U	0.84 U	0.73 U
1,2,3-TRIMETHYLBENZENE	0.13 U	0.14 U	0.14 U	0.14 U	0.13 U	0.15 U	0.17 U	0.14 U	0.16 U	0.14 U
1,2,4-TRICHLOROBENZENE	0.2 U	0.23 U	0.23 U	0.22 U	0.21 U	0.24 U	0.27 U	0.23 U	0.25 U	0.22 U
1,2,4-TRIMETHYLBENZENE	0.49 U	0.55 U	0.54 U	0.54 U	0.52 U	0.58 U	0.65 U	0.54 U	0.6 U	0.53 U
1,2-DIBROMO-3-CHLOROPROPANE	0.98 U	1.1 U	1.1 U	1.1 U	1 U	1.2 U	1.3 U	1.1 U	1.2 U	1.1 U
1,2-DIBROMOETHANE	0.38 U	0.43 U	0.42 U	0.42 U	0.4 U	0.45 U	0.5 U	0.42 U	0.46 U	0.4 U
1,2-DICHLOROBENZENE	0.27 U	0.31 U	0.3 U	0.3 U	0.29 U	0.32 U	0.36 U	0.3 U	0.33 U	0.29 U
1,2-DICHLOROETHANE	0.26 U	0.29 U	0.28 U	0.28 U	0.27 U	2 J	0.34 U	0.77 J	0.32 U	1.9 J
1,2-DICHLOROPROPANE	0.52 U	0.59 U	0.58 U	0.57 U	0.55 U	0.62 U	0.69 U	0.58 U	0.64 U	0.56 U
1,3-DICHLOROBENZENE	0.26 U	0.3 U	0.29 U	0.29 U	0.28 U	0.31 U	0.35 U	0.29 U	0.32 U	0.28 U
1,3-DICHLOROPROPANE	0.26 U	0.29 U	0.28 U	0.28 U	0.27 U	0.31 U	0.34 U	0.28 U	0.32 U	0.27 U
1,4-DICHLOROBENZENE	0.5 U	0.56 U	0.55 U	0.55 U	0.52 U	0.59 U	0.66 U	0.55 U	0.61 U	0.53 U
2,2-DICHLOROPROPANE	0.71 U	0.8 U	0.79 U	0.78 U	0.75 U	0.84 U	0.94 U	0.79 U	0.87 U	0.76 U
2-BUTANONE	1.1 U	1.2 U	8.5 J	1.2 U	1.7 B	1.3 U	1.4 J	1.2 U	1.3 U	1.1 U
2-CHLOROETHYL VINYL ETHER	1.1 U	1.2 U	1.2 U	1.2 U	1.1 U	1.3 U	1.4 U	1.2 U	1.3 U	1.1 U
2-CHLOROTOLUENE	0.3 U	0.34 U	0.33 U	0.33 U	0.32 U	0.36 U	0.4 U	0.33 U	0.37 U	0.32 U
2-HEXANONE	0.47 U	0.54 U	0.53 U	0.52 U	0.5 U	0.57 U	0.63 U	0.53 U	0.58 U	0.51 U
4-CHLOROTOLUENE	0.31 U	0.35 U	0.34 U	0.34 U	0.32 U	0.37 U	0.41 U	0.34 U	0.38 U	0.33 U
4-ISOPROPYLTOLUENE	0.16 U	0.18 U	0.18 U	0.17 U	0.17 U	0.19 U	0.21 U	0.18 U	0.19 U	0.17 U
4-METHYL-2-PENTANONE	0.41 U	0.46 U	0.45 U	0.45 U	0.43 U	0.49 U	0.71 J	0.45 U	0.5 U	0.44 U
ACETONE	18 B	12 B	49	9 B	12 J	24	6.3 U	5.3 U	30	5.1 U
BENZENE	0.17 U	0.2 U	0.19 U	0.19 U	0.18 U	0.21 U	0.23 U	0.19 U	0.21 U	0.2 J
BROMOBENZENE	0.25 U	0.28 U	0.28 U	0.27 U	0.26 U	0.3 U	0.33 U	0.28 U	0.31 U	0.27 U
BROMOCHLOROMETHANE	0.53 U	0.6 U	0.59 U	0.59 U	0.56 U	0.64 U	0.71 U	0.59 U	0.66 U	0.57 U
BROMODICHLOROMETHANE	0.21 U	0.24 U	0.23 U	0.23 U	0.22 U	0.25 U	0.28 U	0.23 U	0.26 U	0.23 U
BROMOFORM	0.25 U	0.28 U	0.28 U	0.27 U	0.26 U	0.3 U	0.33 U	0.28 U	0.31 U	0.27 U
BROMOMETHANE	0.41 U	0.46 U	0.45 U	0.45 U	0.43 U	0.49 U	0.54 U	0.45 U	0.5 U	0.44 U
CARBON DISULFIDE	0.33 U	0.37 U	0.37 U	0.37 U	0.35 U	0.4 U	0.44 U	0.37 U	0.41 U	0.36 U
CARBON TETRACHLORIDE	0.28 U	0.31 U	0.31 U	0.31 U	0.29 U	0.33 U	0.37 U	0.31 U	0.34 U	0.3 U
CHLOROBENZENE	0.25 U	0.28 U	0.28 U	0.27 U	0.26 U	0.3 U	0.33 U	0.28 U	0.31 U	0.27 U
CHLORODIBROMOMETHANE	0.41 U	0.47 U	0.46 U	0.46 U	0.44 U	0.49 U	0.55 U	0.46 U	0.51 U	0.44 U
CHLOROETHANE	0.65 U	0.73 U	0.72 U	0.72 U	0.68 U	0.77 U	0.86 U	0.72 U	0.8 U	0.69 U

LOCATION	GSP-SB-147		GSP-SB-148		GSP-SB-149		GSP-SB-150		GSP-SB-151	
SAMPLE ID	**GSP-SB-147-10**	**GSP-SB-147-24**	**GSP-SB-148-02**	**GSP-SB-148-16**	**GSP-SB-149-08**	**GSP-SB-149-28**	**GSP-SB-150-02**	**GSP-SB-150-18**	**GSP-SB-151-10**	**GSP-SB-151-20**
SAMPLE DATE	**20120928**	**20120928**	**20120927**	**20120927**	**20120924**	**20120924**	**20120924**	**20120924**	**20120927**	**20120927**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**SB**	**SB**	**SS**	**SB**	**SB**	**SB**	**SS**	**SB**	**SB**	**SB**
CHLOROFORM	0.22 U	0.25 U	0.24 U	0.24 U	0.23 U	0.26 U	0.29 U	0.27 J	0.27 U	0.23 U
CHLOROMETHANE	0.31 U	0.35 U	0.34 U	0.34 U	0.32 U	0.37 U	0.41 U	0.34 U	0.38 U	0.33 U
CIS-1,2-DICHLOROETHENE	0.27 U	0.31 U	0.3 U	1.2 J	0.29 U	11	0.36 U	9.6	0.33 U	4.4
CIS-1,3-DICHLOROPROPENE	0.26 U	0.29 U	0.28 U	0.28 U	0.27 U	0.31 U	0.34 U	0.28 U	0.32 U	0.27 U
DIBROMOMETHANE	0.47 U	0.54 U	0.53 U	0.52 U	0.5 U	0.57 U	0.63 U	0.53 U	0.58 U	0.51 U
DICHLORODIFLUOROMETHANE	0.38 U	0.43 U	0.42 U	0.42 U	0.4 U	0.45 U	0.5 U	0.42 U	0.46 U	0.4 U
DIISOPROPYL ETHER	1.1 U	1.3 U	1.3 U	1.2 U	1.2 U	1.3 U	1.5 U	1.3 U	1.4 U	1.2 U
ETHYL TERT-BUTYL ETHER	0.17 U	0.19 U	0.18 U	0.18 U	0.17 U	0.2 U	0.22 U	0.18 U	0.2 U	0.18 U
ETHYLBENZENE	0.2 U	0.22 U	0.22 U	0.22 U	0.21 U	0.23 U	0.26 U	0.22 U	0.24 U	0.21 U
HEXACHLOROBUTADIENE	0.9 U	1 U	1 U	1 U	0.95 U	1.1 U	1.2 U	1 U	1.1 U	0.97 U
ISOPROPYLBENZENE	0.12 U	0.14 U	0.13 U	0.13 U	0.13 U	0.14 U	0.16 U	0.13 U	0.15 U	0.13 U
M+P-XYLENES	0.9 U	1 U	1 U	1 U	0.95 U	1.1 U	1.2 U	1 U	1.1 U	0.97 U
METHYL TERT-BUTYL ETHER	0.32 U	0.37 U	0.36 U	0.36 U	0.34 U	0.39 U	0.43 U	0.36 U	0.4 U	0.35 U
METHYLENE CHLORIDE	0.5 U	0.57 U	0.56 U	0.56 U	0.53 U	0.6 U	0.67 U	0.56 U	0.62 U	0.54 U
NAPHTHALENE	0.14 U	0.16 U	0.16 U	0.19 B	0.15 U	0.94 J	0.19 U	0.58 J	0.18 U	4.3
N-BUTYLBENZENE	0.17 U	0.2 U	0.19 U	0.19 U	0.18 U	0.21 U	0.23 U	0.19 U	0.21 U	0.19 U
N-PROPYLBENZENE	0.3 U	0.34 U	0.33 U	0.33 U	0.32 U	0.36 U	0.4 U	0.33 U	0.37 U	0.32 U
O-XYLENE	0.26 U	0.3 U	0.29 U	0.29 U	0.28 U	0.31 U	0.35 U	0.29 U	0.32 U	0.28 U
SEC-BUTYLBENZENE	0.14 U	0.15 U	0.15 U	0.15 U	0.14 U	0.16 U	0.18 U	0.15 U	0.17 U	0.15 U
STYRENE	0.11 U	0.13 U	0.13 U	0.12 U	0.12 U	0.13 U	0.15 U	0.13 U	0.14 U	0.12 U
TERT-AMYL METHYL ETHER	0.28 U	0.31 U	0.31 U	0.31 U	0.29 U	0.33 U	0.37 U	0.31 U	0.34 U	0.3 U
TERT-BUTYLBENZENE	0.22 U	0.25 U	0.24 U	0.24 U	0.23 U	0.26 U	0.29 U	0.24 U	0.27 U	0.23 U
TERTIARY-BUTYL ALCOHOL	5.7 UR	6.5 UR	6.4 UR	6.3 UR	6 UR	6.8 UR	7.6 UR	6.3 UR	7.1 UR	6.1 UR
TETRACHLOROETHENE	0.39 U	0.44 U	0.43 U	0.43 U	0.41 U	0.47 U	0.52 U	0.43 U	0.48 U	0.42 U
TOLUENE	0.58 J	0.3 J	0.81 J	0.24 J	0.67 J	1.3 J	0.4 J	0.23 U	0.76 J	0.52 J
TOTAL XYLENES	0.5 U	0.57 U	0.56 U	0.56 U	0.53 U	0.6 U	0.67 U	0.56 U	0.62 U	0.54 U
TRANS-1,2-DICHLOROETHENE	0.31 U	0.35 U	0.34 U	0.34 U	0.32 U	0.37 U	0.41 U	0.34 U	0.38 U	0.33 U
TRANS-1,3-DICHLOROPROPENE	0.41 U	0.46 U	0.45 U	0.45 U	0.43 U	0.49 U	0.54 U	0.45 U	0.5 U	0.44 U
TRICHLOROETHENE	0.32 U	0.36 U	0.35 U	64	0.33 U	67	0.42 U	52	0.72 J	21
TRICHLOROFLUOROMETHANE	0.26 U	0.29 U	0.28 U	0.28 U	0.27 U	0.31 U	0.34 U	0.28 U	0.32 U	0.27 U
VINYL ACETATE	0.19 UR	0.21 UR	0.21 UR	0.21 UR	0.2 UR	0.22 UR	0.25 UR	0.21 UR	0.23 UR	0.2 UR
VINYL CHLORIDE	0.29 U	0.33 U	0.33 U	0.32 U	0.31 U	1.9 J	0.39 U	0.89 J	0.36 U	1.9 J

LOCATION	GSP-SB-152		GSP-SB-153		GSP-SB-154		GSP-SB-155	
SAMPLE ID	**GSP-SB-152-10**	**GSP-SB-152-28**	**GSP-SB-153-02**	**GSP-SB-153-24**	**GSP-SB-154-02**	**GSP-SB-154-16**	**GSP-SB-155-02**	**GSP-SB-155-10**
SAMPLE DATE	**20120926**	**20120926**	**20120925**	**20120925**	**20120925**	**20120925**	**20120925**	**20120925**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**SB**	**SB**	**SS**	**SB**	**SS**	**SB**	**SS**	**SB**
TOP DEPTH	**8**	**26**	**0**	**22**	**0**	**14**	**0**	**8**
BOTTOM DEPTH	**10**	**28**	**2**	**24**	**2**	**16**	**2**	**10**
METALS (MG/KG)								
ANTIMONY	0.47 UL	0.38 UL	0.43 U	0.36 U	0.36 U	0.36 U	0.37 U	0.39 U
ARSENIC	0.84 J	0.66 J	3.5	0.48 J	1 J	0.89 J	3	0.71 J
BARIUM	2.4 J	7.4 J	18 J	2 J	11 J	2.9 J	100	7.7 J
BERYLLIUM	0.052 UL	0.059 J	0.19 J	0.039 U	0.15 J	0.045 J	1.4	0.043 U
CADMIUM	0.044 U	0.035 U	0.084 J	0.033 U	0.041 J	0.033 U	0.22 J	0.036 U
CHROMIUM	2.2	6.1	9.6	2.8	4.7	10	12	6
COBALT	0.19 U	0.53 J	1.2	0.15 U	0.62 J	0.18 J	2.2	0.25 J
COPPER	1.1 J	3.1	5.4	0.67 U	3.3	1.9 J	8.7	2.3 J
LEAD	0.73 J	2.3	9.9	0.91 L	5.9	1.1 L	15	1.9 L
MERCURY	0.016 U	0.038 J	0.05 J	0.018 U	0.065 J	0.017 U	0.67	0.13 K
MOLYBDENUM	0.33 U	0.26 U	0.3 J	0.25 U	0.25 U	0.25 U	0.25 U	0.29 J
NICKEL	0.33 U	0.85 J	2.2 J	0.25 U	1.5 J	0.26 J	11	0.88 J
SELENIUM	0.55 U	0.44 U	0.49 U	0.41 U	0.41 U	0.42 U	1 J	0.45 U
SILVER	0.12 UL	0.097 UL	0.11 U	0.091 U	0.092 U	0.092 U	0.13 J	0.1 U
THALLIUM	0.67 U	0.54 U	0.6 U	0.5 U	0.51 U	0.51 U	0.52 U	0.55 U
VANADIUM	3.3	5.2	25	4.3	7.5	15	27	5.9
ZINC	1.2 U	2.2 J	25	0.91 U	10	1.3 J	51	3.3 J
PETROLEUM HYDROCARBONS (MG/KG)								
TPH (C10-C32)	11 U	11 U	33	11 U	98	10 U	88	28
PETROLEUM HYDROCARBONS (UG/KG)								
TPH (C06-C10)	62 B	53 U	56 U	54 U	52 U	53 U	50 U	58 B
SEMIVOLATILES (UG/KG)								
1,1-BIPHENYL	33 U	32 U	33 U	31 U	31 U	31 U	30 U	32 U
1,4-DIOXANE	27 U	26 U	27 U	26 U	25 U	25 U	24 U	26 U
2,2'-OXYBIS(1-CHLOROPROPANE)	12 U	11 U	12 U	11 U	11 U	11 U	10 U	11 U
2,4,5-TRICHLOROPHENOL	31 U	29 U	30 U	29 U	29 U	28 U	27 U	30 U
2,4,6-TRICHLOROPHENOL	98 U	94 U	97 U	93 U	92 U	91 U	87 U	95 U
2,4-DICHLOROPHENOL	24 U	23 U	24 U	23 U	23 U	23 U	22 U	24 U
2,4-DIMETHYLPHENOL	24 U	23 U	24 U	23 U	23 U	23 U	22 U	24 U
2,4-DINITROPHENOL	98 U	94 U	97 U	93 U	92 U	91 U	87 U	95 U
2,4-DINITROTOLUENE	33 U	32 U	33 U	31 U	31 U	31 U	30 U	32 U
2,6-DINITROTOLUENE	26 U	25 U	26 U	24 U	24 U	24 U	23 U	25 U
2-CHLORONAPHTHALENE	4 U	3.9 U	4 U	3.8 U	3.8 U	3.7 U	3.6 U	3.9 U
2-CHLOROPHENOL	33 U	32 U	33 U	31 U	31 U	31 U	30 U	32 U
2-METHYLNAPHTHALENE	4 U	3.9 U	4 U	3.8 U	3.8 U	3.7 U	40	3.9 U
2-METHYLPHENOL	98 U	94 U	97 U	93 U	92 U	91 U	87 U	95 U
2-NITROANILINE	11 U	11 U	11 U	11 U	10 U	10 U	9.9 U	11 U
2-NITROPHENOL	33 U	32 U	33 U	31 U	31 U	31 U	30 U	32 U
3&4-METHYLPHENOL	24 U	23 U	24 U	23 U	23 U	23 U	22 U	24 U
3,3'-DICHLOROBENZIDINE	22 U	21 U	22 U	21 U	21 U	20 U	20 U	21 U
3-NITROANILINE	20 U	19 U	19 U	19 U	18 U	18 U	17 U	19 U
4,6-DINITRO-2-METHYLPHENOL	98 U	94 U	97 U	93 U	92 U	91 U	87 U	95 U
4-BROMOPHENYL PHENYL ETHER	16 U	15 U	16 U	15 U	15 U	15 U	14 U	15 U
4-CHLORO-3-METHYLPHENOL	26 U	25 U	26 U	24 U	24 U	24 U	23 U	25 U
4-CHLOROANILINE	21 U	20 U	21 U	20 U	19 U	19 U	19 U	20 U
4-CHLOROPHENYL PHENYL ETHER	16 U	15 U	16 U	15 U	15 U	15 U	14 U	15 U
4-NITROANILINE	32 U	30 U	32 U	30 U	30 U	29 U	28 U	31 U
4-NITROPHENOL	98 U	94 U	97 U	93 U	92 U	91 U	87 U	95 U
ACENAPHTHENE	4 U	3.9 U	11	3.8 U	3.8 U	3.7 U	41	3.9 U
ACENAPHTHYLENE	4 U	3.9 U	4 U	3.8 U	3.8 U	3.7 U	110	3.9 U
ACETOPHENONE	11 U	11 U	11 U	11 U	11 U	10 U	10 U	11 U
ANTHRACENE	4 U	3.9 U	27	3.8 U	22	3.7 U	230	3.9 U
ATRAZINE	11 U	11 U	11 U	11 U	10 U	10 U	9.9 U	11 U
BAP EQUIVALENT-HALFND	4 U	3.9 U	197.56	3.8 U	302.33	3.7 U	1023.99	26.132
BAP EQUIVALENT-POS	4 U	3.9 U	195.56	3.8 U	302.33	3.7 U	1023.99	24.182
BENZALDEHYDE	15 U	14 U	44 J	14 U	19 J	14 U	13 U	14 U
BENZO(A)ANTHRACENE	4 U	3.9 U	140	3.8 U	160	3.7 U	650	18
BENZO(A)PYRENE	4 U	3.9 U	150	3.8 U	210	3.7 U	710	19
BENZO(B)FLUORANTHENE	4 U	3.9 U	220	3.8 U	310	3.7 U	720	22
BENZO(G,H,I)PERYLENE	4 U	3.9 U	96	3.8 U	160	3.7 U	520	14
BENZO(K)FLUORANTHENE	4 U	3.9 U	89	3.8 U	110	3.7 U	420	16
BIS(2-CHLOROETHOXY)METHANE	27 U	26 U	27 U	26 U	25 U	25 U	24 U	26 U

LOCATION	GSP-SB-152		GSP-SB-153		GSP-SB-154		GSP-SB-155	
SAMPLE ID	**GSP-SB-152-10**	**GSP-SB-152-28**	**GSP-SB-153-02**	**GSP-SB-153-24**	**GSP-SB-154-02**	**GSP-SB-154-16**	**GSP-SB-155-02**	**GSP-SB-155-10**
SAMPLE DATE	**20120926**	**20120926**	**20120925**	**20120925**	**20120925**	**20120925**	**20120925**	**20120925**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**SB**	**SB**	**SS**	**SB**	**SS**	**SB**	**SS**	**SB**
BIS(2-CHLOROETHYL)ETHER	2.4 U	2.3 U	2.4 U	2.3 U	2.3 U	2.3 U	2.2 U	2.4 U
BIS(2-ETHYLHEXYL)PHTHALATE	23 U	22 U	43 J	22 U	47 J	22 U	83	26 J
BUTYL BENZYL PHTHALATE	12 U	12 U	12 U	12 U	11 U	11 U	11 U	12 U
CAPROLACTAM	45 U	43 U	45 U	43 U	42 U	42 U	40 U	44 U
CARBAZOLE	33 U	32 U	33 U	31 U	31 U	31 U	30 U	32 U
CHRYSENE	1.3 U	1.3 U	170	1.3 U	230	1.2 U	790	22
DIBENZO(A,H)ANTHRACENE	4 U	3.9 U	4 U	3.8 U	30	3.7 U	130	3.9 U
DIBENZOFURAN	4 U	3.9 U	4 U	3.8 U	3.8 U	3.7 U	14 J	3.9 U
DIETHYL PHTHALATE	20 U	19 U	19 U	19 U	18 U	18 U	17 U	19 U
DIMETHYL PHTHALATE	21 U	20 U	21 U	20 U	19 U	19 U	19 U	20 U
DI-N-BUTYL PHTHALATE	18 U	18 U	46 J	17 U	27 J	17 U	16 U	18 U
DI-N-OCTYL PHTHALATE	33 U	32 U	33 U	31 U	31 U	31 U	30 U	32 U
FLUORANTHENE	4 U	3.9 U	270	3.8 U	260	3.7 U	1000	30
FLUORENE	4 U	3.9 U	4 U	3.8 U	3.8 U	3.7 U	61	3.9 U
HEXACHLOROBENZENE	2.6 U	2.5 U	2.6 U	2.4 U	2.4 U	2.4 U	2.3 U	2.5 U
HEXACHLOROBUTADIENE	33 U	32 U	33 U	31 U	31 U	31 U	30 U	32 U
HEXACHLOROCYCLOPENTADIENE	33 U	32 U	33 U	31 U	31 U	31 U	30 U	32 U
HEXACHLOROETHANE	11 U	11 U	11 U	10 U	10 U	10 U	9.8 U	11 U
INDENO(1,2,3-CD)PYRENE	4 U	3.9 U	85	3.8 U	140	3.7 U	420	10
ISOPHORONE	16 U	15 U	16 U	15 U	15 U	15 U	14 U	15 U
NAPHTHALENE	4 U	3.9 U	4 U	3.8 U	3.8 U	3.7 U	60	3.9 U
NITROBENZENE	2.7 U	2.6 U	2.7 U	2.6 U	2.5 U	2.5 U	2.4 U	2.6 U
N-NITROSODIMETHYLAMINE	20 U	19 U	19 U	19 U	18 U	18 U	17 U	19 U
N-NITROSO-DI-N-PROPYLAMINE	33 U	32 U	33 U	31 U	31 U	31 U	30 U	32 U
N-NITROSODIPHENYLAMINE	26 U	25 U	26 U	24 U	24 U	24 U	23 U	25 U
PENTACHLOROPHENOL	98 U	94 U	97 U	93 U	92 U	91 U	87 U	95 U
PHENANTHRENE	4 U	3.9 U	94	3.8 U	84	3.7 U	610	17
PHENOL	33 U	32 U	33 U	31 U	31 U	31 U	30 U	32 U
PYRENE	4 U	3.9 U	240	3.8 U	230	3.7 U	1300	32
TCLP HERBICIDES (MG/L)								
2,4,5-TP (SILVEX)	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)								
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA
TCLP PESTICIDE/PCBS (UG/L)								
CHLORDANE	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)								
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA
TCLP VOLATILES (MG/L)								
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	GSP-SB-152		GSP-SB-153		GSP-SB-154		GSP-SB-155	
SAMPLE ID	**GSP-SB-152-10**	**GSP-SB-152-28**	**GSP-SB-153-02**	**GSP-SB-153-24**	**GSP-SB-154-02**	**GSP-SB-154-16**	**GSP-SB-155-02**	**GSP-SB-155-10**
SAMPLE DATE	**20120926**	**20120926**	**20120925**	**20120925**	**20120925**	**20120925**	**20120925**	**20120925**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**SB**	**SB**	**SS**	**SB**	**SS**	**SB**	**SS**	**SB**
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-								
VOLATILES (UG/KG)								
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA
2-OCTENE, 2-METHYL-6-METHYLENE-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONITRILE	NA	NA	NA	NA	NA	NA	NA	NA
BROMOETHENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE	NA	NA	NA	NA	NA	NA	NA	NA
ETHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA
HEXANE	NA	1.1 NJ	2.5 NJ	1.1 NJ	NA	NA	NA	NA
ISOPROPANOL	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	6.6 NJ	NA	1.5 NJ	NA	3.6 NJ	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	4.2 NJ	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)								
1,1,1,2-TETRACHLOROETHANE	0.62 U	0.49 U	0.58 U	0.47 U	0.5 U	0.52 U	0.58 U	0.47 U
1,1,1-TRICHLOROETHANE	0.56 U	0.45 U	0.53 U	0.42 U	0.45 U	0.47 U	0.52 U	0.42 U
1,1,2,2-TETRACHLOROETHANE	0.34 U	0.27 U	0.32 U	0.26 U	0.27 U	0.28 U	0.32 U	0.26 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1.3 U	1 U	1.2 U	0.98 U	1 U	1.1 U	1.2 U	0.98 U
1,1-DICHLOROETHANE	0.36 U	0.29 U	0.34 U	0.27 U	0.29 U	0.3 U	0.34 U	0.27 U
1,1-DICHLOROETHENE	0.52 U	0.41 U	0.49 U	0.39 U	0.42 U	0.43 U	0.49 U	0.39 U
1,1-DICHLOROPROPENE	0.3 U	0.24 U	0.28 U	0.23 U	0.24 U	0.25 U	0.28 U	0.23 U
1,2,3-TRICHLOROBENZENE	0.38 U	0.3 U	0.36 U	0.29 U	0.31 U	0.32 U	0.36 U	0.29 U
1,2,3-TRICHLOROPROPANE	0.9 U	0.72 U	0.85 U	0.68 U	0.73 U	0.75 U	0.84 U	0.68 U
1,2,3-TRIMETHYLBENZENE	0.17 U	0.14 U	0.16 U	0.13 U	0.14 U	0.14 U	0.16 U	0.13 U
1,2,4-TRICHLOROBENZENE	0.27 U	0.21 U	0.25 U	0.2 U	0.22 U	0.22 U	0.25 U	0.2 U
1,2,4-TRIMETHYLBENZENE	0.65 U	0.52 U	0.61 U	0.49 U	0.52 U	0.54 U	0.61 U	0.49 U
1,2-DIBROMO-3-CHLOROPROPANE	1.3 U	1 U	1.2 U	0.98 U	1 U	1.1 U	1.2 U	0.98 U
1,2-DIBROMOETHANE	0.5 U	0.4 U	0.47 U	0.38 U	0.4 U	0.42 U	0.47 U	0.38 U
1,2-DICHLOROBENZENE	0.36 U	0.29 U	0.34 U	0.27 U	0.29 U	0.3 U	0.34 U	0.27 U
1,2-DICHLOROETHANE	0.34 U	1.5 J	0.32 U	0.65 J	0.27 U	1.4 J	0.32 U	0.26 U
1,2-DICHLOROPROPANE	0.69 U	0.55 U	0.65 U	0.52 U	0.56 U	0.57 U	0.65 U	0.52 U
1,3-DICHLOROBENZENE	0.35 U	0.28 U	0.33 U	0.26 U	0.28 U	0.29 U	0.33 U	0.26 U
1,3-DICHLOROPROPANE	0.34 U	0.27 U	0.32 U	0.26 U	0.27 U	0.28 U	0.32 U	0.26 U
1,4-DICHLOROBENZENE	0.66 U	0.53 U	0.62 U	0.5 U	0.53 U	0.55 U	0.62 U	0.5 U
2,2-DICHLOROPROPANE	0.94 U	0.75 U	0.88 U	0.71 U	0.76 U	0.78 U	0.88 U	0.71 U
2-BUTANONE	1.4 U	2 J	1.3 U	1.1 U	1.1 U	1.2 U	1.3 U	1.1 U
2-CHLOROETHYL VINYL ETHER	1.4 U	1.1 U	1.3 U	1.1 U	1.1 U	1.2 U	1.3 U	1.1 U
2-CHLOROTOLUENE	0.4 U	0.32 U	0.38 U	0.3 U	0.32 U	0.33 U	0.37 U	0.3 U
2-HEXANONE	0.63 U	0.5 U	0.59 U	0.48 U	0.51 U	0.52 U	0.59 U	0.48 U
4-CHLOROTOLUENE	0.41 U	0.33 U	0.39 U	0.31 U	0.33 U	0.34 U	0.38 U	0.31 U
4-ISOPROPYLTOLUENE	0.21 U	0.17 U	0.2 U	0.16 U	0.17 U	0.17 U	0.2 U	0.16 U
4-METHYL-2-PENTANONE	0.54 U	0.43 U	0.51 U	0.41 U	0.44 U	0.45 U	0.51 U	0.41 U
ACETONE	6.3 U	48	12 B	23 B	5.1 U	6.1 B	5.9 U	15 B
BENZENE	0.23 U	0.18 U	0.22 U	0.17 U	0.19 U	0.19 U	0.22 U	0.17 U
BROMOBENZENE	0.33 U	0.26 U	0.31 U	0.25 U	0.27 U	0.27 U	0.31 U	0.25 U
BROMOCHLOROMETHANE	0.71 U	0.56 U	0.67 U	0.54 U	0.57 U	0.59 U	0.67 U	0.54 U
BROMODICHLOROMETHANE	0.28 U	0.22 U	0.26 U	0.21 U	0.23 U	0.23 U	0.26 U	0.21 U
BROMOFORM	0.33 U	0.26 U	0.31 U	0.25 U	0.27 U	0.27 U	0.31 U	0.25 U
BROMOMETHANE	0.54 U	0.43 U	0.51 U	0.41 U	0.44 U	0.45 U	0.51 U	0.41 U
CARBON DISULFIDE	0.44 U	0.35 U	0.41 U	0.33 U	0.36 U	0.37 U	0.41 U	0.33 U
CARBON TETRACHLORIDE	0.37 U	0.29 U	0.35 U	0.28 U	0.3 U	0.31 U	0.35 U	0.28 U
CHLOROBENZENE	0.33 U	0.26 U	0.31 U	0.25 U	0.27 U	0.27 U	0.31 U	0.25 U
CHLORODIBROMOMETHANE	0.55 U	0.44 U	0.52 U	0.42 U	0.44 U	0.46 U	0.52 U	0.42 U
CHLOROETHANE	0.86 U	0.68 U	0.81 U	0.65 U	0.69 U	0.72 U	0.81 U	0.65 U

LOCATION	GSP-SB-152		GSP-SB-153		GSP-SB-154		GSP-SB-155	
SAMPLE ID	**GSP-SB-152-10**	**GSP-SB-152-28**	**GSP-SB-153-02**	**GSP-SB-153-24**	**GSP-SB-154-02**	**GSP-SB-154-16**	**GSP-SB-155-02**	**GSP-SB-155-10**
SAMPLE DATE	**20120926**	**20120926**	**20120925**	**20120925**	**20120925**	**20120925**	**20120925**	**20120925**
SAMPLE CODE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
MATRIX	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**	**SO**
SAMPLE TYPE	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX	**SB**	**SB**	**SS**	**SB**	**SS**	**SB**	**SS**	**SB**
CHLOROFORM	0.29 U	0.23 U	0.27 U	0.22 U	0.23 U	0.24 U	0.27 U	0.22 U
CHLOROMETHANE	0.41 U	0.33 U	0.39 U	0.31 U	0.33 U	0.34 U	0.38 U	0.31 U
CIS-1,2-DICHLOROETHENE	0.36 U	1.2 J	0.34 U	1.4 J	0.29 U	6.1	0.34 U	0.27 U
CIS-1,3-DICHLOROPROPENE	0.34 U	0.27 U	0.32 U	0.26 U	0.27 U	0.28 U	0.32 U	0.26 U
DIBROMOMETHANE	0.63 U	0.5 U	0.59 U	0.48 U	0.51 U	0.52 U	0.59 U	0.48 U
DICHLORODIFLUOROMETHANE	0.5 U	0.4 U	0.47 U	0.38 U	0.4 U	0.42 U	0.47 U	0.38 U
DIISOPROPYL ETHER	1.5 U	1.2 U	1.4 U	1.1 U	1.2 U	1.2 U	1.4 U	1.1 U
ETHYL TERT-BUTYL ETHER	0.22 U	0.18 U	0.21 U	0.17 U	0.18 U	0.18 U	0.21 U	0.17 U
ETHYLBENZENE	0.26 U	0.21 U	0.24 U	0.2 U	0.21 U	0.22 U	0.24 U	0.2 U
HEXACHLOROBUTADIENE	1.2 U	0.95 U	1.1 U	0.91 U	0.97 U	1 U	1.1 U	0.91 U
ISOPROPYLBENZENE	0.16 U	0.13 U	0.15 U	0.12 U	0.13 U	0.13 U	0.15 U	0.12 U
M+P-XYLENES	1.2 U	0.95 U	1.1 U	0.91 U	0.97 U	1 U	1.1 U	0.91 U
METHYL TERT-BUTYL ETHER	0.43 U	0.34 U	0.4 U	0.32 U	0.35 U	0.36 U	0.4 U	0.32 U
METHYLENE CHLORIDE	0.67 U	0.53 U	0.63 U	0.51 U	0.54 U	0.56 U	0.63 U	0.51 U
NAPHTHALENE	0.19 U	0.15 U	0.22 B	1.8 B	0.18 B	2.1 B	0.55 B	0.18 B
N-BUTYLBENZENE	0.23 U	0.18 U	0.22 U	0.17 U	0.19 U	0.19 U	0.22 U	0.17 U
N-PROPYLBENZENE	0.4 U	0.32 U	0.38 U	0.3 U	0.32 U	0.33 U	0.37 U	0.3 U
O-XYLENE	0.35 U	0.28 U	0.33 U	0.26 U	0.28 U	0.29 U	0.33 U	0.26 U
SEC-BUTYLBENZENE	0.18 U	0.14 U	0.17 U	0.14 U	0.15 U	0.15 U	0.17 U	0.14 U
STYRENE	0.15 U	0.12 U	0.14 U	0.11 U	0.12 U	0.12 U	0.14 U	0.11 U
TERT-AMYL METHYL ETHER	0.37 U	0.29 U	0.35 U	0.28 U	0.3 U	0.31 U	0.35 U	0.28 U
TERT-BUTYLBENZENE	0.29 U	0.23 U	0.27 U	0.22 U	0.23 U	0.24 U	0.27 U	0.22 U
TERTIARY-BUTYL ALCOHOL	7.6 UR	6 UR	7.1 UR	5.7 UR	6.1 UR	6.3 UR	7.1 UR	5.7 UR
TETRACHLOROETHENE	0.52 U	0.41 U	0.49 U	0.39 U	0.42 U	0.43 U	0.49 U	0.39 U
TOLUENE	0.91 J	1 J	0.8 J	0.53 J	0.4 J	0.79 J	0.87 J	0.79 J
TOTAL XYLENES	0.67 U	0.53 U	0.63 U	0.51 U	0.54 U	0.56 U	0.63 U	0.51 U
TRANS-1,2-DICHLOROETHENE	0.41 U	0.33 U	0.39 U	0.31 U	0.33 U	0.34 U	0.38 U	0.31 U
TRANS-1,3-DICHLOROPROPENE	0.54 U	0.43 U	0.51 U	0.41 U	0.44 U	0.45 U	0.51 U	0.41 U
TRICHLOROETHENE	0.42 U	5.2	0.39 U	3.8	0.34 U	39	0.39 U	0.4 J
TRICHLOROFLUOROMETHANE	0.34 U	0.27 U	0.32 U	0.26 U	0.27 U	0.28 U	0.32 U	0.26 U
VINYL ACETATE	0.25 UR	0.2 UR	0.23 UR	0.19 UR	0.2 UR	0.21 UR	0.23 UR	0.19 UR
VINYL CHLORIDE	0.39 U	0.31 U	0.37 U	0.86 J	0.31 U	0.32 U	0.37 U	0.29 U

APPENDIX G—WELL SURVEY REPORT

APPENDIX G

Well Survey Data for GSP - June 22, 2011 and October 22, 2012

Martin State Airport Monitor Wells

Well ID	Northing	Easting	Top of Well Casing Elevation	Top of PVC Elevation	Ground Elevation	Stick-up Height	Site	Survey Date	Notes
GSP-MW1	604000.18	1478212.11	11.75	11.50	See Note	Flushmount	Greater Strawberry Point (GSP)	6/22/2011	
GSP-MW2	604050.16	1478156.77	12.24	12.01	See Note	Flushmount	Greater Strawberry Point (GSP)	6/22/2011	
GSP-MW3	603922.38	1478165.59	7.64	7.38	See Note	Flushmount	Greater Strawberry Point (GSP)	6/22/2011	
GSP-MW4	603803.79	1478027.81	7.86	7.64	See Note	Flushmount	Greater Strawberry Point (GSP)	6/22/2011	
GSP-MW5	603360.94	1478712.48	8.99	9.95	See Note	Flushmount	Greater Strawberry Point (GSP)	6/22/2011	
GSP-MW6	603315.36	1478744.51	10.21	8.73	See Note	Flushmount	Greater Strawberry Point (GSP)	6/22/2011	
GSP-MW7	602922.03	1479303.72	9.37	9.11	See Note	Flushmount	Greater Strawberry Point (GSP)	6/22/2011	
GSP-MW8	603088.95	1479062.74	9.78	9.52	See Note	Flushmount	Greater Strawberry Point (GSP)	6/22/2011	
GSP-SBWP02	601018.56	1480195.50	No Casing	9.77	6.92	2.85	Greater Strawberry Point (GSP)	6/22/2011	
GSP-SBWP11	601163.11	1479901.10	No Casing	9.32	8.12	1.20	Greater Strawberry Point (GSP)	6/22/2011	
GSP-SBWP13	601264.86	1480132.10	No Casing	7.69	6.29	1.40	Greater Strawberry Point (GSP)	6/22/2011	
GSP-SBWP33	601919.14	1479798.00	9.53	9.14	See Note	Flushmount	Greater Strawberry Point (GSP)	6/22/2011	
GSP-SBWP39	602056.87	1479791.13	9.56	9.36	See Note	Flushmount	Greater Strawberry Point (GSP)	6/22/2011	
GSP-SBWP40	601983.23	1479648.10	9.43	9.11	See Note	Flushmount	Greater Strawberry Point (GSP)	6/22/2011	
GSP-SBWP44	602380.86	1479447.78	No Casing	9.89	10.19	-0.30	Greater Strawberry Point (GSP)	6/22/2011	
GSP-SBWP50	602758.46	1479458.05	No Casing	10.49	8.49	2.00	Greater Strawberry Point (GSP)	6/22/2011	
GSP-SBWP54	602683.59	1479035.72	No Casing	16.38	14.48	1.90	Greater Strawberry Point (GSP)	6/22/2011	
GSP-SBWP61	603232.92	1478823.22	No Casing	13.60	11.20	2.40	Greater Strawberry Point (GSP)	6/22/2011	
GSP-SBWP66	603372.80	1478806.44	No Casing	11.80	9.75	2.05	Greater Strawberry Point (GSP)	6/22/2011	
GSP-SBWP71	603372.56	1478611.58	No Casing	11.08	10.38	0.70	Greater Strawberry Point (GSP)	6/22/2011	
GSP-SBWP83	603975.52	1478140.01	No Casing	NO PVC PIPE	8.52	NO PVC PIPE	Greater Strawberry Point (GSP)	6/22/2011	
GSP-SBWP84	603929.92	1478193.20	No Casing	10.61	8.61	2.00	Greater Strawberry Point (GSP)	6/22/2011	
GSP-SBWP89	603995.92	1478215.12	No Casing	13.63	11.83	1.80	Greater Strawberry Point (GSP)	6/22/2011	
MW9	602853.860	1479196.280	14.440	14.17	See Note	Flush Mount	Greater Strawberry Point (GSP)	10/22/2012	
MW10	602810.440	1479357.860	9.300	9.02	See Note	Flush Mount	Greater Strawberry Point (GSP)	10/22/2012	
MW11	602753.350	1479265.940	13.930	13.64	See Note	Flush Mount	Greater Strawberry Point (GSP)	10/22/2012	
MW12	602596.968	1479142.867	14.130	13.89	See Note	Flush Mount	Greater Strawberry Point (GSP)	10/22/2012	
MW13	602660.461	1479251.718	14.000	13.7	See Note	Flush Mount	Greater Strawberry Point (GSP)	10/22/2012	
MW14	602649.743	1479378.613	13.770	13.48	See Note	Flush Mount	Greater Strawberry Point (GSP)	10/22/2012	
MW15	602506.779	1479260.726	14.020	13.71	See Note	Flush Mount	Greater Strawberry Point (GSP)	10/22/2012	
MW16	602441.937	1479128.516	13.420	13.13	See Note	Flush Mount	Greater Strawberry Point (GSP)	10/22/2012	
MW17	603763.373	1477990.148	8.060	7.78	See Note	Flush Mount	Greater Strawberry Point (GSP)	10/22/2012	
MW18	603792.126	1478069.035	6.880	6.61	See Note	Flush Mount	Greater Strawberry Point (GSP)	10/22/2012	
MW19	603925.611	1478211.004	10.150	9.85	See Note	Flush Mount	Greater Strawberry Point (GSP)	10/22/2012	
MP20	603985.171	1478262.242	12.690	12.41	See Note	Flush Mount	Greater Strawberry Point (GSP)	10/22/2012	

* For flushmount monitoring wells the ground elevation is the same as the top of casing elevation.

Horizontal Datum: MDSPCS NAD83 IN FEET Vertical Datum: NAVD88 IN FEET

(Coordinates/Elevations updated 12/21/2011 from "Murphy" system to match MD State Plane)

APPENDIX H—DATA VALIDATION REPORTS (ON CD)

Tetra Tech, Inc. **INTERNAL CORRESPONDENCE**

TO:	**A. APANAVAGE**	**DATE:**	**JUNE 27, 2012**
FROM:	**MICHELLE L. ALLEN**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC/1,4-DIOXANE/DRO/GRO**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
SDG 240-10727-1

SAMPLES: 4/Aqueous/VOC

GSP-MW1-042612 GSP-MW2-042612 GSP-MW3-042612
TB-042612

3/Aqueous/SVOC/DRO/GRO

GSP-MW1-042612 GSP-MW2-042612 GSP-MW3-042612

Overview

The sample set for LMC-MSA, SDG 240-10727-1 consisted of three (3) aqueous environmental samples and one (1) trip blank. All four (4) aqueous samples were analyzed for volatile organic compounds (VOC). The three (3) aqueous environmental samples were analyzed for the semi-volatile organic compound (SVOC), 1,4-dioxane, diesel range organics (DRO) and gasoline range organics (GRO). No field duplicate sample pair was included in this SDG.

The samples were collected by Tetra Tech, Inc. on April 26, 2012 and analyzed by Test America, Inc. All analyses were conducted in accordance with SW-846 Methods 8260C, 8270C, and 8015B analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, trip blank results, surrogate spike recoveries, blank spike results, matrix spike/matrix spike duplicate results, internal standard recoveries, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major

- The initial and continuing calibrations performed on instrument A3UX16 in the VOC fraction had Relative Response Factors (RRFs) for tert-butyl alcohol below the 0.050 minimum response criterion. In addition, the continuing calibration RRF for vinyl acetate was below 0.05. All samples were affected. The non-detected results reported for these compounds in the affected samples were qualified as rejected, (UR).

Minor

The following contaminants were detected in the laboratory method blanks at the following maximum concentrations:

Compound	Maximum Concentration (µg/L)	Action Level (µg/L)
1,2,3-Trichlorobenzene [1]	0.280	1.4
GRO (C6-C10) [2]	26.3	131.5

1 Maximum concentration detected in the laboratory method blank, MB 240-42324/5, affecting all samples.
2 Maximum concentration detected in the laboratory method blank, MB 240-42085/7, affecting all samples.

An action level of 5X the maximum concentration was used to evaluate for blank contamination. Sample aliquot and dilution factor, if applicable, were taken into consideration when evaluating for blank contamination. Positive results for GRO reported below the established action level were qualified as non-detected, (B). No action was necessary for 1,2,3-trichlorobenzene because no positive results were reported for this compound in the affected samples.

- Positive results reported below the Reporting Limit (RL) limit but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

The SVOC continuing calibration performed on instrument A4AG2 on 05/04/12 @ 08:17 had a Percent Difference (%D) for 1,4-dioxane which exceeded the 20% quality control limit but was less than 50%. All samples were affected. No action was taken because no positive results were reported for 1,4-dioxane in the affected samples.

The VOC compound, 2-chloroethyl vinyl ether was not recovered in the Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses. No action was taken because the sample for the MS/MSD analyses was not from this SDG and the blank spike sample had an acceptable %R for this compound.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: Initial and/or continuing calibration RRFs for tert-butyl alcohol and vinyl acetate were below the quality control criterion resulting in the rejection of the non-detected results. Laboratory method blank contamination was noted in the VOC and GRO fractions.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994) and SW-846 Methods 8260C, 8270C, and 8015B analytical and reporting protocols. The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech, Inc.
Michelle L. Allen
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Quality Assurance Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 04021	NSAMPLE	GSP-MW1-042612			GSP-MW2-042612			GSP-MW3-042612			TB-042612		
SDG: 240-10727-1	LAB_ID	240-10727-2			240-10727-3			240-10727-4			240-10727-1		
FRACTION: OV	SAMP_DATE	4/26/2012			4/26/2012			4/26/2012			4/26/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.13	U		0.13	U	
2-BUTANONE		0.57	U		0.57	U		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U		0.32	U	
ACETONE		1.1	U		1.1	U		1.1	U		1.1	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U		0.41	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW1-042612			GSP-MW2-042612			GSP-MW3-042612			TB-042612		
SDG: 240-10727-1	LAB_ID	240-10727-2			240-10727-3			240-10727-4			240-10727-1		
FRACTION: OV	SAMP_DATE	4/26/2012			4/26/2012			4/26/2012			4/26/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.27	J	P	0.17	U		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)		2	R	Z2							2.4	R	Z2
STYRENE		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
TOTAL XYLENES		0.28	U		0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE		0.81	J	P	0.17	U		0.17	U		0.17	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW1-042612			GSP-MW2-042612			GSP-MW3-042612			TB-042612		
SDG: 240-10727-1	LAB_ID	240-10727-2			240-10727-3			240-10727-4			240-10727-1		
FRACTION: OV	SAMP_DATE	4/26/2012			4/26/2012			4/26/2012			4/26/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
VINYL ACETATE		0.19	UR	C	0.19	UR	C	0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW1-042612			GSP-MW2-042612			GSP-MW3-042612		
SDG: 240-10727-1	LAB_ID	240-10727-2			240-10727-3			240-10727-4		
FRACTION: OS	SAMP_DATE	4/26/2012			4/26/2012			4/26/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.47	U		0.48	U		0.49	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW1-042612			GSP-MW2-042612			GSP-MW3-042612		
SDG: 240-10727-1	LAB_ID	240-10727-2			240-10727-3			240-10727-4		
FRACTION: PET	SAMP_DATE	4/26/2012			4/26/2012			4/26/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		33	B	A	40	B	A	41	B	A
TPH (C10-C32)		240	J	P	230	U		240	U	

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10727-1

SDG No.:

Client Sample ID: GSP-MW1-042612 | Lab Sample ID: 240-10727-2

Matrix: Water | Lab File ID: UXM5314.D

Analysis Method: 8260C | Date Collected: 04/26/2012 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 17:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10727-1

SDG No.:

Client Sample ID: GSP-MW1-042612 | Lab Sample ID: 240-10727-2

Matrix: Water | Lab File ID: UXM5314.D

Analysis Method: 8260C | Date Collected: 04/26/2012 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 17:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.27	J	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	0.81	J	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10727-1

SDG No.:

Client Sample ID: GSP-MW1-042612 | Lab Sample ID: 240-10727-2

Matrix: Water | Lab File ID: UXM5314.D

Analysis Method: 8260C | Date Collected: 04/26/2012 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 17:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		63-129
460-00-4	4-Bromofluorobenzene (Surr)	91		66-117
2037-26-5	Toluene-d8 (Surr)	89		74-115
1868-53-7	Dibromofluoromethane (Surr)	84		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-10727-1

SDG No.:

Client Sample ID: GSP-MW1-042612 | Lab Sample ID: 240-10727-2

Matrix: Water | Lab File ID: UXM5314.D

Analysis Method: 8260C | Date Collected: 04/26/2012 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 17:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 2

CAS NO.	COMPOUND NAME	RT	RESULT	Q
55644-10-5	Silanol, dimethyl(1,1,2-trimethylpropyl)	4.61	2.0	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10727-1

SDG No.:

Client Sample ID: GSP-MW2-042612 | Lab Sample ID: 240-10727-3

Matrix: Water | Lab File ID: UXM5315.D

Analysis Method: 8260C | Date Collected: 04/26/2012 12:25

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 17:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10727-1

SDG No.:

Client Sample ID: GSP-MW2-042612 | Lab Sample ID: 240-10727-3

Matrix: Water | Lab File ID: UXM5315.D

Analysis Method: 8260C | Date Collected: 04/26/2012 12:25

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 17:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG No.:
Client Sample ID: GSP-MW2-042612
Lab Sample ID: 240-10727-3
Matrix: Water
Lab File ID: UXM5315.D
Analysis Method: 8260C
Date Collected: 04/26/2012 12:25
Sample wt/vol: 5(mL)
Date Analyzed: 05/01/2012 17:43
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42324
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	85		63-129
460-00-4	4-Bromofluorobenzene (Surr)	90		66-117
2037-26-5	Toluene-d8 (Surr)	88		74-115
1868-53-7	Dibromofluoromethane (Surr)	82		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG No.:
Client Sample ID: GSP-MW2-042612
Lab Sample ID: 240-10727-3
Matrix: Water
Lab File ID: UXM5315.D
Analysis Method: 8260C
Date Collected: 04/26/2012 12:25
Sample wt/vol: 5(mL)
Date Analyzed: 05/01/2012 17:43
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42324
Units: ug/L
Number TICs Found: 0
TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10727-1

SDG No.:

Client Sample ID: GSP-MW3-042612 | Lab Sample ID: 240-10727-4

Matrix: Water | Lab File ID: UXM5316.D

Analysis Method: 8260C | Date Collected: 04/26/2012 14:40

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 18:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10727-1

SDG No.:

Client Sample ID: GSP-MW3-042612 | Lab Sample ID: 240-10727-4

Matrix: Water | Lab File ID: UXM5316.D

Analysis Method: 8260C | Date Collected: 04/26/2012 14:40

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 18:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG No.:
Client Sample ID: GSP-MW3-042612
Lab Sample ID: 240-10727-4
Matrix: Water
Lab File ID: UXM5316.D
Analysis Method: 8260C
Date Collected: 04/26/2012 14:40
Sample wt/vol: 5(mL)
Date Analyzed: 05/01/2012 18:06
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42324
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		63-129
460-00-4	4-Bromofluorobenzene (Surr)	94		66-117
2037-26-5	Toluene-d8 (Surr)	89		74-115
1868-53-7	Dibromofluoromethane (Surr)	89		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Client Sample ID: GSP-MW3-042612 Lab Sample ID: 240-10727-4

Matrix: Water Lab File ID: UXM5316.D

Analysis Method: 8260C Date Collected: 04/26/2012 14:40

Sample wt/vol: 5(mL) Date Analyzed: 05/01/2012 18:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42324 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10727-1

SDG No.:

Client Sample ID: TB-042612 | Lab Sample ID: 240-10727-1

Matrix: Water | Lab File ID: UXM5313.D

Analysis Method: 8260C | Date Collected: 04/26/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10727-1

SDG No.:

Client Sample ID: TB-042612 | Lab Sample ID: 240-10727-1

Matrix: Water | Lab File ID: UXM5313.D

Analysis Method: 8260C | Date Collected: 04/26/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG No.:
Client Sample ID: TB-042612
Lab Sample ID: 240-10727-1
Matrix: Water
Lab File ID: UXM5313.D
Analysis Method: 8260C
Date Collected: 04/26/2012 00:00
Sample wt/vol: 5(mL)
Date Analyzed: 05/01/2012 16:57
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42324
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		63-129
460-00-4	4-Bromofluorobenzene (Surr)	95		66-117
2037-26-5	Toluene-d8 (Surr)	90		74-115
1868-53-7	Dibromofluoromethane (Surr)	88		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Client Sample ID: TB-042612 Lab Sample ID: 240-10727-1

Matrix: Water Lab File ID: UXM5313.D

Analysis Method: 8260C Date Collected: 04/26/2012 00:00

Sample wt/vol: 5(mL) Date Analyzed: 05/01/2012 16:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42324 Units: ug/L

Number TICs Found: 1 TIC Result Total: 2.4

CAS NO.	COMPOUND NAME	RT	RESULT	Q
55644-10-5	Silanol, dimethyl(1,1,2-trimethylpropyl)	4.61	2.4	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Client Sample ID: TB-042612 Lab Sample ID: 240-10727-1

Matrix: Water Lab File ID: UXM5313.D

Analysis Method: 8260C Date Collected: 04/26/2012 00:00

Sample wt/vol: 5(mL) Date Analyzed: 05/01/2012 16:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42324 Units: ug/L

Number TICs Found: 1 TIC Result Total: 2.4

CAS NO.	COMPOUND NAME	RT	RESULT	Q
55644-10-5	Silanol, dimethyl(1,1,2-trimethylpropyl)	4.61	2.4	T J N

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10727-1

SDG No.:

Client Sample ID: GSP-MW1-042612 | Lab Sample ID: 240-10727-2

Matrix: Water | Lab File ID: 0509019.D

Analysis Method: 8270C | Date Collected: 04/26/2012 10:14

Extract. Method: 3520C | Date Extracted: 05/03/2012 09:48

Sample wt/vol: 1050(mL) | Date Analyzed: 05/09/2012 12:12

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43267 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.95	U	0.95	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	53		28-110
367-12-4	2-Fluorophenol (Surr)	50		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	48		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	48		27-111
4165-62-2	Phenol-d5 (Surr)	55		10-110
1718-51-0	Terphenyl-d14 (Surr)	57		37-119

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG No.:
Client Sample ID: GSP-MW2-042612
Lab Sample ID: 240-10727-3
Matrix: Water
Lab File ID: 0509020.D
Analysis Method: 8270C
Date Collected: 04/26/2012 12:25
Extract. Method: 3520C
Date Extracted: 05/03/2012 09:48
Sample wt/vol: 1030(mL)
Date Analyzed: 05/09/2012 12:30
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 43267
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.97	U	0.97	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	44		28-110
367-12-4	2-Fluorophenol (Surr)	41		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	31		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	43		27-111
4165-62-2	Phenol-d5 (Surr)	40		10-110
1718-51-0	Terphenyl-d14 (Surr)	65		37-119

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10727-1

SDG No.:

Client Sample ID: GSP-MW3-042612 | Lab Sample ID: 240-10727-4

Matrix: Water | Lab File ID: 0509021.D

Analysis Method: 8270C | Date Collected: 04/26/2012 14:40

Extract. Method: 3520C | Date Extracted: 05/03/2012 09:48

Sample wt/vol: 1010(mL) | Date Analyzed: 05/09/2012 12:47

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43267 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.99	U	0.99	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	44		28-110
367-12-4	2-Fluorophenol (Surr)	43		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	25		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	42		27-111
4165-62-2	Phenol-d5 (Surr)	41		10-110
1718-51-0	Terphenyl-d14 (Surr)	58		37-119

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG No.:
Client Sample ID: GSP-MW1-042612
Lab Sample ID: 240-10727-2
Matrix: Water
Lab File ID: YF042909.D
Analysis Method: 8015B
Date Collected: 04/26/2012 10:14
Sample wt/vol: 5(mL)
Date Analyzed: 04/29/2012 16:53
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42085
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	33	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	65		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG No.:
Client Sample ID: GSP-MW2-042612
Lab Sample ID: 240-10727-3
Matrix: Water
Lab File ID: YF042912.D
Analysis Method: 8015B
Date Collected: 04/26/2012 12:25
Sample wt/vol: 5(mL)
Date Analyzed: 04/29/2012 18:48
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42085
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	40	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	63		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10727-1

SDG No.:

Client Sample ID: GSP-MW3-042612 | Lab Sample ID: 240-10727-4

Matrix: Water | Lab File ID: YF042913.D

Analysis Method: 8015B | Date Collected: 04/26/2012 14:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/29/2012 19:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42085 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	41	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	62		10-150

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG No.:
Client Sample ID: GSP-MW1-042612
Lab Sample ID: 240-10727-2
Matrix: Water
Lab File ID: P5B05045.D
Analysis Method: 8015B
Date Collected: 04/26/2012 10:14
Extraction Method: 3510C
Date Extracted: 05/03/2012 11:54
Sample wt/vol: 1050(mL)
Date Analyzed: 05/04/2012 10:04
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: ID:
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 42755
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	J	480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	54		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG No.:
Client Sample ID: GSP-MW2-042612
Lab Sample ID: 240-10727-3
Matrix: Water
Lab File ID: P5B05046.D
Analysis Method: 8015B
Date Collected: 04/26/2012 12:25
Extraction Method: 3510C
Date Extracted: 05/03/2012 11:54
Sample wt/vol: 1050(mL)
Date Analyzed: 05/04/2012 10:35
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: ID:
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 42755
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	480	U	480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	50		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG No.:
Client Sample ID: GSP-MW3-042612
Lab Sample ID: 240-10727-4
Matrix: Water
Lab File ID: P5B05047.D
Analysis Method: 8015B
Date Collected: 04/26/2012 14:40
Extraction Method: 3510C
Date Extracted: 05/03/2012 11:54
Sample wt/vol: 990(mL)
Date Analyzed: 05/04/2012 11:06
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: ID:
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 42755
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	510	U	510	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	54		10-110

Appendix C

Support Documentation

MARTIN STATE AIRPORT - GROUNDWATER
SDG 240-10727-1

SAMPLE IDENTIFICATION	GSP-MW1-042612
COMPOUND	TRICHLOROETHENE
COMPOUND AREA	30420
INTERNAL STANDARD AMOUNT (ng)	50
VOLUME WATER PURGED (ml)	5
DILUTION FACTOR	1
INTERNAL STANDARD AREA	1394275
AVERAGE RRF	0.2698
ml to µl	1000
ng to µg	1000
=	0.81 µg/L

30420 x 50 ng x 1 x 1000ml x 1µg /1394275 x 0.2698 x 5ml x 1L x 1000ng

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A3UX16\20120501-9570.b\UXM5314.D		
Lims ID:	240-10727-C-2	Client ID:	GSP-MW1-042612
Inject. Date:	01-May-2012 17:20:30	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0009570-017		
Misc. Info.:	M20501A,8260LLUX16,,1644		
Operator:	1644	Instrument ID:	A3UX16
Vol. Injected:	1.0000	ALS Bottle#:	16
Lims Batch ID:	42324	Lims Sample ID:	17
Detector:	MS SCAN		
Method:	\\Ncchrom\ChromData\A3UX16\20120501-9570.b\8260_16.m		
Last Update:	02-May-2012 10:55:43	Calib Date:	29-Apr-2012 19:50:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A3UX16\20120429-9509.b\UXM5250.D		
Limit Group:	MSV 8260DOD ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Process Host:	CORP-CTX-17		

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 141 1-Chlorooctane	1		0.000					
* 1 Fluorobenzene	96	5.702	5.702	0.0	98	1394275	10.0	
* 2 Chlorobenzene-d5	117	8.394	8.394	0.0	86	949622	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.635	10.635	0.0	98	430449	10.0	
$ 5 Dibromofluoromethane (Surr)	113	5.121	5.109	0.012	57	286936	8.61	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	5.405	5.405	0.0	0	488278	9.06	
$ 7 Toluene-d8 (Surr)	98	7.077	7.077	0.0	95	1332642	9.04	
$ 131 4-Bromofluorobenzene (Surr)	95	9.508	9.508	0.0	82	490170	9.32	
134 Chlorodifluoromethane TIC	1		0.000					
12 Dichlorodifluoromethane	85		1.658					
13 Chloromethane	50		1.824					
14 Vinyl chloride	62		1.954					
15 Bromomethane	94		2.298					
16 Chloroethane	64		2.405					
18 Trichlorofluoromethane	101		2.666					
21 1,1-Dichloroethene	96		3.152					
23 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.176					
22 Acetone	43		3.176					
26 Carbon disulfide	76		3.366					
30 Methylene Chloride	84		3.579					
31 2-Methyl-2-propanol	59		3.674					
33 trans-1,2-Dichloroethene	96		3.840					
34 Methyl tert-butyl ether	73		3.840					
36 1,1-Dichloroethane	63		4.208					
37 Vinyl acetate	86		4.243					
38 Isopropyl ether	87		4.279					
40 Tert-butyl ethyl ether	59		4.587					
42 cis-1,2-Dichloroethene	96	4.717	4.706	0.011	60	11476	0.2666	
41 2-Butanone (MEK)	43		4.706					
43 2,2-Dichloropropane	77		4.717					
47 Chlorobromomethane	128		4.919					
49 Chloroform	83		4.978					
50 1,1,1-Trichloroethane	97		5.156					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
52 1,1-Dichloropropene	75		5.299					
53 Carbon tetrachloride	117		5.310					
56 1,2-Dichloroethane	62		5.465					
55 Benzene	78		5.476					
57 Tert-amyl methyl ether	73		5.559					
60 Trichloroethene	130	6.022	6.022	0.0	82	30420	0.8087	
62 1,2-Dichloropropane	63		6.212					
65 Dibromomethane	93		6.306					
67 Dichlorobromomethane	83		6.437					
69 2-Chloroethyl vinyl ether	63		6.686					
70 cis-1,3-Dichloropropene	75		6.828					
71 4-Methyl-2-pentanone (MIBK)	43		6.947					
72 Toluene	91		7.137					
73 trans-1,3-Dichloropropene	75		7.314					
76 1,3-Dichloropropane	76		7.635					
77 Tetrachloroethene	164		7.646					
78 2-Hexanone	43		7.694					
79 Chlorodibromomethane	129		7.848					
123 Ethylene Dibromide	107		7.967					
82 Chlorobenzene	112		8.429					
83 1,1,1,2-Tetrachloroethane	131		8.488					
84 Ethylbenzene	106		8.524					
10 m-Xylene & p-Xylene	106		8.631					
85 o-Xylene	106		9.010					
86 Styrene	104		9.010					
87 Bromoform	173		9.188					
88 Isopropylbenzene	105		9.354					
90 1,1,2,2-Tetrachloroethane	83		9.615					
91 Bromobenzene	156		9.662					
92 1,2,3-Trichloropropane	110		9.674					
94 N-Propylbenzene	120		9.757					
95 2-Chlorotoluene	126		9.840					
104 4-Chlorotoluene	126		9.947					
97 tert-Butylbenzene	119		10.244					
98 1,2,4-Trimethylbenzene	105		10.291					
99 sec-Butylbenzene	105		10.457					
100 1,3-Dichlorobenzene	146		10.576					
101 4-Isopropyltoluene	119		10.599					
102 1,4-Dichlorobenzene	146		10.659					
103 1,2,3-Trimethylbenzene	105		10.706					
105 n-Butylbenzene	91		11.002					
106 1,2-Dichlorobenzene	146		11.026					
107 1,2-Dibromo-3-Chloropropane	157		11.797					
109 1,2,4-Trichlorobenzene	180		12.639					
110 Hexachlorobutadiene	225		12.817					
111 Naphthalene	128		12.888					
112 1,2,3-Trichlorobenzene	180		13.149					
S 114 Xylenes, Total	106		16.530					

$\overline{RRF}$ = .2698

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A2HP5R\20120504-9661.b\P5B05045.D		
Lims ID:	240-10727-I-2-A	Client ID:	GSP-MW1-042612
Inject. Date:	04-May-2012 10:04:42	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0009661-005		
Misc. Info.:			
Operator:	2398	Instrument ID:	A2HP5R
Vol. Injected:	1.0000	ALS Bottle#:	55
Lims Batch ID:	42755	Lims Sample ID:	5
Detector:	GC FID2B		

Method:	\\Ncchrom\ChromData\A2HP5R\20120504-9661.b\TPH5R.m		
Last Update:	07-May-2012 11:41:19	Calib Date:	30-Apr-2012 15:32:13
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A2HP5R\20120430-9518.b\P5B04314.D		
Limit Group:	GC TPH DIESEL ICAL		
Integrator:	Falcon		
Process Host:	CORP-CTX-18		

RT	EXP RT	DLT RT	Response	On-Col Amt ng/ul	Flags
$ 8 n-Nonane					
4.028	4.028	0.000	11067277	53.7	
A 15 Diesel					
9.356	5.058 - 13.654		5652350	33.0	
A 17 C10-C32					
10.045	5.058 - 15.033		8509689	49.7	

extraction 1050ml / 5ml

$\overline{CF}$ = 171122

$$\frac{8509689\ \mu g/L}{171122} \times \frac{0.005L}{1.05L} \times 1$$

= 236.8 µg/L

CASE NARRATIVE

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Project: MSA Groundwater Sampling

Report Number: 240-10727-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The Perchlorate analysis was performed at the TestAmerica West Sacramento Laboratory.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 04/27/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.3 and 2.3 C.

VOLATILE ORGANIC COMPOUNDS (GC MS)

Samples TB-042612 (240-10727-1), GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for volatile organic compounds (GC MS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 05/01/2012.

1,2,3-Trichlorobenzene was detected in method blank MB 240-42324/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

2-Chloroethyl vinyl ether failed the recovery criteria low for the MS/MSD of sample 240-10770-2 in batch 240-42324.

Refer to the QC report for details.

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 05/03/2012 and analyzed on 05/09/2012.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

No difficulties were encountered during the SVOCs analyses. All quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 04/29/2012.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-42085/7 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 42628.

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 05/03/2012 and analyzed on 05/04/2012.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 42661.

No difficulties were encountered during the DRO analyses. All quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/01/2012 and analyzed on 05/02/2012.

The continuing calibration verification (CCV) for Molybdenum associated with batch 42586 recovered above the upper control limit. The samples and method blank associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/01/2012 and analyzed on 05/02/2012.

Barium, Copper and Zinc were detected in method blank MB 240-42315/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Several analytes were detected in method blank MB 240-42347/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The continuing calibration verification (CCV) for Molybdenum associated with batch 42586 recovered above the upper control limit. The samples and method blank associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10727-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-10727-1	TB-042612	Water	04/26/2012 0000	04/27/2012 0915
240-10727-2	GSP-MW1-042612	Water	04/26/2012 1014	04/27/2012 0915
240-10727-3	GSP-MW2-042612	Water	04/26/2012 1225	04/27/2012 0915
240-10727-4	GSP-MW3-042612	Water	04/26/2012 1440	04/27/2012 0915

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact

Company Name: Tetra Tech Inc.	Client Project Manager: Tony Aparavage	Site Contact: Walt Pryor	Lab Contact: Pat O'Meara	COC No:
Address: 20251 Century Blvd.	Telephone: 301 528-3021	Telephone: 301 991-3914	Telephone: 330 497-9396	1 of 1 COCs
City/State/Zip: Germantown, MD 20874	Email:	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone: 301 528-3021		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐ Job/SDG No:
Project Name: MSA Ground Water Sampling	Method of Shipment/Carrier: Fed Ex			
Project Number: 112IC04021-02	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite C / Grab G	VOCs	Total ppm	Diss ppm	1,4 Dioxane	DRO	GRO	Perchlorate				Sample Specific Notes / Special Instructions:
TB-042612	4-26-12	—		X						2					N	G	X										
GSP-MW1-042612	↓	1014		X					2	5			5		↓	↓	X	X	X	X	X	X	X				
GSP-MW2-042612	↓	1225		X					2	5			5		↓	↓	X	X	X	X	X	X	X				
GSP-MW3-042612	↓	1440		X					2	5			5		↓	↓	X	X	X	X	X	X	X				

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walt Pr	TT Inc.	4-26-12 / 1700			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			Greg Burns	TA	4/27/12 0915

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

TAL-0018 (1008)

05/30/2012

TestAmerica North Canton Sample Receipt Form/Narrative Login # : 10727

Client Tetra Tech Site Name MSA By: Perry Bruno (Signature)

Cooler Received on 4/27/12 Opened on 4/27/12

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other Multiple

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

(IR GUN# 1)	(CF -2°C)	Observed Sample Temp._____°C	Corrected Sample Temp._____°C	
IR GUN# 4G	(CF -1°C)	Observed Sample Temp._____°C	Corrected Sample Temp._____°C	☒ Multiple on Back
IR GUN# 5G	(CF -1°C)	Observed Sample Temp._____°C	Corrected Sample Temp._____°C	
IR GUN# 6Y	(CF -2°C)	Observed Sample Temp._____°C	Corrected Sample Temp._____°C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity_____ Yes (No)
   - Were custody seals on the outside of the cooler(s) signed & dated? Yes (No) (NA)
   - Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? (Yes) No NA
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 110410-HNO3; Sulfuric Acid Lot# 041911-H2SO4; Sodium Hydroxide Lot# 121809 - NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials
MW 1	<2, <2	4/27/12	JB
2	<2, <2		
3	<2, <2		

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant
client cooler	3.3	1.3	1	ICE
1	4.3	2.3	1	1

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-042612	240-10727-1	88	89	90	95
GSP-MW1-042612	240-10727-2	84	89	89	91
GSP-MW2-042612	240-10727-3	82	85	88	90
GSP-MW3-042612	240-10727-4	89	87	89	94
	MB 240-42324/5	87	88	90	94
	LCS 240-42324/4	87	82	87	95
	240-10770-B-2 MS	89	85	91	95
	240-10770-B-2 MSD	86	84	91	95

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-115
BFB = 4-Bromofluorobenzene (Surr)	66-117

Column to be used to flag recovery values

FORM II 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Sample No.: STD8260 240-42092/4 Date Analyzed: 04/29/2012 16:26

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM5241.D Heated Purge: (Y/N) N

Calibration ID: 8426

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1530000	5.70	1036987	8.39	499405	10.64
UPPER LIMIT		3060000	6.20	2073974	8.89	998810	11.14
LOWER LIMIT		765000	5.20	518494	7.89	249703	10.14
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-42092/14		1382789	5.70	929711	8.39	462842	10.64
CCVIS 240-42324/2		1685652	5.70	1127991	8.39	551448	10.64

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Sample No.: CCVIS 240-42324/2 Date Analyzed: 05/01/2012 10:57

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM5299.D Heated Purge: (Y/N) N

Calibration ID: 8428

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1685652	5.70	1127991	8.39	551448	10.64
UPPER LIMIT		3371304	6.20	2255982	8.89	1102896	11.14
LOWER LIMIT		842826	5.20	563996	7.89	275724	10.14
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-42324/3		1584858	5.70	1039768	8.39	509719	10.64
LCS 240-42324/4		1635403	5.70	1080601	8.39	561237	10.64
MB 240-42324/5		1511836	5.70	1024126	8.39	489807	10.64
240-10727-1	TB-042612	1377305	5.70	930099	8.39	438724	10.64
240-10727-2	GSP-MW1-042612	1394275	5.70	949622	8.39	430449	10.64
240-10727-3	GSP-MW2-042612	1403235	5.70	951553	8.39	444302	10.64
240-10727-4	GSP-MW3-042612	1348914	5.70	908451	8.39	439145	10.64
240-10770-B-2 MS		1398521	5.70	928051	8.39	457817	10.64
240-10770-B-2 MSD		1446927	5.70	965602	8.39	481690	10.64

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab File ID: BFB2914.D BFB Injection Date: 04/29/2012

Instrument ID: A3UX16 BFB Injection Time: 15:11

Analysis Batch No.: 42092

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.4	
75	30.0 - 60.0 % of mass 95	55.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.3	(0.4)1
174	50.0 - 120.00 % of mass 95	67.2	
175	5.0 - 9.0 % of mass 174	4.9	(7.4)1
176	95.0 - 101.0 % of mass 174	65.5	(97.4)1
177	5.0 - 9.0 % of mass 176	4.1	(6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-42092/2	UXM5239.D	04/29/2012	15:41
	STD8260 240-42092/3	UXM5240.D	04/29/2012	16:03
	STD8260 240-42092/4	UXM5241.D	04/29/2012	16:26
	STD8260 240-42092/5	UXM5242.D	04/29/2012	16:49
	STD8260 240-42092/6	UXM5243.D	04/29/2012	17:12
	STD8260 240-42092/7	UXM5244.D	04/29/2012	17:34
	STD1 240-42092/8	UXM5245.D	04/29/2012	17:57
	STD2 240-42092/9	UXM5246.D	04/29/2012	18:20
	STD3 240-42092/10	UXM5247.D	04/29/2012	18:42
	STD4 240-42092/11	UXM5248.D	04/29/2012	19:05
	STD5 240-42092/12	UXM5249.D	04/29/2012	19:28
	STD6 240-42092/13	UXM5250.D	04/29/2012	19:50
	ICV 240-42092/14	UXM5251.D	04/29/2012	20:13

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10727-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-42092/7	UXM5244.D
Level 2	STD8260 240-42092/6	UXM5243.D
Level 3	STD8260 240-42092/5	UXM5242.D
Level 4	STD8260 240-42092/4	UXM5241.D
Level 5	STD8260 240-42092/3	UXM5240.D
Level 6	STD8260 240-42092/2	UXM5239.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2475 0.3038	0.2649	0.2905	0.2889	0.3016	Ave		0.2829			0.1000	7.8		15.0			
Chloromethane	0.4695 0.4320	0.4893	0.4830	0.4487	0.4452	Ave		0.4613			0.1000	4.9		15.0			
Vinyl chloride	0.4202 0.4041	0.4409	0.4365	0.4256	0.4202	Ave		0.4246			0.1000	3.1		15.0			
Bromomethane	0.1730 0.1493	0.1760	0.1733	0.1676	0.1710	Ave		0.1684			0.0500	5.8		15.0			
Chloroethane	0.2470 0.2229	0.2473	0.2344	0.2374	0.2336	Ave		0.2371				3.9		15.0			
Trichlorofluoromethane	0.2704 0.3132	0.3068	0.3031	0.3070	0.3204	Ave		0.3035			0.1000	5.7		15.0			
Acrolein	0.0469 0.0473	0.0483	0.0502	0.0508	0.0498	Ave		0.0489				3.3		15.0			
1,1-Dichloroethene	0.2340 0.2501	0.2402	0.2424	0.2499	0.2511	Ave		0.2446			0.1000	2.8		15.0			
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.1512 0.1622	0.1553	0.1500	0.1479	0.1608	Ave		0.1546			0.0500	3.8		15.0			
Acetone	0.2162 0.0864	0.1595	0.1181	0.1099	0.0970	Lin1	0.2842	0.0868			0.0500				0.9960		0.9950
Iodomethane	0.3345 0.3288	0.3415	0.3505	0.3469	0.3574	Ave		0.3433				3.1		15.0			
Carbon disulfide	0.6238 0.8183	0.6509	0.6976	0.7556	0.8104	Ave		0.7261			0.1000	11.0		15.0			
Acetonitrile	0.0391 0.0299	0.0368	0.0353	0.0335	0.0333	Ave		0.0346				9.2		15.0			
Methyl acetate	0.2451 0.2094	0.2377	0.2404	0.2374	0.2264	Ave		0.2327			0.1000	5.6		15.0			
Methylene Chloride	0.4532 0.2926	0.3791	0.3449	0.3188	0.3120	Lin1	0.1763	0.2950			0.1000				0.9990		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10727-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
tert-Butyl alcohol	0.0187 0.0171	0.0206	0.0189	0.0189	0.0192	Ave		0.0189				6.0		15.0			
Acrylonitrile	0.1145 0.1022	0.1105	0.1139	0.1170	0.1105	Ave		0.1114				4.6		15.0			
trans-1,2-Dichloroethene	0.2839 0.2770	0.2945	0.2944	0.2851	0.2889	Ave		0.2873			0.1000	2.4		15.0			
Methyl tert-butyl ether	0.8507 0.8216	0.8205	0.8460	0.8461	0.8566	Ave		0.8402			0.1000	1.8		15.0			
Hexane	0.0529 0.0560	0.0521	0.0488	0.0501	0.0574	Ave		0.0529				6.3		15.0			
1,1-Dichloroethane	0.5478 0.5504	0.5906	0.5789	0.5698	0.5773	Ave		0.5691			0.1000	3.0		15.0			
Vinyl acetate	0.0438 0.0547	0.0420	0.0492	0.0562	0.0568	Ave		0.0505				13.0		15.0			
2-Butanone	0.1431 0.1214	0.1392	0.1413	0.1375	0.1314	Ave		0.1356			0.0500	5.9		15.0			
cis-1,2-Dichloroethene	0.3153 0.3006	0.3006	0.3107	0.3096	0.3157	Ave		0.3087			0.1000	2.2		15.0			
2,2-Dichloropropane	0.2459 0.3076	0.2799	0.2938	0.3057	0.3261	Ave		0.2932				9.5		15.0			
Bromochloromethane	0.1255 0.1262	0.1225	0.1298	0.1329	0.1330	Ave		0.1283				3.3		15.0			
Tetrahydrofuran	0.0875 0.0744	0.0826	0.0830	0.0854	0.0842	Ave		0.0828				5.4		15.0			
Chloroform	0.5169 0.5153	0.5299	0.5388	0.5290	0.5477	Ave		0.5296				2.4		15.0			
1,1,1-Trichloroethane	0.3234 0.3831	0.3500	0.3674	0.3840	0.3986	Ave		0.3678			0.1000	7.4		15.0			
Cyclohexane	0.4217 0.4832	0.4863	0.4431	0.4476	0.4809	Ave		0.4605			0.1000	5.8		15.0			
1,1-Dichloropropene	0.4359 0.4194	0.4199	0.4223	0.4252	0.4356	Ave		0.4264				1.8		15.0			
Carbon tetrachloride	0.2456 0.3072	0.2543	0.2617	0.2867	0.3066	Ave		0.2770			0.1000	9.7		15.0			
1,2-Dichloroethane	0.4838 0.4518	0.4761	0.4673	0.4667	0.4711	Ave		0.4694			0.1000	2.3		15.0			
Benzene	1.2256 1.2453	1.2535	1.2750	1.2420	1.2666	Ave		1.2513			0.5000	1.4		15.0			
Trichloroethene	0.2714 0.2655	0.2671	0.2733	0.2695	0.2719	Ave		0.2698			0.2000	1.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10727-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methylcyclohexane	0.3056 0.3781	0.3553	0.3486	0.3331	0.3656	Ave		0.3477			0.1000	7.4		15.0			
1,2-Dichloropropane	0.2994 0.3048	0.3058	0.3148	0.3132	0.3116	Ave		0.3083			0.1000	1.9		15.0			
Dibromomethane	0.1675 0.1555	0.1521	0.1644	0.1597	0.1644	Ave		0.1606				3.7		15.0			
1,4-Dioxane	0.0023 0.0020	0.0024	0.0025	0.0025	0.0025	Ave		0.0024				8.2		15.0			
Bromodichloromethane	0.2586 0.3533	0.2732	0.3036	0.3210	0.3455	Ave		0.3092			0.1000	12.0		15.0			
2-Chloroethyl vinyl ether	0.1532 0.1582	0.1459	0.1670	0.1699	0.1653	Ave		0.1599				5.8		15.0			
cis-1,3-Dichloropropene	0.3061 0.4576	0.3249	0.3845	0.4238	0.4469	Lin1	-0.212	0.4568			0.1500				0.9990		0.9950
4-Methyl-2-pentanone	0.2451 0.2575	0.2540	0.2759	0.2780	0.2752	Ave		0.2643			0.0500	5.3		15.0			
Toluene	1.7728 1.9294	1.8880	1.8619	1.8474	1.9604	Ave		1.8766			0.4000	3.5		15.0			
trans-1,3-Dichloropropene	0.3835 0.6056	0.4211	0.4964	0.5287	0.6010	Lin1	-0.314	0.6041			0.1000				0.9980		0.9950
Ethyl methacrylate	0.4455 0.5778	0.5229	0.5765	0.5788	0.6242	Ave		0.5543				11.0		15.0			
1,1,2-Trichloroethane	0.3279 0.3212	0.3141	0.3421	0.3341	0.3447	Ave		0.3307			0.1000	3.6		15.0			
1,3-Dichloropropane	0.6891 0.6635	0.6944	0.7152	0.6928	0.7223	Ave		0.6962				3.0		15.0			
Tetrachloroethene	0.2452 0.2600	0.2630	0.2668	0.2612	0.2738	Ave		0.2617			0.2000	3.6		15.0			
2-Hexanone	0.2323 0.2576	0.2818	0.2796	0.2822	0.2852	Ave		0.2698			0.0500	7.8		15.0			
Dibromochloromethane	0.1872 0.3114	0.2160	0.2464	0.2709	0.3057	Lin1	-0.171	0.3097							0.9980		0.9950
1,2-Dibromoethane	0.2962 0.3220	0.3089	0.3344	0.3261	0.3462	Ave		0.3223				5.5		15.0			
Chlorobenzene	1.0759 1.0855	1.1279	1.1114	1.0941	1.1299	Ave		1.1041			0.3000	2.0		15.0			
1,1,1,2-Tetrachloroethane	0.2665 0.3469	0.2706	0.3066	0.3249	0.3538	Ave		0.3116				12.0		15.0			
Ethylbenzene	0.5227 0.5869	0.5825	0.6026	0.5858	0.6163	Ave		0.5828				5.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10727-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
m-Xylene & p-Xylene	0.6757 0.7551	0.7220	0.7191	0.7176	0.7638	Ave		0.7256				4.3		15.0			
o-Xylene	0.6806 0.7276	0.7176	0.7304	0.7130	0.7551	Ave		0.7207				3.4		15.0			
Styrene	1.0565 1.2902	1.1310	1.1966	1.1904	1.2870	Ave		1.1920			0.3000	7.6		15.0			
Bromoform	0.0815 0.1487	0.0938	0.1133	0.1171	0.1413	Lin1	-0.094	0.1455			0.1000				0.9950		0.9950
Isopropylbenzene	1.5492 1.8304	1.6861	1.6648	1.6944	1.8507	Ave		1.7126			0.1000	6.6		15.0			
1,1,2,2-Tetrachloroethane	0.8553 0.8338	0.9184	0.9469	0.9293	0.9310	Ave		0.9025			0.3000	5.1		15.0			
Bromobenzene	0.8074 0.7779	0.8287	0.8325	0.8084	0.8409	Ave		0.8159				2.8		15.0			
1,2,3-Trichloropropane	0.2880 0.2558	0.2803	0.2925	0.2919	0.2938	Ave		0.2837				5.1		15.0			
trans-1,4-Dichloro-2-butene	0.2181 0.2689	0.2471	0.2346	0.2535	0.2845	Ave		0.2511				9.5		15.0			
n-Propylbenzene	0.7292 0.8665	0.8823	0.8741	0.8947	0.9118	Ave		0.8598				7.7		15.0			
2-Chlorotoluene	0.8583 0.7918	0.8579	0.8258	0.8361	0.8474	Ave		0.8362				3.0		15.0			
1,3,5-Trimethylbenzene	2.5787 2.8481	2.7830	2.7962	2.7951	2.9477	Ave		2.7914				4.3		15.0			
4-Chlorotoluene	0.8421 0.8602	0.8907	0.8940	0.8564	0.9136	Ave		0.8762				3.1		15.0			
tert-Butylbenzene	2.2870 2.5025	2.5077	2.4568	2.4969	2.5752	Ave		2.4710				4.0		15.0			
1,2,4-Trimethylbenzene	2.7586 2.9544	2.8331	2.8754	2.9504	3.0668	Ave		2.9065				3.7		15.0			
sec-Butylbenzene	2.8024 3.1977	3.0238	2.9596	3.0216	3.2137	Ave		3.0365				5.1		15.0			
1,3-Dichlorobenzene	1.5037 1.4698	1.4901	1.5135	1.5069	1.5495	Ave		1.5056			0.6000	1.8		15.0			
p-Isopropyltoluene	2.2069 2.6255	2.4647	2.4703	2.4761	2.6715	Ave		2.4858				6.6		15.0			
1,4-Dichlorobenzene	1.6073 1.5308	1.6512	1.5577	1.5557	1.6211	Ave		1.5873			0.5000	2.9		15.0			
n-Butylbenzene	2.0896 2.4436	2.2004	2.2368	2.2659	2.4792	Ave		2.2859				6.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10727-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dichlorobenzene	1.4966 1.3945	1.5126	1.5119	1.4682	1.5239	Ave		1.4846			0.4000	3.2		15.0			
1,2-Dibromo-3-Chloropropane	0.0886 0.0950	0.0916	0.0904	0.0972	0.1086	Ave		0.0952			0.0500	7.6		15.0			
1,3,5-Trichlorobenzene	0.7904 0.7093	0.7633	0.7631	0.7837	0.8038	Ave		0.7690				4.3		15.0			
1,2,4-Trichlorobenzene	0.6476 0.5852	0.7228	0.7185	0.6951	0.7215	Ave		0.6818			0.2000	8.1		15.0			
Hexachlorobutadiene	0.2814 0.2092	0.2884	0.2495	0.2645	0.2531	Ave		0.2577				11.0		15.0			
Naphthalene	1.9527 1.6802	2.0647	2.2163	2.2497	2.2115	Ave		2.0625				11.0		15.0			
1,2,3-Trichlorobenzene	0.6221 0.4278	0.6296	0.6285	0.6505	0.5938	Ave		0.5920				14.0		15.0			
Dibromofluoromethane (Surr)	0.2331 0.2366	0.2278	0.2460	0.2403	0.2499	Ave		0.2389				3.4		15.0			
1,2-Dichloroethane-d4 (Surr)	0.4238 0.3659	0.3675	0.3946	0.3884	0.3801	Ave		0.3867				5.5		15.0			
Toluene-d8 (Surr)	1.5539 1.5702	1.4814	1.5599	1.5466	1.5977	Ave		1.5516				2.5		15.0			
4-Bromofluorobenzene (Surr)	0.5499 0.5492	0.5504	0.5556	0.5412	0.5764	Ave		0.5538				2.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10727-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 17:57 Calibration End Date: 04/29/2012 19:50 Calibration ID: 8428

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD6 240-42092/13	UXM5250.D
Level 2	STD5 240-42092/12	UXM5249.D
Level 3	STD4 240-42092/11	UXM5248.D
Level 4	STD3 240-42092/10	UXM5247.D
Level 5	STD2 240-42092/9	UXM5246.D
Level 6	STD1 240-42092/8	UXM5245.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorofluoromethane	0.4944 0.5457	0.5179	0.5366	0.5411	0.5388	Ave		0.5291				3.7		15.0			
Ethyl ether	0.2959 0.3118	0.3149	0.3299	0.3322	0.3247	Ave		0.3182				4.3		15.0			
3-Chloro-1-propene	0.1138 0.1626	0.1307	0.1332	0.1472	0.1572	Ave		0.1408				13.0		15.0			
Diisopropyl ether	0.2325 0.3039	0.2698	0.2820	0.2880	0.2888	Ave		0.2775				8.9		15.0			
2-Chloro-1,3-butadiene	0.4443 0.5618	0.4913	0.5190	0.5386	0.5385	Ave		0.5156				8.2		15.0			
Ethyl-t-butyl ether (ETBE)	0.7557 0.9819	0.8293	0.9029	0.9314	0.9383	Ave		0.8899				9.3		15.0			
Propionitrile	0.0349 0.0408	0.0346	0.0382	0.0420	0.0412	Ave		0.0386				8.5		15.0			
Ethyl acetate	0.2532 0.2900	0.2546	0.2741	0.2771	0.2824	Ave		0.2719				5.5		15.0			
Methacrylonitrile	0.1606 0.2023	0.1897	0.1949	0.2046	0.2003	Ave		0.1921				8.5		15.0			
Isobutyl alcohol	0.0077 0.0091	0.0077	0.0086	0.0094	0.0092	Ave		0.0086				8.8		15.0			
Tert-amyl-methyl ether (TAME)	0.5871 0.7972	0.6671	0.7241	0.7535	0.7651	Ave		0.7157				11.0		15.0			
n-Heptane	0.0338 0.0458	0.0359	0.0418	0.0425	0.0440	Ave		0.0406				12.0		15.0			
n-Butanol	0.0041 0.0069	0.0052	0.0059	0.0064	0.0070	Lin1	-0.068	0.0070							0.9990		0.9950
2-Nitropropane	0.0349 0.0534	0.0349	0.0424	0.0409	0.0453	Qua	0	0.0373	0.0002						1.0000		0.9900
Cyclohexanone	0.0676 0.1071	0.0696	0.0924	0.0940	0.1083	Lin1	-0.573	0.1077							0.9980		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10727-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 17:57 Calibration End Date: 04/29/2012 19:50 Calibration ID: 8428

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,3-Trimethylbenzene	2.3062 3.3384	2.8522	3.0020	3.1126	3.2823	Ave		2.9823				13.0		15.0			
2-Methylnaphthalene	0.5487 0.8482	0.7229	0.8158	0.9225	1.0313	Qua	-2.422	1.2182	-0.004						0.9970		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

icv

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2829	0.2340	0.1000	8.27	10.0	-17.3	20.0
Chloromethane	Ave	0.4613	0.4720	0.1000	10.2	10.0	2.3	20.0
Vinyl chloride	Ave	0.4246	0.4443	0.1000	10.5	10.0	4.6	20.0
Bromomethane	Ave	0.1684	0.1539	0.0500	9.14	10.0	-8.6	20.0
Chloroethane	Ave	0.2371	0.2329	0.0500	9.82	10.0	-1.8	20.0
Trichlorofluoromethane	Ave	0.3035	0.3240	0.1000	10.7	10.0	6.8	20.0
Acrolein	Ave	0.0489	0.0264		16.2	30.0	-46.0*	20.0
1,1-Dichloroethene	Ave	0.2446	0.2652	0.1000	10.8	10.0	8.4	20.0
1,1,2-Trichloro-1,2,2-trichf luoroethane	Ave	0.1546	0.1709	0.0500	11.1	10.0	10.6	20.0
Acetone	Lin1		0.1057	0.0500	21.1	20.0	5.5	20.0
Iodomethane	Ave	0.3433	0.3416		9.95	10.0	-0.5	20.0
Carbon disulfide	Ave	0.7261	0.7042	0.1000	9.70	10.0	-3.0	20.0
Acetonitrile	Ave	0.0346	0.0393		34.0	30.0	13.4	20.0
Methyl acetate	Ave	0.2327	0.2751	0.1000	11.8	10.0	18.2	20.0
Methylene Chloride	Lin1		0.3299	0.1000	10.6	10.0	6.0	20.0
tert-Butyl alcohol	Ave	0.0189	0.0195		207	200	3.2	20.0
Acrylonitrile	Ave	0.1114	0.1186		31.9	30.0	6.5	20.0
Methyl tert-butyl ether	Ave	0.8402	0.8405	0.1000	10.0	10.0	0.0	20.0
trans-1,2-Dichloroethene	Ave	0.2873	0.2952	0.1000	10.3	10.0	2.7	20.0
Hexane	Ave	0.0529	0.0579		10.9	10.0	9.4	20.0
1,1-Dichloroethane	Ave	0.5691	0.6028	0.1000	10.6	10.0	5.9	20.0
Vinyl acetate	Ave	0.0505	0.0387		7.67	10.0	-23.3*	20.0
2-Butanone	Ave	0.1356	0.1389	0.0500	20.5	20.0	2.4	20.0
2,2-Dichloropropane	Ave	0.2932	0.2855		9.74	10.0	-2.6	20.0
cis-1,2-Dichloroethene	Ave	0.3087	0.3186	0.1000	10.3	10.0	3.2	20.0
Bromochloromethane	Ave	0.1283	0.1312		10.2	10.0	2.2	20.0
Tetrahydrofuran	Ave	0.0828	0.0852		10.3	10.0	2.9	20.0
Chloroform	Ave	0.5296	0.5462	0.2000	10.3	10.0	3.1	20.0
1,1,1-Trichloroethane	Ave	0.3678	0.3794	0.1000	10.3	10.0	3.2	20.0
Cyclohexane	Ave	0.4605	0.4767	0.1000	10.4	10.0	3.5	20.0
1,1-Dichloropropene	Ave	0.4264	0.4383		10.3	10.0	2.8	20.0
Carbon tetrachloride	Ave	0.2770	0.2912	0.1000	10.5	10.0	5.1	20.0
1,2-Dichloroethane	Ave	0.4694	0.4938	0.1000	10.5	10.0	5.2	20.0
Benzene	Ave	1.251	1.319	0.5000	10.5	10.0	5.4	20.0
Trichloroethene	Ave	0.2698	0.2968	0.2000	11.0	10.0	10.0	20.0
1,2-Dichloropropane	Ave	0.3083	0.3319	0.1000	10.8	10.0	7.7	20.0
Methylcyclohexane	Ave	0.3477	0.3665	0.1000	10.5	10.0	5.4	20.0
Dibromomethane	Ave	0.1606	0.1738		10.8	10.0	8.2	20.0
Bromodichloromethane	Ave	0.3092	0.3331	0.1000	10.8	10.0	7.7	20.0
2-Chloroethyl vinyl ether	Ave	0.1599	0.1722		10.8	10.0	7.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
cis-1,3-Dichloropropene	Lin1		0.4089	0.1500	9.41	10.0	-5.9	20.0
4-Methyl-2-pentanone	Ave	0.2643	0.2914	0.0500	22.1	20.0	10.3	20.0
Toluene	Ave	1.877	1.918	0.4000	10.2	10.0	2.2	20.0
trans-1,3-Dichloropropene	Lin1		0.5291	0.1000	9.28	10.0	-7.2	20.0
1,1,2-Trichloroethane	Ave	0.3307	0.3442	0.1000	10.4	10.0	4.1	20.0
1,3-Dichloropropane	Ave	0.6962	0.7105		10.2	10.0	2.0	20.0
Tetrachloroethene	Ave	0.2617	0.2644	0.2000	10.1	10.0	1.0	20.0
2-Hexanone	Ave	0.2698	0.2927	0.0500	21.7	20.0	8.5	20.0
Dibromochloromethane	Lin1		0.2623		9.02	10.0	-9.8	20.0
1,2-Dibromoethane	Ave	0.3223	0.3341		10.4	10.0	3.7	20.0
Chlorobenzene	Ave	1.104	1.136	0.3000	10.3	10.0	2.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3116	0.3283		10.5	10.0	5.4	20.0
Ethylbenzene	Ave	0.5828	0.6250		10.7	10.0	7.2	20.0
m-Xylene & p-Xylene	Ave	0.7256	0.7452		20.5	20.0	2.7	20.0
o-Xylene	Ave	0.7207	0.7518		10.4	10.0	4.3	20.0
Styrene	Ave	1.192	1.255	0.3000	10.5	10.0	5.3	20.0
Bromoform	Lin1		0.1220	0.1000	9.03	10.0	-9.7	20.0
Isopropylbenzene	Ave	1.713	1.779	0.1000	10.4	10.0	3.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9025	0.9195	0.3000	10.2	10.0	1.9	20.0
Bromobenzene	Ave	0.8159	0.8010		9.82	10.0	-1.8	20.0
1,2,3-Trichloropropane	Ave	0.2837	0.2982		10.5	10.0	5.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2511	0.2617		20.8	20.0	4.2	20.0
n-Propylbenzene	Ave	0.8598	0.9010		10.5	10.0	4.8	20.0
2-Chlorotoluene	Ave	0.8362	0.8214		9.82	10.0	-1.8	20.0
1,3,5-Trimethylbenzene	Ave	2.791	2.836		10.2	10.0	1.6	20.0
4-Chlorotoluene	Ave	0.8762	0.8813		10.1	10.0	0.6	20.0
tert-Butylbenzene	Ave	2.471	2.497		10.1	10.0	1.1	20.0
1,2,4-Trimethylbenzene	Ave	2.906	2.988		10.3	10.0	2.8	20.0
sec-Butylbenzene	Ave	3.036	3.064		10.1	10.0	0.9	20.0
1,3-Dichlorobenzene	Ave	1.506	1.484	0.6000	9.85	10.0	-1.5	20.0
p-Isopropyltoluene	Ave	2.486	2.579		10.4	10.0	3.8	20.0
1,4-Dichlorobenzene	Ave	1.587	1.584	0.5000	9.98	10.0	-0.2	20.0
n-Butylbenzene	Ave	2.286	2.295		10.0	10.0	0.4	20.0
1,2-Dichlorobenzene	Ave	1.485	1.504	0.4000	10.1	10.0	1.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0952	0.1049	0.0500	11.0	10.0	10.1	20.0
1,2,4-Trichlorobenzene	Ave	0.6818	0.6660	0.2000	9.77	10.0	-2.3	20.0
Hexachlorobutadiene	Ave	0.2577	0.2217		8.60	10.0	-14.0	20.0
Naphthalene	Ave	2.063	2.211		10.7	10.0	7.2	20.0
1,2,3-Trichlorobenzene	Ave	0.5920	0.6250		10.6	10.0	5.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2389	0.2274		9.72	10.2	-4.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3867	0.3583		9.46	10.2	-7.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Toluene-d8 (Surr)	Ave	1.552	1.491		9.81	10.2	-3.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5538	0.5469		10.1	10.2	-1.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

1 cv

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 17:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 19:50

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.3182	0.3065		9.63	10.0	-3.7	20.0
Diisopropyl ether	Ave	0.2775	0.2745		9.89	10.0	-1.1	20.0
Isobutyl alcohol	Ave	0.0086	0.0091		527	500	5.4	20.0
Cyclohexanone	Lin1		0.0256		52.9	200	-73.6*	20.0
1,2,3-Trimethylbenzene	Ave	2.982	3.178		10.7	10.0	6.6	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab File ID: BFB2918.D BFB Injection Date: 05/01/2012

Instrument ID: A3UX16 BFB Injection Time: 10:27

Analysis Batch No.: 42324

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	22.3	
75	30.0 - 60.0 % of mass 95	55.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.1	
173	Less than 2.0 % of mass 174	0.4	(0.5)1
174	50.0 - 120.00 % of mass 95	65.4	
175	5.0 - 9.0 % of mass 174	4.4	(6.7)1
176	95.0 - 101.0 % of mass 174	62.9	(96.2)1
177	5.0 - 9.0 % of mass 176	4.0	(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-42324/2	UXM5299.D	05/01/2012	10:57
	CCV 240-42324/3	UXM5300.D	05/01/2012	11:20
	LCS 240-42324/4	UXM5301.D	05/01/2012	11:42
	MB 240-42324/5	UXM5302.D	05/01/2012	12:05
TB-042612	240-10727-1	UXM5313.D	05/01/2012	16:57
GSP-MW1-042612	240-10727-2	UXM5314.D	05/01/2012	17:20
GSP-MW2-042612	240-10727-3	UXM5315.D	05/01/2012	17:43
GSP-MW3-042612	240-10727-4	UXM5316.D	05/01/2012	18:06
	240-10770-B-2 MS	UXM5319.D	05/01/2012	19:14
	240-10770-B-2 MSD	UXM5320.D	05/01/2012	19:37

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: CCVIS 240-42324/2 Calibration Date: 05/01/2012 10:57

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5299.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2829	0.2970	0.1000	10.5	10.0	5.0	20.0
Chloromethane	Ave	0.4613	0.4543	0.1000	9.85	10.0	-1.5	20.0
Vinyl chloride	Ave	0.4246	0.4174	0.1000	9.83	10.0	-1.7	20.0
Bromomethane	Ave	0.1684	0.1468	0.0500	8.72	10.0	-12.8	20.0
Chloroethane	Ave	0.2371	0.2172	0.0500	9.16	10.0	-8.4	20.0
Trichlorofluoromethane	Ave	0.3035	0.3345	0.1000	11.0	10.0	10.2	20.0
Acrolein	Ave	0.0489	0.0408		83.3	100	-16.7	20.0
1,1-Dichloroethene	Ave	0.2446	0.2333	0.1000	9.54	10.0	-4.6	20.0
1,1,2-Trichloro-1,2,2-trichf luoroethane	Ave	0.1546	0.1599	0.0500	10.3	10.0	3.5	20.0
Acetone	Lin1		0.0858	0.0500	16.5	20.0	-17.5	20.0
Iodomethane	Ave	0.3433	0.3386		9.86	10.0	-1.4	20.0
Carbon disulfide	Ave	0.7261	0.7276	0.1000	10.0	10.0	0.2	20.0
Acetonitrile	Ave	0.0346	0.0275		79.3	100	-20.7*	20.0
Methyl acetate	Ave	0.2327	0.1924	0.1000	16.5	20.0	-17.3	20.0
Methylene Chloride	Lin1		0.3022	0.1000	9.65	10.0	-3.5	20.0
tert-Butyl alcohol	Ave	0.0189	0.0167		176	200	-11.8	20.0
Acrylonitrile	Ave	0.1114	0.0928		16.7	20.0	-16.7	20.0
Methyl tert-butyl ether	Ave	0.8402	0.7564	0.1000	9.00	10.0	-10.0	20.0
trans-1,2-Dichloroethene	Ave	0.2873	0.2720	0.1000	9.47	10.0	-5.3	20.0
Hexane	Ave	0.0529	0.0545		10.3	10.0	3.0	20.0
1,1-Dichloroethane	Ave	0.5691	0.5175	0.1000	9.09	10.0	-9.1	20.0
Vinyl acetate	Ave	0.0505	0.0467		9.26	10.0	-7.4	20.0
2-Butanone	Ave	0.1356	0.1103	0.0500	16.3	20.0	-18.7	20.0
cis-1,2-Dichloroethene	Ave	0.3087	0.2874	0.1000	9.31	10.0	-6.9	20.0
2,2-Dichloropropane	Ave	0.2932	0.2845		9.70	10.0	-3.0	20.0
Bromochloromethane	Ave	0.1283	0.1235		9.62	10.0	-3.8	20.0
Tetrahydrofuran	Ave	0.0828	0.0679		8.20	10.0	-18.0	20.0
Chloroform	Ave	0.5296	0.4972	0.2000	9.39	10.0	-6.1	20.0
1,1,1-Trichloroethane	Ave	0.3678	0.3668	0.1000	9.97	10.0	-0.3	20.0
Cyclohexane	Ave	0.4605	0.4548	0.1000	9.88	10.0	-1.2	20.0
1,1-Dichloropropene	Ave	0.4264	0.3992		9.36	10.0	-6.4	20.0
Carbon tetrachloride	Ave	0.2770	0.2807	0.1000	10.1	10.0	1.3	20.0
1,2-Dichloroethane	Ave	0.4694	0.4211	0.1000	8.97	10.0	-10.3	20.0
Benzene	Ave	1.251	1.160	0.5000	9.27	10.0	-7.3	20.0
Trichloroethene	Ave	0.2698	0.2566	0.2000	9.51	10.0	-4.9	20.0
Methylcyclohexane	Ave	0.3477	0.3573	0.1000	10.3	10.0	2.7	20.0
1,2-Dichloropropane	Ave	0.3083	0.2800	0.1000	9.08	10.0	-9.2	20.0
Dibromomethane	Ave	0.1606	0.1466		9.13	10.0	-8.7	20.0
1,4-Dioxane	Ave	0.0024	0.0019		407	500	-18.6	20.0
Bromodichloromethane	Ave	0.3092	0.3093	0.1000	10.0	10.0	0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: CCVIS 240-42324/2 Calibration Date: 05/01/2012 10:57

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5299.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1599	0.1407		17.6	20.0	-12.0	20.0
cis-1,3-Dichloropropene	Lin1		0.3920	0.1500	9.05	10.0	-9.5	20.0
4-Methyl-2-pentanone	Ave	0.2643	0.2298	0.0500	17.4	20.0	-13.0	20.0
Toluene	Ave	1.877	1.757	0.4000	9.36	10.0	-6.4	20.0
trans-1,3-Dichloropropene	Lin1		0.4892	0.1000	8.62	10.0	-13.8	20.0
Ethyl methacrylate	Ave	0.5543	0.5192		9.37	10.0	-6.3	20.0
1,1,2-Trichloroethane	Ave	0.3307	0.3008	0.1000	9.10	10.0	-9.0	20.0
1,3-Dichloropropane	Ave	0.6962	0.6149		8.83	10.0	-11.7	20.0
Tetrachloroethene	Ave	0.2617	0.2658	0.2000	10.2	10.0	1.6	20.0
2-Hexanone	Ave	0.2698	0.2311	0.0500	17.1	20.0	-14.3	20.0
Dibromochloromethane	Lin1		0.2569		8.85	10.0	-11.5	20.0
1,2-Dibromoethane	Ave	0.3223	0.2904		9.01	10.0	-9.9	20.0
Chlorobenzene	Ave	1.104	1.009	0.3000	9.14	10.0	-8.6	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3116	0.3090		9.92	10.0	-0.8	20.0
Ethylbenzene	Ave	0.5828	0.5479		9.40	10.0	-6.0	20.0
m-Xylene & p-Xylene	Ave	0.7256	0.6861		18.9	20.0	-5.4	20.0
o-Xylene	Ave	0.7207	0.6592		9.15	10.0	-8.5	20.0
Styrene	Ave	1.192	1.127	0.3000	9.45	10.0	-5.5	20.0
Bromoform	Lin1		0.1151	0.1000	8.56	10.0	-14.4	20.0
Isopropylbenzene	Ave	1.713	1.644	0.1000	9.60	10.0	-4.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9025	0.7806	0.3000	8.65	10.0	-13.5	20.0
Bromobenzene	Ave	0.8159	0.7710		9.45	10.0	-5.5	20.0
1,2,3-Trichloropropane	Ave	0.2837	0.2458		8.66	10.0	-13.4	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2511	0.2026		8.07	10.0	-19.3	20.0
n-Propylbenzene	Ave	0.8598	0.8329		9.69	10.0	-3.1	20.0
2-Chlorotoluene	Ave	0.8362	0.7811		9.34	10.0	-6.6	20.0
1,3,5-Trimethylbenzene	Ave	2.791	2.681		9.60	10.0	-4.0	20.0
4-Chlorotoluene	Ave	0.8762	0.8220		9.38	10.0	-6.2	20.0
tert-Butylbenzene	Ave	2.471	2.351		9.51	10.0	-4.9	20.0
1,2,4-Trimethylbenzene	Ave	2.906	2.770		9.53	10.0	-4.7	20.0
sec-Butylbenzene	Ave	3.036	2.925		9.63	10.0	-3.7	20.0
1,3-Dichlorobenzene	Ave	1.506	1.424	0.6000	9.46	10.0	-5.4	20.0
p-Isopropyltoluene	Ave	2.486	2.368		9.52	10.0	-4.8	20.0
1,4-Dichlorobenzene	Ave	1.587	1.488	0.5000	9.38	10.0	-6.2	20.0
n-Butylbenzene	Ave	2.286	2.212		9.68	10.0	-3.2	20.0
1,2-Dichlorobenzene	Ave	1.485	1.376	0.4000	9.27	10.0	-7.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0952	0.0868	0.0500	9.12	10.0	-8.8	20.0
1,3,5-Trichlorobenzene	Ave	0.7690	0.7679		9.99	10.0	-0.1	20.0
1,2,4-Trichlorobenzene	Ave	0.6818	0.6628	0.2000	9.72	10.0	-2.8	20.0
Hexachlorobutadiene	Ave	0.2577	0.2465		9.56	10.0	-4.4	20.0
Naphthalene	Ave	2.063	1.789		8.67	10.0	-13.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: CCVIS 240-42324/2 Calibration Date: 05/01/2012 10:57

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5299.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Ave	0.5920	0.5701		9.63	10.0	-3.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2389	0.2122		9.07	10.2	-11.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3867	0.3050		8.05	10.2	-21.1*	20.0
Toluene-d8 (Surr)	Ave	1.552	1.334		8.78	10.2	-14.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5538	0.4954		9.13	10.2	-10.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: CCV 240-42324/3 Calibration Date: 05/01/2012 11:20

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 17:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 19:50

Lab File ID: UXM5300.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.5291	0.5354		10.1	10.0	1.2	20.0
Ethyl ether	Ave	0.3182	0.2987		9.39	10.0	-6.1	20.0
3-Chloro-1-propene	Ave	0.1408	0.1459		10.4	10.0	3.6	20.0
Diisopropyl ether	Ave	0.2775	0.2701		48.7	50.0	-2.7	20.0
2-Chloro-1,3-butadiene	Ave	0.5156	0.5114		9.92	10.0	-0.8	20.0
Ethyl-t-butyl ether (ETBE)	Ave	0.8899	0.8626		9.69	10.0	-3.1	20.0
Propionitrile	Ave	0.0386	0.0370		19.1	20.0	-4.3	20.0
Ethyl acetate	Ave	0.2719	0.2520		18.5	20.0	-7.3	20.0
Methacrylonitrile	Ave	0.1921	0.1757		9.15	10.0	-8.5	20.0
Isobutyl alcohol	Ave	0.0086	0.0077		178	200	-11.0	20.0
Tert-amyl-methyl ether (TAME)	Ave	0.7157	0.7080		9.89	10.0	-1.1	20.0
n-Heptane	Ave	0.0406	0.0444		10.9	10.0	9.3	20.0
n-Butanol	Lin1		0.0054		163	200	-18.7	20.0
2-Nitropropane	Qua		0.0417		20.2	20.0	1.0	20.0
Cyclohexanone	Lin1		0.0639		64.6	100	-35.4*	20.0
1,2,3-Trimethylbenzene	Ave	2.982	2.860		9.59	10.0	-4.1	20.0
2-Methylnaphthalene	Qua		0.5682		11.8	20.0	-41.0*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: CCV 240-42324/3 Calibration Date: 05/01/2012 11:20

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5300.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2389	0.2164		9.25	10.2	-9.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3867	0.3361		8.87	10.2	-13.1	20.0
Toluene-d8 (Surr)	Ave	1.552	1.436		9.45	10.2	-7.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5538	0.5323		9.81	10.2	-3.9	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab File ID: UXM5302.D Lab Sample ID: MB 240-42324/5

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 05/01/2012 12:05

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-42324/4	UXM5301.D	05/01/2012 11:42
TB-042612	240-10727-1	UXM5313.D	05/01/2012 16:57
GSP-MW1-042612	240-10727-2	UXM5314.D	05/01/2012 17:20
GSP-MW2-042612	240-10727-3	UXM5315.D	05/01/2012 17:43
GSP-MW3-042612	240-10727-4	UXM5316.D	05/01/2012 18:06
	240-10770-B-2 MS	UXM5319.D	05/01/2012 19:14
	240-10770-B-2 MSD	UXM5320.D	05/01/2012 19:37

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10727-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-42324/5

Matrix: Water | Lab File ID: UXM5302.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 12:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.280	J	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42324/5
Matrix: Water
Lab File ID: UXM5302.D
Analysis Method: 8260C
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 05/01/2012 12:05
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42324
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10727-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-42324/5

Matrix: Water | Lab File ID: UXM5302.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 12:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-129
460-00-4	4-Bromofluorobenzene (Surr)	94		66-117
2037-26-5	Toluene-d8 (Surr)	90		74-115
1868-53-7	Dibromofluoromethane (Surr)	87		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-10727-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-42324/5

Matrix: Water | Lab File ID: UXM5302.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 12:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5301.D

Lab ID: LCS 240-42324/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	9.45	95	72-116	
1,1,1-Trichloroethane	10.0	9.44	94	74-118	
1,1,2,2-Tetrachloroethane	10.0	8.83	88	68-118	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	9.91	99	74-151	
1,1-Dichloroethane	10.0	9.10	91	82-115	
1,1-Dichloroethene	10.0	9.77	98	78-131	
1,1-Dichloropropene	10.0	9.02	90	83-114	
1,2,3-Trichlorobenzene	10.0	9.28	93	54-126	
1,2,3-Trichloropropane	10.0	8.93	89	73-129	
1,2,3-Trimethylbenzene	10.0	9.10	91	70-130	
1,2,4-Trichlorobenzene	10.0	8.99	90	48-135	
1,2,4-Trimethylbenzene	10.0	8.94	89	76-120	
1,2-Dibromo-3-Chloropropane	10.0	9.30	93	42-136	
1,2-Dichlorobenzene	10.0	8.93	89	81-110	
1,2-Dichloroethane	10.0	9.17	92	71-127	
1,2-Dichloropropane	10.0	9.19	92	81-115	
1,3-Dichlorobenzene	10.0	8.91	89	80-110	
1,3-Dichloropropane	10.0	8.90	89	79-116	
1,4-Dichlorobenzene	10.0	8.70	87	82-110	
2,2-Dichloropropane	10.0	9.56	96	50-129	
2-Chloroethyl vinyl ether	10.0	9.03 J	90	52-131	
2-Chlorotoluene	10.0	8.56	86	76-116	
2-Hexanone	20.0	19.6	98	55-133	
Bromobenzene	10.0	8.72	87	76-115	
Bromochloromethane	10.0	9.54	95	77-120	
4-Chlorotoluene	10.0	8.66	87	77-115	
p-Isopropyltoluene	10.0	9.32	93	74-120	
Acetone	20.0	21.9	110	43-136	
Benzene	10.0	9.17	92	83-112	
Bromoform	10.0	8.47	85	40-131	
Bromomethane	10.0	7.98	80	11-185	
Carbon disulfide	10.0	8.80	88	62-142	
Carbon tetrachloride	10.0	9.85	99	66-128	
Chlorobenzene	10.0	9.08	91	85-110	
Chloroethane	10.0	8.25	83	25-153	
Chloroform	10.0	8.99	90	79-117	
Chloromethane	10.0	8.26	83	44-126	
cis-1,2-Dichloroethene	10.0	9.25	93	80-113	
cis-1,3-Dichloropropene	10.0	8.18	82	61-115	
Hexachlorobutadiene	10.0	8.21	82	36-134	
Dibromomethane	10.0	9.38	94	81-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5301.D

Lab ID: LCS 240-42324/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Bromodichloromethane	10.0	9.82	98	72-121	
Dichlorodifluoromethane	10.0	6.28	63	19-129	
Ethylbenzene	10.0	9.32	93	83-112	
1,2-Dibromoethane	10.0	9.45	95	79-113	
Diisopropyl ether	10.0	8.96 J	90	77-118	
Naphthalene	10.0	9.17	92	32-141	
m-Xylene & p-Xylene	20.0	18.5	93	83-113	
n-Butylbenzene	10.0	8.95	90	66-125	
Isopropylbenzene	10.0	9.38	94	75-114	
n-Propylbenzene	10.0	9.12	91	74-121	
2-Butanone	20.0	18.6	93	60-126	
4-Methyl-2-pentanone	20.0	18.8	94	63-128	
sec-Butylbenzene	10.0	8.81	88	70-117	
Methyl tert-butyl ether	10.0	8.97	90	52-144	
Methylene Chloride	10.0	9.15	92	66-131	
o-Xylene	10.0	9.45	95	83-113	
Styrene	10.0	9.49	95	79-114	
tert-Butylbenzene	10.0	8.75	88	71-115	
Tetrachloroethene	10.0	9.38	94	79-114	
Toluene	10.0	9.07	91	84-111	
trans-1,2-Dichloroethene	10.0	8.96	90	83-117	
trans-1,3-Dichloropropene	10.0	8.21	82	58-117	
Trichloroethene	10.0	9.28	93	76-117	
Trichlorofluoromethane	10.0	10.5	105	49-157	
Vinyl acetate	10.0	8.54	85	46-161	
Vinyl chloride	10.0	8.63	86	53-127	
tert-Butyl alcohol	200	195	98	70-130	
Xylenes, Total	30.0	28.0	93	83-112	
Dibromochloromethane	10.0	8.17	82	64-119	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5319.D

Lab ID: 240-10770-B-2 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	40.0	4.0 U	40.8	102	64-118	
1,1,1-Trichloroethane	40.0	4.0 U	38.3	96	68-121	
1,1,2,2-Tetrachloroethane	40.0	4.0 U	39.7	99	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	40.0	4.0 U	42.8	107	70-152	
1,1-Dichloroethane	40.0	4.0 U	39.4	98	79-116	
1,1-Dichloroethene	40.0	4.0 U	40.4	101	74-135	
1,1-Dichloropropene	40.0	4.0 U	38.5	96	80-114	
1,2,3-Trichlorobenzene	40.0	4.0 U	42.0	105	45-129	
1,2,3-Trichloropropane	40.0	4.0 U	39.8	100	67-132	
1,2,3-Trimethylbenzene	40.0	20 U	40.4	101	70-130	
1,2,4-Trichlorobenzene	40.0	4.0 U	38.7	97	38-138	
1,2,4-Trimethylbenzene	40.0	4.0 U	39.2	98	67-124	
1,2-Dibromo-3-Chloropropane	40.0	8.0 U	39.8	100	32-139	
1,2-Dichlorobenzene	40.0	4.0 U	39.6	99	75-111	
1,2-Dichloroethane	40.0	4.0 U	40.0	100	68-129	
1,2-Dichloropropane	40.0	4.0 U	39.6	99	78-115	
1,3-Dichlorobenzene	40.0	4.0 U	38.8	97	73-110	
1,3-Dichloropropane	40.0	4.0 U	39.4	99	74-118	
1,4-Dichlorobenzene	40.0	4.0 U	38.8	97	75-110	
2,2-Dichloropropane	40.0	4.0 U	36.1	90	38-127	
2-Chloroethyl vinyl ether	40.0	40 U	40 U	0	10-150	F
2-Chlorotoluene	40.0	4.0 U	37.7	94	69-117	
2-Hexanone	80.0	40 U	83.2	104	47-139	
Bromobenzene	40.0	4.0 U	38.6	97	71-116	
Bromochloromethane	40.0	4.0 U	39.0	98	73-121	
4-Chlorotoluene	40.0	4.0 U	37.9	95	71-116	
p-Isopropyltoluene	40.0	4.0 U	41.2	103	64-122	
Acetone	80.0	40 U	82.4	103	33-145	
Benzene	40.0	4.0 U	39.5	99	72-121	
Bromoform	40.0	4.0 U	32.5	81	32-128	
Bromomethane	40.0	4.0 U	30.2	76	10-186	
Carbon disulfide	40.0	4.0 U	34.8	87	57-147	
Carbon tetrachloride	40.0	4.0 U	38.9	97	59-129	
Chlorobenzene	40.0	4.0 U	39.2	98	80-110	
Chloroethane	40.0	4.0 U	35.6	89	21-165	
Chloroform	40.0	4.0 U	37.7	94	76-118	
Chloromethane	40.0	4.0 U	40.8	102	33-132	
cis-1,2-Dichloroethene	40.0	1.4 J	40.4	97	70-120	
cis-1,3-Dichloropropene	40.0	4.0 U	32.8	82	51-110	
Hexachlorobutadiene	40.0	4.0 U	34.7	87	27-132	
Dibromomethane	40.0	4.0 U	40.0	100	77-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5319.D

Lab ID: 240-10770-B-2 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Bromodichloromethane	40.0	4.0 U	39.3	98	67-120	
Dichlorodifluoromethane	40.0	4.0 U	26.6	66	17-128	
Ethylbenzene	40.0	4.0 U	38.8	97	75-116	
1,2-Dibromoethane	40.0	4.0 U	39.3	98	74-113	
Diisopropyl ether	40.0	40 U	35.6 J	89	73-118	
Naphthalene	40.0	4.0 U	40.8	102	15-158	
m-Xylene & p-Xylene	80.0	8.0 U	78.0	98	75-117	
n-Butylbenzene	40.0	4.0 U	39.2	98	56-127	
Isopropylbenzene	40.0	4.0 U	39.7	99	68-116	
n-Propylbenzene	40.0	4.0 U	40.4	101	64-124	
2-Butanone	80.0	40 U	80.0	100	54-129	
4-Methyl-2-pentanone	80.0	40 U	83.6	105	56-131	
sec-Butylbenzene	40.0	4.0 U	39.0	97	60-119	
Methyl tert-butyl ether	40.0	20 U	35.9	90	46-144	
Methylene Chloride	40.0	4.0 U	39.9	100	63-128	
o-Xylene	40.0	4.0 U	39.4	98	76-116	
Styrene	40.0	4.0 U	39.8	100	71-117	
tert-Butylbenzene	40.0	4.0 U	38.7	97	61-119	
Tetrachloroethene	40.0	4.0 U	40.4	101	70-117	
Toluene	40.0	4.0 U	39.0	98	78-114	
trans-1,2-Dichloroethene	40.0	4.0 U	39.0	98	80-119	
trans-1,3-Dichloropropene	40.0	4.0 U	32.7	82	46-116	
Trichloroethene	40.0	110	145	93	66-120	
Trichlorofluoromethane	40.0	4.0 U	41.2	103	46-157	
Vinyl acetate	40.0	8.0 U	37.0	93	43-157	
Vinyl chloride	40.0	4.0 U	38.8	97	49-130	
tert-Butyl alcohol	800	200 U	821	103	70-130	
Xylenes, Total	120	8.0 U	117	98	76-116	
Dibromochloromethane	40.0	4.0 U	34.9	87	56-118	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5320.D

Lab ID: 240-10770-B-2 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	40.0	40.0	100	2	30	64-118	
1,1,1-Trichloroethane	40.0	38.7	97	1	30	68-121	
1,1,2,2-Tetrachloroethane	40.0	39.9	100	1	30	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	40.0	42.0	105	2	30	70-152	
1,1-Dichloroethane	40.0	39.1	98	1	30	79-116	
1,1-Dichloroethene	40.0	40.8	102	1	30	74-135	
1,1-Dichloropropene	40.0	38.3	96	1	30	80-114	
1,2,3-Trichlorobenzene	40.0	40.4	101	4	30	45-129	
1,2,3-Trichloropropane	40.0	38.3	96	4	30	67-132	
1,2,3-Trimethylbenzene	40.0	39.6	99	2	30	70-130	
1,2,4-Trichlorobenzene	40.0	37.4	94	3	30	38-138	
1,2,4-Trimethylbenzene	40.0	38.4	96	2	30	67-124	
1,2-Dibromo-3-Chloropropane	40.0	42.0	105	5	30	32-139	
1,2-Dichlorobenzene	40.0	38.4	96	3	30	75-111	
1,2-Dichloroethane	40.0	39.8	99	1	30	68-129	
1,2-Dichloropropane	40.0	39.4	99	1	30	78-115	
1,3-Dichlorobenzene	40.0	39.2	98	1	30	73-110	
1,3-Dichloropropane	40.0	39.8	99	1	30	74-118	
1,4-Dichlorobenzene	40.0	37.8	95	3	30	75-110	
2,2-Dichloropropane	40.0	35.1	88	3	30	38-127	
2-Chloroethyl vinyl ether	40.0	40 U	0	NC	30	10-150	F
2-Chlorotoluene	40.0	37.6	94	0	30	69-117	
2-Hexanone	80.0	84.4	106	1	30	47-139	
Bromobenzene	40.0	38.5	96	0	30	71-116	
Bromochloromethane	40.0	39.0	98	0	30	73-121	
4-Chlorotoluene	40.0	37.2	93	2	30	71-116	
p-Isopropyltoluene	40.0	39.0	98	5	30	64-122	
Acetone	80.0	73.2	92	12	30	33-145	
Benzene	40.0	39.5	99	0	30	72-121	
Bromoform	40.0	33.7	84	4	30	32-128	
Bromomethane	40.0	30.3	76	0	30	10-186	
Carbon disulfide	40.0	35.0	88	1	30	57-147	
Carbon tetrachloride	40.0	38.7	97	1	30	59-129	
Chlorobenzene	40.0	39.0	97	1	30	80-110	
Chloroethane	40.0	34.5	86	3	30	21-165	
Chloroform	40.0	37.6	94	0	30	76-118	
Chloromethane	40.0	38.2	96	6	30	33-132	
cis-1,2-Dichloroethene	40.0	39.8	96	1	30	70-120	
cis-1,3-Dichloropropene	40.0	33.3	83	1	30	51-110	
Hexachlorobutadiene	40.0	35.1	88	1	30	27-132	
Dibromomethane	40.0	40.4	101	1	30	77-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5320.D

Lab ID: 240-10770-B-2 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Bromodichloromethane	40.0	40.4	101	3	30	67-120	
Dichlorodifluoromethane	40.0	26.5	66	0	30	17-128	
Ethylbenzene	40.0	39.1	98	1	30	75-116	
1,2-Dibromoethane	40.0	40.0	100	2	30	74-113	
Diisopropyl ether	40.0	36.8 J	92	3	30	73-118	
Naphthalene	40.0	39.7	99	3	30	15-158	
m-Xylene & p-Xylene	80.0	78.0	98	0	30	75-117	
n-Butylbenzene	40.0	37.6	94	4	30	56-127	
Isopropylbenzene	40.0	39.0	97	2	30	68-116	
n-Propylbenzene	40.0	38.5	96	5	30	64-124	
2-Butanone	80.0	79.2	99	1	30	54-129	
4-Methyl-2-pentanone	80.0	84.8	106	1	30	56-131	
sec-Butylbenzene	40.0	37.6	94	3	30	60-119	
Methyl tert-butyl ether	40.0	36.4	91	2	30	46-144	
Methylene Chloride	40.0	38.1	95	5	30	63-128	
o-Xylene	40.0	39.0	97	1	30	76-116	
Styrene	40.0	39.7	99	0	30	71-117	
tert-Butylbenzene	40.0	37.7	94	3	30	61-119	
Tetrachloroethene	40.0	40.4	101	0	30	70-117	
Toluene	40.0	39.0	98	0	30	78-114	
trans-1,2-Dichloroethene	40.0	37.5	94	4	30	80-119	
trans-1,3-Dichloropropene	40.0	33.8	85	3	30	46-116	
Trichloroethene	40.0	142	87	2	30	66-120	
Trichlorofluoromethane	40.0	41.2	103	0	30	46-157	
Vinyl acetate	40.0	36.6	92	1	30	43-157	
Vinyl chloride	40.0	38.9	97	0	30	49-130	
tert-Butyl alcohol	800	808	101	2	30	70-130	
Xylenes, Total	120	117	98	0	30	76-116	
Dibromochloromethane	40.0	35.1	88	1	30	56-118	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
GSP-MW1-042612	240-10727-2	50	55	48	53	48	57
GSP-MW2-042612	240-10727-3	41	40	43	44	31	65
GSP-MW3-042612	240-10727-4	43	41	42	44	25	58
	MB 240-42628/21-A	51	51	49	51	42	64
	LCS 240-42628/22-A	47	52	51	62	71	70

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	10-110
PHL = Phenol-d5 (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	27-111
FBP = 2-Fluorobiphenyl (Surr)	28-110
TBP = 2,4,6-Tribromophenol (Surr)	22-120
TPH = Terphenyl-d14 (Surr)	37-119

Column to be used to flag recovery values

FORM II 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Sample No.: STD6 240-42742/5 Date Analyzed: 05/04/2012 09:10

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0504005.D Heated Purge: (Y/N) N

Calibration ID: 8512

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		219186	3.54	906004	4.43	506851	5.70
UPPER LIMIT		438372	4.04	1812008	4.93	1013702	6.20
LOWER LIMIT		109593	3.04	453002	3.93	253426	5.20
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-42742/11		200662	3.54	858756	4.43	480521	5.69
CCV 240-43097/2 CCVIS		253535	3.56	1030792	4.46	576453	5.72
CCV 240-43267/2 CCVIS		212907	3.57	882854	4.47	489077	5.73

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Sample No.: STD6 240-42742/5 Date Analyzed: 05/04/2012 09:10

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0504005.D Heated Purge: (Y/N) N

Calibration ID: 8512

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		779335	6.78	692712	8.73	613581	10.16
UPPER LIMIT		1558670	7.28	1385424	9.23	1227162	10.66
LOWER LIMIT		389668	6.28	346356	8.23	306791	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-42742/11		752799	6.78	667848	8.74	587916	10.17
CCV 240-43097/2 CCVIS		918418	6.82	826938	8.78	733433	10.24
CCV 240-43267/2 CCVIS		780208	6.82	693635	8.80	627638	10.27

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Sample No.: CCV 240-43097/2 Date Analyzed: 05/08/2012 09:17

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0508002.D Heated Purge: (Y/N) N

Calibration ID: 8516

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		253535	3.56	1030792	4.46	576453	5.72
UPPER LIMIT		507070	4.06	2061584	4.96	1152906	6.22
LOWER LIMIT		126768	3.06	515396	3.96	288227	5.22
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-43097/3		244354	3.56	1012101	4.45	564483	5.72
MB 240-42628/21-A		236967	3.56	974867	4.45	541017	5.72
LCS 240-42628/22-A		201100	3.56	834673	4.46	498867	5.72

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Sample No.: CCV 240-43097/2 Date Analyzed: 05/08/2012 09:17

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0508002.D Heated Purge: (Y/N) N

Calibration ID: 8516

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		918418	6.82	826938	8.78	733433	10.24
UPPER LIMIT		1836836	7.32	1653876	9.28	1466866	10.74
LOWER LIMIT		459209	6.32	413469	8.28	366717	9.74
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-43097/3		900656	6.82	776844	8.78	696102	10.24
MB 240-42628/21-A		860008	6.81	735356	8.78	655863	10.24
LCS 240-42628/22-A		852722	6.83	791515	8.81	796956	10.37

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Sample No.: CCV 240-43267/2 Date Analyzed: 05/09/2012 07:11

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0509002.D Heated Purge: (Y/N) N

Calibration ID: 8516

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		212907	3.57	882854	4.47	489077	5.73
UPPER LIMIT		425814	4.07	1765708	4.97	978154	6.23
LOWER LIMIT		106454	3.07	441427	3.97	244539	5.23
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-10727-2	GSP-MW1-042612	171132	3.57	777494	4.47	486493	5.73
240-10727-3	GSP-MW2-042612	181537	3.57	767785	4.47	467061	5.74
240-10727-4	GSP-MW3-042612	199438	3.57	844790	4.47	498714	5.74

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Sample No.: CCV 240-43267/2 Date Analyzed: 05/09/2012 07:11

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0509002.D Heated Purge: (Y/N) N

Calibration ID: 8516

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		780208	6.82	693635	8.80	627638	10.27
UPPER LIMIT		1560416	7.32	1387270	9.30	1255276	10.77
LOWER LIMIT		390104	6.32	346818	8.30	313819	9.77
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-10727-2	GSP-MW1-042612	822145	6.83	766324	8.81	730206	10.29
240-10727-3	GSP-MW2-042612	807444	6.83	749640	8.80	721092	10.29
240-10727-4	GSP-MW3-042612	848434	6.83	762465	8.80	724464	10.29

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab File ID: 0508006.D Lab Sample ID: MB 240-42628/21-A

Matrix: Water Date Extracted: 05/03/2012 09:48

Instrument ID: A4AG2 Date Analyzed: 05/08/2012 10:28

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-42628/22-A	0508007.D	05/08/2012 10:45
GSP-MW1-042612	240-10727-2	0509019.D	05/09/2012 12:12
GSP-MW2-042612	240-10727-3	0509020.D	05/09/2012 12:30
GSP-MW3-042612	240-10727-4	0509021.D	05/09/2012 12:47

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42628/21-A
Matrix: Water
Lab File ID: 0508006.D
Analysis Method: 8270C
Date Collected:
Extract. Method: 3520C
Date Extracted: 05/03/2012 09:48
Sample wt/vol: 1000(mL)
Date Analyzed: 05/08/2012 10:28
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 43097
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.0	U	1.0	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	51		28-110
367-12-4	2-Fluorophenol (Surr)	51		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	42		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	49		27-111
4165-62-2	Phenol-d5 (Surr)	51		10-110
1718-51-0	Terphenyl-d14 (Surr)	64		37-119

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0508007.D

Lab ID: LCS 240-42628/22-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	20.0	7.06	35	10-110	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab File ID: 0504001.D DFTPP Injection Date: 05/04/2012

Instrument ID: A4AG2 DFTPP Injection Time: 07:58

Analysis Batch No.: 42742

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	40.5	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	43.2	
70	Less than 2.0% of mass 69	0.0	(0.0)1
127	25.0 - 75.0% of mass 198	54.5	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0- 30.0% of mass 198	25.5	
365	Greater than 0.75% of mass 198	3.3	
441	Present, but less than mass 443	12.0	
442	40.0 - 110.0% of mass 198	82.7	
443	15.0 - 24.0% of mass 442	15.8	(19.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-42742/2	0504002.D	05/04/2012	08:17
	STD8 240-42742/3	0504003.D	05/04/2012	08:34
	STD7 240-42742/4	0504004.D	05/04/2012	08:52
	STD6 240-42742/5	0504005.D	05/04/2012	09:10
	STD5 240-42742/6	0504006.D	05/04/2012	09:28
	STD4 240-42742/7	0504007.D	05/04/2012	09:46
	STD3 240-42742/8	0504008.D	05/04/2012	10:08
	STD2 240-42742/9	0504009.D	05/04/2012	10:26
	STD1 240-42742/10	0504010.D	05/04/2012	10:44
	ICV 240-42742/11	0504011.D	05/04/2012	11:02

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10727-1 Analy Batch No.: 42742

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/04/2012 08:17 Calibration End Date: 05/04/2012 10:44 Calibration ID: 8512

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-42742/10	0504010.D
Level 2	STD2 240-42742/9	0504009.D
Level 3	STD3 240-42742/8	0504008.D
Level 4	STD4 240-42742/7	0504007.D
Level 5	STD5 240-42742/6	0504006.D
Level 6	STD6 240-42742/5	0504005.D
Level 7	STD7 240-42742/4	0504004.D
Level 8	STD8 240-42742/3	0504003.D
Level 9	STD9 240-42742/2	0504002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5558	0.6362 0.5493	0.5710 0.5631	0.5503 0.5213	0.5909	Ave		0.5672				6.0		15.0			
N-Nitrosodimethylamine	0.9249	0.9642 0.9010	0.9706 0.9516	0.9726 0.8914	0.9324	Ave		0.9386				3.3		15.0			
Pyridine	1.5666	1.6849 1.5398	1.5511 1.6018	1.5931 1.5159	1.6078	Ave		1.5826				3.3		15.0			
Ethyl methacrylate	1.2704	1.4493 1.1994	1.3455 1.2699	1.3354 1.1877	1.3248	Ave		1.2978				6.6		15.0			
Benzaldehyde	1.5139 0.8830	1.4618 +++++	1.4344 +++++	1.3720 +++++	1.2634	Ave		1.3214				18.0	*	15.0			
3-Chloropropionitrile	0.8683	0.9086 0.8278	0.9314 0.8677	0.9058 0.8136	0.8471	Ave		0.8713				4.8		15.0			
Malononitrile	1.6929	1.9092 1.4434	1.9549 1.3061	1.9459 1.0936	1.8152	Qua	-0.072	2.0480	-0.038						0.9990		0.9900
Phenol	1.9238	2.1208 1.9170	2.0917 1.9755	2.0229 1.8616	1.9456	Ave		1.9824				4.5		15.0			
Aniline	2.4182	2.5026 2.3690	2.4881 2.5291	2.4704 2.3968	2.3256	Ave		2.4375				2.9		15.0			
Bis(2-chloroethyl)ether	1.5307	1.6964 1.5586	1.6061 1.5486	1.6388 1.4605	1.5302	Ave		1.5712				4.7		15.0			
2-Chlorophenol	1.5629	1.6121 1.5522	1.6132 1.6131	1.6251 1.5053	1.5368	Ave		1.5776				2.8		15.0			
1,3-Dichlorobenzene	1.5726	1.6606 1.5589	1.6328 1.6184	1.6164 1.5057	1.5233	Ave		1.5861				3.5		15.0			
1,4-Dichlorobenzene	1.6253	1.7078 1.6008	1.6472 1.6577	1.6677 1.5632	1.5875	Ave		1.6322				2.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: ICV 240-42742/11 Calibration Date: 05/04/2012 11:02

Instrument ID: A4AG2 Calib Start Date: 05/04/2012 08:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 05/04/2012 10:44

Lab File ID: 0504011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5672	0.5376		9.48	10.0	-5.2	50.0
N-Nitrosodimethylamine	Ave	0.9386	0.9760		10.4	10.0	4.0	50.0
Pyridine	Ave	1.583	1.582		10.0	10.0	-0.0	50.0
Ethyl methacrylate	Ave	1.298	1.209		9.32	10.0	-6.8	50.0
3-Chloropropionitrile	Ave	0.8713	0.8771		10.1	10.0	0.7	50.0
Malononitrile	Qua		1.742		10.6	10.0	6.0	50.0
Benzaldehyde	Ave	1.321	0.9162		6.93	10.0	-30.7	50.0
Phenol	Ave	1.982	1.990		10.0	10.0	0.4	20.0
Aniline	Ave	2.437	2.527		10.4	10.0	3.7	50.0
Bis(2-chloroethyl)ether	Ave	1.571	1.616		10.3	10.0	2.8	50.0
2-Chlorophenol	Ave	1.578	1.600		10.1	10.0	1.4	50.0
1,3-Dichlorobenzene	Ave	1.586	1.579		9.95	10.0	-0.5	50.0
1,4-Dichlorobenzene	Ave	1.632	1.633		10.0	10.0	0.0	20.0
Benzyl alcohol	Ave	1.012	1.045		10.3	10.0	3.3	50.0
1,2-Dichlorobenzene	Ave	1.516	1.523		10.1	10.0	0.5	50.0
2-Methylphenol	Ave	1.458	1.504		10.3	10.0	3.2	50.0
bis (2-chloroisopropyl) ether	Ave	2.135	2.217		10.4	10.0	3.8	50.0
3 & 4 Methylphenol	Ave	1.536	1.581		10.3	10.0	2.9	50.0
N-Nitrosodi-n-propylamine	Ave	1.153	1.211	0.0500	10.5	10.0	5.0	50.0
Acetophenone	Ave	2.107	2.170		10.3	10.0	3.0	50.0
Hexachloroethane	Ave	0.6130	0.6188		10.1	10.0	0.9	50.0
Nitrobenzene	Ave	0.3974	0.3956		9.96	10.0	-0.4	50.0
Isophorone	Ave	0.7337	0.7388		10.1	10.0	0.7	50.0
2,4-Dimethylphenol	Ave	0.3753	0.3822		10.2	10.0	1.8	50.0
2-Nitrophenol	Ave	0.1984	0.2017		10.2	10.0	1.7	20.0
1,3,5-Trichlorobenzene	Ave	0.2951	0.2882		9.76	10.0	-2.4	50.0
Benzoic acid	Qua		0.2348		19.2	20.0	-4.0	50.0
Bis(2-chloroethoxy)methane	Ave	0.4330	0.4329		10.0	10.0	-0.0	50.0
2,4-Dichlorophenol	Ave	0.2740	0.2757		10.1	10.0	0.6	20.0
1,2,4-Trichlorobenzene	Ave	0.2908	0.2877		9.89	10.0	-1.1	50.0
Naphthalene	Ave	1.116	1.097		9.83	10.0	-1.7	50.0
4-Chloroaniline	Ave	0.4629	0.4768		10.3	10.0	3.0	50.0
Hexachlorobutadiene	Ave	0.1378	0.1363		9.89	10.0	-1.1	20.0
1,2,3-Trichlorobenzene	Ave	0.2729	0.2667		9.77	10.0	-2.3	50.0
Caprolactam	Ave	0.1296	0.1376		10.6	10.0	6.1	50.0
4-Chloro-3-methylphenol	Ave	0.3309	0.3352		10.1	10.0	1.3	20.0
2-Methylnaphthalene	Ave	0.7167	0.7189		10.0	10.0	0.3	50.0
1-Methylnaphthalene	Ave	0.6856	0.6842		9.98	10.0	-0.2	50.0
1,2,3,5-Tetrachlorobenzene	Ave	0.4621	0.4537		9.82	10.0	-1.8	50.0
Hexachlorocyclopentadiene	Ave	0.2720	0.2659	0.0500	9.78	10.0	-2.2	50.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab File ID: 0508001.D DFTPP Injection Date: 05/08/2012

Instrument ID: A4AG2 DFTPP Injection Time: 08:59

Analysis Batch No.: 43097

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	36.3	
68	Less than 2.0% of mass 69	0.1	(0.3)1
69	Mass 69 relative abundance	39.4	
70	Less than 2.0% of mass 69	0.3	(0.7)1
127	25.0 - 75.0% of mass 198	51.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	26.5	
365	Greater than 0.75% of mass 198	3.4	
441	Present, but less than mass 443	13.9	
442	40.0 - 110.0% of mass 198	94.7	
443	15.0 - 24.0% of mass 442	18.1	(19.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-43097/2	0508002.D	05/08/2012	09:17
	CCV 240-43097/3	0508003.D	05/08/2012	09:34
	MB 240-42628/21-A	0508006.D	05/08/2012	10:28
	LCS 240-42628/22-A	0508007.D	05/08/2012	10:45

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: CCV 240-43097/2 Calibration Date: 05/08/2012 09:17

Instrument ID: A4AG2 Calib Start Date: 05/04/2012 08:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 05/04/2012 10:44

Lab File ID: 0508002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5672	0.6092		10.7	10.0	7.4	50.0
N-Nitrosodimethylamine	Ave	0.9386	0.9128		9.72	10.0	-2.8	50.0
Pyridine	Ave	1.583	1.528		9.66	10.0	-3.4	50.0
Ethyl methacrylate	Ave	1.298	1.233		9.50	10.0	-5.0	50.0
3-Chloropropionitrile	Ave	0.8713	0.8023		9.21	10.0	-7.9	50.0
Malononitrile	Qua		1.589		9.45	10.0	-5.5	50.0
Benzaldehyde	Ave	1.321	0.5584		4.23	10.0	-57.7*	50.0
Phenol	Ave	1.982	1.879		9.48	10.0	-5.2	20.0
Aniline	Ave	2.437	2.433		9.98	10.0	-0.2	50.0
Bis(2-chloroethyl)ether	Ave	1.571	1.550		9.86	10.0	-1.4	50.0
2-Chlorophenol	Ave	1.578	1.554		9.85	10.0	-1.5	50.0
1,3-Dichlorobenzene	Ave	1.586	1.562		9.85	10.0	-1.5	50.0
1,4-Dichlorobenzene	Ave	1.632	1.617		9.91	10.0	-0.9	50.0
Benzyl alcohol	Ave	1.012	0.9465		9.35	10.0	-6.5	50.0
1,2-Dichlorobenzene	Ave	1.516	1.513		9.98	10.0	-0.2	50.0
2-Methylphenol	Ave	1.458	1.441		9.89	10.0	-1.1	50.0
bis (2-chloroisopropyl) ether	Ave	2.135	1.912		8.95	10.0	-10.5	50.0
3 & 4 Methylphenol	Ave	1.536	1.461		9.51	10.0	-4.9	50.0
N-Nitrosodi-n-propylamine	Ave	1.153	1.079	0.0500	9.36	10.0	-6.4	50.0
Acetophenone	Ave	2.107	1.998		9.48	10.0	-5.2	50.0
Hexachloroethane	Ave	0.6130	0.5855		9.55	10.0	-4.5	50.0
Nitrobenzene	Ave	0.3974	0.3722		9.37	10.0	-6.3	50.0
Isophorone	Ave	0.7337	0.7041		9.60	10.0	-4.0	50.0
2,4-Dimethylphenol	Ave	0.3753	0.3692		9.84	10.0	-1.6	50.0
2-Nitrophenol	Ave	0.1984	0.2045		10.3	10.0	3.1	20.0
1,3,5-Trichlorobenzene	Ave	0.2951	0.3008		10.2	10.0	1.9	50.0
Bis(2-chloroethoxy)methane	Ave	0.4330	0.4172		9.63	10.0	-3.7	50.0
Benzoic acid	Qua		0.2347		19.2	20.0	-4.0	50.0
2,4-Dichlorophenol	Ave	0.2740	0.2790		10.2	10.0	1.8	20.0
1,2,4-Trichlorobenzene	Ave	0.2908	0.2924		10.1	10.0	0.6	50.0
Naphthalene	Ave	1.116	1.094		9.81	10.0	-1.9	50.0
4-Chloroaniline	Ave	0.4629	0.4757		10.3	10.0	2.8	50.0
Hexachlorobutadiene	Ave	0.1378	0.1387		10.1	10.0	0.7	20.0
1,2,3-Trichlorobenzene	Ave	0.2729	0.2744		10.1	10.0	0.6	50.0
Caprolactam	Ave	0.1296	0.1302		10.0	10.0	0.4	50.0
4-Chloro-3-methylphenol	Ave	0.3309	0.3286		9.93	10.0	-0.7	20.0
2-Methylnaphthalene	Ave	0.7167	0.7146		9.97	10.0	-0.3	50.0
1-Methylnaphthalene	Ave	0.6856	0.6786		9.90	10.0	-1.0	50.0
Hexachlorocyclopentadiene	Ave	0.2720	0.2731	0.0500	10.0	10.0	0.4	50.0
1,2,3,5-Tetrachlorobenzene	Ave	0.4621	0.4707		10.2	10.0	1.9	50.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab File ID: 0509001.D DFTPP Injection Date: 05/09/2012

Instrument ID: A4AG2 DFTPP Injection Time: 06:53

Analysis Batch No.: 43267

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	37.9	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	40.0	
70	Less than 2.0% of mass 69	0.3	(0.6)1
127	25.0 - 75.0% of mass 198	53.7	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	26.2	
365	Greater than 0.75% of mass 198	3.4	
441	Present, but less than mass 443	12.9	
442	40.0 - 110.0% of mass 198	86.9	
443	15.0 - 24.0% of mass 442	16.8	(19.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-43267/2	0509002.D	05/09/2012	07:11
GSP-MW1-042612	240-10727-2	0509019.D	05/09/2012	12:12
GSP-MW2-042612	240-10727-3	0509020.D	05/09/2012	12:30
GSP-MW3-042612	240-10727-4	0509021.D	05/09/2012	12:47

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: CCV 240-43267/2 Calibration Date: 05/09/2012 07:11

Instrument ID: A4AG2 Calib Start Date: 05/04/2012 08:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 05/04/2012 10:44

Lab File ID: 0509002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5672	0.8073		14.2	10.0	42.3	50.0
N-Nitrosodimethylamine	Ave	0.9386	0.9124		9.72	10.0	-2.8	50.0
Pyridine	Ave	1.583	1.472		9.30	10.0	-7.0	50.0
Ethyl methacrylate	Ave	1.298	1.207		9.30	10.0	-7.0	50.0
3-Chloropropionitrile	Ave	0.8713	0.7885		9.05	10.0	-9.5	50.0
Malononitrile	Qua		1.575		9.34	10.0	-6.6	50.0
Benzaldehyde	Ave	1.321	0.6307		4.77	10.0	-52.3*	50.0
Phenol	Ave	1.982	1.875		9.46	10.0	-5.4	20.0
Aniline	Ave	2.437	2.146		8.80	10.0	-12.0	50.0
Bis(2-chloroethyl)ether	Ave	1.571	1.743		11.1	10.0	10.9	50.0
2-Chlorophenol	Ave	1.578	1.581		10.0	10.0	0.2	50.0
1,3-Dichlorobenzene	Ave	1.586	1.578		9.95	10.0	-0.5	50.0
1,4-Dichlorobenzene	Ave	1.632	1.650		10.1	10.0	1.1	50.0
1,2-Dichlorobenzene	Ave	1.516	1.534		10.1	10.0	1.2	50.0
Benzyl alcohol	Ave	1.012	0.4921		4.86	10.0	-51.4*	50.0
2-Methylphenol	Ave	1.458	1.254		8.60	10.0	-14.0	50.0
bis (2-chloroisopropyl) ether	Ave	2.135	1.878		8.80	10.0	-12.0	50.0
3 & 4 Methylphenol	Ave	1.536	1.665		10.8	10.0	8.4	50.0
N-Nitrosodi-n-propylamine	Ave	1.153	1.063	0.0500	9.22	10.0	-7.8	50.0
Acetophenone	Ave	2.107	2.007		9.52	10.0	-4.8	50.0
Hexachloroethane	Ave	0.6130	0.5993		9.78	10.0	-2.2	50.0
Nitrobenzene	Ave	0.3974	0.3689		9.28	10.0	-7.2	50.0
Isophorone	Ave	0.7337	0.6730		9.17	10.0	-8.3	50.0
2-Nitrophenol	Ave	0.1984	0.1984		10.0	10.0	0.0	20.0
1,3,5-Trichlorobenzene	Ave	0.2951	0.3045		10.3	10.0	3.2	50.0
2,4-Dimethylphenol	Ave	0.3753	0.3673		9.79	10.0	-2.1	50.0
Bis(2-chloroethoxy)methane	Ave	0.4330	0.4111		9.49	10.0	-5.1	50.0
Benzoic acid	Qua		0.1763		15.0	20.0	-25.0	50.0
2,4-Dichlorophenol	Ave	0.2740	0.2820		10.3	10.0	2.9	20.0
1,2,4-Trichlorobenzene	Ave	0.2908	0.2944		10.1	10.0	1.2	50.0
Naphthalene	Ave	1.116	1.087		9.74	10.0	-2.6	50.0
4-Chloroaniline	Ave	0.4629	0.4557		9.84	10.0	-1.6	50.0
Hexachlorobutadiene	Ave	0.1378	0.1400		10.2	10.0	1.6	20.0
1,2,3-Trichlorobenzene	Ave	0.2729	0.2746		10.1	10.0	0.6	50.0
Caprolactam	Ave	0.1296	0.1083		8.36	10.0	-16.4	50.0
4-Chloro-3-methylphenol	Ave	0.3309	0.3271		9.88	10.0	-1.2	20.0
2-Methylnaphthalene	Ave	0.7167	0.7165		10.0	10.0	-0.0	50.0
1-Methylnaphthalene	Ave	0.6856	0.6783		9.89	10.0	-1.1	50.0
Hexachlorocyclopentadiene	Ave	0.2720	0.2381	0.0500	8.75	10.0	-12.5	50.0
1,2,3,5-Tetrachlorobenzene	Ave	0.4621	0.4704		10.2	10.0	1.8	50.0

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1 #
GSP-MW1-042612	240-10727-2	65
GSP-MW2-042612	240-10727-3	63
GSP-MW3-042612	240-10727-4	62
	MB 240-42085/7	63
	LCS 240-42085/8	75
GSP-MW1-042612 MS	240-10727-2 MS	72
GSP-MW1-042612 MSD	240-10727-2 MSD	72

	QC LIMITS
TFT = Trifluorotoluene (Surr)	10-150

Column to be used to flag recovery values

FORM II 8015B

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: MB 240-42085/7

Matrix: Water Date Extracted: 04/29/2012 15:36

Lab File ID:(1) YF042907.D Lab File ID:(2)

Date Analyzed:(1) 04/29/2012 15:36 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-42085/8	04/29/2012 16:14	
GSP-MW1-042612	240-10727-2	04/29/2012 16:53	
GSP-MW1-042612 MS	240-10727-2 MS	04/29/2012 17:31	
GSP-MW1-042612 MSD	240-10727-2 MSD	04/29/2012 18:10	
GSP-MW2-042612	240-10727-3	04/29/2012 18:48	
GSP-MW3-042612	240-10727-4	04/29/2012 19:26	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42085/7
Matrix: Water
Lab File ID: YF042907.D
Analysis Method: 8015B
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 04/29/2012 15:36
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42085
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	26.3	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	63		10-150

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF042908.D

Lab ID: LCS 240-42085/8 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	945	118	72-140	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF042910.D

Lab ID: 240-10727-2 MS Client ID: GSP-MW1-042612 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	33 J	885	106	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF042911.D

Lab ID: 240-10727-2 MSD Client ID: GSP-MW1-042612 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	942	114	6	20	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Sample No.: CCV 240-42085/6 Date Analyzed: 04/29/2012 14:57

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF042906.D Heated Purge: (Y/N) N

Calibration ID: 6924

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #		
CONTINUING CALIBRATION SURROGATE				9.75		
UPPER LIMIT				9.85		
LOWER LIMIT				9.65		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-42085/6 CCVRT		04/29/2012 14:57	YF042906.D	9.75		
MB 240-42085/7		04/29/2012 15:36	YF042907.D	9.75		
LCS 240-42085/8		04/29/2012 16:14	YF042908.D	9.75		
240-10727-2	GSP-MW1-042612	04/29/2012 16:53	YF042909.D	9.75		
240-10727-2 MS	GSP-MW1-042612 MS	04/29/2012 17:31	YF042910.D	9.75		
240-10727-2 MSD	GSP-MW1-042612 MSD	04/29/2012 18:10	YF042911.D	9.75		
240-10727-3	GSP-MW2-042612	04/29/2012 18:48	YF042912.D	9.75		
240-10727-4	GSP-MW3-042612	04/29/2012 19:26	YF042913.D	9.75		
CCV 240-42085/14		04/29/2012 20:04	YF042914.D	9.75		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Instrument ID: YPID Start Date: 02/10/2012 10:35

Analysis Batch Number: 33435 End Date: 02/10/2012 23:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		02/10/2012 10:35	1		RTX-VRX 0.45(mm)
STD1 240-33435/12 IC		02/10/2012 16:17	1	YF021012.D	RTX-VRX 0.45(mm)
STD2 240-33435/13 IC		02/10/2012 16:55	1	YF021013.D	RTX-VRX 0.45(mm)
STD3 240-33435/14 IC		02/10/2012 17:32	1	YF021014.D	RTX-VRX 0.45(mm)
STD4 240-33435/15 ICRT		02/10/2012 18:11	1	YF021015.D	RTX-VRX 0.45(mm)
STD5 240-33435/16 IC		02/10/2012 18:49	1	YF021016.D	RTX-VRX 0.45(mm)
STD6 240-33435/17 IC		02/10/2012 19:27	1	YF021017.D	RTX-VRX 0.45(mm)
ICV 240-33435/18		02/10/2012 20:05	1	YF021018.D	RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 20:43	1		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 21:21	1		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 21:59	10		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 22:37	10		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 23:15	10		RTX-VRX 0.45(mm)
CCV 240-33435/24		02/10/2012 23:53	1		RTX-VRX 0.45(mm)

8015B

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10727-1 Analy Batch No.: 33435

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/10/2012 16:17 Calibration End Date: 02/10/2012 19:27 Calibration ID: 6924

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-33435/12	YF021012.D
Level 2	STD2 240-33435/13	YF021013.D
Level 3	STD3 240-33435/14	YF021014.D
Level 4	STD4 240-33435/15	YF021015.D
Level 5	STD5 240-33435/16	YF021016.D
Level 6	STD6 240-33435/17	YF021017.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Total Petroleum Hydrocarbons (C6-C10)	318103 289067	320460 294590	282575	294457	Ave		299875.299				5.2		20.0			
C6-C12	375472 318195	363940 323226	316555	324196	Ave		336930.834				7.7		20.0			
Trifluorotoluene (Surr)	384133 460736	375012 483108	395882	424093	Ave		420494.083				10.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: ICV 240-33435/18 Calibration Date: 02/10/2012 20:05

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF021018.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	333932		891	800	11.4	20.0
C6-C12	Ave	336931	375679		892	800	11.5	20.0
Trifluorotoluene (Surr)	Ave	420494	416828		9.91	10.0	-0.9	20.0

ICV

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Instrument ID: YPID Start Date: 04/29/2012 13:38

Analysis Batch Number: 42085 End Date: 04/30/2012 03:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/29/2012 13:38	1		RTX-VRX 0.45(mm)
CCV 240-42085/6 CCVRT		04/29/2012 14:57 ✓	1	YF042906.D	RTX-VRX 0.45(mm)
MB 240-42085/7		04/29/2012 15:36	1	YF042907.D	RTX-VRX 0.45(mm)
LCS 240-42085/8		04/29/2012 16:14	1	YF042908.D	RTX-VRX 0.45(mm)
240-10727-2	GSP-MW1-042612	04/29/2012 16:53	1	YF042909.D	RTX-VRX 0.45(mm)
240-10727-2 MS	GSP-MW1-042612 MS	04/29/2012 17:31	1	YF042910.D	RTX-VRX 0.45(mm)
240-10727-2 MSD	GSP-MW1-042612 MSD	04/29/2012 18:10	1	YF042911.D	RTX-VRX 0.45(mm)
240-10727-3	GSP-MW2-042612	04/29/2012 18:48	1	YF042912.D	RTX-VRX 0.45(mm)
240-10727-4	GSP-MW3-042612	04/29/2012 19:26	1	YF042913.D	RTX-VRX 0.45(mm)
CCV 240-42085/14		04/29/2012 20:04 ✓	1	YF042914.D	RTX-VRX 0.45(mm)
ZZZZZ		04/29/2012 20:43	1		RTX-VRX 0.45(mm)
ZZZZZ		04/29/2012 21:21	1		RTX-VRX 0.45(mm)
ZZZZZ		04/29/2012 22:00	1		RTX-VRX 0.45(mm)
ZZZZZ		04/29/2012 22:38	1		RTX-VRX 0.45(mm)
ZZZZZ		04/29/2012 23:16	1		RTX-VRX 0.45(mm)
ZZZZZ		04/29/2012 23:53	1		RTX-VRX 0.45(mm)
ZZZZZ		04/30/2012 00:30	1		RTX-VRX 0.45(mm)
ZZZZZ		04/30/2012 01:08	1		RTX-VRX 0.45(mm)
CCV 240-42085/23		04/30/2012 01:45	1		RTX-VRX 0.45(mm)
ZZZZZ		04/30/2012 02:22	1		RTX-VRX 0.45(mm)
ZZZZZ		04/30/2012 03:00	1		RTX-VRX 0.45(mm)
ZZZZZ		04/30/2012 03:37	1		RTX-VRX 0.45(mm)

8015B

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: CCV 240-42085/6 Calibration Date: 04/29/2012 14:57

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF042906.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	301585		805	800	0.6	15.0
C6-C12	Ave	336931	335637		797	800	-0.4	15.0
Trifluorotoluene (Surr)	Ave	420494	318697		7.58	10.0	-24.2*	15.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: CCV 240-42085/14 Calibration Date: 04/29/2012 20:04

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF042914.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	304718		813	800	1.6	15.0
C6-C12	Ave	336931	342034		812	800	1.5	15.0
Trifluorotoluene (Surr)	Ave	420494	330585		7.86	10.0	-21.4*	15.0

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): ID:

Client Sample ID	Lab Sample ID	C91 #
GSP-MW1-042612	240-10727-2	54
GSP-MW2-042612	240-10727-3	50
GSP-MW3-042612	240-10727-4	54
	MB 240-42661/8-A	60
	LCS 240-42661/9-A	80

C9 = n-Nonane

QC LIMITS
10-110

Column to be used to flag recovery values

FORM II 8015B

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: MB 240-42661/8-A

Matrix: Water Date Extracted: 05/03/2012 11:54

Lab File ID:(1) P5B05052.D Lab File ID:(2)

Date Analyzed:(1) 05/04/2012 13:38 Date Analyzed:(2)

Instrument ID:(1) A2HP5R Instrument ID:(2)

GC Column:(1) ID: GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-MW1-042612	240-10727-2	05/04/2012 10:04	
GSP-MW2-042612	240-10727-3	05/04/2012 10:35	
GSP-MW3-042612	240-10727-4	05/04/2012 11:06	
	LCS 240-42661/9-A	05/04/2012 14:08	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42661/8-A
Matrix: Water
Lab File ID: P5B05052.D
Analysis Method: 8015B
Date Collected:
Extraction Method: 3510C
Date Extracted: 05/03/2012 11:54
Sample wt/vol: 1000(mL)
Date Analyzed: 05/04/2012 13:38
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: ID:
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 42755
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	500	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	60		10-110

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P5B05053.D

Lab ID: LCS 240-42661/9-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2500	2330	93	36-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Sample No.: CCVRT 240-42755/4 Date Analyzed: 05/04/2012 09:33

Instrument ID: A2HP5R GC Column: ID: ()

Lab File ID (Standard): P5B05044.D Heated Purge: (Y/N) N

Calibration ID: 8454

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				C9		
				RT #		
CONTINUING CALIBRATION SURROGATE				4.03		
UPPER LIMIT				4.13		
LOWER LIMIT				3.93		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-42755/4		05/04/2012 09:33	P5B05044.D	4.03		
240-10727-2	GSP-MW1-042612	05/04/2012 10:04	P5B05045.D	4.03		
240-10727-3	GSP-MW2-042612	05/04/2012 10:35	P5B05046.D	4.03		
240-10727-4	GSP-MW3-042612	05/04/2012 11:06	P5B05047.D	4.03		
MB 240-42661/8-A		05/04/2012 13:38	P5B05052.D	4.03		
LCS 240-42661/9-A		05/04/2012 14:08	P5B05053.D	4.03		
CCV 240-42755/14		05/04/2012 14:39	P5B05054.D	4.03		

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Instrument ID: A2HP5R Start Date: 04/30/2012 10:28

Analysis Batch Number: 42117 End Date: 04/30/2012 17:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-42117/4 IC		04/30/2012 10:28	1	P5B04304.D	
STD2 240-42117/5 IC		04/30/2012 10:58	1	P5B04305.D	
ICRT 240-42117/6		04/30/2012 11:29	1	P5B04306.D	
STD4 240-42117/7 IC		04/30/2012 11:59	1	P5B04307.D	
STD5 240-42117/8 IC		04/30/2012 12:29	1	P5B04308.D	
ICV 240-42117/9		04/30/2012 12:59	1	P5B04309.D	
STD1 240-42117/10 IC		04/30/2012 13:30	1		
STD2 240-42117/11 IC		04/30/2012 14:00	1		
STD3 240-42117/12 IC		04/30/2012 14:31	1		
STD4 240-42117/13 IC		04/30/2012 15:01	1		
STD5 240-42117/14 IC		04/30/2012 15:32	1		
ICV 240-42117/15		04/30/2012 16:02	1		
ZZZZZ		04/30/2012 16:33	1		
CCV 240-42117/18		04/30/2012 17:33	1		

8015B

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10727-1 Analy Batch No.: 42117

SDG No.:

Instrument ID: A2HP5R GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2012 10:28 Calibration End Date: 04/30/2012 12:29 Calibration ID: 8454

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-42117/4	P5B04304.D
Level 2	STD2 240-42117/5	P5B04305.D
Level 3	ICRT 240-42117/6	P5B04306.D
Level 4	STD4 240-42117/7	P5B04307.D
Level 5	STD5 240-42117/8	P5B04308.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	202380 139479	154697	180905	178149	Ave		171121.938				14.0		20.0			
n-Nonane	238010 169073	182724	223067	217729	Ave		206120.531				14.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: ICV 240-42117/9 Calibration Date: 04/30/2012 12:59

Instrument ID: A2HP5R Calib Start Date: 04/30/2012 10:28

GC Column: ID: Calib End Date: 04/30/2012 12:29

Lab File ID: P5B04309.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	171122	171949		502	500	0.5	20.0

ICV

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Instrument ID: A2HP5R Start Date: 05/04/2012 09:33

Analysis Batch Number: 42755 End Date: 05/04/2012 14:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-42755/4		05/04/2012 09:33	✓ 1	P5B05044.D	
240-10727-2	GSP-MW1-042612	05/04/2012 10:04	1	P5B05045.D	
240-10727-3	GSP-MW2-042612	05/04/2012 10:35	1	P5B05046.D	
240-10727-4	GSP-MW3-042612	05/04/2012 11:06	1	P5B05047.D	
ZZZZZ		05/04/2012 11:36	1		
ZZZZZ		05/04/2012 12:07	1		
ZZZZZ		05/04/2012 12:37	1		
ZZZZZ		05/04/2012 13:08	1		
MB 240-42661/8-A		05/04/2012 13:38	1	P5B05052.D	
LCS 240-42661/9-A		05/04/2012 14:08	1	P5B05053.D	
CCV 240-42755/14		05/04/2012 14:39	✓ 1	P5B05054.D	

8015B

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: CCVRT 240-42755/4 Calibration Date: 05/04/2012 09:33

Instrument ID: A2HP5R Calib Start Date: 04/30/2012 10:28

GC Column: ID: Calib End Date: 04/30/2012 12:29

Lab File ID: P5B05044.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	171122	146148		427	500	-14.6	15.0
n-Nonane	Ave	206121	181559		44.0	50.0	-11.9	15.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: CCV 240-42755/14 Calibration Date: 05/04/2012 14:39

Instrument ID: A2HP5R Calib Start Date: 04/30/2012 10:28

GC Column: ID: Calib End Date: 04/30/2012 12:29

Lab File ID: P5B05054.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	171122	185943		543	500	8.7	15.0
n-Nonane	Ave	206121	228814		55.5	50.0	11.0	15.0

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Batch Number: 42661 Batch Start Date: 05/03/12 11:54 Batch Analyst: Coast, Chris

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	InitialAmount	FinalAmount	FirstAdjustpH	EXDIESELSPKW 00015	EXTPHSURR 00011
240-10727-I-2	GSP-MW1-042612	3510C, 8015B	T	7	1050 mL	5 mL	2		1 mL
240-10727-L-3	GSP-MW2-042612	3510C, 8015B	T	5	1050 mL	5 mL	2		1 mL
240-10727-K-4	GSP-MW3-042612	3510C, 8015B	T	5	990 mL	5 mL	2		1 mL
MB 240-42661/8		3510C, 8015B		7	1000 mL	5 mL	2		1 mL
LCS 240-42661/9		3510C, 8015B		7	1000 mL	5 mL	2	1 mL	1 mL

Batch Notes	
Na2SO4 Lot Number	275338
Prep Solvent Lot #	470851
Person's name who did the prep	cc/bpm

Basis	Basis Description
T	Total/NA

HOLDTIME

SDG 240-10727-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	UG/L	GSP-MW1-042612	240-10727-2	NM	4/26/2012	5/2/2012	5/3/2012	6	1	7
HG	UG/L	GSP-MW2-042612	240-10727-3	NM	4/26/2012	5/2/2012	5/3/2012	6	1	7
HG	UG/L	GSP-MW3-042612	240-10727-4	NM	4/26/2012	5/2/2012	5/3/2012	6	1	7
M	UG/L	GSP-MW3-042612	240-10727-4	NM	4/26/2012	5/1/2012	5/2/2012	5	1	6
M	UG/L	GSP-MW2-042612	240-10727-3	NM	4/26/2012	5/1/2012	5/2/2012	5	1	6
M	UG/L	GSP-MW1-042612	240-10727-2	NM	4/26/2012	5/1/2012	5/2/2012	5	1	6
HGF	UG/L	GSP-MW3-042612	240-10727-4	NM	4/26/2012	5/2/2012	5/3/2012	6	1	7
HGF	UG/L	GSP-MW1-042612	240-10727-2	NM	4/26/2012	5/2/2012	5/3/2012	6	1	7
HGF	UG/L	GSP-MW2-042612	240-10727-3	NM	4/26/2012	5/2/2012	5/3/2012	6	1	7
MF	UG/L	GSP-MW3-042612	240-10727-4	NM	4/26/2012	5/1/2012	5/2/2012	5	1	6
MF	UG/L	GSP-MW2-042612	240-10727-3	NM	4/26/2012	5/1/2012	5/2/2012	5	1	6
MF	UG/L	GSP-MW1-042612	240-10727-2	NM	4/26/2012	5/1/2012	5/2/2012	5	1	6
PCL	UG/L	GSP-MW3-042612	240-10727-4	NM	4/26/2012	5/7/2012	5/15/2012	11	8	19
PCL	UG/L	GSP-MW2-042612	240-10727-3	NM	4/26/2012	5/7/2012	5/15/2012	11	8	19
PCL	UG/L	GSP-MW1-042612	240-10727-2	NM	4/26/2012	5/7/2012	5/15/2012	11	8	19

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OS	UG/L	GSP-MW3-042612	240-10727-4	NM	4/26/2012	5/3/2012	5/9/2012	7	6	13
OS	UG/L	GSP-MW2-042612	240-10727-3	NM	4/26/2012	5/3/2012	5/9/2012	7	6	13
OS	UG/L	GSP-MW1-042612	240-10727-2	NM	4/26/2012	5/3/2012	5/9/2012	7	6	13
OV	UG/L	GSP-MW1-042612	240-10727-2	NM	4/26/2012	5/1/2012	5/1/2012	5	0	5
OV	UG/L	GSP-MW2-042612	240-10727-3	NM	4/26/2012	5/1/2012	5/1/2012	5	0	5
OV	UG/L	GSP-MW3-042612	240-10727-4	NM	4/26/2012	5/1/2012	5/1/2012	5	0	5
OV	UG/L	TB-042612	240-10727-1	NM	4/26/2012	5/1/2012	5/1/2012	5	0	5
DRO	UG/L	GSP-MW1-042612	240-10727-2	NM	4/26/2012	5/3/2012	5/4/2012	7	1	8
DRO	UG/L	GSP-MW3-042612	240-10727-4	NM	4/26/2012	5/3/2012	5/4/2012	7	1	8
DRO	UG/L	GSP-MW2-042612	240-10727-3	NM	4/26/2012	5/3/2012	5/4/2012	7	1	8
GRO	UG/L	GSP-MW3-042612	240-10727-4	NM	4/26/2012	4/29/2012	4/29/2012	3	0	3
GRO	UG/L	GSP-MW2-042612	240-10727-3	NM	4/26/2012	4/29/2012	4/29/2012	3	0	3
GRO	UG/L	GSP-MW1-042612	240-10727-2	NM	4/26/2012	4/29/2012	4/29/2012	3	0	3

Tetra Tech **INTERNAL CORRESPONDENCE**

TO: **T. APANAVAGE** **DATE: JUNE 27, 2012**

FROM: **TERRI L. SOLOMON** **COPIES: DV FILE**

SUBJECT: **INORGANIC AND ORGANIC DATA VALIDATION – SELECT METALS, PERCHLORATE**
MARTIN STATE AIRPORT – GROUNDWATER
SAMPLE DELIVERY GROUP (SDG) – 240-10727-1

SAMPLES: 3/Aqueous/

GSP-MW1-042612 GSP-MW2-042612
GSP-MW3-042612

Overview

The sample set for Martin State Airport - Groundwater, SDG 240-10727-1, consists of three (3) aqueous environmental samples. No field duplicate pairs were included within this SDG.

All samples were analyzed for perchlorate and select total and dissolved metals including antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, tungsten, vanadium and zinc. The samples were collected by Tetra Tech on April 26, 2012 and analyzed by TestAmerica. Metals analyses were conducted using SW-846 method 6020. Mercury analyses were conducted using SW-846 method 7470A. Perchlorate analyses were conducted using SW-846 method 6850.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP interference results, laboratory control sample recoveries, matrix spike/matrix spike duplicate recoveries, ICP serial dilution results, internal standard recoveries, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems

None.

Minor Problems

- The contract required detection limit (CRDL) percent recovery for barium was > 110% quality control limit affecting all samples. Positive results < 2X CRDL for barium were qualified as biased high, "K".

- The following contaminants were detected in the laboratory method/preparation blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Antimony[1]	0.184 ug/L	0.92 ug/L
Cobalt[1]	0.0960 ug/L	0.48 ug/L
Molybdenum[1]	3.01 ug/L	15.05 ug/L
Thallium[1]	0.664 ug/L	3.32 ug/L
Tungsten[1]	1.17 ug/L	5.85 ug/L
Barium[2]	1.12 ug/L	5.6 ug/L
Copper[2]	0.546 ug/L	2.73 ug/L
Zinc[2]	6.30 ug/L	31.5 ug/L
Barium[3]	1.02 ug/L	5.1 ug/L
Copper[3]	0.607 ug/L	3.03 ug/L
Nickel[3]	0.216 ug/L	1.08 ug/L
Zinc[3]	9.92 ug/L	49.6 ug/L

(1) Maximum concentration present in a method blank affecting all samples.
(2) Maximum concentration present in a preparation blank (240-42315) affecting total and dissolved samples GSP-MW1-042612 and GSP-MW2-042612.
(3) Maximum concentration present in a preparation blank (240-42347) affecting total and dissolved samples GSP-MW3-042612.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The positive results less than the blank action level reported for antimony, copper, molybdenum, thallium, tungsten and zinc were qualified "B" as a result of laboratory blank contamination.

- The internal standard recoveries for Lithium-6 were < 60% quality control limit affecting total and dissolved sample GSP-MW1-042612. The nondetected results reported for beryllium were qualified as biased low, "UL".

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated, "J".

Notes

Nondetected results are reported to the method detection limits.

The contract required detection limit (CRDL) percent recoveries for cadmium, cobalt, copper, lead, nickel, silver and thallium were > 110% quality control limit affecting all samples. However,

no validation actions were required as all sample results were either > 2X CRDL, nondetects or were qualified as a result of blank contamination.

Executive Summary

Laboratory Performance: Several contaminants were present in the laboratory method / preparation blanks. The CRDL percent recovery for barium was > 110% quality control limit affecting all samples.

Other Factors Affecting Data Quality: Positive results reported below the RL but above the MDL were qualified as estimated. The internal standard recoveries for Lithium-6 were < 60% quality control limit affecting total and dissolved sample GSP-MW1-042612.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993 and the Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994).

The text of this report has been formulated to address only those problem areas affecting data quality.

Terri L Solomon

Tetra Tech
Terri L. Solomon
Environmental Scientist

Tetra Tech
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 04021	NSAMPLE	GSP-MW1-042612			GSP-MW2-042612			GSP-MW3-042612		
SDG: 240-10727-1	LAB_ID	240-10727-2			240-10727-3			240-10727-4		
FRACTION: M	SAMP_DATE	4/26/2012			4/26/2012			4/26/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.18	B	A	0.13	U		0.27	B	A
ARSENIC		5.7			0.99	J	P	6		
BARIUM		73			10			9.9	K	C
BERYLLIUM		0.2	UL	N	0.2	U		0.2	U	
CADMIUM		0.13	U		0.13	U		0.13	U	
CHROMIUM		0.86	J	P	0.71	U		0.71	U	
COBALT		9.3			12			17		
COPPER		1.6	B	A	1.3	B	A	1.8	B	A
LEAD		0.18	U		0.18	U		0.18	U	
MERCURY		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		2.1	B	A	0.13	B	A	0.84	B	A
NICKEL		8.6			12			16		
SELENIUM		0.59	J	P	0.57	U		0.57	U	
SILVER		0.08	U		0.08	U		0.08	U	
THALLIUM		0.16	B	A	0.21	B	A	0.88	B	A
TUNGSTEN		0.37	U		0.37	U		1	B	A
VANADIUM		0.8	J	P	0.44	U		0.55	J	P
ZINC		25	B	A	27	B	A	51		

PROJ_NO: 04021	NSAMPLE	GSP-MW1-042612			GSP-MW2-042612			GSP-MW3-042612		
SDG: 240-10727-1	LAB_ID	240-10727-2			240-10727-3			240-10727-4		
FRACTION: MF	SAMP_DATE	4/26/2012			4/26/2012			4/26/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.19	B	A	0.13	U		0.13	U	
ARSENIC		5.6			0.92	J	P	5.5		
BARIUM		76			9.9	K	C	9.5	K	C
BERYLLIUM		0.2	UL	N	0.2	U		0.2	U	
CADMIUM		0.13	U		0.13	U		0.13	U	
CHROMIUM		0.82	J	P	0.71	U		0.71	U	
COBALT		9.4			12			16		
COPPER		1	B	A	1.7	B	A	0.67	B	A
LEAD		0.18	U		0.18	U		0.18	U	
MERCURY		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		2.2	B	A	0.093	U		0.25	B	A
NICKEL		8.9			12			15		
SELENIUM		0.72	J	P	0.57	U		0.57	U	
SILVER		0.08	U		0.08	U		0.08	U	
THALLIUM		0.3	B	A	0.16	B	A	0.5	B	A
TUNGSTEN		0.37	U		0.37	U		0.41	B	A
VANADIUM		1	J	P	0.44	U		0.44	U	
ZINC		25	B	A	27	B	A	51		

PROJ_NO: 04021	NSAMPLE	GSP-MW1-042612			GSP-MW2-042612			GSP-MW3-042612		
SDG: 240-10727-1	LAB_ID	240-10727-2			240-10727-3			240-10727-4		
FRACTION: MISC	SAMP_DATE	4/26/2012			4/26/2012			4/26/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.082	U		0.082	U		0.082	U	

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: GSP-MW1-042612
Lab Sample ID: 240-10727-2
Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG ID.:
Matrix: Water
Date Sampled: 04/26/2012 10:14
Reporting Basis: WET
Date Received: 04/27/2012 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.18	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	5.7	5.0	0.40	ug/L			1	6020
7440-39-3	Barium	73	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	0.86	2.0	0.71	ug/L	J		1	6020
7440-48-4	Cobalt	9.3	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	1.6	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	2.1	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	8.6	2.0	0.20	ug/L			1	6020
7782-49-2	Selenium	0.59	5.0	0.57	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.16	2.0	0.14	ug/L	J		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7440-62-2	Vanadium	0.80	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	25	20	2.3	ug/L		B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW1-042612
Lab Sample ID: 240-10727-2
Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG ID.:
Matrix: Water
Date Sampled: 04/26/2012 10:14
Reporting Basis: WET
Date Received: 04/27/2012 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: GSP-MW2-042612
Lab Sample ID: 240-10727-3
Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG ID.:
Matrix: Water
Date Sampled: 04/26/2012 12:25
Reporting Basis: WET
Date Received: 04/27/2012 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	0.99	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	10	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	12	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	1.3	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	0.13	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	12	2.0	0.20	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.21	2.0	0.14	ug/L	J		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7440-62-2	Vanadium	20	20	0.44	ug/L	U		1	6020
7440-66-6	Zinc	27	20	2.3	ug/L		B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW2-042612

Lab Sample ID: 240-10727-3

Lab Name: TestAmerica Canton

Job No.: 240-10727-1

SDG ID.:

Matrix: Water

Date Sampled: 04/26/2012 12:25

Reporting Basis: WET

Date Received: 04/27/2012 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: GSP-MW3-042612
Lab Sample ID: 240-10727-4
Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG ID.:
Matrix: Water
Date Sampled: 04/26/2012 14:40
Reporting Basis: WET
Date Received: 04/27/2012 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.27	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	6.0	5.0	0.40	ug/L			1	6020
7440-39-3	Barium	9.9	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	17	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	1.8	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	0.84	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	16	2.0	0.20	ug/L		B	1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.88	2.0	0.14	ug/L	J		1	6020
7440-33-7	Tungsten	1.0	10	0.37	ug/L	J		1	6020
7440-62-2	Vanadium	0.55	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	51	20	2.3	ug/L		B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW3-042612
Lab Sample ID: 240-10727-4
Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG ID.:
Matrix: Water
Date Sampled: 04/26/2012 14:40
Reporting Basis: WET
Date Received: 04/27/2012 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW1-042612 Lab Sample ID: 240-10727-2

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG ID.:

Matrix: Water Date Sampled: 04/26/2012 10:14

Reporting Basis: WET Date Received: 04/27/2012 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.19	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	5.6	5.0	0.40	ug/L			1	6020
7440-39-3	Barium	76	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	0.82	2.0	0.71	ug/L	J		1	6020
7440-48-4	Cobalt	9.4	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	1.0	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	2.2	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	8.9	2.0	0.20	ug/L			1	6020
7782-49-2	Selenium	0.72	5.0	0.57	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.30	2.0	0.14	ug/L	J		1	6020
7440-62-2	Vanadium	1.0	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	25	20	2.3	ug/L		B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW2-042612
Lab Sample ID: 240-10727-3
Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG ID.:
Matrix: Water
Date Sampled: 04/26/2012 12:25
Reporting Basis: WET
Date Received: 04/27/2012 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	0.92	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	9.9	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	12	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	1.7	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	10	10	0.093	ug/L	U		1	6020
7440-02-0	Nickel	12	2.0	0.20	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.16	2.0	0.14	ug/L	J		1	6020
7440-62-2	Vanadium	20	20	0.44	ug/L	U		1	6020
7440-66-6	Zinc	27	20	2.3	ug/L		B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW3-042612 Lab Sample ID: 240-10727-4

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG ID.:

Matrix: Water Date Sampled: 04/26/2012 14:40

Reporting Basis: WET Date Received: 04/27/2012 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	5.5	5.0	0.40	ug/L			1	6020
7440-39-3	Barium	9.5	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	16	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	0.67	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	0.25	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	15	2.0	0.20	ug/L		B	1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.50	2.0	0.14	ug/L	J		1	6020
7440-62-2	Vanadium	20	20	0.44	ug/L	U		1	6020
7440-66-6	Zinc	51	20	2.3	ug/L		B	1	6020
7440-33-7	Tungsten	0.41	10	0.37	ug/L	J		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

TestAmerica Canton

Client Sample ID: GSP-MW1-042612

Dissolved HPLC - Mass. Spec.

Lot-Sample #...:	G2E010420-001	Work Order #...:	MTAGA1AA	Matrix.....:	WATER
Date Sampled...:	04/26/12	Date Received..:	05/01/12		
Prep Date.....:	05/07/12	Analysis Date..:	05/15/12		
Prep Batch #...:	2128058				
Dilution Factor:	1	Method.....:	SW846 6850		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	ND	1.0	ug/L	0.082

TestAmerica Canton

Client Sample ID: GSP-MW2-042612

Dissolved HPLC - Mass. Spec.

Lot-Sample #...:	G2E010420-002	Work Order #...:	MTAGC1AA	Matrix.....:	WATER
Date Sampled...:	04/26/12	Date Received..:	05/01/12		
Prep Date.....:	05/07/12	Analysis Date..:	05/15/12		
Prep Batch #...:	2128058				
Dilution Factor:	1	Method.....:	SW846 6850		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	ND	1.0	ug/L	0.082

TestAmerica Canton

Client Sample ID: GSP-MW3-042612

Dissolved HPLC - Mass. Spec.

Lot-Sample #...:	G2E010420-003	**Work Order #...:**	MTAGD1AA	**Matrix.....:**	WATER
Date Sampled...:	04/26/12	**Date Received..:**	05/01/12		
Prep Date.....:	05/07/12	**Analysis Date..:**	05/15/12		
Prep Batch #...:	2128058				
Dilution Factor:	1	**Method.....:**	SW846 6850		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	ND	1.0	ug/L	0.082

APPENDIX C
SUPPORT DOCUMENTATION

CASE NARRATIVE

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Project: MSA Groundwater Sampling

Report Number: 240-10727-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The Perchlorate analysis was performed at the TestAmerica West Sacramento Laboratory.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 04/27/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.3 and 2.3 C.

VOLATILE ORGANIC COMPOUNDS (GC MS)

Samples TB-042612 (240-10727-1), GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for volatile organic compounds (GC MS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 05/01/2012.

1,2,3-Trichlorobenzene was detected in method blank MB 240-42324/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

2-Chloroethyl vinyl ether failed the recovery criteria low for the MS/MSD of sample 240-10770-2 in batch 240-42324.

Refer to the QC report for details.

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 05/03/2012 and analyzed on 05/09/2012.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

No difficulties were encountered during the SVOCs analyses. All quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 04/29/2012.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-42085/7 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 42628.

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 05/03/2012 and analyzed on 05/04/2012.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 42661.

No difficulties were encountered during the DRO analyses. All quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/01/2012 and analyzed on 05/02/2012.

The continuing calibration verification (CCV) for Molybdenum associated with batch 42586 recovered above the upper control limit. The samples and method blank associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/01/2012 and analyzed on 05/02/2012.

Barium, Copper and Zinc were detected in method blank MB 240-42315/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Several analytes were detected in method blank MB 240-42347/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The continuing calibration verification (CCV) for Molybdenum associated with batch 42586 recovered above the upper control limit. The samples and method blank associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact

Company Name: Tetra Tech Inc.	Client Project Manager: Tony Aparavage	Site Contact: Walt Pryor	Lab Contact: Pat O'Meara	COC No:
Address: 20251 Century Blvd.	Telephone: 301 528-3021	Telephone: 301 991-3914	Telephone: 330 497-9396	1 of 1 COCs
City/State/Zip: Germantown, MD 20874	Email:	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone: 301 528-3021		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client: ☐ Lab pickup: ☐ Lab sampling: ☐
Project Name: MSA Grounded Water Sampling	Method of Shipment/Carrier: Fed Ex			
Project Number: 112IC04021-02	Shipping/Tracking No:			Job/SDG No:
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite-C / Grab-G	VOCs	Total PPM	Diss PPM	1,4 Dioxane	DRO	GRO	Perchlorate				Sample Specific Notes / Special Instructions:
TB-042612	4-26-12	—		X						2					N	G	X										
GSP-MW1-042612	↓	1014		X					2	5			5		↓	↓	X	X	X	X	X	X	X				
GSP-MW2-042612		1225		X					2	5			5				X	X	X	X	X	X	X				
GSP-MW3-042612		1440		X					2	5			5				X	X	X	X	X	X	X				

Page 957 of 960

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walt Pr	TT Inc.	4-26-12 / 1700			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			Greg Burns	TA	4/27/12 0915

05/30/2012

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

TAL-0018 (1008)

HOLDTIME

SDG 240-10727-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	UG/L	GSP-MW1-042612	240-10727-2	NM	4/26/2012	5/2/2012	5/3/2012	6	1	7
HG	UG/L	GSP-MW2-042612	240-10727-3	NM	4/26/2012	5/2/2012	5/3/2012	6	1	7
HG	UG/L	GSP-MW3-042612	240-10727-4	NM	4/26/2012	5/2/2012	5/3/2012	6	1	7
M	UG/L	GSP-MW3-042612	240-10727-4	NM	4/26/2012	5/1/2012	5/2/2012	5	1	6
M	UG/L	GSP-MW2-042612	240-10727-3	NM	4/26/2012	5/1/2012	5/2/2012	5	1	6
M	UG/L	GSP-MW1-042612	240-10727-2	NM	4/26/2012	5/1/2012	5/2/2012	5	1	6
HGF	UG/L	GSP-MW3-042612	240-10727-4	NM	4/26/2012	5/2/2012	5/3/2012	6	1	7
HGF	UG/L	GSP-MW1-042612	240-10727-2	NM	4/26/2012	5/2/2012	5/3/2012	6	1	7
HGF	UG/L	GSP-MW2-042612	240-10727-3	NM	4/26/2012	5/2/2012	5/3/2012	6	1	7
MF	UG/L	GSP-MW3-042612	240-10727-4	NM	4/26/2012	5/1/2012	5/2/2012	5	1	6
MF	UG/L	GSP-MW2-042612	240-10727-3	NM	4/26/2012	5/1/2012	5/2/2012	5	1	6
MF	UG/L	GSP-MW1-042612	240-10727-2	NM	4/26/2012	5/1/2012	5/2/2012	5	1	6
PCL	UG/L	GSP-MW3-042612	240-10727-4	NM	4/26/2012	5/7/2012	5/15/2012	11	8	19
PCL	UG/L	GSP-MW2-042612	240-10727-3	NM	4/26/2012	5/7/2012	5/15/2012	11	8	19
PCL	UG/L	GSP-MW1-042612	240-10727-2	NM	4/26/2012	5/7/2012	5/15/2012	11	8	19

SAMPLE SUMMARY

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10727-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-10727-1	TB-042612	Water	04/26/2012 0000	04/27/2012 0915
240-10727-2	GSP-MW1-042612	Water	04/26/2012 1014	04/27/2012 0915
240-10727-3	GSP-MW2-042612	Water	04/26/2012 1225	04/27/2012 0915
240-10727-4	GSP-MW3-042612	Water	04/26/2012 1440	04/27/2012 0915

METHOD SUMMARY

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10727-1

Description	Lab Location	Method	Preparation Method
Matrix Water			
Volatile Organic Compounds by GC/MS	TAL NC	SW846 8260C	
Purge and Trap	TAL NC		SW846 5030C
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270C	
Liquid-Liquid Extraction (Continuous)	TAL NC		SW846 3520C
Gasoline Range Organics - (GC)	TAL NC	SW846 8015B	
Purge and Trap	TAL NC		SW846 5030B
Diesel Range Organics (DRO) (GC)	TAL NC	SW846 8015B	
Liquid-Liquid Extraction (Separatory Funnel)	TAL NC		SW846 3510C
Metals (ICP/MS)	TAL NC	SW846 6020	
Preparation, Total Recoverable or Dissolved Metals	TAL NC		SW846 3005A
Metals (ICP/MS)	TAL NC	SW846 6020	
Preparation, Total Recoverable or Dissolved Metals	TAL NC		SW846 3005A
Sample Filtration, Field			FIELD_FLTRD
Mercury (CVAA)	TAL NC	SW846 7470A	
Preparation, Mercury	TAL NC		SW846 7470A
Mercury (CVAA)	TAL NC	SW846 7470A	
Preparation, Mercury	TAL NC		SW846 7470A
Sample Filtration, Field			FIELD_FLTRD
General Sub Contract Method	TAL WSC	Subcontract	

Lab References:

TAL NC = TestAmerica Canton

TAL WSC = TestAmerica West Sacramento

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

ICV Source: MTMSICVW_00014 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00039

Analyte	ICV 240-42586/5 05/02/2012 06:12				CCV 240-42586/58 05/02/2012 11:16				CCV 240-42586/70 05/02/2012 12:22			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	83.3		80.0	104	95.6		100	96	94.5		100	95
Arsenic	80.4		80.0	101	98.6		100	99	98.0		100	98
Barium	82.0		80.0	102	96.5		100	96	95.2		100	95
Beryllium	79.3		80.0	99	98.3		100	98	94.7		100	95
Cadmium	81.4		80.0	102	96.8		100	97	96.5		100	96
Chromium	81.6		80.0	102	98.3		100	98	98.4		100	98
Cobalt	81.1		80.0	101	98.8		100	99	100		100	100
Copper	84.4		80.0	105	102		100	102	102		100	102
Lead	82.1		80.0	103	97.8		100	98	96.3		100	96
Molybdenum	84.9		80.0	106	99.5		100	99	99.9		100	100
Nickel	82.5		80.0	103	98.9		100	99	100		100	100
Selenium	82.3		80.0	103	101		100	101	99.7		100	100
Silver	83.8		80.0	105	98.7		100	99	97.9		100	98
Thallium	81.6		80.0	102	99.0		100	99	100		100	100
Tungsten	80.6		80.0	101	98.6		100	99	98.6		100	99
Vanadium	80.2		80.0	100	97.7		100	98	97.1		100	97
Zinc	82.6		80.0	103	100		100	100	99.8		100	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

ICV Source: MTMSICVW_00014 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00039

Analyte	CCV 240-42586/82 05/02/2012 13:30				CCV 240-42586/94 05/02/2012 14:35				CCV 240-42586/122 05/02/2012 17:12			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	94.0		100	94	93.3		100	93	95.8		100	96
Arsenic	98.4		100	98	98.7		100	99	97.4		100	97
Barium	96.0		100	96	94.1		100	94	95.6		100	96
Beryllium	96.8		100	97	94.8		100	95	96.2		100	96
Cadmium	95.8		100	96	96.1		100	96	96.5		100	97
Chromium	99.3		100	99	99.9		100	100	99.8		100	100
Cobalt	101		100	101	101		100	101	100		100	100
Copper	102		100	102	102		100	102	101		100	101
Lead	94.7		100	95	94.5		100	94	96.2		100	96
Molybdenum	99.8		100	100	99.3		100	99	112		100	112
Nickel	101		100	101	102		100	102	101		100	101
Selenium	99.8		100	100	99.9		100	100	98.2		100	98
Silver	97.8		100	98	97.3		100	97	98.9		100	99
Thallium	101		100	101	101		100	101	103		100	103
Tungsten	98.4		100	98	98.3		100	98	101		100	101
Vanadium	97.1		100	97	98.1		100	98	98.3		100	98
Zinc	101		100	101	102		100	102	102		100	102

NO Samples Affected

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

ICV Source: MTMSICVW_00014 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00039

Analyte	CCV 240-42586/134 05/02/2012 18:18				CCV 240-42586/146 05/02/2012 19:27							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	96.9		100	97	97.4		100	97				
Arsenic	98.8		100	99	98.8		100	99				
Barium	96.6		100	97	96.6		100	97				
Beryllium	95.1		100	95	95.1		100	95				
Cadmium	98.4		100	98	98.1		100	98				
Chromium	99.8		100	100	99.6		100	100				
Cobalt	100		100	100	99.9		100	100				
Copper	103		100	103	103		100	103				
Lead	97.7		100	98	98.9		100	99				
Molybdenum	100		100	100	100		100	100				
Nickel	101		100	101	101		100	101				
Selenium	98.5		100	98	98.7		100	99				
Silver	100		100	100	99.1		100	99				
Thallium	102		100	102	101		100	101				
Tungsten	99.9		100	100	100		100	100				
Vanadium	98.0		100	98	97.8		100	98				
Zinc	101		100	101	101		100	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

ICV Source: MTHGICVW_00289 Concentration Units: ug/L

CCV Source: MTHGCALW_00189

Analyte	ICV 240-42622/7-A 05/03/2012 16:06				CCVL 240-42622/10-A 05/03/2012 16:12				CCV 240-42622/12-A 05/03/2012 17:26			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.35		2.50	94	5.11		5.00	102	5.27		5.00	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

ICV Source: MTHGICVW_00289 Concentration Units: ug/L

CCV Source: MTHGCALW_00189

Analyte	CCV 240-42622/12-A 05/03/2012 17:51				CCV 240-42622/12-A 05/03/2012 18:17							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.23		5.00	105	5.24		5.00	105				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Method: 6020 Instrument ID: I8

Lab Sample ID: CRI 240-42586/7 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRIW_00016

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.09		105	50-150
Arsenic	2.00	2.08	J	104	50-150
Barium	1.00	1.15	J	115	50-150
Beryllium	1.00	1.04		104	50-150
Cadmium	0.500	0.625	J	125	50-150
Chromium	2.00	2.15		107	50-150
Cobalt	1.00	1.12		112	50-150
Copper	2.00	2.66		133	50-150
Lead	1.00	1.22		122	50-150
Molybdenum	10.0	10.0		100	50-150
Nickel	2.00	2.94		147	50-150
Selenium	2.00	2.12	J	106	50-150
Silver	0.500	0.569	J	114	50-150
Thallium	1.00	1.23	J	123	50-150
Vanadium	5.00	5.01	J	100	50-150
Tungsten	10.0	9.78	J	98	50-150
Zinc	10.0	10.4	J	104	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Method: 7470A Instrument ID: H4

Lab Sample ID: CRA 240-42622/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00189

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.191	J	95	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-42586/6 05/02/2012 06:18		CCB 240-42586/59 05/02/2012 11:21		CCB 240-42586/71 05/02/2012 12:27		CCB 240-42586/83 05/02/2012 13:35	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	2.0	U	0.151	J	0.149	J	0.138	J
Arsenic	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Barium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Beryllium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Cadmium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Chromium	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Cobalt	1.0	0.0630	J	0.0760	J	1.0	U	1.0	U
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Molybdenum	10	0.730	J	0.726	J	0.669	J	0.633	J
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	2.0	0.429	J	0.510	J	0.575	J	0.532	J
Tungsten	10	1.02	J	0.808	J	0.885	J	0.769	J
Vanadium	20	20	U	20	U	20	U	20	U
Zinc	20	20	U	20	U	20	U	20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-42586/95 05/02/2012 14:40		CCB 240-42586/123 05/02/2012 17:17		CCB 240-42586/135 05/02/2012 18:24		CCB 240-42586/147 05/02/2012 19:32	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	2.0	U	0.182	J	0.157	J	0.184	J
Arsenic	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Barium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Beryllium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Cadmium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Chromium	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Cobalt	1.0	1.0	U	1.0	U	0.0950	J	0.0960	J
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Molybdenum	10	0.755	J	3.01	J	0.820	J	0.869	J
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	2.0	0.512	J	0.664	J	0.626	J	0.570	J
Tungsten	10	0.857	J	1.17	J	0.925	J	0.888	J
Vanadium	20	20	U	20	U	20	U	20	U
Zinc	20	20	U	20	U	20	U	20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-42622/8-A 05/03/2012 16:08		CCB 240-42622/11-A 05/03/2012 17:28		CCB 240-42622/11-A 05/03/2012 17:52		CCB 240-42622/11-A 05/03/2012 18:18	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U	0.20	U	0.20	U	0.20	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-42315/1-A

Instrument Code: I8 Batch No.: 42586

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6020
7440-38-2	Arsenic	5.0	U		6020
7440-39-3	Barium	1.12	J		6020
7440-41-7	Beryllium	1.0	U		6020
7440-43-9	Cadmium	1.0	U		6020
7440-47-3	Chromium	2.0	U		6020
7440-48-4	Cobalt	1.0	U		6020
7440-50-8	Copper	0.546	J		6020
7439-92-1	Lead	1.0	U		6020
7439-98-7	Molybdenum	10	U		6020
7440-02-0	Nickel	2.0	U		6020
7782-49-2	Selenium	5.0	U		6020
7440-22-4	Silver	1.0	U		6020
7440-28-0	Thallium	2.0	U		6020
7440-62-2	Vanadium	20	U		6020
7440-33-7	Tungsten	10	U		6020
7440-66-6	Zinc	6.30	J		6020

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-42347/1-A

Instrument Code: I8 Batch No.: 42586

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6020
7440-38-2	Arsenic	5.0 OL	U		6020
7440-39-3	Barium	1.02	J		6020
7440-41-7	Beryllium	1.0	U		6020
7440-43-9	Cadmium	1.0	U		6020
7440-47-3	Chromium	2.0	U		6020
7440-48-4	Cobalt	1.0	U		6020
7440-50-8	Copper	0.607	J		6020
7439-92-1	Lead	1.0	U		6020
7439-98-7	Molybdenum	0.262	J	^	6020
7440-02-0	Nickel	0.216	J		6020
7782-49-2	Selenium	5.0	U		6020
7440-22-4	Silver	1.0	U		6020
7440-28-0	Thallium	2.0	U		6020
7440-62-2	Vanadium	20	U		6020
7440-33-7	Tungsten	10	U		6020
7440-66-6	Zinc	9.92	J		6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-42491/1-A

Instrument Code: H4 Batch No.: 42777

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.20	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: ICSA 240-42586/8 Instrument ID: I8

Lab File ID: I8050212A.csv ICS Source: MTMSICSAW_00014

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.212**	
Arsenic		**0.475**	
Barium		**0.435**	
Beryllium		**0.0650**	
Cadmium		**-0.259**	
Chromium		**0.720**	
Cobalt		**0.289**	
Copper		**0.650**	
Lead		**0.271**	
Molybdenum	**1000**	**1012**	**101**
Nickel		**0.712**	
Selenium		**0.216**	
Silver		**0.0660**	
Thallium		**0.194**	
Tungsten		**0.433**	
Vanadium		**0.271**	
Zinc		**1.99**	
Aluminum	*50000*	*50280*	*101*
Boron		*0.986*	
Calcium	*50000*	*51390*	*103*
Iron	*50000*	*50160*	*100*
Magnesium	*50000*	*51560*	*103*
Manganese		*0.358*	
Potassium	*50000*	*51690*	*103*
Sodium	*50000*	*51750*	*104*
Strontium		*1.18*	
Tin		*0.104*	
Titanium	*1000*	*1024*	*102*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: ICSAB 240-42586/9 Instrument ID: I8

Lab File ID: I8050212A.csv ICS Source: MTMSICSABW_00014

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**101**	**101**
Arsenic	**100**	**98.5**	**99**
Barium	**100**	**101**	**101**
Beryllium	**100**	**103**	**103**
Cadmium	**100**	**99.4**	**99**
Chromium	**100**	**106**	**106**
Cobalt	**100**	**99.2**	**99**
Copper	**100**	**101**	**101**
Lead	**100**	**105**	**105**
Molybdenum	**1100**	**1129**	**103**
Nickel	**100**	**104**	**104**
Selenium	**100**	**103**	**103**
Silver	**100**	**102**	**102**
Thallium	**100**	**104**	**104**
Tungsten	**100**	**100**	**100**
Vanadium	**100**	**100**	**100**
Zinc	**100**	**103**	**103**
Aluminum	*50000*	*51270*	*103*
Boron	*100*	*103*	*103*
Calcium	*50000*	*51570*	*103*
Iron	*50000*	*51710*	*103*
Magnesium	*50000*	*52440*	*105*
Manganese	*100*	*106*	*106*
Potassium	*50000*	*50790*	*102*
Sodium	*50000*	*52400*	*105*
Strontium	*100*	*94.6*	*95*
Tin	*100*	*99.4*	*99*
Titanium	*1100*	*1148*	*104*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: ICSA 240-42586/120 Instrument ID: I8

Lab File ID: I8050212A.csv ICS Source: MTMSICSAW_00014

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.179**	
Arsenic		**0.465**	
Barium		**0.208**	
Beryllium		**0.0940**	
Cadmium		**-0.411**	
Chromium		**0.513**	
Cobalt		**0.187**	
Copper		**0.596**	
Lead		**0.138**	
Molybdenum	**1000**	**1002**	**100**
Nickel		**0.561**	
Selenium		**0.0590**	
Silver		**0.0480**	
Thallium		**0.261**	
Tungsten		**0.349**	
Vanadium		**0.157**	
Zinc		**2.47**	
Aluminum	*50000*	*52270*	*105*
Boron		*6.99*	
Calcium	*50000*	*51730*	*103*
Iron	*50000*	*46660*	*93*
Magnesium	*50000*	*48690*	*97*
Manganese		*0.669*	
Potassium	*50000*	*47620*	*95*
Sodium	*50000*	*54360*	*109*
Strontium		*0.722*	
Tin		*0.178*	
Titanium	*1000*	*1027*	*103*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: ICSAB 240-42586/121 Instrument ID: I8

Lab File ID: I8050212A.csv ICS Source: MTMSICSABW_00014

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**96.6**	**97**
Arsenic	**100**	**97.5**	**97**
Barium	**100**	**97.3**	**97**
Beryllium	**100**	**97.8**	**98**
Cadmium	**100**	**95.5**	**96**
Chromium	**100**	**107**	**107**
Cobalt	**100**	**101**	**101**
Copper	**100**	**102**	**102**
Lead	**100**	**101**	**101**
Molybdenum	**1100**	**1116**	**101**
Nickel	**100**	**105**	**105**
Selenium	**100**	**100**	**100**
Silver	**100**	**98.0**	**98**
Thallium	**100**	**108**	**108**
Tungsten	**100**	**99.9**	**100**
Vanadium	**100**	**99.5**	**100**
Zinc	**100**	**104**	**104**
Aluminum	*50000*	*51690*	*103*
Boron	*100*	*101*	*101*
Calcium	*50000*	*52300*	*105*
Iron	*50000*	*47060*	*94*
Magnesium	*50000*	*48420*	*97*
Manganese	*100*	*109*	*109*
Potassium	*50000*	*47230*	*94*
Sodium	*50000*	*54020*	*108*
Strontium	*100*	*94.4*	*94*
Tin	*100*	*95.3*	*95*
Titanium	*1100*	*1155*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

NOT IN SDG

Client ID: _____ Lab ID: 240-10748-D-1-B MS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	96.8		0.26	J	100	97	44-153		6020
Arsenic	994		13		1000	98	82-123		6020
Barium	1090		110		1000	97	45-144		6020
Beryllium	944		1.0	U	1000	94	77-124		6020
Cadmium	955		1.0	U	1000	96	78-117		6020
Chromium	1020		2.0	U	1000	102	72-110		6020
Cobalt	1020		0.35	J	1000	102	67-114		6020
Copper	1010		0.33	J	1000	101	60-123		6020
Lead	1040		1.0	U	1000	104	73-115		6020
Molybdenum	106		9.4	J	100	97	80-110		6020
Nickel	1010		2.8		1000	101	72-111		6020
Selenium	977		5.0	U	1000	98	72-148		6020
Silver	98.9		1.0	U	100	99	10-139		6020
Thallium	260		0.62	J	250	104	69-117		6020
Vanadium	996		20	U	1000	100	70-112		6020
Tungsten	97.6		0.77	J	100	97	43-133		6020
Zinc	990		3.0	J	1000	99	49-156		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

NOT IN SDG

Client ID: _____ Lab ID: 240-10756-A-27-D MS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	97.3		0.31	J	100	97	44-153		6020
Arsenic	984		1.2	J	1000	98	82-123		6020
Barium	979		34		1000	94	45-144		6020
Beryllium	938		1.0	U	1000	94	77-124		6020
Cadmium	936		0.29	J	1000	94	78-117		6020
Chromium	979		1.3	J	1000	98	72-110		6020
Cobalt	965		0.20	J	1000	96	67-114		6020
Copper	960		2.9		1000	96	60-123		6020
Lead	989		2.8		1000	99	73-115		6020
Molybdenum	102		3.7	J	100	98	80-110		6020
Nickel	964		1.7	J	1000	96	72-111		6020
Selenium	978		1.5	J	1000	98	72-148		6020
Silver	96.7		1.0	U	100	97	10-139		6020
Thallium	246		0.66	J	250	98	69-117		6020
Vanadium	968		20	U	1000	97	70-112		6020
Tungsten	95.4		0.88	J	100	95	43-133		6020
Zinc	1060		110		1000	95	49-156		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

NOT IN SDG

Client ID: _____ Lab ID: 240-10725-K-8-B MS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.01		0.20	U	1.00	101	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

NOT IN SDG

Client ID: _____ Lab ID: 240-10725-N-8-B MS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.04		0.20	U	1.00	104	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

NOT IN SDG

Client ID:

Lab ID: 240-10748-D-1-C MSD

Lab Name: TestAmerica Canton

Job No.: 240-10727-1

SDG No.:

Matrix: Water

Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	95.0		100	95	44-153	2	20		6020
Arsenic	987		1000	97	82-123	1	20		6020
Barium	1080		1000	96	45-144	1	20		6020
Beryllium	908		1000	91	77-124	4	20		6020
Cadmium	948		1000	95	78-117	1	20		6020
Chromium	995		1000	100	72-110	2	20		6020
Cobalt	989		1000	99	67-114	3	20		6020
Copper	1010		1000	100	60-123	0	20		6020
Lead	1020		1000	102	73-115	2	20		6020
Molybdenum	107		100	98	80-110	1	20		6020
Nickel	1000		1000	100	72-111	1	20		6020
Selenium	981		1000	98	72-148	0	20		6020
Silver	98.8		100	99	10-139	0	20		6020
Thallium	257		250	102	69-117	1	20		6020
Vanadium	984		1000	98	70-112	1	20		6020
Tungsten	96.2		100	95	43-133	1	20		6020
Zinc	989		1000	99	49-156	0	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

NOT IN SDG

Client ID: _____ Lab ID: 240-10756-A-27-E MSD

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	101		100	100	44-153	4	20		6020
Arsenic	1010		1000	101	82-123	3	20		6020
Barium	1010		1000	97	45-144	3	20		6020
Beryllium	950		1000	95	77-124	1	20		6020
Cadmium	957		1000	96	78-117	2	20		6020
Chromium	1010		1000	101	72-110	3	20		6020
Cobalt	997		1000	100	67-114	3	20		6020
Copper	985		1000	98	60-123	3	20		6020
Lead	1020		1000	101	73-115	3	20		6020
Molybdenum	104		100	101	80-110	3	20		6020
Nickel	992		1000	99	72-111	3	20		6020
Selenium	999		1000	100	72-148	2	20		6020
Silver	99.1		100	99	10-139	2	20		6020
Thallium	254		250	101	69-117	3	20		6020
Vanadium	1010		1000	101	70-112	4	20		6020
Tungsten	101		100	100	43-133	5	20		6020
Zinc	1080		1000	98	49-156	2	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

NOT IN SDG

Client ID: _____ Lab ID: 240-10725-K-8-C MSD

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	1.04		1.00	104	69-134	3	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

NOT IN SDG

Client ID:

Lab ID: 240-10725-N-8-C MSD

Lab Name: TestAmerica Canton

Job No.: 240-10727-1

SDG No.:

Matrix: Water

Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	1.04		1.00	104	69-134	0	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-42315/2-A

Lab Name: TestAmerica Canton Job No.: 240-10727-1

Sample Matrix: Water LCS Source: MTICPMSB_00008

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	93.6		94	80	120		6020
Arsenic	1000	948		95	80	120		6020
Barium	1000	942		94	80	120		6020
Beryllium	1000	916		92	80	120		6020
Cadmium	1000	948		95	80	120		6020
Chromium	1000	980		98	80	120		6020
Cobalt	1000	987		99	80	120		6020
Copper	1000	1020		102	80	120		6020
Lead	1000	1020		102	80	120		6020
Molybdenum	100	94.6		95	80	120		6020
Nickel	1000	1010		101	80	120		6020
Selenium	1000	966		97	80	120		6020
Silver	100	101		101	80	120		6020
Thallium	250	250		100	80	120		6020
Vanadium	1000	952		95	80	120		6020
Tungsten	100	90.9		91	80	120		6020
Zinc	1000	1000		100	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-42347/3-A

Lab Name: TestAmerica Canton Job No.: 240-10727-1

Sample Matrix: Water LCS Source: MTICPMSB_00008

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	99.2		99	80	120		6020
Arsenic	1000	984		98	80	120		6020
Barium	1000	965		96	80	120		6020
Beryllium	1000	942		94	80	120		6020
Cadmium	1000	985		98	80	120		6020
Chromium	1000	1020		102	80	120		6020
Cobalt	1000	1020		102	80	120		6020
Copper	1000	1060		106	80	120		6020
Lead	1000	1060		106	80	120		6020
Molybdenum	100	99.0		99	80	120	^	6020
Nickel	1000	1040		104	80	120		6020
Selenium	1000	987		99	80	120		6020
Silver	100	106		106	80	120		6020
Thallium	250	264		105	80	120		6020
Vanadium	1000	990		99	80	120		6020
Tungsten	100	97.2		97	80	120		6020
Zinc	1000	1050		105	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-42491/2-A

Lab Name: TestAmerica Canton Job No.: 240-10727-1

Sample Matrix: Water LCS Source: MTHGICVW_00288

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.10		102	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

NOT IN SDG

Lab ID: 240-10748-D-1-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-10727-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.26	J	10	U	NC		6020
Arsenic	13		13.3	J	NC		6020
Barium	110		114		NC		6020
Beryllium	1.0	U	5.0	U	NC		6020
Cadmium	1.0	U	5.0	U	NC		6020
Chromium	2.0	U	10	U	NC		6020
Cobalt	0.35	J	0.595	J	NC		6020
Copper	0.33	J	10	U	NC		6020
Lead	1.0	U	5.0	U	NC		6020
Molybdenum	9.4	J	9.71	J	NC		6020
Nickel	2.8		2.96	J	NC		6020
Selenium	5.0	U	25	U	NC		6020
Silver	1.0	U	5.0	U	NC		6020
Thallium	0.62	J	1.48	J	NC		6020
Vanadium	20	U	100	U	NC		6020
Tungsten	0.77	J	50	U	NC		6020
Zinc	3.0	J	100	U	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

NOT IN SDG

Lab ID: 240-10756-A-27-A SD

SDG No:

Lab Name: TestAmerica Canton Job No: 240-10727-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.31	J	2.0	U	NC		6020
Arsenic	1.2	J	5.0	U	NC		6020
Barium	34		6.82		NC		6020
Beryllium	1.0	U	1.0	U	NC		6020
Cadmium	0.29	J	1.0	U	NC		6020
Chromium	1.3	J	2.0	U	NC		6020
Cobalt	0.20	J	0.0820	J	NC		6020
Copper	2.9		0.610	J	NC		6020
Lead	2.8		0.560	J	NC		6020
Molybdenum	3.7	J	0.887	J	NC	^	6020
Nickel	1.7	J	0.372	J	NC		6020
Selenium	1.5	J	5.0	U	NC		6020
Silver	1.0	U	1.0	U	NC		6020
Thallium	0.66	J	0.338	J	NC		6020
Vanadium	20	U	20	U	NC		6020
Tungsten	0.88	J	10	U	NC		6020
Zinc	110		22.6		NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-10727-1

SDG Number:

Matrix: Water Instrument ID: I8

Method: 6020 MDL Date: 02/09/2010 15:53

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.13
Arsenic	75.00	5	0.4
Barium	137.00	5	0.19
Beryllium	9.00	1	0.2
Cadmium	111.00	1	0.13
Chromium	52.00	2	0.71
Cobalt	59.00	1	0.058
Copper	65.00	2	0.29
Lead	208.00	1	0.18
Molybdenum	95.00	10	0.093
Nickel	60.00	2	0.2
Selenium	78.00	5	0.57
Silver	107.00	1	0.08
Thallium	205.00	2	0.14
Tungsten	182.00	10	0.37
Vanadium	51.00	20	0.44
Zinc	66.00	20	2.3

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-10727-1

SDG Number:

Matrix: Water Instrument ID: I8

Method: 6020 MDL Date: 02/09/2010 15:53

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.13
Arsenic	75.00	5	0.4
Barium	137.00	5	0.19
Beryllium	9.00	1	0.2
Cadmium	111.00	1	0.13
Chromium	52.00	2	0.71
Cobalt	59.00	1	0.058
Copper	65.00	2	0.29
Lead	208.00	1	0.18
Molybdenum	95.00	10	0.093
Nickel	60.00	2	0.2
Selenium	78.00	5	0.57
Silver	107.00	1	0.08
Thallium	205.00	2	0.14
Tungsten	182.00	10	0.37
Vanadium	51.00	20	0.44
Zinc	66.00	20	2.3

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-10727-1

SDG Number:

Matrix: Water Instrument ID: H4

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-10727-1

SDG Number:

Matrix: Water Instrument ID: H4

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

FORM IX - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-42315/1-A	05/01/2012 09:57	42315		50	50
LCS 240-42315/2-A	05/01/2012 09:57	42315		50	50
240-10748-D-1-B MS	05/01/2012 09:57	42315		50	50
240-10748-D-1-C MSD	05/01/2012 09:57	42315		50	50
240-10727-2	05/01/2012 09:57	42315		50	50
240-10727-2	05/01/2012 09:57	42315		50	50
240-10727-3	05/01/2012 09:57	42315		50	50
240-10727-3	05/01/2012 09:57	42315		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-42347/1-A	05/01/2012 11:27	42347		50	50
LCS 240-42347/3-A	05/01/2012 11:27	42347		50	50
240-10756-A-27-D MS	05/01/2012 11:27	42347		50	50
240-10756-A-27-E MSD	05/01/2012 11:27	42347		50	50
240-10727-4	05/01/2012 11:27	42347		50	50
240-10727-4	05/01/2012 11:27	42347		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-42491/1-A	05/02/2012 13:55	42491		100	100
LCS 240-42491/2-A	05/02/2012 13:55	42491		100	100
240-10725-K-8-B MS	05/02/2012 13:55	42491		100	100
240-10725-K-8-C MSD	05/02/2012 13:55	42491		100	100
240-10725-N-8-B MS	05/02/2012 13:55	42491		100	100
240-10725-N-8-C MSD	05/02/2012 13:55	42491		100	100
240-10727-2	05/02/2012 13:55	42491		100	100
240-10727-2	05/02/2012 13:55	42491		100	100
240-10727-3	05/02/2012 13:55	42491		100	100
240-10727-3	05/02/2012 13:55	42491		100	100
240-10727-4	05/02/2012 13:55	42491		100	100
240-10727-4	05/02/2012 13:55	42491		100	100

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

ICP-MS Instrument ID: I8 Start Date: 05/02/2012 End Date: 05/02/2012

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li	Q	Element Sc	Q	Element Sc	Q	Element Ge	Q	Element In	Q
STD2 240-42586/2 IC	05:55	83		91		92		91		92	
STD3 240-42586/3 IC	06:01	77		87		87		84		87	
STD4 240-42586/4 IC	06:07	92		104		98		99		98	
ICV 240-42586/5	06:12	83		95		91		90		91	
ICB 240-42586/6	06:18	90		103		97		97		98	
CRI 240-42586/7	06:23	89		102		98		96		97	
ICSA 240-42586/8	06:28	70		84		82		81		85	
ICSAB 240-42586/9	06:34	61		79		78		79		83	
CCV 240-42586/58	11:16	65		88		82		79		81	
CCB 240-42586/59	11:21	74		97		87		86		86	
MB 240-42315/1-A	11:59	73		93		84		82		82	
LCS 240-42315/2-A	12:05	72		91		84		82		82	
240-10748-D-1-A SD	12:16	74		92		84		82		80	
CCV 240-42586/70	12:22	66		84		78		74		76	
CCB 240-42586/71	12:27	75		93		84		82		81	
240-10748-D-1-B MS	12:33	68		87		79		77		79	
240-10748-D-1-C MSD	12:39	73		90		81		78		79	
240-10727-2	13:24	59		80		73		69		71	
CCV 240-42586/82	13:30	59		80		74		71		72	
CCB 240-42586/83	13:35	70		89		80		78		78	
240-10727-2	13:41	58		79		73		68		71	
240-10727-3	13:46	65		87		79		78		78	
240-10727-3	13:51	68		87		79		78		77	
CCV 240-42586/94	14:35	65		83		75		71		72	
CCB 240-42586/95	14:40	75		92		82		79		78	
ICSA 240-42586/120	17:00	56		74		66		65		66	
ICSAB 240-42586/121	17:06	49		67		63		62		65	
CCV 240-42586/122	17:12	49		69		66		64		66	
CCB 240-42586/123	17:17	62		78		72		72		72	
MB 240-42347/1-A	17:55	55		74		71		71		71	
LCS 240-42347/3-A	18:01	56		74		70		69		70	
240-10756-A-27-A SD	18:13	60		78		71		70		70	
CCV 240-42586/134	18:18	54		73		67		65		66	
CCB 240-42586/135	18:24	63		80		72		71		70	
240-10756-A-27-D MS	18:30	53		73		66		64		65	
240-10756-A-27-E	18:36	52		72		65		63		64	
240-10727-4	18:43	66		81		72		72		71	
240-10727-4	18:49	65		80		72		72		71	
CCV 240-42586/146	19:27	57		75		68		66		66	
CCB 240-42586/147	19:32	66		82		74		73		71	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

ICP-MS Instrument ID: I8 Start Date: 05/02/2012 End Date: 05/02/2012

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD2 240-42586/2 IC	05:55			96							
STD3 240-42586/3 IC	06:01			91							
STD4 240-42586/4 IC	06:07			99							
ICV 240-42586/5	06:12			95							
ICB 240-42586/6	06:18			98							
CRI 240-42586/7	06:23			97							
ICSA 240-42586/8	06:28			87							
ICSAB 240-42586/9	06:34			87							
CCV 240-42586/58	11:16			82							
CCB 240-42586/59	11:21			85							
MB 240-42315/1-A	11:59			82							
LCS 240-42315/2-A	12:05			83							
240-10748-D-1-A SD	12:16			80							
CCV 240-42586/70	12:22			77							
CCB 240-42586/71	12:27			81							
240-10748-D-1-B MS	12:33			77							
240-10748-D-1-C MSD	12:39			78							
240-10727-2	13:24			73							
CCV 240-42586/82	13:30			74							
CCB 240-42586/83	13:35			77							
240-10727-2	13:41			72							
240-10727-3	13:46			77							
240-10727-3	13:51			77							
CCV 240-42586/94	14:35			72							
CCB 240-42586/95	14:40			76							
ICSA 240-42586/120	17:00			65							
ICSAB 240-42586/121	17:06			65							
CCV 240-42586/122	17:12			67							
CCB 240-42586/123	17:17			70							
MB 240-42347/1-A	17:55			71							
LCS 240-42347/3-A	18:01			70							
240-10756-A-27-A SD	18:13			70							
CCV 240-42586/134	18:18			67							
CCB 240-42586/135	18:24			70							
240-10756-A-27-D MS	18:30			68							
240-10756-A-27-E	18:36			67							
240-10727-4	18:43			70							
240-10727-4	18:49			70							
CCV 240-42586/146	19:27			67							
CCB 240-42586/147	19:32			71							

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 05/02/2012 05:49 End Date: 05/02/2012 19:55

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn			
ICIS 240-42586/1			05:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD2 240-42586/2 IC	1		05:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD3 240-42586/3 IC	1		06:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD4 240-42586/4 IC	1		06:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICV 240-42586/5	1		06:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICB 240-42586/6	1		06:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CRI 240-42586/7	1		06:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSA 240-42586/8	1		06:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSAB 240-42586/9	1		06:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-42586/10			06:39																				
CCB 240-42586/11			06:45																				
CCV 240-42586/12			06:50																				
CCB 240-42586/13			06:56																				
ZZZZZZ			07:02																				
ZZZZZZ			07:07																				
ZZZZZZ			07:13																				
ZZZZZZ			07:18																				
ZZZZZZ			07:23																				
ZZZZZZ			07:30																				
ZZZZZZ			07:38																				
ZZZZZZ			07:45																				
ZZZZZZ			07:52																				
ZZZZZZ			07:59																				
CCV 240-42586/24			08:06																				
CCB 240-42586/25			08:11																				
ZZZZZZ			08:17																				
CCV 240-42586/27			08:22																				
CCB 240-42586/28			08:28																				
ZZZZZZ			08:33																				
ZZZZZZ			08:39																				
ZZZZZZ			08:44																				
ZZZZZZ			08:49																				
ZZZZZZ			08:55																				
ZZZZZZ			09:01																				
CCV 240-42586/35			09:07																				
CCB 240-42586/36			09:13																				
ZZZZZZ			09:18																				
ZZZZZZ			09:23																				
ZZZZZZ			09:30																				
ZZZZZZ			09:36																				
ZZZZZZ			09:41																				
ZZZZZZ			09:48																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 05/02/2012 05:49 End Date: 05/02/2012 19:55

Lab Sample ID	D/F	Type	Time	Analytes																		
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn		
ZZZZZZ			09:55																			
ZZZZZZ			10:00																			
ZZZZZZ			10:05																			
CCV 240-42586/46			10:11																			
CCB 240-42586/47			10:16																			
ZZZZZZ			10:22																			
ZZZZZZ			10:27																			
ZZZZZZ			10:33																			
ZZZZZZ			10:38																			
ZZZZZZ			10:44																			
ZZZZZZ			10:49																			
ZZZZZZ			10:54																			
ZZZZZZ			11:00																			
ZZZZZZ			11:05																			
ZZZZZZ			11:11																			
CCV 240-42586/58	1		11:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 240-42586/59	1		11:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ZZZZZZ			11:27																			
ZZZZZZ			11:32																			
ZZZZZZ			11:38																			
ZZZZZZ			11:43																			
ZZZZZZ			11:48																			
ZZZZZZ			11:54																			
MB 240-42315/1-A	1	R	11:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCS 240-42315/2-A	1	R	12:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ZZZZZZ			12:11																			
240-10748-D-1-A SD ^5	5	D	12:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCV 240-42586/70	1		12:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 240-42586/71	1		12:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
240-10748-D-1-B MS	1	D	12:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
240-10748-D-1-C MSD	1	D	12:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ZZZZZZ			12:46																			
ZZZZZZ			12:52																			
ZZZZZZ			12:57																			
ZZZZZZ			13:02																			
ZZZZZZ			13:08																			
ZZZZZZ			13:13																			
ZZZZZZ			13:19																			
240-10727-2	1	R	13:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCV 240-42586/82	1		13:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 240-42586/83	1		13:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
240-10727-2	1	D	13:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 05/02/2012 05:49 End Date: 05/02/2012 19:55

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn			
240-10727-3	1	R	13:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10727-3	1	D	13:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			13:57																				
ZZZZZZ			14:02																				
ZZZZZZ			14:08																				
ZZZZZZ			14:13																				
ZZZZZZ			14:18																				
ZZZZZZ			14:24																				
ZZZZZZ			14:29																				
CCV 240-42586/94	1		14:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42586/95	1		14:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			14:46																				
ZZZZZZ			14:51																				
ZZZZZZ			14:56																				
ZZZZZZ			15:03																				
ZZZZZZ			15:08																				
ZZZZZZ			15:14																				
ZZZZZZ			15:20																				
ZZZZZZ			15:28																				
ZZZZZZ			15:33																				
ZZZZZZ			15:39																				
CCV 240-42586/106			15:44																				
CCB 240-42586/107			15:49																				
ZZZZZZ			15:55																				
ZZZZZZ			16:00																				
ZZZZZZ			16:06																				
ZZZZZZ			16:11																				
ZZZZZZ			16:17																				
ZZZZZZ			16:22																				
ZZZZZZ			16:28																				
ZZZZZZ			16:33																				
ZZZZZZ			16:39																				
ZZZZZZ			16:44																				
CCV 240-42586/118			16:49																				
CCB 240-42586/119			16:55																				
ICSA 240-42586/120	1		17:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSAB 240-42586/121	1		17:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-42586/122	1		17:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42586/123	1		17:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			17:23																				
ZZZZZZ			17:28																				
ZZZZZZ			17:34																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 05/02/2012 05:49 End Date: 05/02/2012 19:55

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn			
ZZZZZZ			17:39																				
ZZZZZZ			17:44																				
ZZZZZZ			17:50																				
MB 240-42347/1-A	1	R	17:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
LCS 240-42347/3-A	1	R	18:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			18:08																				
240-10756-A-27-A SD	1	R	18:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-42586/134	1		18:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42586/135	1		18:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10756-A-27-D MS	1	R	18:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10756-A-27-E MSD	1	R	18:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10727-4	1	R	18:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10727-4	1	D	18:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			18:54																				
ZZZZZZ			19:00																				
ZZZZZZ			19:05																				
ZZZZZZ			19:11																				
ZZZZZZ			19:16																				
ZZZZZZ			19:22																				
CCV 240-42586/146	1		19:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42586/147	1		19:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			19:38																				
ZZZZZZ			19:43																				
CCV 240-42586/150			19:49																				
CCB 240-42586/151			19:55																				

Prep Types

D = Dissolved

R = Total Recoverable

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/03/2012 15:54 End Date: 05/03/2012 19:41

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 240-42622/1-A			15:54	X																			
IC 240-42622/2-A			15:55	X																			
IC 240-42622/3-A			15:57	X																			
IC 240-42622/4-A			15:59	X																			
IC 240-42622/5-A			16:01	X																			
IC 240-42622/6-A			16:04	X																			
ICV 240-42622/7-A	1		16:06	X																			
ICB 240-42622/8-A	1		16:08	X																			
CRA 240-42622/9-A	1		16:09	X																			
CCVL 240-42622/10-A	1		16:12	X																			
CCB 240-42622/11-A			16:14																				
ZZZZZZ			16:16																				
ZZZZZZ			16:18																				
ZZZZZZ			16:20																				
ZZZZZZ			16:22																				
ZZZZZZ			16:24																				
ZZZZZZ			16:26																				
ZZZZZZ			16:28																				
ZZZZZZ			16:30																				
ZZZZZZ			16:32																				
ZZZZZZ			16:34																				
CCV 240-42622/12-A			16:36																				
CCB 240-42622/11-A			16:38																				
ZZZZZZ			16:40																				
ZZZZZZ			16:42																				
ZZZZZZ			16:44																				
ZZZZZZ			16:46																				
ZZZZZZ			16:48																				
ZZZZZZ			16:50																				
ZZZZZZ			16:52																				
ZZZZZZ			16:54																				
ZZZZZZ			16:56																				
ZZZZZZ			16:59																				
CCV 240-42622/12-A			17:01																				
CCB 240-42622/11-A			17:03																				
ZZZZZZ			17:06																				
ZZZZZZ			17:08																				
ZZZZZZ			17:10																				
ZZZZZZ			17:12																				
ZZZZZZ			17:14																				
ZZZZZZ			17:16																				
ZZZZZZ			17:18																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/03/2012 15:54 End Date: 05/03/2012 19:41

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			17:20																				
ZZZZZZ			17:22																				
ZZZZZZ			17:24																				
CCV 240-42622/12-A	1		17:26	X																			
CCB 240-42622/11-A	1		17:28	X																			
ZZZZZZ			17:30																				
ZZZZZZ			17:32																				
MB 240-42491/1-A	1	T	17:34	X																			
LCS 240-42491/2-A	1	T	17:36	X																			
ZZZZZZ			17:38																				
240-10725-K-8-B MS	1	T	17:40	X																			
240-10725-K-8-C MSD	1	T	17:42	X																			
ZZZZZZ			17:44																				
240-10725-N-8-B MS	1	D	17:46	X																			
240-10725-N-8-C MSD	1	D	17:49	X																			
CCV 240-42622/12-A	1		17:51	X																			
CCB 240-42622/11-A	1		17:52	X																			
240-10727-2	1	T	17:54	X																			
240-10727-2	1	D	17:56	X																			
240-10727-3	1	T	17:59	X																			
240-10727-3	1	D	18:01	X																			
240-10727-4	1	T	18:04	X																			
240-10727-4	1	D	18:06	X																			
ZZZZZZ			18:08																				
ZZZZZZ			18:10																				
ZZZZZZ			18:13																				
ZZZZZZ			18:15																				
CCV 240-42622/12-A	1		18:17	X																			
CCB 240-42622/11-A	1		18:18	X																			
ZZZZZZ			18:21																				
ZZZZZZ			18:23																				
ZZZZZZ			18:25																				
ZZZZZZ			18:28																				
ZZZZZZ			18:30																				
ZZZZZZ			18:32																				
ZZZZZZ			18:34																				
ZZZZZZ			18:36																				
ZZZZZZ			18:38																				
ZZZZZZ			18:40																				
CCV 240-42622/12-A			18:42																				
CCB 240-42622/11-A			18:44																				
ZZZZZZ			18:46																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/03/2012 15:54 End Date: 05/03/2012 19:41

Lab Sample ID	D / F	Type	Time	Analytes																				
				Hg																				
ZZZZZZ			18:48																					
ZZZZZZ			18:50																					
ZZZZZZ			18:52																					
ZZZZZZ			18:54																					
ZZZZZZ			18:56																					
ZZZZZZ			18:58																					
ZZZZZZ			19:00																					
ZZZZZZ			19:02																					
ZZZZZZ			19:04																					
CCV 240-42622/12-A			19:06																					
CCB 240-42622/11-A			19:08																					
ZZZZZZ			19:10																					
ZZZZZZ			19:12																					
ZZZZZZ			19:13																					
ZZZZZZ			19:16																					
ZZZZZZ			19:17																					
ZZZZZZ			19:19																					
ZZZZZZ			19:21																					
ZZZZZZ			19:23																					
ZZZZZZ			19:25																					
ZZZZZZ			19:28																					
CCV 240-42622/12-A			19:30																					
CCB 240-42622/11-A			19:32																					
ZZZZZZ			19:34																					
ZZZZZZ			19:37																					
CCV 240-42622/12-A			19:39																					
CCB 240-42622/11-A			19:41																					

Prep Types

D = Dissolved

T = Total/NA

sample GSP-MW3-042612 total Arsenic rep result 6.0 ug/L

240-10727-h-4-a, 5/2/2012 18:43:55 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
x		66.249%	0.167	23.520
%RSD		7.914	4.052	5.075
Run	**Time**	**23Na**	**25Mg**	**27Al**
		ppb	ppb	ppb
x		3988.000	404.700	52.670
%RSD		0.321	4.196	1.621
Run	**Time**	**35Cl**	**39K**	**43Ca**
		ppb	ppb	ppb
x		τ 0.000	429.900	2234.000
%RSD		τ 0.000	1.198	1.087
Run	**Time**	**45Sc**	**45Sc**	**47Ti**
		ppb	ppb	ppb
x		τ 80.611%	71.840%	0.842
%RSD		τ 1.133	0.331	33.560
Run	**Time**	**51V**	**52Cr**	**53Cl Cr**
		ppb	ppb	ppb
x		0.551	0.009	0.309
%RSD		16.190	706.400	20.670
Run	**Time**	**55Mn**	**56Fe**	**59Co**
		ppb	ppb	ppb
x		21.740	840.400	16.610
%RSD		2.587	1.665	1.707
Run	**Time**	**60Ni**	**65Cu**	**66Zn**
		ppb	ppb	ppb
x		15.810	1.817	51.330
%RSD		0.674	8.848	1.030
Run	**Time**	**72Ge**	**75As**	**77Ar Cl**
		ppb	ppb	ppb
x		72.106%	5.962	0.433
%RSD		0.754	6.524	18.800
Run	**Time**	**78Se**	**88Sr**	**95Mo**
		ppb	ppb	ppb
x		0.439	18.060	0.840
%RSD		6.941	0.188	9.362
Run	**Time**	**105Pd**	**107Ag**	**108Mo Os**
		ppb	ppb	ppb
x		0.000	0.005	-0.190
%RSD		0.000	59.790	619.300
Run	**Time**	**111Cd**	**115In**	**118Sn**
		ppb	ppb	ppb
x		0.046	70.769%	0.173
%RSD		9.057	1.286	17.470
Run	**Time**	**121Sb**	**137Ba**	**159Tb**
		ppb	ppb	ppb
x		0.272	9.893	0.000
%RSD		5.968	4.592	0.000
Run	**Time**	**165Ho**	**182W**	**205Tl**
		ppb	ppb	ppb
x		70.083%	1.049	0.883
%RSD		2.214	7.169	5.546
Run	**Time**	**208Pb**	**209Bi**	
		ppb	ppb	
x		0.093	0.000	
%RSD		64.430	0.000	

Case Narrative

TestAmerica West Sacramento Project Number G2E010420

WATER, 6850, Perchlorate
Sample: 1, 2, 3
In accordance with the requirements of Method 6850, both a Laboratory Control Sample (LCS) and a Synthetic Matrix Check Sample (SMCS) were analyzed with the associated samples. Both are reported on the LCS data evaluation and recovery reports, and are differentiated from one another by their workorder number:

LCS: MTELA1AC
SMCS: MTELA1AD

There are no other anomalies associated with this project.

ANALYTICAL METHODS SUMMARY

G2E010420

PARAMETER	ANALYTICAL METHOD
Perchlorate by 6850	SW846 6850

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD BLANK REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010420 Work Order #...: MTELA1AA Matrix.....: WATER
MB Lot-Sample #: G2E070000-058

Prep Date.....: 05/07/12
Analysis Date..: 05/14/12 Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Perchlorate	ND	1.0	ug/L	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010420 Work Order #...: MTELA1AC Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Perchlorate	92	(80 - 120)	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010420 Work Order #...: MTELA1AC Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Perchlorate	5.00	4.62	ug/L	92	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010420 Work Order #...: MTELA1AD Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Perchlorate	97	(80 - 120)	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010420 Work Order #...: MTELA1AD Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Perchlorate	5.00	4.86	ug/L	97	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010420 Work Order #...: MTDHX1AC-MS Matrix.....: WATER
MS Lot-Sample #: G2E030450-004 MTDHX1AD-MSD
Date Sampled...: 05/01/12 Date Received..: 05/03/12
Prep Date.....: 05/07/12 Analysis Date..: 05/16/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Perchlorate	99	(80 - 120)			SW846 6850
	97	(80 - 120)	1.8	(0-15)	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010420 Work Order #...: MTDHX1AC-MS Matrix.....: WATER
MS Lot-Sample #: G2E030450-004 MTDHX1AD-MSD
Date Sampled...: 05/01/12 Date Received..: 05/03/12
Prep Date.....: 05/07/12 Analysis Date..: 05/16/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Perchlorate	ND	5.00	4.95	ug/L	99		SW846 6850
	ND	5.00	4.86	ug/L	97	1.8	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Tetra Tech, Inc. **INTERNAL CORRESPONDENCE**

TO:	**A. APANAVAGE**	**DATE:**	**JUNE 27, 2012**
FROM:	**MICHELLE L. ALLEN**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC/1,4-DIOXANE/DRO/GRO**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
SDG 240-10770-1

SAMPLES: 4/Aqueous/VOC

GSP-MW4-042712 GSP-MW7-042712 GSP-MW8-042712
TB-042712

3/Aqueous/1,4-DIOXANE/DRO/GRO

GSP-MW4-042712 GSP-MW7-042712 GSP-MW8-042712

Overview

The sample set for LMC-MSA, SDG 240-10770-1 consisted of three (3) aqueous environmental samples and one (1) trip blank. All four (4) aqueous samples were analyzed for volatile organic compounds (VOC). The three (3) aqueous environmental samples were analyzed for the semi-volatile organic compound (SVOC), 1,4-dioxane, diesel range organics (DRO) and gasoline range organics (GRO). No field duplicate sample pair was included in this SDG.

The samples were collected by Tetra Tech, Inc. on April 27, 2012 and analyzed by Test America, Inc. All analyses were conducted in accordance with SW-846 Methods 8260C, 8270C, and 8015B analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, trip blank results, surrogate spike recoveries, blank spike results, matrix spike/matrix spike duplicate results, internal standard recoveries, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major

- The initial and continuing calibrations performed on instrument A3UX16 in the VOC fraction had Relative Response Factors (RRFs) for tert-butyl alcohol below the 0.050 minimum response criterion. In addition, the continuing calibration RRF for vinyl acetate was below 0.05. All samples were affected. The non-detected results reported for these compounds in the affected samples were qualified as rejected, (UR).

- The VOC compound, 2-chloroethyl vinyl ether was not recovered in the Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses of sample GSP-MW7-042712. The non-detected result reported for 2-chloroethyl vinyl ether was qualified as rejected, (UR), in the parent sample.

Minor

The following contaminants were detected in the laboratory method blanks at the following maximum concentrations:

Compound	Maximum Concentration (µg/L)	Action Level (µg/L)
1,2,3-Trichlorobenzene [1]	0.280	1.4
GRO (C6-C10) [2]	29.2	146

1 Maximum concentration detected in the laboratory method blank, MB 240-42324/5, affecting all samples.
2 Maximum concentration detected in the laboratory method blank, MB 240-42123/7, affecting all samples.

An action level of 5X the maximum concentration was used to evaluate for blank contamination. Sample aliquot and dilution factor, if applicable, were taken into consideration when evaluating for blank contamination. Positive results for GRO reported below the established action level were qualified as non-detected, (B). No action was necessary for 1,2,3-trichlorobenzene because no positive results were reported for this compound in the affected samples.

- Positive results reported below the Reporting Limit (RL) limit but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

Sample GSP-MW7-042712 was diluted 4X prior to analysis in the VOC fraction. The RLs of the non-detected results were elevated.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: Initial and/or continuing calibration RRFs for tert-butyl alcohol and vinyl acetate were below the quality control criterion resulting in the rejection of the non-detected results. Laboratory method blank contamination was noted in the VOC and GRO fractions.

Other Factors Affecting Data Quality: One sample required a dilution for the VOC fraction.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994) and SW-846 Methods 8260C, 8270C, and 8015B analytical and reporting protocols. The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech, Inc.
Michelle L. Allen
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Quality Assurance Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712			TB-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3			240-10770-1		
FRACTION: OV	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.92	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.88	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.72	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		1.1	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.6	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.76	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.52	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.68	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		1.7	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.024	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.6	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.48	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		2.7	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.96	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.88	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.72	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.56	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.64	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.52	U		0.13	U		0.13	U	
2-BUTANONE		0.57	U		2.3	U		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		4	UR	D	0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.44	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		1.6	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.72	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.48	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		1.3	U		0.32	U		0.32	U	
ACETONE		1.6	J	P	4.4	U		1.1	U		1.1	U	
BENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		1.2	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.6	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		2.6	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		1.6	U		0.41	U		0.41	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712			TB-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3			240-10770-1		
FRACTION: OV	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.52	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.52	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.6	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.72	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		1.2	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.64	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		1.2	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		1.7			1.4	J	P	0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.56	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		1.1	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		1.2	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		6	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.44	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.68	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		1.2	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.96	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.68	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		1.3	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.96	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.48	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.56	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.56	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
SILANOL, TRIMETHYL-					5.8	R	Z2	1.4	R	Z2			
STYRENE		0.11	U		0.44	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.27	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	16	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		1.2	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.52	U		0.13	U		0.13	U	
TOTAL XYLENES		0.28	U		1.1	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.76	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.76	U		0.19	U		0.19	U	
TRICHLOROETHENE		5.1			110			0.17	U		0.17	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712			TB-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3			240-10770-1		
FRACTION: OV	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.21	U		0.84	U		0.21	U		0.21	U	
VINYL ACETATE		0.19	UR	C	0.76	UR	C	0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		0.53	J	P	0.88	U		0.22	U		0.22	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3		
FRACTION: OS	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.48	U		0.47	U		0.48	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3		
FRACTION: PET	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		55	B	A	96	B	A	57	B	A
TPH (C10-C32)		330	J	P	240	U		230	U	

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 | Lab Sample ID: 240-10770-4

Matrix: Water | Lab File ID: UXM5312.D

Analysis Method: 8260C | Date Collected: 04/27/2012 13:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	1.6	J	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 | Lab Sample ID: 240-10770-4

Matrix: Water | Lab File ID: UXM5312.D

Analysis Method: 8260C | Date Collected: 04/27/2012 13:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.7		1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	5.1		1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.53	J	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 | Lab Sample ID: 240-10770-4

Matrix: Water | Lab File ID: UXM5312.D

Analysis Method: 8260C | Date Collected: 04/27/2012 13:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	86		63-129
460-00-4	4-Bromofluorobenzene (Surr)	91		66-117
2037-26-5	Toluene-d8 (Surr)	88		74-115
1868-53-7	Dibromofluoromethane (Surr)	87		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 Lab Sample ID: 240-10770-4

Matrix: Water Lab File ID: UXM5312.D

Analysis Method: 8260C Date Collected: 04/27/2012 13:53

Sample wt/vol: 5(mL) Date Analyzed: 05/01/2012 16:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42324 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 | Lab Sample ID: 240-10770-2

Matrix: Water | Lab File ID: UXM5318.D

Analysis Method: 8260C | Date Collected: 04/27/2012 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 18:51

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.0	U	4.0	0.92
71-55-6	1,1,1-Trichloroethane	4.0	U	4.0	0.88
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	4.0	0.72
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	4.0	U	4.0	1.1
75-34-3	1,1-Dichloroethane	4.0	U	4.0	0.60
75-35-4	1,1-Dichloroethene	4.0	U	4.0	0.76
563-58-6	1,1-Dichloropropene	4.0	U	4.0	0.52
87-61-6	1,2,3-Trichlorobenzene	4.0	U	4.0	0.68
96-18-4	1,2,3-Trichloropropane	4.0	U	4.0	1.7
526-73-8	1,2,3-Trimethylbenzene	20	U	20	0.024
120-82-1	1,2,4-Trichlorobenzene	4.0	U	4.0	0.60
95-63-6	1,2,4-Trimethylbenzene	4.0	U	4.0	0.48
96-12-8	1,2-Dibromo-3-Chloropropane	8.0	U	8.0	2.7
95-50-1	1,2-Dichlorobenzene	4.0	U	4.0	0.52
107-06-2	1,2-Dichloroethane	4.0	U	4.0	0.88
78-87-5	1,2-Dichloropropane	4.0	U	4.0	0.72
541-73-1	1,3-Dichlorobenzene	4.0	U	4.0	0.56
142-28-9	1,3-Dichloropropane	4.0	U	4.0	0.64
106-46-7	1,4-Dichlorobenzene	4.0	U	4.0	0.52
594-20-7	2,2-Dichloropropane	4.0	U	4.0	0.52
110-75-8	2-Chloroethyl vinyl ether	40	U	40	4.0
95-49-8	2-Chlorotoluene	4.0	U	4.0	0.44
591-78-6	2-Hexanone	40	U	40	1.6
108-86-1	Bromobenzene	4.0	U	4.0	0.52
74-97-5	Bromochloromethane	4.0	U	4.0	1.2
106-43-4	4-Chlorotoluene	4.0	U	4.0	0.72
99-87-6	p-Isopropyltoluene	4.0	U	4.0	0.48
67-64-1	Acetone	40	U	40	4.4
71-43-2	Benzene	4.0	U	4.0	0.52
75-25-2	Bromoform	4.0	U	4.0	2.6
74-83-9	Bromomethane	4.0	U	4.0	1.6
75-15-0	Carbon disulfide	4.0	U	4.0	0.52
56-23-5	Carbon tetrachloride	4.0	U	4.0	0.52
108-90-7	Chlorobenzene	4.0	U	4.0	0.60
75-00-3	Chloroethane	4.0	U	4.0	1.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 | Lab Sample ID: 240-10770-2

Matrix: Water | Lab File ID: UXM5318.D

Analysis Method: 8260C | Date Collected: 04/27/2012 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 18:51

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	4.0	U	4.0	0.64
74-87-3	Chloromethane	4.0	U	4.0	1.2
156-59-2	cis-1,2-Dichloroethene	1.4	J	4.0	0.68
10061-01-5	cis-1,3-Dichloropropene	4.0	U	4.0	0.56
87-68-3	Hexachlorobutadiene	4.0	U	4.0	1.2
74-95-3	Dibromomethane	4.0	U	4.0	1.1
75-27-4	Bromodichloromethane	4.0	U	4.0	0.60
75-71-8	Dichlorodifluoromethane	4.0	U	4.0	1.2
100-41-4	Ethylbenzene	4.0	U	4.0	0.68
106-93-4	1,2-Dibromoethane	4.0	U	4.0	0.96
108-20-3	Diisopropyl ether	40	U	40	6.0
91-20-3	Naphthalene	4.0	U	4.0	0.96
179601-23-1	m-Xylene & p-Xylene	8.0	U	8.0	0.96
104-51-8	n-Butylbenzene	4.0	U	4.0	0.48
98-82-8	Isopropylbenzene	4.0	U	4.0	0.52
103-65-1	n-Propylbenzene	4.0	U	4.0	0.56
78-93-3	2-Butanone	40	U	40	2.3
108-10-1	4-Methyl-2-pentanone	40	U	40	1.3
135-98-8	sec-Butylbenzene	4.0	U	4.0	0.52
1634-04-4	Methyl tert-butyl ether	20	U	20	0.68
994-05-8	Tert-amyl-methyl ether (TAME)	20	U	20	0.27
75-09-2	Methylene Chloride	4.0	U	4.0	1.3
95-47-6	o-Xylene	4.0	U	4.0	0.56
100-42-5	Styrene	4.0	U	4.0	0.44
637-92-3	Ethyl-t-butyl ether (ETBE)	20	U	20	0.44
98-06-6	tert-Butylbenzene	4.0	U	4.0	0.52
127-18-4	Tetrachloroethene	4.0	U	4.0	1.2
108-88-3	Toluene	4.0	U	4.0	0.52
156-60-5	trans-1,2-Dichloroethene	4.0	U	4.0	0.76
10061-02-6	trans-1,3-Dichloropropene	4.0	U	4.0	0.76
79-01-6	Trichloroethene	110		4.0	0.68
75-69-4	Trichlorofluoromethane	4.0	U	4.0	0.84
108-05-4	Vinyl acetate	8.0	U	8.0	0.76
75-01-4	Vinyl chloride	4.0	U	4.0	0.88
75-65-0	tert-Butyl alcohol	200	U	200	16
1330-20-7	Xylenes, Total	8.0	U	8.0	1.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 | Lab Sample ID: 240-10770-2

Matrix: Water | Lab File ID: UXM5318.D

Analysis Method: 8260C | Date Collected: 04/27/2012 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 18:51

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.0	U	4.0	0.72

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		63-129
460-00-4	4-Bromofluorobenzene (Surr)	91		66-117
2037-26-5	Toluene-d8 (Surr)	88		74-115
1868-53-7	Dibromofluoromethane (Surr)	85		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 Lab Sample ID: 240-10770-2

Matrix: Water Lab File ID: UXM5318.D

Analysis Method: 8260C Date Collected: 04/27/2012 10:14

Sample wt/vol: 5(mL) Date Analyzed: 05/01/2012 18:51

Soil Aliquot Vol: Dilution Factor: 4

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42324 Units: ug/L

Number TICs Found: 1 TIC Result Total: 5.8

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.61	5.8	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 | Lab Sample ID: 240-10770-3

Matrix: Water | Lab File ID: UXM5311.D

Analysis Method: 8260C | Date Collected: 04/27/2012 12:03

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 | Lab Sample ID: 240-10770-3

Matrix: Water | Lab File ID: UXM5311.D

Analysis Method: 8260C | Date Collected: 04/27/2012 12:03

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 | Lab Sample ID: 240-10770-3

Matrix: Water | Lab File ID: UXM5311.D

Analysis Method: 8260C | Date Collected: 04/27/2012 12:03

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		63-129
460-00-4	4-Bromofluorobenzene (Surr)	88		66-117
2037-26-5	Toluene-d8 (Surr)	84		74-115
1868-53-7	Dibromofluoromethane (Surr)	81		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 Lab Sample ID: 240-10770-3

Matrix: Water Lab File ID: UXM5311.D

Analysis Method: 8260C Date Collected: 04/27/2012 12:03

Sample wt/vol: 5(mL) Date Analyzed: 05/01/2012 16:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42324 Units: ug/L

Number TICs Found: 1 TIC Result Total: 1.4

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.61	1.4	T J N

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: TB-042712 | Lab Sample ID: 240-10770-1

Matrix: Water | Lab File ID: UXM5303.D

Analysis Method: 8260C | Date Collected: 04/27/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 13:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroet hane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: TB-042712 | Lab Sample ID: 240-10770-1

Matrix: Water | Lab File ID: UXM5303.D

Analysis Method: 8260C | Date Collected: 04/27/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 13:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: TB-042712
Lab Sample ID: 240-10770-1
Matrix: Water
Lab File ID: UXM5303.D
Analysis Method: 8260C
Date Collected: 04/27/2012 00:00
Sample wt/vol: 5(mL)
Date Analyzed: 05/01/2012 13:05
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42324
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-129
460-00-4	4-Bromofluorobenzene (Surr)	98		66-117
2037-26-5	Toluene-d8 (Surr)	95		74-115
1868-53-7	Dibromofluoromethane (Surr)	94		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: TB-042712 Lab Sample ID: 240-10770-1

Matrix: Water Lab File ID: UXM5303.D

Analysis Method: 8260C Date Collected: 04/27/2012 00:00

Sample wt/vol: 5(mL) Date Analyzed: 05/01/2012 13:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42324 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 | Lab Sample ID: 240-10770-4

Matrix: Water | Lab File ID: 20508021.D

Analysis Method: 8270C | Date Collected: 04/27/2012 13:53

Extract. Method: 3520C | Date Extracted: 05/03/2012 09:57

Sample wt/vol: 1030(mL) | Date Analyzed: 05/08/2012 14:56

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43126 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.97	U	0.97	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	52		28-110
367-12-4	2-Fluorophenol (Surr)	54		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	80		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	53		27-111
4165-62-2	Phenol-d5 (Surr)	56		10-110
1718-51-0	Terphenyl-d14 (Surr)	67		37-119

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW7-042712
Lab Sample ID: 240-10770-2
Matrix: Water
Lab File ID: 20508019.D
Analysis Method: 8270C
Date Collected: 04/27/2012 10:14
Extract. Method: 3520C
Date Extracted: 05/03/2012 09:57
Sample wt/vol: 1050(mL)
Date Analyzed: 05/08/2012 14:20
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 43126
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.95	U	0.95	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	54		28-110
367-12-4	2-Fluorophenol (Surr)	59		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	71		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	62		27-111
4165-62-2	Phenol-d5 (Surr)	60		10-110
1718-51-0	Terphenyl-d14 (Surr)	71		37-119

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 | Lab Sample ID: 240-10770-3

Matrix: Water | Lab File ID: 20508020.D

Analysis Method: 8270C | Date Collected: 04/27/2012 12:03

Extract. Method: 3520C | Date Extracted: 05/03/2012 09:57

Sample wt/vol: 1020(mL) | Date Analyzed: 05/08/2012 14:38

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43126 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.98	U	0.98	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	50		28-110
367-12-4	2-Fluorophenol (Surr)	48		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	67		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	52		27-111
4165-62-2	Phenol-d5 (Surr)	51		10-110
1718-51-0	Terphenyl-d14 (Surr)	65		37-119

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW4-042712
Lab Sample ID: 240-10770-4
Matrix: Water
Lab File ID: YF004313.D
Analysis Method: 8015B
Date Collected: 04/27/2012 13:53
Sample wt/vol: 5(mL)
Date Analyzed: 04/30/2012 16:41
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42123
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	55	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	64		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW7-042712
Lab Sample ID: 240-10770-2
Matrix: Water
Lab File ID: YF004309.D
Analysis Method: 8015B
Date Collected: 04/27/2012 10:14
Sample wt/vol: 5(mL)
Date Analyzed: 04/30/2012 13:57
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42123
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	96	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	61		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW8-042712
Lab Sample ID: 240-10770-3
Matrix: Water
Lab File ID: YF004312.D
Analysis Method: 8015B
Date Collected: 04/27/2012 12:03
Sample wt/vol: 5(mL)
Date Analyzed: 04/30/2012 16:00
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42123
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	57	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	61		10-150

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW4-042712
Lab Sample ID: 240-10770-4
Matrix: Water
Lab File ID: P5B05051.D
Analysis Method: 8015B
Date Collected: 04/27/2012 13:53
Extraction Method: 3510C
Date Extracted: 05/03/2012 11:54
Sample wt/vol: 990(mL)
Date Analyzed: 05/04/2012 13:08
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: ID:
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 42755
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	330	J	510	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	70		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 | Lab Sample ID: 240-10770-2

Matrix: Water | Lab File ID: P5B05049.D

Analysis Method: 8015B | Date Collected: 04/27/2012 10:14

Extraction Method: 3510C | Date Extracted: 05/03/2012 11:54

Sample wt/vol: 1000(mL) | Date Analyzed: 05/04/2012 12:07

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 42755 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	500	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	63		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 Lab Sample ID: 240-10770-3

Matrix: Water Lab File ID: P5B05050.D

Analysis Method: 8015B Date Collected: 04/27/2012 12:03

Extraction Method: 3510C Date Extracted: 05/03/2012 11:54

Sample wt/vol: 1050(mL) Date Analyzed: 05/04/2012 12:37

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 42755 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	480	U	480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	73		10-110

Appendix C

Support Documentation

MARTIN STATE AIRPORT - GROUNDWATER
SDG 240-10770-1

SAMPLE IDENTIFICATION	GSP-MW7-042712
COMPOUND	TRICHLOROETHENE
COMPOUND AREA	987189
INTERNAL STANDARD AMOUNT (ng)	50
VOLUME WATER PURGED (ml)	5
DILUTION FACTOR	4
INTERNAL STANDARD AREA	1362003
AVERAGE RRF	0.2698
ml to µl	1000
ng to µg	1000
=	107.5 µg/L

987189 x 50 ng x 4 x 1000ml x 1µg /1362003 x 0.2698 x 5ml x 1L x 1000ng

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
29 3-Chloro-1-propene	76		3.484					
28 Methyl acetate	43		3.496					
30 Methylene Chloride	84	3.591	3.579	0.012	90	29855	0.1455	
31 2-Methyl-2-propanol	59		3.674					
32 Acrylonitrile	53		3.792					
33 trans-1,2-Dichloroethene	96		3.840					
34 Methyl tert-butyl ether	73		3.840					
35 Hexane	86		4.089					
36 1,1-Dichloroethane	63		4.208					
37 Vinyl acetate	86		4.243					
38 Isopropyl ether	87		4.279					
39 2-Chloro-1,3-butadiene	53		4.291					
40 Tert-butyl ethyl ether	59		4.587					
42 cis-1,2-Dichloroethene	96	4.717	4.706	0.011	64	15220	0.3619	
41 2-Butanone (MEK)	43		4.706					
43 2,2-Dichloropropane	77		4.717					
44 Propionitrile	54		4.753					
45 Ethyl acetate	43		4.765					
46 Methacrylonitrile	41		4.895					
47 Chlorobromomethane	128		4.919					
48 Tetrahydrofuran	42		4.966					
49 Chloroform	83		4.978					
50 1,1,1-Trichloroethane	97		5.156					
51 Cyclohexane	56		5.215					
52 1,1-Dichloropropene	75		5.299					
53 Carbon tetrachloride	117		5.310					
54 Isobutyl alcohol	41		5.346					
56 1,2-Dichloroethane	62		5.465					
55 Benzene	78		5.476					
57 Tert-amyl methyl ether	73		5.559					
61 Ethyl acrylate	55		5.605					
58 n-Heptane	100		5.702					
59 n-Butanol	56		5.903					
60 Trichloroethene	130	6.022	6.022	0.0	96	987189	26.9	
63 Methylcyclohexane	83		6.200					
62 1,2-Dichloropropane	63		6.212					
64 Methyl methacrylate	41		6.283					
65 Dibromomethane	93		6.306					
66 1,4-Dioxane	88		6.318					
67 Dichlorobromomethane	83		6.437					
68 2-Nitropropane	41		6.627					
69 2-Chloroethyl vinyl ether	63		6.686					
70 cis-1,3-Dichloropropene	75		6.828					
71 4-Methyl-2-pentanone (MIBK)	43		6.947					
72 Toluene	91		7.137					
73 trans-1,3-Dichloropropene	75		7.314					
74 Ethyl methacrylate	69		7.386					
75 1,1,2-Trichloroethane	97		7.480					
76 1,3-Dichloropropane	76		7.635					
77 Tetrachloroethene	164		7.646					
78 2-Hexanone	43		7.694					
81 1-Chlorohexane	91		7.788					

RRF = 0.2698

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
132 n-Butyl acetate	43		7.813					
79 Chlorodibromomethane	129		7.848					
80 Tetrahydrothiophene	60		7.860					
123 Ethylene Dibromide	107		7.967					
82 Chlorobenzene	112		8.429					
83 1,1,1,2-Tetrachloroethane	131		8.488					
84 Ethylbenzene	106		8.524					
10 m-Xylene & p-Xylene	106		8.631					
85 o-Xylene	106		9.010					
86 Styrene	104		9.010					
87 Bromoform	173		9.188					
88 Isopropylbenzene	105		9.354					
89 Cyclohexanone	55		9.437					
135 1,4-Dichlorobutane	55		9.437					
90 1,1,2,2-Tetrachloroethane	83		9.615					
91 Bromobenzene	156		9.662					
93 trans-1,4-Dichloro-2-butene	53		9.674					
92 1,2,3-Trichloropropane	110		9.674					
94 N-Propylbenzene	120		9.757					
95 2-Chlorotoluene	126		9.840					
96 1,3,5-Trimethylbenzene	105		9.923					
104 4-Chlorotoluene	126		9.947					
97 tert-Butylbenzene	119		10.244					
98 1,2,4-Trimethylbenzene	105		10.291					
99 sec-Butylbenzene	105		10.457					
100 1,3-Dichlorobenzene	146		10.576					
101 4-Isopropyltoluene	119		10.599					
102 1,4-Dichlorobenzene	146		10.659					
103 1,2,3-Trimethylbenzene	105		10.706					
105 n-Butylbenzene	91		11.002					
106 1,2-Dichlorobenzene	146		11.026					
107 1,2-Dibromo-3-Chloropropane	157		11.797					
108 1,3,5-Trichlorobenzene	180		12.022					
109 1,2,4-Trichlorobenzene	180		12.639					
110 Hexachlorobutadiene	225		12.817					
111 Naphthalene	128		12.888					
112 1,2,3-Trichlorobenzene	180		13.149					
113 2-Methylnaphthalene	142		14.240					
S 137 Trihalomethanes, Total	1		0.000					
S 11 1,2-Dichloroethene, Total	96				0		0.3619	
S 9 1,3-Dichloropropene, Total	75		6.760					
S 114 Xylenes, Total	106		16.530					

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A3UX16\20120501-9570.b\UXM5318.D		
Lims ID:	240-10770-B-2	Client ID:	GSP-MW7-042712
Inject. Date:	01-May-2012 18:51:30	Dil. Factor:	4.0000
Sample Type:	Client		
Sample ID:	240-0009570-021		
Misc. Info.:	M20501A,8260LLUX16,,1644		
Operator:	1644	Instrument ID:	A3UX16
Vol. Injected:	1.0000	ALS Bottle#:	20
Lims Batch ID:	42324	Lims Sample ID:	21
Detector:	MS SCAN		
Method:	\\Ncchrom\ChromData\A3UX16\20120501-9570.b\8260_16.m		
Last Update:	02-May-2012 10:55:43	Calib Date:	29-Apr-2012 19:50:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A3UX16\20120429-9509.b\UXM5250.D		
Limit Group:	MSV 8260DOD ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Process Host:	CORP-CTX-17		

First Level Reviewer: williamsla Date: 02-May-2012 11:07:24

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 141 1-Chlorooctane	1		0.000					
* 1 Fluorobenzene	96	5.702	5.702	0.0	98	1362003	10.0	
* 2 Chlorobenzene-d5	117	8.393	8.394	-0.001	90	922953	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.635	10.635	0.0	98	426990	10.0	
$ 142 2,5-Dibromotoluene	1		0.000					
$ 5 Dibromofluoromethane (Surr)	113	5.121	5.109	0.012	65	283913	8.72	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	5.405	5.405	0.0	0	468123	8.89	
$ 7 Toluene-d8 (Surr)	98	7.077	7.077	0.0	95	1283387	8.96	
$ 131 4-Bromofluorobenzene (Surr)	95	9.508	9.508	0.0	81	477229	9.34	
136 Hexachloroethane TIC	1		0.000					
133 Benzyl chloride	126		0.000					
134 Chlorodifluoromethane TIC	1		0.000					
138 Butyl Methacrylate TIC	1		0.000					
139 C6-C12	1		0.000					
140 C6-C10	1		0.000					
12 Dichlorodifluoromethane	85		1.658					
13 Chloromethane	50		1.824					
14 Vinyl chloride	62		1.954					
15 Bromomethane	94		2.298					
16 Chloroethane	64		2.405					
17 Dichlorofluoromethane	67		2.595					
18 Trichlorofluoromethane	101		2.666					
25 Methylal	45		2.856					
19 Ethyl ether	59		2.927					
20 Acrolein	56		3.034					
21 1,1-Dichloroethene	96		3.152					
23 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.176					
22 Acetone	43		3.176					
24 Iodomethane	142		3.294					
26 Carbon disulfide	76		3.366					
27 Acetonitrile	41		3.425					

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A2HP5R\20120504-9661.b\P5B05051.D		
Lims ID:	240-10770-K-4-A	Client ID:	GSP-MW4-042712
Inject. Date:	04-May-2012 13:08:07	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0009661-011		
Misc. Info.:			
Operator:	2398	Instrument ID:	A2HP5R
Vol. Injected:	1.0000	ALS Bottle#:	61
Lims Batch ID:	42755	Lims Sample ID:	11
Detector:	GC FID2B		

Method:	\\Ncchrom\ChromData\A2HP5R\20120504-9661.b\TPH5R.m		
Last Update:	07-May-2012 11:41:19	Calib Date:	30-Apr-2012 15:32:13
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A2HP5R\20120430-9518.b\P5B04314.D		
Limit Group:	GC TPH DIESEL ICAL		
Integrator:	Falcon		
Process Host:	CORP-CTX-18		

RT	EXP RT	DLT RT	Response	On-Col Amt ng/ul	Flags
$ 8 n-Nonane					
4.034	4.028	0.006	14443839	70.1	
A 15 Diesel					
9.356	5.058 - 13.654		8259365	48.3	
A 17 C10-C32					
10.045	5.058 - 15.033		11057698	64.6	

extraction - 990ml / 5ml

$\overline{CF}$ = 171121.938

$$\frac{11057698\ ng/\mu l}{171121.938} \times \frac{5ml}{990ml} \times \frac{1\ mg}{1000\ ng} \times \frac{1000\ 000\ \mu l}{1\ L}$$

= 326 mg/L

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location:
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact

Company Name: Tetra Tech Inc.	Client Project Manager: Tony Apanavage	Site Contact: Walt Payne	Lab Contact: Pat O'Meara	COC No:
Address: 20251 Century Blvd.	Telephone: 301 528-3021	Telephone: 301 991-3914	Telephone: 330-497-9396	1 of 1 COCs
City/State/Zip: Germantown MD 20874	Email:	Analysis Turnaround Time (In BUS days)		
Phone: 301 528-3021		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: MSA Ground water Sampling	Method of Shipment/Carrier: Fed Ex			
Project Number: 112IC04021-02	Shipping/Tracking No:			
PO#				

For lab use only: Walk-in client ☐ Lab pickup ☐ Lab sampling ☐ Job/SDG No.

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C/Grab=G	Analyses: VOCs	Total ppm	Diss ppm	1,4 Dioxane	DRO	GRO	Perchlorate				Sample Specific Notes / Special Instructions:
TB-042712	4-27-12	—		X						2					N	G	X										
GSP-MW7-042712	↓	1014		X					2	5			5		↓	↓	X	X	X	X	X	X	X				
GSP-MW8-042712		1203		X					2	5			5				X	X	X	X	X	X	X				
GSP-MW4-042712		1353		X					2	5			5				X	X	X	X	X	X	X				

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walt Payne	TT Inc.	4-27-12 / 1517	Paul Hayward	TestAmerica	4/27/12/1517
Paul Hayward	TestAmerica	4/27/12/1620			
			Received in Laboratory by: Mike Ha[illegible]	TA	4/28/12 1000

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

TAL-0018 (1008)

05/30/2012

CASE NARRATIVE

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Project: MSA Groundwater Sampling

Report Number: 240-10770-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The Perchlorate analysis was performed at the TestAmerica West Sacramento Laboratory.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 04/28/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.4 and 1.2 C.

VOLATILE ORGANIC COMPOUNDS (GC MS)

Samples TB-042712 (240-10770-1), GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for volatile organic compounds (GC MS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 05/01/2012.

1,2,3-Trichlorobenzene was detected in method blank MB 240-42324/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

2-Chloroethyl vinyl ether failed the recovery criteria low for the MS/MSD of sample GSP-MW7-042712MS/MSD (240-10770-2) in batch 240-42324.

Refer to the QC report for details.

Sample GSP-MW7-042712 (240-10770-2)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 05/03/2012 and analyzed on 05/08/2012.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 43632/8270.

No other difficulties were encountered during the SVOCs analyses. All quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 04/30/2012.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-42123/7 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 05/03/2012 and analyzed on 05/04/2012.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 42661.

No other difficulties were encountered during the DRO analyses. All quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

No difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

Several analytes were detected in method blank MB 240-42485/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/02/2012 and 05/03/2012 and analyzed on 05/03/2012 and 05/04/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/02/2012 and 05/03/2012 and analyzed on 05/03/2012 and 05/04/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10770-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-10770-1TB	TB-042712	Water	04/27/2012 0000	04/28/2012 1000
240-10770-2	GSP-MW7-042712	Water	04/27/2012 1014	04/28/2012 1000
240-10770-3	GSP-MW8-042712	Water	04/27/2012 1203	04/28/2012 1000
240-10770-4	GSP-MW4-042712	Water	04/27/2012 1353	04/28/2012 1000

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10770-1

Lab Section	Qualifier	Description
GC/MS VOA		
	J	Indicates an Estimated Value for TICs
	U	Indicates the analyte was analyzed for but not detected.
	F	MS or MSD exceeds the control limits
	T	Result is a tentatively identified compound (TIC) and an estimated value.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	N	This flag indicates the presumptive evidence of a compound.
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
GC VOA		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Metals		
	B	Compound was found in the blank and sample.
	^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-042712	240-10770-1	94	92	95	98
GSP-MW7-042712	240-10770-2	85	87	88	91
GSP-MW8-042712	240-10770-3	81	82	84	88
GSP-MW4-042712	240-10770-4	87	86	88	91
	MB 240-42324/5	87	88	90	94
	LCS 240-42324/4	87	82	87	95
GSP-MW7-042712 MS	240-10770-2 MS	89	85	91	95
GSP-MW7-042712 MSD	240-10770-2 MSD	86	84	91	95

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-115
BFB = 4-Bromofluorobenzene (Surr)	66-117

Column to be used to flag recovery values

FORM II 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: STD8260 240-42092/4 Date Analyzed: 04/29/2012 16:26

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM5241.D Heated Purge: (Y/N) N

Calibration ID: 8426

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1530000	5.70	1036987	8.39	499405	10.64
UPPER LIMIT		3060000	6.20	2073974	8.89	998810	11.14
LOWER LIMIT		765000	5.20	518494	7.89	249703	10.14
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-42092/14		1382789	5.70	929711	8.39	462842	10.64
CCVIS 240-42324/2		1685652	5.70	1127991	8.39	551448	10.64

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCVIS 240-42324/2 Date Analyzed: 05/01/2012 10:57

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM5299.D Heated Purge: (Y/N) N

Calibration ID: 8428

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1685652	5.70	1127991	8.39	551448	10.64
UPPER LIMIT		3371304	6.20	2255982	8.89	1102896	11.14
LOWER LIMIT		842826	5.20	563996	7.89	275724	10.14
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-42324/3		1584858	5.70	1039768	8.39	509719	10.64
LCS 240-42324/4		1635403	5.70	1080601	8.39	561237	10.64
MB 240-42324/5		1511836	5.70	1024126	8.39	489807	10.64
240-10770-1	TB-042712	1435323	5.70	969675	8.39	455010	10.64
240-10770-3	GSP-MW8-042712	1507618	5.70	1016861	8.39	471906	10.64
240-10770-4	GSP-MW4-042712	1457135	5.70	982988	8.39	456091	10.64
240-10770-2	GSP-MW7-042712	1362003	5.70	922953	8.39	426990	10.64
240-10770-2 MS	GSP-MW7-042712 MS	1398521	5.70	928051	8.39	457817	10.64
240-10770-2 MSD	GSP-MW7-042712 MSD	1446927	5.70	965602	8.39	481690	10.64

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: BFB2914.D BFB Injection Date: 04/29/2012

Instrument ID: A3UX16 BFB Injection Time: 15:11

Analysis Batch No.: 42092

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.4	
75	30.0 - 60.0 % of mass 95	55.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.3	(0.4)1
174	50.0 - 120.00 % of mass 95	67.2	
175	5.0 - 9.0 % of mass 174	4.9	(7.4)1
176	95.0 - 101.0 % of mass 174	65.5	(97.4)1
177	5.0 - 9.0 % of mass 176	4.1	(6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-42092/2	UXM5239.D	04/29/2012	15:41
	STD8260 240-42092/3	UXM5240.D	04/29/2012	16:03
	STD8260 240-42092/4	UXM5241.D	04/29/2012	16:26
	STD8260 240-42092/5	UXM5242.D	04/29/2012	16:49
	STD8260 240-42092/6	UXM5243.D	04/29/2012	17:12
	STD8260 240-42092/7	UXM5244.D	04/29/2012	17:34
	STD1 240-42092/8	UXM5245.D	04/29/2012	17:57
	STD2 240-42092/9	UXM5246.D	04/29/2012	18:20
	STD3 240-42092/10	UXM5247.D	04/29/2012	18:42
	STD4 240-42092/11	UXM5248.D	04/29/2012	19:05
	STD5 240-42092/12	UXM5249.D	04/29/2012	19:28
	STD6 240-42092/13	UXM5250.D	04/29/2012	19:50
	ICV 240-42092/14	UXM5251.D	04/29/2012	20:13

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-42092/7	UXM5244.D
Level 2	STD8260 240-42092/6	UXM5243.D
Level 3	STD8260 240-42092/5	UXM5242.D
Level 4	STD8260 240-42092/4	UXM5241.D
Level 5	STD8260 240-42092/3	UXM5240.D
Level 6	STD8260 240-42092/2	UXM5239.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2475 0.3038	0.2649	0.2905	0.2889	0.3016	Ave		0.2829			0.1000	7.8		15.0			
Chloromethane	0.4695 0.4320	0.4893	0.4830	0.4487	0.4452	Ave		0.4613			0.1000	4.9		15.0			
Vinyl chloride	0.4202 0.4041	0.4409	0.4365	0.4256	0.4202	Ave		0.4246			0.1000	3.1		15.0			
Bromomethane	0.1730 0.1493	0.1760	0.1733	0.1676	0.1710	Ave		0.1684			0.0500	5.8		15.0			
Chloroethane	0.2470 0.2229	0.2473	0.2344	0.2374	0.2336	Ave		0.2371				3.9		15.0			
Trichlorofluoromethane	0.2704 0.3132	0.3068	0.3031	0.3070	0.3204	Ave		0.3035			0.1000	5.7		15.0			
Acrolein	0.0469 0.0473	0.0483	0.0502	0.0508	0.0498	Ave		0.0489				3.3		15.0			
1,1-Dichloroethene	0.2340 0.2501	0.2402	0.2424	0.2499	0.2511	Ave		0.2446			0.1000	2.8		15.0			
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.1512 0.1622	0.1553	0.1500	0.1479	0.1608	Ave		0.1546			0.0500	3.8		15.0			
Acetone	0.2162 0.0864	0.1595	0.1181	0.1099	0.0970	Lin1	0.2842	0.0868			0.0500				0.9960		0.9950
Iodomethane	0.3345 0.3288	0.3415	0.3505	0.3469	0.3574	Ave		0.3433				3.1		15.0			
Carbon disulfide	0.6238 0.8183	0.6509	0.6976	0.7556	0.8104	Ave		0.7261			0.1000	11.0		15.0			
Acetonitrile	0.0391 0.0299	0.0368	0.0353	0.0335	0.0333	Ave		0.0346				9.2		15.0			
Methyl acetate	0.2451 0.2094	0.2377	0.2404	0.2374	0.2264	Ave		0.2327			0.1000	5.6		15.0			
Methylene Chloride	0.4532 0.2926	0.3791	0.3449	0.3188	0.3120	Lin1	0.1763	0.2950			0.1000				0.9990		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
tert-Butyl alcohol	0.0187 0.0171	0.0206	0.0189	0.0189	0.0192	Ave		0.0189				6.0		15.0			
Acrylonitrile	0.1145 0.1022	0.1105	0.1139	0.1170	0.1105	Ave		0.1114				4.6		15.0			
trans-1,2-Dichloroethene	0.2839 0.2770	0.2945	0.2944	0.2851	0.2889	Ave		0.2873			0.1000	2.4		15.0			
Methyl tert-butyl ether	0.8507 0.8216	0.8205	0.8460	0.8461	0.8566	Ave		0.8402			0.1000	1.8		15.0			
Hexane	0.0529 0.0560	0.0521	0.0488	0.0501	0.0574	Ave		0.0529				6.3		15.0			
1,1-Dichloroethane	0.5478 0.5504	0.5906	0.5789	0.5698	0.5773	Ave		0.5691			0.1000	3.0		15.0			
Vinyl acetate	0.0438 0.0547	0.0420	0.0492	0.0562	0.0568	Ave		0.0505				13.0		15.0			
2-Butanone	0.1431 0.1214	0.1392	0.1413	0.1375	0.1314	Ave		0.1356			0.0500	5.9		15.0			
cis-1,2-Dichloroethene	0.3153 0.3006	0.3006	0.3107	0.3096	0.3157	Ave		0.3087			0.1000	2.2		15.0			
2,2-Dichloropropane	0.2459 0.3076	0.2799	0.2938	0.3057	0.3261	Ave		0.2932				9.5		15.0			
Bromochloromethane	0.1255 0.1262	0.1225	0.1298	0.1329	0.1330	Ave		0.1283				3.3		15.0			
Tetrahydrofuran	0.0875 0.0744	0.0826	0.0830	0.0854	0.0842	Ave		0.0828				5.4		15.0			
Chloroform	0.5169 0.5153	0.5299	0.5388	0.5290	0.5477	Ave		0.5296				2.4		15.0			
1,1,1-Trichloroethane	0.3234 0.3831	0.3500	0.3674	0.3840	0.3986	Ave		0.3678			0.1000	7.4		15.0			
Cyclohexane	0.4217 0.4832	0.4863	0.4431	0.4476	0.4809	Ave		0.4605			0.1000	5.8		15.0			
1,1-Dichloropropene	0.4359 0.4194	0.4199	0.4223	0.4252	0.4356	Ave		0.4264				1.8		15.0			
Carbon tetrachloride	0.2456 0.3072	0.2543	0.2617	0.2867	0.3066	Ave		0.2770			0.1000	9.7		15.0			
1,2-Dichloroethane	0.4838 0.4518	0.4761	0.4673	0.4667	0.4711	Ave		0.4694			0.1000	2.3		15.0			
Benzene	1.2256 1.2453	1.2535	1.2750	1.2420	1.2666	Ave		1.2513			0.5000	1.4		15.0			
Trichloroethene	0.2714 0.2655	0.2671	0.2733	0.2695	0.2719	Ave		0.2698			0.2000	1.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methylcyclohexane	0.3056 0.3781	0.3553	0.3486	0.3331	0.3656	Ave		0.3477			0.1000	7.4		15.0			
1,2-Dichloropropane	0.2994 0.3048	0.3058	0.3148	0.3132	0.3116	Ave		0.3083			0.1000	1.9		15.0			
Dibromomethane	0.1675 0.1555	0.1521	0.1644	0.1597	0.1644	Ave		0.1606				3.7		15.0			
1,4-Dioxane	0.0023 0.0020	0.0024	0.0025	0.0025	0.0025	Ave		0.0024				8.2		15.0			
Bromodichloromethane	0.2586 0.3533	0.2732	0.3036	0.3210	0.3455	Ave		0.3092			0.1000	12.0		15.0			
2-Chloroethyl vinyl ether	0.1532 0.1582	0.1459	0.1670	0.1699	0.1653	Ave		0.1599				5.8		15.0			
cis-1,3-Dichloropropene	0.3061 0.4576	0.3249	0.3845	0.4238	0.4469	Lin1	-0.212	0.4568			0.1500				0.9990		0.9950
4-Methyl-2-pentanone	0.2451 0.2575	0.2540	0.2759	0.2780	0.2752	Ave		0.2643			0.0500	5.3		15.0			
Toluene	1.7728 1.9294	1.8880	1.8619	1.8474	1.9604	Ave		1.8766			0.4000	3.5		15.0			
trans-1,3-Dichloropropene	0.3835 0.6056	0.4211	0.4964	0.5287	0.6010	Lin1	-0.314	0.6041			0.1000				0.9980		0.9950
Ethyl methacrylate	0.4455 0.5778	0.5229	0.5765	0.5788	0.6242	Ave		0.5543				11.0		15.0			
1,1,2-Trichloroethane	0.3279 0.3212	0.3141	0.3421	0.3341	0.3447	Ave		0.3307			0.1000	3.6		15.0			
1,3-Dichloropropane	0.6891 0.6635	0.6944	0.7152	0.6928	0.7223	Ave		0.6962				3.0		15.0			
Tetrachloroethene	0.2452 0.2600	0.2630	0.2668	0.2612	0.2738	Ave		0.2617			0.2000	3.6		15.0			
2-Hexanone	0.2323 0.2576	0.2818	0.2796	0.2822	0.2852	Ave		0.2698			0.0500	7.8		15.0			
Dibromochloromethane	0.1872 0.3114	0.2160	0.2464	0.2709	0.3057	Lin1	-0.171	0.3097							0.9980		0.9950
1,2-Dibromoethane	0.2962 0.3220	0.3089	0.3344	0.3261	0.3462	Ave		0.3223				5.5		15.0			
Chlorobenzene	1.0759 1.0855	1.1279	1.1114	1.0941	1.1299	Ave		1.1041			0.3000	2.0		15.0			
1,1,1,2-Tetrachloroethane	0.2665 0.3469	0.2706	0.3066	0.3249	0.3538	Ave		0.3116				12.0		15.0			
Ethylbenzene	0.5227 0.5869	0.5825	0.6026	0.5858	0.6163	Ave		0.5828				5.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
m-Xylene & p-Xylene	0.6757 0.7551	0.7220	0.7191	0.7176	0.7638	Ave		0.7256				4.3		15.0			
o-Xylene	0.6806 0.7276	0.7176	0.7304	0.7130	0.7551	Ave		0.7207				3.4		15.0			
Styrene	1.0565 1.2902	1.1310	1.1966	1.1904	1.2870	Ave		1.1920			0.3000	7.6		15.0			
Bromoform	0.0815 0.1487	0.0938	0.1133	0.1171	0.1413	Lin1	-0.094	0.1455			0.1000				0.9950		0.9950
Isopropylbenzene	1.5492 1.8304	1.6861	1.6648	1.6944	1.8507	Ave		1.7126			0.1000	6.6		15.0			
1,1,2,2-Tetrachloroethane	0.8553 0.8338	0.9184	0.9469	0.9293	0.9310	Ave		0.9025			0.3000	5.1		15.0			
Bromobenzene	0.8074 0.7779	0.8287	0.8325	0.8084	0.8409	Ave		0.8159				2.8		15.0			
1,2,3-Trichloropropane	0.2880 0.2558	0.2803	0.2925	0.2919	0.2938	Ave		0.2837				5.1		15.0			
trans-1,4-Dichloro-2-butene	0.2181 0.2689	0.2471	0.2346	0.2535	0.2845	Ave		0.2511				9.5		15.0			
n-Propylbenzene	0.7292 0.8665	0.8823	0.8741	0.8947	0.9118	Ave		0.8598				7.7		15.0			
2-Chlorotoluene	0.8583 0.7918	0.8579	0.8258	0.8361	0.8474	Ave		0.8362				3.0		15.0			
1,3,5-Trimethylbenzene	2.5787 2.8481	2.7830	2.7962	2.7951	2.9477	Ave		2.7914				4.3		15.0			
4-Chlorotoluene	0.8421 0.8602	0.8907	0.8940	0.8564	0.9136	Ave		0.8762				3.1		15.0			
tert-Butylbenzene	2.2870 2.5025	2.5077	2.4568	2.4969	2.5752	Ave		2.4710				4.0		15.0			
1,2,4-Trimethylbenzene	2.7586 2.9544	2.8331	2.8754	2.9504	3.0668	Ave		2.9065				3.7		15.0			
sec-Butylbenzene	2.8024 3.1977	3.0238	2.9596	3.0216	3.2137	Ave		3.0365				5.1		15.0			
1,3-Dichlorobenzene	1.5037 1.4698	1.4901	1.5135	1.5069	1.5495	Ave		1.5056			0.6000	1.8		15.0			
p-Isopropyltoluene	2.2069 2.6255	2.4647	2.4703	2.4761	2.6715	Ave		2.4858				6.6		15.0			
1,4-Dichlorobenzene	1.6073 1.5308	1.6512	1.5577	1.5557	1.6211	Ave		1.5873			0.5000	2.9		15.0			
n-Butylbenzene	2.0896 2.4436	2.2004	2.2368	2.2659	2.4792	Ave		2.2859				6.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dichlorobenzene	1.4966 1.3945	1.5126	1.5119	1.4682	1.5239	Ave		1.4846			0.4000	3.2		15.0			
1,2-Dibromo-3-Chloropropane	0.0886 0.0950	0.0916	0.0904	0.0972	0.1086	Ave		0.0952			0.0500	7.6		15.0			
1,3,5-Trichlorobenzene	0.7904 0.7093	0.7633	0.7631	0.7837	0.8038	Ave		0.7690				4.3		15.0			
1,2,4-Trichlorobenzene	0.6476 0.5852	0.7228	0.7185	0.6951	0.7215	Ave		0.6818			0.2000	8.1		15.0			
Hexachlorobutadiene	0.2814 0.2092	0.2884	0.2495	0.2645	0.2531	Ave		0.2577				11.0		15.0			
Naphthalene	1.9527 1.6802	2.0647	2.2163	2.2497	2.2115	Ave		2.0625				11.0		15.0			
1,2,3-Trichlorobenzene	0.6221 0.4278	0.6296	0.6285	0.6505	0.5938	Ave		0.5920				14.0		15.0			
Dibromofluoromethane (Surr)	0.2331 0.2366	0.2278	0.2460	0.2403	0.2499	Ave		0.2389				3.4		15.0			
1,2-Dichloroethane-d4 (Surr)	0.4238 0.3659	0.3675	0.3946	0.3884	0.3801	Ave		0.3867				5.5		15.0			
Toluene-d8 (Surr)	1.5539 1.5702	1.4814	1.5599	1.5466	1.5977	Ave		1.5516				2.5		15.0			
4-Bromofluorobenzene (Surr)	0.5499 0.5492	0.5504	0.5556	0.5412	0.5764	Ave		0.5538				2.2		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 17:57 Calibration End Date: 04/29/2012 19:50 Calibration ID: 8428

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD6 240-42092/13	UXM5250.D
Level 2	STD5 240-42092/12	UXM5249.D
Level 3	STD4 240-42092/11	UXM5248.D
Level 4	STD3 240-42092/10	UXM5247.D
Level 5	STD2 240-42092/9	UXM5246.D
Level 6	STD1 240-42092/8	UXM5245.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorofluoromethane	0.4944 0.5457	0.5179	0.5366	0.5411	0.5388	Ave		0.5291				3.7		15.0			
Ethyl ether	0.2959 0.3118	0.3149	0.3299	0.3322	0.3247	Ave		0.3182				4.3		15.0			
3-Chloro-1-propene	0.1138 0.1626	0.1307	0.1332	0.1472	0.1572	Ave		0.1408				13.0		15.0			
Diisopropyl ether	0.2325 0.3039	0.2698	0.2820	0.2880	0.2888	Ave		0.2775				8.9		15.0			
2-Chloro-1,3-butadiene	0.4443 0.5618	0.4913	0.5190	0.5386	0.5385	Ave		0.5156				8.2		15.0			
Ethyl-t-butyl ether (ETBE)	0.7557 0.9819	0.8293	0.9029	0.9314	0.9383	Ave		0.8899				9.3		15.0			
Propionitrile	0.0349 0.0408	0.0346	0.0382	0.0420	0.0412	Ave		0.0386				8.5		15.0			
Ethyl acetate	0.2532 0.2900	0.2546	0.2741	0.2771	0.2824	Ave		0.2719				5.5		15.0			
Methacrylonitrile	0.1606 0.2023	0.1897	0.1949	0.2046	0.2003	Ave		0.1921				8.5		15.0			
Isobutyl alcohol	0.0077 0.0091	0.0077	0.0086	0.0094	0.0092	Ave		0.0086				8.8		15.0			
Tert-amyl-methyl ether (TAME)	0.5871 0.7972	0.6671	0.7241	0.7535	0.7651	Ave		0.7157				11.0		15.0			
n-Heptane	0.0338 0.0458	0.0359	0.0418	0.0425	0.0440	Ave		0.0406				12.0		15.0			
n-Butanol	0.0041 0.0069	0.0052	0.0059	0.0064	0.0070	Lin1	-0.068	0.0070							0.9990		0.9950
2-Nitropropane	0.0349 0.0534	0.0349	0.0424	0.0409	0.0453	Qua	0	0.0373	0.0002						1.0000		0.9900
Cyclohexanone	0.0676 0.1071	0.0696	0.0924	0.0940	0.1083	Lin1	-0.573	0.1077							0.9980		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 17:57 Calibration End Date: 04/29/2012 19:50 Calibration ID: 8428

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,3-Trimethylbenzene	2.3062 3.3384	2.8522	3.0020	3.1126	3.2823	Ave		2.9823				13.0		15.0			
2-Methylnaphthalene	0.5487 0.8482	0.7229	0.8158	0.9225	1.0313	Qua	-2.422	1.2182	-0.004						0.9970		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2829	0.2340	0.1000	8.27	10.0	-17.3	20.0
Chloromethane	Ave	0.4613	0.4720	0.1000	10.2	10.0	2.3	20.0
Vinyl chloride	Ave	0.4246	0.4443	0.1000	10.5	10.0	4.6	20.0
Bromomethane	Ave	0.1684	0.1539	0.0500	9.14	10.0	-8.6	20.0
Chloroethane	Ave	0.2371	0.2329	0.0500	9.82	10.0	-1.8	20.0
Trichlorofluoromethane	Ave	0.3035	0.3240	0.1000	10.7	10.0	6.8	20.0
Acrolein	Ave	0.0489	0.0264		16.2	30.0	-46.0*	20.0
1,1-Dichloroethene	Ave	0.2446	0.2652	0.1000	10.8	10.0	8.4	20.0
1,1,2-Trichloro-1,2,2-trichf luoroethane	Ave	0.1546	0.1709	0.0500	11.1	10.0	10.6	20.0
Acetone	Lin1		0.1057	0.0500	21.1	20.0	5.5	20.0
Iodomethane	Ave	0.3433	0.3416		9.95	10.0	-0.5	20.0
Carbon disulfide	Ave	0.7261	0.7042	0.1000	9.70	10.0	-3.0	20.0
Acetonitrile	Ave	0.0346	0.0393		34.0	30.0	13.4	20.0
Methyl acetate	Ave	0.2327	0.2751	0.1000	11.8	10.0	18.2	20.0
Methylene Chloride	Lin1		0.3299	0.1000	10.6	10.0	6.0	20.0
tert-Butyl alcohol	Ave	0.0189	0.0195		207	200	3.2	20.0
Acrylonitrile	Ave	0.1114	0.1186		31.9	30.0	6.5	20.0
Methyl tert-butyl ether	Ave	0.8402	0.8405	0.1000	10.0	10.0	0.0	20.0
trans-1,2-Dichloroethene	Ave	0.2873	0.2952	0.1000	10.3	10.0	2.7	20.0
Hexane	Ave	0.0529	0.0579		10.9	10.0	9.4	20.0
1,1-Dichloroethane	Ave	0.5691	0.6028	0.1000	10.6	10.0	5.9	20.0
Vinyl acetate	Ave	0.0505	0.0387		7.67	10.0	-23.3*	20.0
2-Butanone	Ave	0.1356	0.1389	0.0500	20.5	20.0	2.4	20.0
2,2-Dichloropropane	Ave	0.2932	0.2855		9.74	10.0	-2.6	20.0
cis-1,2-Dichloroethene	Ave	0.3087	0.3186	0.1000	10.3	10.0	3.2	20.0
Bromochloromethane	Ave	0.1283	0.1312		10.2	10.0	2.2	20.0
Tetrahydrofuran	Ave	0.0828	0.0852		10.3	10.0	2.9	20.0
Chloroform	Ave	0.5296	0.5462	0.2000	10.3	10.0	3.1	20.0
1,1,1-Trichloroethane	Ave	0.3678	0.3794	0.1000	10.3	10.0	3.2	20.0
Cyclohexane	Ave	0.4605	0.4767	0.1000	10.4	10.0	3.5	20.0
1,1-Dichloropropene	Ave	0.4264	0.4383		10.3	10.0	2.8	20.0
Carbon tetrachloride	Ave	0.2770	0.2912	0.1000	10.5	10.0	5.1	20.0
1,2-Dichloroethane	Ave	0.4694	0.4938	0.1000	10.5	10.0	5.2	20.0
Benzene	Ave	1.251	1.319	0.5000	10.5	10.0	5.4	20.0
Trichloroethene	Ave	0.2698	0.2968	0.2000	11.0	10.0	10.0	20.0
1,2-Dichloropropane	Ave	0.3083	0.3319	0.1000	10.8	10.0	7.7	20.0
Methylcyclohexane	Ave	0.3477	0.3665	0.1000	10.5	10.0	5.4	20.0
Dibromomethane	Ave	0.1606	0.1738		10.8	10.0	8.2	20.0
Bromodichloromethane	Ave	0.3092	0.3331	0.1000	10.8	10.0	7.7	20.0
2-Chloroethyl vinyl ether	Ave	0.1599	0.1722		10.8	10.0	7.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
cis-1,3-Dichloropropene	Lin1		0.4089	0.1500	9.41	10.0	-5.9	20.0
4-Methyl-2-pentanone	Ave	0.2643	0.2914	0.0500	22.1	20.0	10.3	20.0
Toluene	Ave	1.877	1.918	0.4000	10.2	10.0	2.2	20.0
trans-1,3-Dichloropropene	Lin1		0.5291	0.1000	9.28	10.0	-7.2	20.0
1,1,2-Trichloroethane	Ave	0.3307	0.3442	0.1000	10.4	10.0	4.1	20.0
1,3-Dichloropropane	Ave	0.6962	0.7105		10.2	10.0	2.0	20.0
Tetrachloroethene	Ave	0.2617	0.2644	0.2000	10.1	10.0	1.0	20.0
2-Hexanone	Ave	0.2698	0.2927	0.0500	21.7	20.0	8.5	20.0
Dibromochloromethane	Lin1		0.2623		9.02	10.0	-9.8	20.0
1,2-Dibromoethane	Ave	0.3223	0.3341		10.4	10.0	3.7	20.0
Chlorobenzene	Ave	1.104	1.136	0.3000	10.3	10.0	2.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3116	0.3283		10.5	10.0	5.4	20.0
Ethylbenzene	Ave	0.5828	0.6250		10.7	10.0	7.2	20.0
m-Xylene & p-Xylene	Ave	0.7256	0.7452		20.5	20.0	2.7	20.0
o-Xylene	Ave	0.7207	0.7518		10.4	10.0	4.3	20.0
Styrene	Ave	1.192	1.255	0.3000	10.5	10.0	5.3	20.0
Bromoform	Lin1		0.1220	0.1000	9.03	10.0	-9.7	20.0
Isopropylbenzene	Ave	1.713	1.779	0.1000	10.4	10.0	3.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9025	0.9195	0.3000	10.2	10.0	1.9	20.0
Bromobenzene	Ave	0.8159	0.8010		9.82	10.0	-1.8	20.0
1,2,3-Trichloropropane	Ave	0.2837	0.2982		10.5	10.0	5.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2511	0.2617		20.8	20.0	4.2	20.0
n-Propylbenzene	Ave	0.8598	0.9010		10.5	10.0	4.8	20.0
2-Chlorotoluene	Ave	0.8362	0.8214		9.82	10.0	-1.8	20.0
1,3,5-Trimethylbenzene	Ave	2.791	2.836		10.2	10.0	1.6	20.0
4-Chlorotoluene	Ave	0.8762	0.8813		10.1	10.0	0.6	20.0
tert-Butylbenzene	Ave	2.471	2.497		10.1	10.0	1.1	20.0
1,2,4-Trimethylbenzene	Ave	2.906	2.988		10.3	10.0	2.8	20.0
sec-Butylbenzene	Ave	3.036	3.064		10.1	10.0	0.9	20.0
1,3-Dichlorobenzene	Ave	1.506	1.484	0.6000	9.85	10.0	-1.5	20.0
p-Isopropyltoluene	Ave	2.486	2.579		10.4	10.0	3.8	20.0
1,4-Dichlorobenzene	Ave	1.587	1.584	0.5000	9.98	10.0	-0.2	20.0
n-Butylbenzene	Ave	2.286	2.295		10.0	10.0	0.4	20.0
1,2-Dichlorobenzene	Ave	1.485	1.504	0.4000	10.1	10.0	1.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0952	0.1049	0.0500	11.0	10.0	10.1	20.0
1,2,4-Trichlorobenzene	Ave	0.6818	0.6660	0.2000	9.77	10.0	-2.3	20.0
Hexachlorobutadiene	Ave	0.2577	0.2217		8.60	10.0	-14.0	20.0
Naphthalene	Ave	2.063	2.211		10.7	10.0	7.2	20.0
1,2,3-Trichlorobenzene	Ave	0.5920	0.6250		10.6	10.0	5.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2389	0.2274		9.72	10.2	-4.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3867	0.3583		9.46	10.2	-7.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Toluene-d8 (Surr)	Ave	1.552	1.491		9.81	10.2	-3.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5538	0.5469		10.1	10.2	-1.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 17:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 19:50

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.3182	0.3065		9.63	10.0	-3.7	20.0
Diisopropyl ether	Ave	0.2775	0.2745		9.89	10.0	-1.1	20.0
Isobutyl alcohol	Ave	0.0086	0.0091		527	500	5.4	20.0
Cyclohexanone	Lin1		0.0256		52.9	200	-73.6*	20.0
1,2,3-Trimethylbenzene	Ave	2.982	3.178		10.7	10.0	6.6	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: BFB2918.D BFB Injection Date: 05/01/2012

Instrument ID: A3UX16 BFB Injection Time: 10:27

Analysis Batch No.: 42324

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	22.3	
75	30.0 - 60.0 % of mass 95	55.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.1	
173	Less than 2.0 % of mass 174	0.4	(0.5)1
174	50.0 - 120.00 % of mass 95	65.4	
175	5.0 - 9.0 % of mass 174	4.4	(6.7)1
176	95.0 - 101.0 % of mass 174	62.9	(96.2)1
177	5.0 - 9.0 % of mass 176	4.0	(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-42324/2	UXM5299.D	05/01/2012	10:57
	CCV 240-42324/3	UXM5300.D	05/01/2012	11:20
	LCS 240-42324/4	UXM5301.D	05/01/2012	11:42
	MB 240-42324/5	UXM5302.D	05/01/2012	12:05
TB-042712	240-10770-1	UXM5303.D	05/01/2012	13:05
GSP-MW8-042712	240-10770-3	UXM5311.D	05/01/2012	16:12
GSP-MW4-042712	240-10770-4	UXM5312.D	05/01/2012	16:35
GSP-MW7-042712	240-10770-2	UXM5318.D	05/01/2012	18:51
GSP-MW7-042712 MS	240-10770-2 MS	UXM5319.D	05/01/2012	19:14
GSP-MW7-042712 MSD	240-10770-2 MSD	UXM5320.D	05/01/2012	19:37

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCVIS 240-42324/2 Calibration Date: 05/01/2012 10:57

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5299.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2829	0.2970	0.1000	10.5	10.0	5.0	20.0
Chloromethane	Ave	0.4613	0.4543	0.1000	9.85	10.0	-1.5	20.0
Vinyl chloride	Ave	0.4246	0.4174	0.1000	9.83	10.0	-1.7	20.0
Bromomethane	Ave	0.1684	0.1468	0.0500	8.72	10.0	-12.8	20.0
Chloroethane	Ave	0.2371	0.2172	0.0500	9.16	10.0	-8.4	20.0
Trichlorofluoromethane	Ave	0.3035	0.3345	0.1000	11.0	10.0	10.2	20.0
Acrolein	Ave	0.0489	0.0408		83.3	100	-16.7	20.0
1,1-Dichloroethene	Ave	0.2446	0.2333	0.1000	9.54	10.0	-4.6	20.0
1,1,2-Trichloro-1,2,2-trichf luoroethane	Ave	0.1546	0.1599	0.0500	10.3	10.0	3.5	20.0
Acetone	Lin1		0.0858	0.0500	16.5	20.0	-17.5	20.0
Iodomethane	Ave	0.3433	0.3386		9.86	10.0	-1.4	20.0
Carbon disulfide	Ave	0.7261	0.7276	0.1000	10.0	10.0	0.2	20.0
Acetonitrile	Ave	0.0346	0.0275		79.3	100	-20.7*	20.0
Methyl acetate	Ave	0.2327	0.1924	0.1000	16.5	20.0	-17.3	20.0
Methylene Chloride	Lin1		0.3022	0.1000	9.65	10.0	-3.5	20.0
tert-Butyl alcohol	Ave	0.0189	0.0167		176	200	-11.8	20.0
Acrylonitrile	Ave	0.1114	0.0928		16.7	20.0	-16.7	20.0
Methyl tert-butyl ether	Ave	0.8402	0.7564	0.1000	9.00	10.0	-10.0	20.0
trans-1,2-Dichloroethene	Ave	0.2873	0.2720	0.1000	9.47	10.0	-5.3	20.0
Hexane	Ave	0.0529	0.0545		10.3	10.0	3.0	20.0
1,1-Dichloroethane	Ave	0.5691	0.5175	0.1000	9.09	10.0	-9.1	20.0
Vinyl acetate	Ave	0.0505	0.0467		9.26	10.0	-7.4	20.0
2-Butanone	Ave	0.1356	0.1103	0.0500	16.3	20.0	-18.7	20.0
cis-1,2-Dichloroethene	Ave	0.3087	0.2874	0.1000	9.31	10.0	-6.9	20.0
2,2-Dichloropropane	Ave	0.2932	0.2845		9.70	10.0	-3.0	20.0
Bromochloromethane	Ave	0.1283	0.1235		9.62	10.0	-3.8	20.0
Tetrahydrofuran	Ave	0.0828	0.0679		8.20	10.0	-18.0	20.0
Chloroform	Ave	0.5296	0.4972	0.2000	9.39	10.0	-6.1	20.0
1,1,1-Trichloroethane	Ave	0.3678	0.3668	0.1000	9.97	10.0	-0.3	20.0
Cyclohexane	Ave	0.4605	0.4548	0.1000	9.88	10.0	-1.2	20.0
1,1-Dichloropropene	Ave	0.4264	0.3992		9.36	10.0	-6.4	20.0
Carbon tetrachloride	Ave	0.2770	0.2807	0.1000	10.1	10.0	1.3	20.0
1,2-Dichloroethane	Ave	0.4694	0.4211	0.1000	8.97	10.0	-10.3	20.0
Benzene	Ave	1.251	1.160	0.5000	9.27	10.0	-7.3	20.0
Trichloroethene	Ave	0.2698	0.2566	0.2000	9.51	10.0	-4.9	20.0
Methylcyclohexane	Ave	0.3477	0.3573	0.1000	10.3	10.0	2.7	20.0
1,2-Dichloropropane	Ave	0.3083	0.2800	0.1000	9.08	10.0	-9.2	20.0
Dibromomethane	Ave	0.1606	0.1466		9.13	10.0	-8.7	20.0
1,4-Dioxane	Ave	0.0024	0.0019		407	500	-18.6	20.0
Bromodichloromethane	Ave	0.3092	0.3093	0.1000	10.0	10.0	0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCVIS 240-42324/2 Calibration Date: 05/01/2012 10:57

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5299.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1599	0.1407		17.6	20.0	-12.0	20.0
cis-1,3-Dichloropropene	Lin1		0.3920	0.1500	9.05	10.0	-9.5	20.0
4-Methyl-2-pentanone	Ave	0.2643	0.2298	0.0500	17.4	20.0	-13.0	20.0
Toluene	Ave	1.877	1.757	0.4000	9.36	10.0	-6.4	20.0
trans-1,3-Dichloropropene	Lin1		0.4892	0.1000	8.62	10.0	-13.8	20.0
Ethyl methacrylate	Ave	0.5543	0.5192		9.37	10.0	-6.3	20.0
1,1,2-Trichloroethane	Ave	0.3307	0.3008	0.1000	9.10	10.0	-9.0	20.0
1,3-Dichloropropane	Ave	0.6962	0.6149		8.83	10.0	-11.7	20.0
Tetrachloroethene	Ave	0.2617	0.2658	0.2000	10.2	10.0	1.6	20.0
2-Hexanone	Ave	0.2698	0.2311	0.0500	17.1	20.0	-14.3	20.0
Dibromochloromethane	Lin1		0.2569		8.85	10.0	-11.5	20.0
1,2-Dibromoethane	Ave	0.3223	0.2904		9.01	10.0	-9.9	20.0
Chlorobenzene	Ave	1.104	1.009	0.3000	9.14	10.0	-8.6	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3116	0.3090		9.92	10.0	-0.8	20.0
Ethylbenzene	Ave	0.5828	0.5479		9.40	10.0	-6.0	20.0
m-Xylene & p-Xylene	Ave	0.7256	0.6861		18.9	20.0	-5.4	20.0
o-Xylene	Ave	0.7207	0.6592		9.15	10.0	-8.5	20.0
Styrene	Ave	1.192	1.127	0.3000	9.45	10.0	-5.5	20.0
Bromoform	Lin1		0.1151	0.1000	8.56	10.0	-14.4	20.0
Isopropylbenzene	Ave	1.713	1.644	0.1000	9.60	10.0	-4.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9025	0.7806	0.3000	8.65	10.0	-13.5	20.0
Bromobenzene	Ave	0.8159	0.7710		9.45	10.0	-5.5	20.0
1,2,3-Trichloropropane	Ave	0.2837	0.2458		8.66	10.0	-13.4	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2511	0.2026		8.07	10.0	-19.3	20.0
n-Propylbenzene	Ave	0.8598	0.8329		9.69	10.0	-3.1	20.0
2-Chlorotoluene	Ave	0.8362	0.7811		9.34	10.0	-6.6	20.0
1,3,5-Trimethylbenzene	Ave	2.791	2.681		9.60	10.0	-4.0	20.0
4-Chlorotoluene	Ave	0.8762	0.8220		9.38	10.0	-6.2	20.0
tert-Butylbenzene	Ave	2.471	2.351		9.51	10.0	-4.9	20.0
1,2,4-Trimethylbenzene	Ave	2.906	2.770		9.53	10.0	-4.7	20.0
sec-Butylbenzene	Ave	3.036	2.925		9.63	10.0	-3.7	20.0
1,3-Dichlorobenzene	Ave	1.506	1.424	0.6000	9.46	10.0	-5.4	20.0
p-Isopropyltoluene	Ave	2.486	2.368		9.52	10.0	-4.8	20.0
1,4-Dichlorobenzene	Ave	1.587	1.488	0.5000	9.38	10.0	-6.2	20.0
n-Butylbenzene	Ave	2.286	2.212		9.68	10.0	-3.2	20.0
1,2-Dichlorobenzene	Ave	1.485	1.376	0.4000	9.27	10.0	-7.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0952	0.0868	0.0500	9.12	10.0	-8.8	20.0
1,3,5-Trichlorobenzene	Ave	0.7690	0.7679		9.99	10.0	-0.1	20.0
1,2,4-Trichlorobenzene	Ave	0.6818	0.6628	0.2000	9.72	10.0	-2.8	20.0
Hexachlorobutadiene	Ave	0.2577	0.2465		9.56	10.0	-4.4	20.0
Naphthalene	Ave	2.063	1.789		8.67	10.0	-13.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCVIS 240-42324/2 Calibration Date: 05/01/2012 10:57

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5299.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Ave	0.5920	0.5701		9.63	10.0	-3.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2389	0.2122		9.07	10.2	-11.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3867	0.3050		8.05	10.2	-21.1*	20.0
Toluene-d8 (Surr)	Ave	1.552	1.334		8.78	10.2	-14.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5538	0.4954		9.13	10.2	-10.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42324/3 Calibration Date: 05/01/2012 11:20

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 17:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 19:50

Lab File ID: UXM5300.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.5291	0.5354		10.1	10.0	1.2	20.0
Ethyl ether	Ave	0.3182	0.2987		9.39	10.0	-6.1	20.0
3-Chloro-1-propene	Ave	0.1408	0.1459		10.4	10.0	3.6	20.0
Diisopropyl ether	Ave	0.2775	0.2701		48.7	50.0	-2.7	20.0
2-Chloro-1,3-butadiene	Ave	0.5156	0.5114		9.92	10.0	-0.8	20.0
Ethyl-t-butyl ether (ETBE)	Ave	0.8899	0.8626		9.69	10.0	-3.1	20.0
Propionitrile	Ave	0.0386	0.0370		19.1	20.0	-4.3	20.0
Ethyl acetate	Ave	0.2719	0.2520		18.5	20.0	-7.3	20.0
Methacrylonitrile	Ave	0.1921	0.1757		9.15	10.0	-8.5	20.0
Isobutyl alcohol	Ave	0.0086	0.0077		178	200	-11.0	20.0
Tert-amyl-methyl ether (TAME)	Ave	0.7157	0.7080		9.89	10.0	-1.1	20.0
n-Heptane	Ave	0.0406	0.0444		10.9	10.0	9.3	20.0
n-Butanol	Lin1		0.0054		163	200	-18.7	20.0
2-Nitropropane	Qua		0.0417		20.2	20.0	1.0	20.0
Cyclohexanone	Lin1		0.0639		64.6	100	-35.4*	20.0
1,2,3-Trimethylbenzene	Ave	2.982	2.860		9.59	10.0	-4.1	20.0
2-Methylnaphthalene	Qua		0.5682		11.8	20.0	-41.0*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42324/3 Calibration Date: 05/01/2012 11:20

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5300.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2389	0.2164		9.25	10.2	-9.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3867	0.3361		8.87	10.2	-13.1	20.0
Toluene-d8 (Surr)	Ave	1.552	1.436		9.45	10.2	-7.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5538	0.5323		9.81	10.2	-3.9	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: UXM5302.D Lab Sample ID: MB 240-42324/5

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 05/01/2012 12:05

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-42324/4	UXM5301.D	05/01/2012 11:42
TB-042712	240-10770-1	UXM5303.D	05/01/2012 13:05
GSP-MW8-042712	240-10770-3	UXM5311.D	05/01/2012 16:12
GSP-MW4-042712	240-10770-4	UXM5312.D	05/01/2012 16:35
GSP-MW7-042712	240-10770-2	UXM5318.D	05/01/2012 18:51
GSP-MW7-042712 MS	240-10770-2 MS	UXM5319.D	05/01/2012 19:14
GSP-MW7-042712 MSD	240-10770-2 MSD	UXM5320.D	05/01/2012 19:37

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-42324/5

Matrix: Water | Lab File ID: UXM5302.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 12:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.280	J	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-42324/5

Matrix: Water | Lab File ID: UXM5302.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 12:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-42324/5

Matrix: Water | Lab File ID: UXM5302.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 12:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-129
460-00-4	4-Bromofluorobenzene (Surr)	94		66-117
2037-26-5	Toluene-d8 (Surr)	90		74-115
1868-53-7	Dibromofluoromethane (Surr)	87		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42324/5
Matrix: Water
Lab File ID: UXM5302.D
Analysis Method: 8260C
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 05/01/2012 12:05
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42324
Units: ug/L
Number TICs Found: 0
TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5301.D

Lab ID: LCS 240-42324/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	9.45	95	72-116	
1,1,1-Trichloroethane	10.0	9.44	94	74-118	
1,1,2,2-Tetrachloroethane	10.0	8.83	88	68-118	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	9.91	99	74-151	
1,1-Dichloroethane	10.0	9.10	91	82-115	
1,1-Dichloroethene	10.0	9.77	98	78-131	
1,1-Dichloropropene	10.0	9.02	90	83-114	
1,2,3-Trichlorobenzene	10.0	9.28	93	54-126	
1,2,3-Trichloropropane	10.0	8.93	89	73-129	
1,2,3-Trimethylbenzene	10.0	9.10	91	70-130	
1,2,4-Trichlorobenzene	10.0	8.99	90	48-135	
1,2,4-Trimethylbenzene	10.0	8.94	89	76-120	
1,2-Dibromo-3-Chloropropane	10.0	9.30	93	42-136	
1,2-Dichlorobenzene	10.0	8.93	89	81-110	
1,2-Dichloroethane	10.0	9.17	92	71-127	
1,2-Dichloropropane	10.0	9.19	92	81-115	
1,3-Dichlorobenzene	10.0	8.91	89	80-110	
1,3-Dichloropropane	10.0	8.90	89	79-116	
1,4-Dichlorobenzene	10.0	8.70	87	82-110	
2,2-Dichloropropane	10.0	9.56	96	50-129	
2-Chloroethyl vinyl ether	10.0	9.03 J	90	52-131	
2-Chlorotoluene	10.0	8.56	86	76-116	
2-Hexanone	20.0	19.6	98	55-133	
Bromobenzene	10.0	8.72	87	76-115	
Bromochloromethane	10.0	9.54	95	77-120	
4-Chlorotoluene	10.0	8.66	87	77-115	
p-Isopropyltoluene	10.0	9.32	93	74-120	
Acetone	20.0	21.9	110	43-136	
Benzene	10.0	9.17	92	83-112	
Bromoform	10.0	8.47	85	40-131	
Bromomethane	10.0	7.98	80	11-185	
Carbon disulfide	10.0	8.80	88	62-142	
Carbon tetrachloride	10.0	9.85	99	66-128	
Chlorobenzene	10.0	9.08	91	85-110	
Chloroethane	10.0	8.25	83	25-153	
Chloroform	10.0	8.99	90	79-117	
Chloromethane	10.0	8.26	83	44-126	
cis-1,2-Dichloroethene	10.0	9.25	93	80-113	
cis-1,3-Dichloropropene	10.0	8.18	82	61-115	
Hexachlorobutadiene	10.0	8.21	82	36-134	
Dibromomethane	10.0	9.38	94	81-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5301.D

Lab ID: LCS 240-42324/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Bromodichloromethane	10.0	9.82	98	72-121	
Dichlorodifluoromethane	10.0	6.28	63	19-129	
Ethylbenzene	10.0	9.32	93	83-112	
1,2-Dibromoethane	10.0	9.45	95	79-113	
Diisopropyl ether	10.0	8.96 J	90	77-118	
Naphthalene	10.0	9.17	92	32-141	
m-Xylene & p-Xylene	20.0	18.5	93	83-113	
n-Butylbenzene	10.0	8.95	90	66-125	
Isopropylbenzene	10.0	9.38	94	75-114	
n-Propylbenzene	10.0	9.12	91	74-121	
2-Butanone	20.0	18.6	93	60-126	
4-Methyl-2-pentanone	20.0	18.8	94	63-128	
sec-Butylbenzene	10.0	8.81	88	70-117	
Methyl tert-butyl ether	10.0	8.97	90	52-144	
Methylene Chloride	10.0	9.15	92	66-131	
o-Xylene	10.0	9.45	95	83-113	
Styrene	10.0	9.49	95	79-114	
tert-Butylbenzene	10.0	8.75	88	71-115	
Tetrachloroethene	10.0	9.38	94	79-114	
Toluene	10.0	9.07	91	84-111	
trans-1,2-Dichloroethene	10.0	8.96	90	83-117	
trans-1,3-Dichloropropene	10.0	8.21	82	58-117	
Trichloroethene	10.0	9.28	93	76-117	
Trichlorofluoromethane	10.0	10.5	105	49-157	
Vinyl acetate	10.0	8.54	85	46-161	
Vinyl chloride	10.0	8.63	86	53-127	
tert-Butyl alcohol	200	195	98	70-130	
Xylenes, Total	30.0	28.0	93	83-112	
Dibromochloromethane	10.0	8.17	82	64-119	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5319.D

Lab ID: 240-10770-2 MS Client ID: GSP-MW7-042712 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	40.0	4.0 U	40.8	102	64-118	
1,1,1-Trichloroethane	40.0	4.0 U	38.3	96	68-121	
1,1,2,2-Tetrachloroethane	40.0	4.0 U	39.7	99	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	40.0	4.0 U	42.8	107	70-152	
1,1-Dichloroethane	40.0	4.0 U	39.4	98	79-116	
1,1-Dichloroethene	40.0	4.0 U	40.4	101	74-135	
1,1-Dichloropropene	40.0	4.0 U	38.5	96	80-114	
1,2,3-Trichlorobenzene	40.0	4.0 U	42.0	105	45-129	
1,2,3-Trichloropropane	40.0	4.0 U	39.8	100	67-132	
1,2,3-Trimethylbenzene	40.0	20 U	40.4	101	70-130	
1,2,4-Trichlorobenzene	40.0	4.0 U	38.7	97	38-138	
1,2,4-Trimethylbenzene	40.0	4.0 U	39.2	98	67-124	
1,2-Dibromo-3-Chloropropane	40.0	8.0 U	39.8	100	32-139	
1,2-Dichlorobenzene	40.0	4.0 U	39.6	99	75-111	
1,2-Dichloroethane	40.0	4.0 U	40.0	100	68-129	
1,2-Dichloropropane	40.0	4.0 U	39.6	99	78-115	
1,3-Dichlorobenzene	40.0	4.0 U	38.8	97	73-110	
1,3-Dichloropropane	40.0	4.0 U	39.4	99	74-118	
1,4-Dichlorobenzene	40.0	4.0 U	38.8	97	75-110	
2,2-Dichloropropane	40.0	4.0 U	36.1	90	38-127	
2-Chloroethyl vinyl ether	40.0	40 U	40 U	0	10-150	F
2-Chlorotoluene	40.0	4.0 U	37.7	94	69-117	
2-Hexanone	80.0	40 U	83.2	104	47-139	
Bromobenzene	40.0	4.0 U	38.6	97	71-116	
Bromochloromethane	40.0	4.0 U	39.0	98	73-121	
4-Chlorotoluene	40.0	4.0 U	37.9	95	71-116	
p-Isopropyltoluene	40.0	4.0 U	41.2	103	64-122	
Acetone	80.0	40 U	82.4	103	33-145	
Benzene	40.0	4.0 U	39.5	99	72-121	
Bromoform	40.0	4.0 U	32.5	81	32-128	
Bromomethane	40.0	4.0 U	30.2	76	10-186	
Carbon disulfide	40.0	4.0 U	34.8	87	57-147	
Carbon tetrachloride	40.0	4.0 U	38.9	97	59-129	
Chlorobenzene	40.0	4.0 U	39.2	98	80-110	
Chloroethane	40.0	4.0 U	35.6	89	21-165	
Chloroform	40.0	4.0 U	37.7	94	76-118	
Chloromethane	40.0	4.0 U	40.8	102	33-132	
cis-1,2-Dichloroethene	40.0	1.4 J	40.4	97	70-120	
cis-1,3-Dichloropropene	40.0	4.0 U	32.8	82	51-110	
Hexachlorobutadiene	40.0	4.0 U	34.7	87	27-132	
Dibromomethane	40.0	4.0 U	40.0	100	77-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5319.D

Lab ID: 240-10770-2 MS Client ID: GSP-MW7-042712 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Bromodichloromethane	40.0	4.0 U	39.3	98	67-120	
Dichlorodifluoromethane	40.0	4.0 U	26.6	66	17-128	
Ethylbenzene	40.0	4.0 U	38.8	97	75-116	
1,2-Dibromoethane	40.0	4.0 U	39.3	98	74-113	
Diisopropyl ether	40.0	40 U	35.6 J	89	73-118	
Naphthalene	40.0	4.0 U	40.8	102	15-158	
m-Xylene & p-Xylene	80.0	8.0 U	78.0	98	75-117	
n-Butylbenzene	40.0	4.0 U	39.2	98	56-127	
Isopropylbenzene	40.0	4.0 U	39.7	99	68-116	
n-Propylbenzene	40.0	4.0 U	40.4	101	64-124	
2-Butanone	80.0	40 U	80.0	100	54-129	
4-Methyl-2-pentanone	80.0	40 U	83.6	105	56-131	
sec-Butylbenzene	40.0	4.0 U	39.0	97	60-119	
Methyl tert-butyl ether	40.0	20 U	35.9	90	46-144	
Methylene Chloride	40.0	4.0 U	39.9	100	63-128	
o-Xylene	40.0	4.0 U	39.4	98	76-116	
Styrene	40.0	4.0 U	39.8	100	71-117	
tert-Butylbenzene	40.0	4.0 U	38.7	97	61-119	
Tetrachloroethene	40.0	4.0 U	40.4	101	70-117	
Toluene	40.0	4.0 U	39.0	98	78-114	
trans-1,2-Dichloroethene	40.0	4.0 U	39.0	98	80-119	
trans-1,3-Dichloropropene	40.0	4.0 U	32.7	82	46-116	
Trichloroethene	40.0	110	145	93	66-120	
Trichlorofluoromethane	40.0	4.0 U	41.2	103	46-157	
Vinyl acetate	40.0	8.0 U	37.0	93	43-157	
Vinyl chloride	40.0	4.0 U	38.8	97	49-130	
tert-Butyl alcohol	800	200 U	821	103	70-130	
Xylenes, Total	120	8.0 U	117	98	76-116	
Dibromochloromethane	40.0	4.0 U	34.9	87	56-118	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5320.D

Lab ID: 240-10770-2 MSD Client ID: GSP-MW7-042712 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	40.0	40.0	100	2	30	64-118	
1,1,1-Trichloroethane	40.0	38.7	97	1	30	68-121	
1,1,2,2-Tetrachloroethane	40.0	39.9	100	1	30	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	40.0	42.0	105	2	30	70-152	
1,1-Dichloroethane	40.0	39.1	98	1	30	79-116	
1,1-Dichloroethene	40.0	40.8	102	1	30	74-135	
1,1-Dichloropropene	40.0	38.3	96	1	30	80-114	
1,2,3-Trichlorobenzene	40.0	40.4	101	4	30	45-129	
1,2,3-Trichloropropane	40.0	38.3	96	4	30	67-132	
1,2,3-Trimethylbenzene	40.0	39.6	99	2	30	70-130	
1,2,4-Trichlorobenzene	40.0	37.4	94	3	30	38-138	
1,2,4-Trimethylbenzene	40.0	38.4	96	2	30	67-124	
1,2-Dibromo-3-Chloropropane	40.0	42.0	105	5	30	32-139	
1,2-Dichlorobenzene	40.0	38.4	96	3	30	75-111	
1,2-Dichloroethane	40.0	39.8	99	1	30	68-129	
1,2-Dichloropropane	40.0	39.4	99	1	30	78-115	
1,3-Dichlorobenzene	40.0	39.2	98	1	30	73-110	
1,3-Dichloropropane	40.0	39.8	99	1	30	74-118	
1,4-Dichlorobenzene	40.0	37.8	95	3	30	75-110	
2,2-Dichloropropane	40.0	35.1	88	3	30	38-127	
2-Chloroethyl vinyl ether	40.0	40 U	0	NC	30	10-150	F
2-Chlorotoluene	40.0	37.6	94	0	30	69-117	
2-Hexanone	80.0	84.4	106	1	30	47-139	
Bromobenzene	40.0	38.5	96	0	30	71-116	
Bromochloromethane	40.0	39.0	98	0	30	73-121	
4-Chlorotoluene	40.0	37.2	93	2	30	71-116	
p-Isopropyltoluene	40.0	39.0	98	5	30	64-122	
Acetone	80.0	73.2	92	12	30	33-145	
Benzene	40.0	39.5	99	0	30	72-121	
Bromoform	40.0	33.7	84	4	30	32-128	
Bromomethane	40.0	30.3	76	0	30	10-186	
Carbon disulfide	40.0	35.0	88	1	30	57-147	
Carbon tetrachloride	40.0	38.7	97	1	30	59-129	
Chlorobenzene	40.0	39.0	97	1	30	80-110	
Chloroethane	40.0	34.5	86	3	30	21-165	
Chloroform	40.0	37.6	94	0	30	76-118	
Chloromethane	40.0	38.2	96	6	30	33-132	
cis-1,2-Dichloroethene	40.0	39.8	96	1	30	70-120	
cis-1,3-Dichloropropene	40.0	33.3	83	1	30	51-110	
Hexachlorobutadiene	40.0	35.1	88	1	30	27-132	
Dibromomethane	40.0	40.4	101	1	30	77-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5320.D

Lab ID: 240-10770-2 MSD Client ID: GSP-MW7-042712 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Bromodichloromethane	40.0	40.4	101	3	30	67-120	
Dichlorodifluoromethane	40.0	26.5	66	0	30	17-128	
Ethylbenzene	40.0	39.1	98	1	30	75-116	
1,2-Dibromoethane	40.0	40.0	100	2	30	74-113	
Diisopropyl ether	40.0	36.8 J	92	3	30	73-118	
Naphthalene	40.0	39.7	99	3	30	15-158	
m-Xylene & p-Xylene	80.0	78.0	98	0	30	75-117	
n-Butylbenzene	40.0	37.6	94	4	30	56-127	
Isopropylbenzene	40.0	39.0	97	2	30	68-116	
n-Propylbenzene	40.0	38.5	96	5	30	64-124	
2-Butanone	80.0	79.2	99	1	30	54-129	
4-Methyl-2-pentanone	80.0	84.8	106	1	30	56-131	
sec-Butylbenzene	40.0	37.6	94	3	30	60-119	
Methyl tert-butyl ether	40.0	36.4	91	2	30	46-144	
Methylene Chloride	40.0	38.1	95	5	30	63-128	
o-Xylene	40.0	39.0	97	1	30	76-116	
Styrene	40.0	39.7	99	0	30	71-117	
tert-Butylbenzene	40.0	37.7	94	3	30	61-119	
Tetrachloroethene	40.0	40.4	101	0	30	70-117	
Toluene	40.0	39.0	98	0	30	78-114	
trans-1,2-Dichloroethene	40.0	37.5	94	4	30	80-119	
trans-1,3-Dichloropropene	40.0	33.8	85	3	30	46-116	
Trichloroethene	40.0	142	87	2	30	66-120	
Trichlorofluoromethane	40.0	41.2	103	0	30	46-157	
Vinyl acetate	40.0	36.6	92	1	30	43-157	
Vinyl chloride	40.0	38.9	97	0	30	49-130	
tert-Butyl alcohol	800	808	101	2	30	70-130	
Xylenes, Total	120	117	98	0	30	76-116	
Dibromochloromethane	40.0	35.1	88	1	30	56-118	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
GSP-MW7-042712	240-10770-2	59	60	62	54	71	71
GSP-MW8-042712	240-10770-3	48	51	52	50	67	65
GSP-MW4-042712	240-10770-4	54	56	53	52	80	67
	MB 240-42632/8-A	58	60	54	55	76	79
	LCS 240-42632/9-A	77	81	73	68	98	80

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	10-110
PHL = Phenol-d5 (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	27-111
FBP = 2-Fluorobiphenyl (Surr)	28-110
TBP = 2,4,6-Tribromophenol (Surr)	22-120
TPH = Terphenyl-d14 (Surr)	37-119

Column to be used to flag recovery values

FORM II 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: STD6 240-42463/10 Date Analyzed: 05/02/2012 12:54

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20502010.D Heated Purge: (Y/N) N

Calibration ID: 8490

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		203831	3.51	750748	4.40	449631	5.66
UPPER LIMIT		407662	4.01	1501496	4.90	899262	6.16
LOWER LIMIT		101916	3.01	375374	3.90	224816	5.16
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-42463/11		219450	3.51	793338	4.40	481824	5.66
CCV 240-43126/2 CCVIS		203268	3.39	807358	4.28	443644	5.54

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: STD6 240-42463/10 Date Analyzed: 05/02/2012 12:54

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20502010.D Heated Purge: (Y/N) N

Calibration ID: 8490

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		701859	6.74	609578	8.73	444154	10.12
UPPER LIMIT		1403718	7.24	1219156	9.23	888308	10.62
LOWER LIMIT		350930	6.24	304789	8.23	222077	9.62
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-42463/11		750463	6.74	697064	8.71	502891	10.10
CCV 240-43126/2 CCVIS		728055	6.61	667024	8.58	498151	9.89

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCV 240-43126/2 Date Analyzed: 05/08/2012 09:05

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20508002.D Heated Purge: (Y/N) N

Calibration ID: 8498

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		203268	3.39	807358	4.28	443644	5.54
UPPER LIMIT		406536	3.89	1614716	4.78	887288	6.04
LOWER LIMIT		101634	2.89	403679	3.78	221822	5.04
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-42632/8-A		211107	3.40	855069	4.28	486388	5.53
LCS 240-42632/9-A		184504	3.39	751512	4.28	442403	5.54
240-10770-2	GSP-MW7-042712	230198	3.39	895040	4.28	542958	5.53
240-10770-3	GSP-MW8-042712	221630	3.39	884395	4.28	518699	5.53
240-10770-4	GSP-MW4-042712	236232	3.39	906019	4.28	535464	5.53

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCV 240-43126/2 Date Analyzed: 05/08/2012 09:05

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20508002.D Heated Purge: (Y/N) N

Calibration ID: 8498

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		728055	6.61	667024	8.58	498151	9.89
UPPER LIMIT		1456110	7.11	1334048	9.08	996302	10.39
LOWER LIMIT		364028	6.11	333512	8.08	249076	9.39
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-42632/8-A		779010	6.61	700518	8.57	536668	9.87
LCS 240-42632/9-A		707870	6.61	666696	8.56	502242	9.85
240-10770-2	GSP-MW7-042712	851955	6.61	779875	8.59	600062	9.90
240-10770-3	GSP-MW8-042712	821335	6.61	760311	8.56	592310	9.87
240-10770-4	GSP-MW4-042712	867539	6.61	812616	8.58	631764	9.89

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: 20508007.D Lab Sample ID: MB 240-42632/8-A

Matrix: Water Date Extracted: 05/03/2012 09:57

Instrument ID: A4HP7 Date Analyzed: 05/08/2012 10:37

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-42632/9-A	20508008.D	05/08/2012 10:56
GSP-MW7-042712	240-10770-2	20508019.D	05/08/2012 14:20
GSP-MW8-042712	240-10770-3	20508020.D	05/08/2012 14:38
GSP-MW4-042712	240-10770-4	20508021.D	05/08/2012 14:56

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42632/8-A
Matrix: Water
Lab File ID: 20508007.D
Analysis Method: 8270C
Date Collected:
Extract. Method: 3520C
Date Extracted: 05/03/2012 09:57
Sample wt/vol: 1000(mL)
Date Analyzed: 05/08/2012 10:37
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 43126
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.0	U	1.0	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	55		28-110
367-12-4	2-Fluorophenol (Surr)	58		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	76		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	54		27-111
4165-62-2	Phenol-d5 (Surr)	60		10-110
1718-51-0	Terphenyl-d14 (Surr)	79		37-119

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20508008.D

Lab ID: LCS 240-42632/9-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	20.0	12.2	61	10-110	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: 20502001.D DFTPP Injection Date: 05/02/2012

Instrument ID: A4HP7 DFTPP Injection Time: 10:03

Analysis Batch No.: 42463

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	60.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	45.5	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	50.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.2	
365	Greater than 0.75% of mass 198	2.0	
441	Present, but less than mass 443	7.0	
442	40.0 - 110.0% of mass 198	44.8	
443	15.0 - 24.0% of mass 442	8.8	(19.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-42463/2	20502002.D	05/02/2012	10:23
	STD4 240-42463/3	20502003.D	05/02/2012	10:42
	STD3 240-42463/4	20502004.D	05/02/2012	11:01
	STD2 240-42463/5	20502005.D	05/02/2012	11:19
	STD1 240-42463/6	20502006.D	05/02/2012	11:38
	STD9 240-42463/7	20502007.D	05/02/2012	11:57
	STD8 240-42463/8	20502008.D	05/02/2012	12:16
	STD7 240-42463/9	20502009.D	05/02/2012	12:35
	STD6 240-42463/10	20502010.D	05/02/2012	12:54
	ICV 240-42463/11	20502011.D	05/02/2012	13:13

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42463

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2012 10:23 Calibration End Date: 05/02/2012 12:54 Calibration ID: 8490

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-42463/6	20502006.D
Level 2	STD2 240-42463/5	20502005.D
Level 3	STD3 240-42463/4	20502004.D
Level 4	STD4 240-42463/3	20502003.D
Level 5	STD5 240-42463/2	20502002.D
Level 6	STD6 240-42463/10	20502010.D
Level 7	STD7 240-42463/9	20502009.D
Level 8	STD8 240-42463/8	20502008.D
Level 9	STD9 240-42463/7	20502007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5797	0.7266 0.5728	0.4617 0.6094	0.5087 0.5684	0.4851	Ave		0.5640				15.0		15.0			
N-Nitrosodimethylamine	0.8841	0.7933 0.8811	0.7168 0.9316	0.7448 0.9112	0.7452	Ave		0.8260				10.0		15.0			
Pyridine	1.5075	1.3258 1.5146	1.1707 1.6776	1.1870 1.6034	1.1707	Ave		1.3947				15.0		15.0			
Ethyl methacrylate	1.1731	0.9728 1.1757	1.0484 1.2864	1.0037 1.2062	1.0290	Ave		1.1119				10.0		15.0			
Benzaldehyde	1.3735 0.7433	1.0441 +++++	1.0548 +++++	1.0867 +++++	0.9578	Ave		1.0434				20.0	*	15.0			
3-Chloropropionitrile	1.0012	0.9519 1.0222	0.9033 1.1093	0.8667 1.0492	0.8718	Ave		0.9719				9.1		15.0			
Malononitrile	1.5032	1.4102 1.2671	1.3756 1.2102	1.4463 1.0266	1.4564	Ave		1.3370				12.0		15.0			
Benzoic acid	0.2334	+++++ 0.2441	+++++ 0.2610	0.1647 0.2825	0.2322	Qua	0.0075	0.1951	0.0017						0.9990		0.9900
Phenol	1.7085	1.5885 1.7359	1.4815 1.9095	1.5782 1.8649	1.5731	Ave		1.6800				9.0		15.0			
Aniline	2.1278	1.9210 2.1146	1.8743 2.3821	2.0349 2.3349	1.9327	Ave		2.0903				9.0		15.0			
Bis(2-chloroethyl)ether	1.2927	1.2120 1.4453	1.3088 1.4464	1.1722 1.4211	1.1887	Ave		1.3109				8.8		15.0			
2-Chlorophenol	1.5020	1.3476 1.5269	1.3800 1.6760	1.4496 1.6251	1.4098	Ave		1.4896				7.8		15.0			
1,3-Dichlorobenzene	1.6350	1.3701 1.6113	1.5553 1.7820	1.5792 1.6988	1.5113	Ave		1.5929				7.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42463/11 Calibration Date: 05/02/2012 13:13

Instrument ID: A4HP7 Calib Start Date: 05/02/2012 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 05/02/2012 12:54

Lab File ID: 20502011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5640	0.5264		9.33	10.0	-6.7	50.0
N-Nitrosodimethylamine	Ave	0.8260	0.8251		9.99	10.0	-0.1	50.0
Pyridine	Ave	1.395	1.479		10.6	10.0	6.0	50.0
Ethyl methacrylate	Ave	1.112	1.109		9.97	10.0	-0.3	50.0
3-Chloropropionitrile	Ave	0.9719	0.9803		10.1	10.0	0.9	50.0
Malononitrile	Ave	1.337	1.496		11.2	10.0	11.9	50.0
Benzaldehyde	Ave	1.043	0.6145		5.89	10.0	-41.1	50.0
Phenol	Ave	1.680	1.722		10.2	10.0	2.5	20.0
Aniline	Ave	2.090	2.144		10.3	10.0	2.6	50.0
Bis(2-chloroethyl)ether	Ave	1.311	1.327		10.1	10.0	1.2	50.0
2-Chlorophenol	Ave	1.490	1.506		10.1	10.0	1.1	50.0
1,3-Dichlorobenzene	Ave	1.593	1.567		9.84	10.0	-1.6	50.0
1,4-Dichlorobenzene	Ave	1.646	1.623		9.86	10.0	-1.4	20.0
Benzyl alcohol	Ave	0.8859	0.8898		10.0	10.0	0.4	50.0
1,2-Dichlorobenzene	Ave	1.544	1.517		9.83	10.0	-1.7	50.0
2-Methylphenol	Ave	1.290	1.293		10.0	10.0	0.2	50.0
bis (2-chloroisopropyl) ether	Ave	1.740	1.616		9.29	10.0	-7.1	50.0
3 & 4 Methylphenol	Ave	1.324	1.366		10.3	10.0	3.2	50.0
N-Nitrosodi-n-propylamine	Ave	0.8988	0.8701	0.0500	9.68	10.0	-3.2	50.0
Acetophenone	Ave	1.873	1.869		9.98	10.0	-0.2	50.0
Hexachloroethane	Ave	0.5453	0.5299		9.72	10.0	-2.8	50.0
Nitrobenzene	Ave	0.3636	0.3573		9.83	10.0	-1.7	50.0
Isophorone	Ave	0.6461	0.6605		10.2	10.0	2.2	50.0
2,4-Dimethylphenol	Ave	0.3785	0.3876		10.2	10.0	2.4	50.0
2-Nitrophenol	Ave	0.2067	0.2181		10.5	10.0	5.5	20.0
1,3,5-Trichlorobenzene	Ave	0.3633	0.3733		10.3	10.0	2.8	50.0
Bis(2-chloroethoxy)methane	Ave	0.3739	0.3789		10.1	10.0	1.3	50.0
Benzoic acid	Qua		0.2340		20.3	20.0	1.5	50.0
2,4-Dichlorophenol	Ave	0.3173	0.3295		10.4	10.0	3.8	20.0
1,2,4-Trichlorobenzene	Ave	0.3480	0.3617		10.4	10.0	3.9	50.0
Naphthalene	Ave	1.144	1.159		10.1	10.0	1.3	50.0
4-Chloroaniline	Ave	0.4747	0.4591		9.67	10.0	-3.3	50.0
Hexachlorobutadiene	Ave	0.1832	0.1824		9.96	10.0	-0.4	20.0
1,2,3-Trichlorobenzene	Ave	0.3305	0.3260		9.86	10.0	-1.4	50.0
Caprolactam	Qua		0.1203		10.5	10.0	5.0	50.0
4-Chloro-3-methylphenol	Ave	0.3023	0.3207		10.6	10.0	6.1	20.0
2-Methylnaphthalene	Ave	0.7358	0.7408		10.1	10.0	0.7	50.0
1-Methylnaphthalene	Ave	0.7008	0.7068		10.1	10.0	0.8	50.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5580	0.5505		9.87	10.0	-1.3	50.0
Hexachlorocyclopentadiene	Ave	0.3259	0.3366	0.0500	10.3	10.0	3.3	50.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: 20508001.D DFTPP Injection Date: 05/08/2012

Instrument ID: A4HP7 DFTPP Injection Time: 08:46

Analysis Batch No.: 43126

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	61.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	58.2	
70	Less than 2.0% of mass 69	0.3	(0.5)1
127	25.0 - 75.0% of mass 198	61.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	26.3	
365	Greater than 0.75% of mass 198	2.9	
441	Present, but less than mass 443	11.9	
442	40.0 - 110.0% of mass 198	74.4	
443	15.0 - 24.0% of mass 442	14.6	(19.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-43126/2	20508002.D	05/08/2012	09:05
	MB 240-42632/8-A	20508007.D	05/08/2012	10:37
	LCS 240-42632/9-A	20508008.D	05/08/2012	10:56
GSP-MW7-042712	240-10770-2	20508019.D	05/08/2012	14:20
GSP-MW8-042712	240-10770-3	20508020.D	05/08/2012	14:38
GSP-MW4-042712	240-10770-4	20508021.D	05/08/2012	14:56

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-43126/2 Calibration Date: 05/08/2012 09:05

Instrument ID: A4HP7 Calib Start Date: 05/02/2012 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 05/02/2012 12:54

Lab File ID: 20508002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5640	0.5272		9.35	10.0	-6.5	50.0
N-Nitrosodimethylamine	Ave	0.8260	0.7907		9.57	10.0	-4.3	50.0
Pyridine	Ave	1.395	1.390		9.97	10.0	-0.3	50.0
Ethyl methacrylate	Ave	1.112	1.104		9.92	10.0	-0.8	50.0
3-Chloropropionitrile	Ave	0.9719	0.8004		8.24	10.0	-17.6	50.0
Malononitrile	Ave	1.337	1.340		10.0	10.0	0.2	50.0
Benzaldehyde	Ave	1.043	0.7144		6.85	10.0	-31.5	50.0
Phenol	Ave	1.680	1.721		10.2	10.0	2.4	20.0
Aniline	Ave	2.090	2.189		10.5	10.0	4.7	50.0
Bis(2-chloroethyl)ether	Ave	1.311	1.311		10.0	10.0	0.0	50.0
2-Chlorophenol	Ave	1.490	1.473		9.89	10.0	-1.1	50.0
1,3-Dichlorobenzene	Ave	1.593	1.599		10.0	10.0	0.4	50.0
1,4-Dichlorobenzene	Ave	1.646	1.662		10.1	10.0	1.0	50.0
Benzyl alcohol	Ave	0.8859	0.8606		9.71	10.0	-2.9	50.0
1,2-Dichlorobenzene	Ave	1.544	1.529		9.91	10.0	-0.9	50.0
2-Methylphenol	Ave	1.290	1.300		10.1	10.0	0.7	50.0
bis (2-chloroisopropyl) ether	Ave	1.740	1.634		9.39	10.0	-6.1	50.0
3 & 4 Methylphenol	Ave	1.324	1.360		10.3	10.0	2.7	50.0
N-Nitrosodi-n-propylamine	Ave	0.8988	0.9308	0.0500	10.4	10.0	3.6	50.0
Acetophenone	Ave	1.873	1.935		10.3	10.0	3.3	50.0
Hexachloroethane	Ave	0.5453	0.5619		10.3	10.0	3.0	50.0
Nitrobenzene	Ave	0.3636	0.3688		10.1	10.0	1.4	50.0
Isophorone	Ave	0.6461	0.6574		10.2	10.0	1.7	50.0
2-Nitrophenol	Ave	0.2067	0.2114		10.2	10.0	2.3	20.0
2,4-Dimethylphenol	Ave	0.3785	0.3801		10.0	10.0	0.4	50.0
1,3,5-Trichlorobenzene	Ave	0.3633	0.3290		9.06	10.0	-9.4	50.0
Bis(2-chloroethoxy)methane	Ave	0.3739	0.3772		10.1	10.0	0.9	50.0
Benzoic acid	Qua		0.1909		17.0	20.0	-15.0	50.0
2,4-Dichlorophenol	Ave	0.3173	0.2887		9.10	10.0	-9.0	20.0
1,2,4-Trichlorobenzene	Ave	0.3480	0.3214		9.23	10.0	-7.7	50.0
Naphthalene	Ave	1.144	1.081		9.45	10.0	-5.5	50.0
4-Chloroaniline	Ave	0.4747	0.4497		9.48	10.0	-5.2	50.0
Hexachlorobutadiene	Ave	0.1832	0.1595		8.71	10.0	-12.9	20.0
1,2,3-Trichlorobenzene	Ave	0.3305	0.2901		8.78	10.0	-12.2	50.0
Caprolactam	Qua		0.1216		10.6	10.0	6.0	50.0
4-Chloro-3-methylphenol	Ave	0.3023	0.3096		10.2	10.0	2.4	20.0
2-Methylnaphthalene	Ave	0.7358	0.7177		9.75	10.0	-2.5	50.0
1-Methylnaphthalene	Ave	0.7008	0.6679		9.53	10.0	-4.7	50.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5580	0.5324		9.54	10.0	-4.6	50.0
Hexachlorocyclopentadiene	Ave	0.3259	0.3328	0.0500	10.2	10.0	2.1	50.0

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1 #
GSP-MW7-042712	240-10770-2	61
GSP-MW8-042712	240-10770-3	61
GSP-MW4-042712	240-10770-4	64
	MB 240-42123/7	63
	LCS 240-42123/8	80
GSP-MW7-042712 MS	240-10770-2 MS	34
GSP-MW7-042712 MSD	240-10770-2 MSD	72

	QC LIMITS
TFT = Trifluorotoluene (Surr)	10-150

Column to be used to flag recovery values

FORM II 8015B

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: MB 240-42123/7

Matrix: Water Date Extracted: 04/30/2012 12:37

Lab File ID:(1) YF004307.D Lab File ID:(2)

Date Analyzed:(1) 04/30/2012 12:37 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-42123/8	04/30/2012 13:17	
GSP-MW7-042712	240-10770-2	04/30/2012 13:57	
GSP-MW7-042712 MS	240-10770-2 MS	04/30/2012 14:38	
GSP-MW7-042712 MSD	240-10770-2 MSD	04/30/2012 15:19	
GSP-MW8-042712	240-10770-3	04/30/2012 16:00	
GSP-MW4-042712	240-10770-4	04/30/2012 16:41	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42123/7
Matrix: Water
Lab File ID: YF004307.D
Analysis Method: 8015B
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 04/30/2012 12:37
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42123
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	29.2	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	63		10-150

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF004308.D

Lab ID: LCS 240-42123/8 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	920	115	72-140	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF004310.D

Lab ID: 240-10770-2 MS Client ID: GSP-MW7-042712 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	96 J	961	108	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF004311.D

Lab ID: 240-10770-2 MSD Client ID: GSP-MW7-042712 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	996	113	4	20	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCV 240-42123/6 Date Analyzed: 04/30/2012 11:58

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF004306.D Heated Purge: (Y/N) N

Calibration ID: 6924

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				9.75		
UPPER LIMIT				9.85		
LOWER LIMIT				9.65		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-42123/6 CCVRT		04/30/2012 11:58	YF004306.D	9.75		
MB 240-42123/7		04/30/2012 12:37	YF004307.D	9.75		
LCS 240-42123/8		04/30/2012 13:17	YF004308.D	9.75		
240-10770-2	GSP-MW7-042712	04/30/2012 13:57	YF004309.D	9.74		
240-10770-2 MS	GSP-MW7-042712 MS	04/30/2012 14:38	YF004310.D	9.75		
240-10770-2 MSD	GSP-MW7-042712 MSD	04/30/2012 15:19	YF004311.D	9.75		
240-10770-3	GSP-MW8-042712	04/30/2012 16:00	YF004312.D	9.75		
240-10770-4	GSP-MW4-042712	04/30/2012 16:41	YF004313.D	9.75		
CCV 240-42123/14		04/30/2012 17:22	YF004314.D	9.75		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: YPID Start Date: 02/10/2012 10:35

Analysis Batch Number: 33435 End Date: 02/10/2012 23:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		02/10/2012 10:35	1		RTX-VRX 0.45(mm)
STD1 240-33435/12 IC		02/10/2012 16:17	1	YF021012.D	RTX-VRX 0.45(mm)
STD2 240-33435/13 IC		02/10/2012 16:55	1	YF021013.D	RTX-VRX 0.45(mm)
STD3 240-33435/14 IC		02/10/2012 17:32	1	YF021014.D	RTX-VRX 0.45(mm)
STD4 240-33435/15 ICRT		02/10/2012 18:11	1	YF021015.D	RTX-VRX 0.45(mm)
STD5 240-33435/16 IC		02/10/2012 18:49	1	YF021016.D	RTX-VRX 0.45(mm)
STD6 240-33435/17 IC		02/10/2012 19:27	1	YF021017.D	RTX-VRX 0.45(mm)
ICV 240-33435/18		02/10/2012 20:05	1	YF021018.D	RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 20:43	1		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 21:21	1		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 21:59	10		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 22:37	10		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 23:15	10		RTX-VRX 0.45(mm)
CCV 240-33435/24		02/10/2012 23:53	1		RTX-VRX 0.45(mm)

8015B

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 33435

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/10/2012 16:17 Calibration End Date: 02/10/2012 19:27 Calibration ID: 6924

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-33435/12	YF021012.D
Level 2	STD2 240-33435/13	YF021013.D
Level 3	STD3 240-33435/14	YF021014.D
Level 4	STD4 240-33435/15	YF021015.D
Level 5	STD5 240-33435/16	YF021016.D
Level 6	STD6 240-33435/17	YF021017.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Total Petroleum Hydrocarbons (C6-C10)	11.810	11.810	11.810	11.810	11.810	11.810					4.817 - 18.802	11.810
C6-C12	13.469	13.469	13.469	13.469	13.469	13.469					4.917 - 22.022	13.469
Trifluorotoluene (Surr)	9.768	9.772	9.769	9.772	9.771	9.774					9.522 - 10.022	9.771

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 33435

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/10/2012 16:17 Calibration End Date: 02/10/2012 19:27 Calibration ID: 6924

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-33435/12	YF021012.D
Level 2	STD2 240-33435/13	YF021013.D
Level 3	STD3 240-33435/14	YF021014.D
Level 4	STD4 240-33435/15	YF021015.D
Level 5	STD5 240-33435/16	YF021016.D
Level 6	STD6 240-33435/17	YF021017.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Total Petroleum Hydrocarbons (C6-C10)	318103 289067	320460 294590	282575	294457	Ave		299875.299				5.2		20.0			
C6-C12	375472 318195	363940 323226	316555	324196	Ave		336930.834				7.7		20.0			
Trifluorotoluene (Surr)	384133 460736	375012 483108	395882	424093	Ave		420494.083				10.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-33435/18 Calibration Date: 02/10/2012 20:05

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF021018.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	333932		891	800	11.4	20.0
C6-C12	Ave	336931	375679		892	800	11.5	20.0
Trifluorotoluene (Surr)	Ave	420494	416828		9.91	10.0	-0.9	20.0

FORM VII 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: YPID Start Date: 04/30/2012 10:39

Analysis Batch Number: 42123 End Date: 04/30/2012 17:22

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/30/2012 10:39	1		RTX-VRX 0.45(mm)
CCV 240-42123/6 CCVRT		04/30/2012 11:58	1	YF004306.D	RTX-VRX 0.45(mm)
MB 240-42123/7		04/30/2012 12:37	1	YF004307.D	RTX-VRX 0.45(mm)
LCS 240-42123/8		04/30/2012 13:17	1	YF004308.D	RTX-VRX 0.45(mm)
240-10770-2	GSP-MW7-042712	04/30/2012 13:57	1	YF004309.D	RTX-VRX 0.45(mm)
240-10770-2 MS	GSP-MW7-042712 MS	04/30/2012 14:38	1	YF004310.D	RTX-VRX 0.45(mm)
240-10770-2 MSD	GSP-MW7-042712 MSD	04/30/2012 15:19	1	YF004311.D	RTX-VRX 0.45(mm)
240-10770-3	GSP-MW8-042712	04/30/2012 16:00	1	YF004312.D	RTX-VRX 0.45(mm)
240-10770-4	GSP-MW4-042712	04/30/2012 16:41	1	YF004313.D	RTX-VRX 0.45(mm)
CCV 240-42123/14		04/30/2012 17:22	1	YF004314.D	RTX-VRX 0.45(mm)

8015B

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42123/6 Calibration Date: 04/30/2012 11:58

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF004306.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	314543		839	800	4.9	15.0
C6-C12	Ave	336931	352216		836	800	4.5	15.0
Trifluorotoluene (Surr)	Ave	420494	322967		7.68	10.0	-23.2*	15.0

FORM VII 8015B

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42123/14 Calibration Date: 04/30/2012 17:22

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF004314.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	313365		836	800	4.5	15.0
C6-C12	Ave	336931	350568		832	800	4.0	15.0
Trifluorotoluene (Surr)	Ave	420494	304096		7.23	10.0	-27.7*	15.0

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): ID:

Client Sample ID	Lab Sample ID	C91 #
GSP-MW7-042712	240-10770-2	63
GSP-MW8-042712	240-10770-3	73
GSP-MW4-042712	240-10770-4	70
	MB 240-42661/8-A	60
	LCS 240-42661/9-A	80

C9 = n-Nonane

QC LIMITS
10-110

Column to be used to flag recovery values

FORM II 8015B

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: MB 240-42661/8-A

Matrix: Water Date Extracted: 05/03/2012 11:54

Lab File ID:(1) P5B05052.D Lab File ID:(2)

Date Analyzed:(1) 05/04/2012 13:38 Date Analyzed:(2)

Instrument ID:(1) A2HP5R Instrument ID:(2)

GC Column:(1) ID: GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-MW7-042712	240-10770-2	05/04/2012 12:07	
GSP-MW8-042712	240-10770-3	05/04/2012 12:37	
GSP-MW4-042712	240-10770-4	05/04/2012 13:08	
	LCS 240-42661/9-A	05/04/2012 14:08	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42661/8-A
Matrix: Water
Lab File ID: P5B05052.D
Analysis Method: 8015B
Date Collected:
Extraction Method: 3510C
Date Extracted: 05/03/2012 11:54
Sample wt/vol: 1000(mL)
Date Analyzed: 05/04/2012 13:38
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: ID:
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 42755
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	500	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	60		10-110

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P5B05053.D

Lab ID: LCS 240-42661/9-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2500	2330	93	36-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCVRT 240-42755/4 Date Analyzed: 05/04/2012 09:33

Instrument ID: A2HP5R GC Column: ID: ()

Lab File ID (Standard): P5B05044.D Heated Purge: (Y/N) N

Calibration ID: 8454

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				C9		
				RT #		
CONTINUING CALIBRATION SURROGATE				4.03		
UPPER LIMIT				4.13		
LOWER LIMIT				3.93		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-42755/4		05/04/2012 09:33	P5B05044.D	4.03		
240-10770-2	GSP-MW7-042712	05/04/2012 12:07	P5B05049.D	4.03		
240-10770-3	GSP-MW8-042712	05/04/2012 12:37	P5B05050.D	4.03		
240-10770-4	GSP-MW4-042712	05/04/2012 13:08	P5B05051.D	4.03		
MB 240-42661/8-A		05/04/2012 13:38	P5B05052.D	4.03		
LCS 240-42661/9-A		05/04/2012 14:08	P5B05053.D	4.03		
CCV 240-42755/14		05/04/2012 14:39	P5B05054.D	4.03		

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: A2HP5R Start Date: 04/30/2012 10:28

Analysis Batch Number: 42117 End Date: 04/30/2012 17:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-42117/4 IC		04/30/2012 10:28	1	P5B04304.D	
STD2 240-42117/5 IC		04/30/2012 10:58	1	P5B04305.D	
ICRT 240-42117/6		04/30/2012 11:29	1	P5B04306.D	
STD4 240-42117/7 IC		04/30/2012 11:59	1	P5B04307.D	
STD5 240-42117/8 IC		04/30/2012 12:29	1	P5B04308.D	
ICV 240-42117/9		04/30/2012 12:59	1	P5B04309.D	
STD1 240-42117/10 IC		04/30/2012 13:30	1		
STD2 240-42117/11 IC		04/30/2012 14:00	1		
STD3 240-42117/12 IC		04/30/2012 14:31	1		
STD4 240-42117/13 IC		04/30/2012 15:01	1		
STD5 240-42117/14 IC		04/30/2012 15:32	1		
ICV 240-42117/15		04/30/2012 16:02	1		
ZZZZZ		04/30/2012 16:33	1		
CCV 240-42117/18		04/30/2012 17:33	1		

8015B

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42117

SDG No.:

Instrument ID: A2HP5R GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2012 10:28 Calibration End Date: 04/30/2012 12:29 Calibration ID: 8454

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-42117/4	P5B04304.D
Level 2	STD2 240-42117/5	P5B04305.D
Level 3	ICRT 240-42117/6	P5B04306.D
Level 4	STD4 240-42117/7	P5B04307.D
Level 5	STD5 240-42117/8	P5B04308.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel	9.351	9.351	9.351	9.351	9.351						5.054 - 13.650	9.351
n-Nonane	4.024	4.020	4.025	4.026	4.023						3.954 - 4.094	4.024

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42117

SDG No.:

Instrument ID: A2HP5R GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2012 10:28 Calibration End Date: 04/30/2012 12:29 Calibration ID: 8454

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-42117/4	P5B04304.D
Level 2	STD2 240-42117/5	P5B04305.D
Level 3	ICRT 240-42117/6	P5B04306.D
Level 4	STD4 240-42117/7	P5B04307.D
Level 5	STD5 240-42117/8	P5B04308.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	202380 139479	154697	180905	178149	Ave		171121.938				14.0		20.0			
n-Nonane	238010 169073	182724	223067	217729	Ave		206120.531				14.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42117/9 Calibration Date: 04/30/2012 12:59

Instrument ID: A2HP5R Calib Start Date: 04/30/2012 10:28

GC Column: ID: Calib End Date: 04/30/2012 12:29

Lab File ID: P5B04309.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	171122	171949		502	500	0.5	20.0

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: A2HP5R Start Date: 05/04/2012 09:33

Analysis Batch Number: 42755 End Date: 05/04/2012 14:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-42755/4		05/04/2012 09:33	1	P5B05044.D	
ZZZZZ		05/04/2012 10:04	1		
ZZZZZ		05/04/2012 10:35	1		
ZZZZZ		05/04/2012 11:06	1		
ZZZZZ		05/04/2012 11:36	1		
240-10770-2	GSP-MW7-042712	05/04/2012 12:07	1	P5B05049.D	
240-10770-3	GSP-MW8-042712	05/04/2012 12:37	1	P5B05050.D	
240-10770-4	GSP-MW4-042712	05/04/2012 13:08	1	P5B05051.D	
MB 240-42661/8-A		05/04/2012 13:38	1	P5B05052.D	
LCS 240-42661/9-A		05/04/2012 14:08	1	P5B05053.D	
CCV 240-42755/14		05/04/2012 14:39	1	P5B05054.D	

8015B

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCVRT 240-42755/4 Calibration Date: 05/04/2012 09:33

Instrument ID: A2HP5R Calib Start Date: 04/30/2012 10:28

GC Column: ID: Calib End Date: 04/30/2012 12:29

Lab File ID: P5B05044.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	171122	146148		427	500	-14.6	15.0
n-Nonane	Ave	206121	181559		44.0	50.0	-11.9	15.0

FORM VII 8015B

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42755/14 Calibration Date: 05/04/2012 14:39

Instrument ID: A2HP5R Calib Start Date: 04/30/2012 10:28

GC Column: ID: Calib End Date: 04/30/2012 12:29

Lab File ID: P5B05054.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	171122	185943		543	500	8.7	15.0
n-Nonane	Ave	206121	228814		55.5	50.0	11.0	15.0

FORM VII 8015B

HOLDTIME

SDG 240-10770-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
HG	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
HG	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
M	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
M	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
M	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
HGF	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
HGF	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
HGF	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
MF	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
MF	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
MF	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
PCL	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/7/2012	5/15/2012	10	8	18
PCL	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/7/2012	5/15/2012	10	8	18
PCL	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/7/2012	5/15/2012	10	8	18

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OS	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/8/2012	6	5	11
OS	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/8/2012	6	5	11
OS	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/3/2012	5/8/2012	6	5	11
OV	UG/L	TB-042712	240-10770-1	NM	4/27/2012	5/1/2012	5/1/2012	4	0	4
OV	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/1/2012	5/1/2012	4	0	4
OV	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/1/2012	5/1/2012	4	0	4
OV	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/1/2012	5/1/2012	4	0	4
OV	UG/L	TB-042712	240-10770-1	TB	4/27/2012	5/1/2012	5/1/2012	4	0	4
DRO	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
DRO	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
DRO	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
GRO	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	4/30/2012	4/30/2012	3	0	3
GRO	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	4/30/2012	4/30/2012	3	0	3
GRO	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	4/30/2012	4/30/2012	3	0	3

Tetra Tech, Inc. **INTERNAL CORRESPONDENCE**

TO:	**A. APANAVAGE**	**DATE:**	**JUNE 27, 2012**
FROM:	**MICHELLE L. ALLEN**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC/1,4-DIOXANE/DRO/GRO**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
SDG 240-10770-1

SAMPLES: 4/Aqueous/VOC

GSP-MW4-042712 GSP-MW7-042712 GSP-MW8-042712
TB-042712

3/Aqueous/1,4-DIOXANE/DRO/GRO

GSP-MW4-042712 GSP-MW7-042712 GSP-MW8-042712

Overview

The sample set for LMC-MSA, SDG 240-10770-1 consisted of three (3) aqueous environmental samples and one (1) trip blank. All four (4) aqueous samples were analyzed for volatile organic compounds (VOC). The three (3) aqueous environmental samples were analyzed for the semi-volatile organic compound (SVOC), 1,4-dioxane, diesel range organics (DRO) and gasoline range organics (GRO). No field duplicate sample pair was included in this SDG.

The samples were collected by Tetra Tech, Inc. on April 27, 2012 and analyzed by Test America, Inc. All analyses were conducted in accordance with SW-846 Methods 8260C, 8270C, and 8015B analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, trip blank results, surrogate spike recoveries, blank spike results, matrix spike/matrix spike duplicate results, internal standard recoveries, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major

- The initial and continuing calibrations performed on instrument A3UX16 in the VOC fraction had Relative Response Factors (RRFs) for tert-butyl alcohol below the 0.050 minimum response criterion. In addition, the continuing calibration RRF for vinyl acetate was below 0.05. All samples were affected. The non-detected results reported for these compounds in the affected samples were qualified as rejected, (UR).

- The VOC compound, 2-chloroethyl vinyl ether was not recovered in the Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses of sample GSP-MW7-042712. The non-detected result reported for 2-chloroethyl vinyl ether was qualified as rejected, (UR), in the parent sample.

Minor

The following contaminants were detected in the laboratory method blanks at the following maximum concentrations:

Compound	Maximum Concentration (µg/L)	Action Level (µg/L)
1,2,3-Trichlorobenzene [1]	0.280	1.4
GRO (C6-C10) [2]	29.2	146

1 Maximum concentration detected in the laboratory method blank, MB 240-42324/5, affecting all samples.
2 Maximum concentration detected in the laboratory method blank, MB 240-42123/7, affecting all samples.

An action level of 5X the maximum concentration was used to evaluate for blank contamination. Sample aliquot and dilution factor, if applicable, were taken into consideration when evaluating for blank contamination. Positive results for GRO reported below the established action level were qualified as non-detected, (B). No action was necessary for 1,2,3-trichlorobenzene because no positive results were reported for this compound in the affected samples.

- Positive results reported below the Reporting Limit (RL) limit but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

Sample GSP-MW7-042712 was diluted 4X prior to analysis in the VOC fraction. The RLs of the non-detected results were elevated.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: Initial and/or continuing calibration RRFs for tert-butyl alcohol and vinyl acetate were below the quality control criterion resulting in the rejection of the non-detected results. Laboratory method blank contamination was noted in the VOC and GRO fractions.

Other Factors Affecting Data Quality: One sample required a dilution for the VOC fraction.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994) and SW-846 Methods 8260C, 8270C, and 8015B analytical and reporting protocols. The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech, Inc.
Michelle L. Allen
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Quality Assurance Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712			TB-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3			240-10770-1		
FRACTION: OV	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.92	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.88	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.72	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		1.1	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.6	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.76	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.52	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.68	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		1.7	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.024	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.6	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.48	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		2.7	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.96	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.88	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.72	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.56	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.64	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.52	U		0.13	U		0.13	U	
2-BUTANONE		0.57	U		2.3	U		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		4	UR	D	0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.44	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		1.6	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.72	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.48	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		1.3	U		0.32	U		0.32	U	
ACETONE		1.6	J	P	4.4	U		1.1	U		1.1	U	
BENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		1.2	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.6	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		2.6	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		1.6	U		0.41	U		0.41	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712			TB-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3			240-10770-1		
FRACTION: OV	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.52	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.52	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.6	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.72	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		1.2	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.64	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		1.2	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		1.7			1.4	J	P	0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.56	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		1.1	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		1.2	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		6	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.44	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.68	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		1.2	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.96	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.68	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		1.3	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.96	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.48	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.56	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.56	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
SILANOL, TRIMETHYL-					5.8	R	Z2	1.4	R	Z2			
STYRENE		0.11	U		0.44	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.27	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	16	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		1.2	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.52	U		0.13	U		0.13	U	
TOTAL XYLENES		0.28	U		1.1	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.76	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.76	U		0.19	U		0.19	U	
TRICHLOROETHENE		5.1			110			0.17	U		0.17	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712			TB-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3			240-10770-1		
FRACTION: OV	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.21	U		0.84	U		0.21	U		0.21	U	
VINYL ACETATE		0.19	UR	C	0.76	UR	C	0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		0.53	J	P	0.88	U		0.22	U		0.22	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3		
FRACTION: OS	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.48	U		0.47	U		0.48	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3		
FRACTION: PET	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		55	B	A	96	B	A	57	B	A
TPH (C10-C32)		330	J	P	240	U		230	U	

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 | Lab Sample ID: 240-10770-4

Matrix: Water | Lab File ID: UXM5312.D

Analysis Method: 8260C | Date Collected: 04/27/2012 13:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	1.6	J	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 | Lab Sample ID: 240-10770-4

Matrix: Water | Lab File ID: UXM5312.D

Analysis Method: 8260C | Date Collected: 04/27/2012 13:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.7		1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	5.1		1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.53	J	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 | Lab Sample ID: 240-10770-4

Matrix: Water | Lab File ID: UXM5312.D

Analysis Method: 8260C | Date Collected: 04/27/2012 13:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	86		63-129
460-00-4	4-Bromofluorobenzene (Surr)	91		66-117
2037-26-5	Toluene-d8 (Surr)	88		74-115
1868-53-7	Dibromofluoromethane (Surr)	87		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 Lab Sample ID: 240-10770-4

Matrix: Water Lab File ID: UXM5312.D

Analysis Method: 8260C Date Collected: 04/27/2012 13:53

Sample wt/vol: 5(mL) Date Analyzed: 05/01/2012 16:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42324 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 | Lab Sample ID: 240-10770-2

Matrix: Water | Lab File ID: UXM5318.D

Analysis Method: 8260C | Date Collected: 04/27/2012 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 18:51

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.0	U	4.0	0.92
71-55-6	1,1,1-Trichloroethane	4.0	U	4.0	0.88
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	4.0	0.72
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	4.0	U	4.0	1.1
75-34-3	1,1-Dichloroethane	4.0	U	4.0	0.60
75-35-4	1,1-Dichloroethene	4.0	U	4.0	0.76
563-58-6	1,1-Dichloropropene	4.0	U	4.0	0.52
87-61-6	1,2,3-Trichlorobenzene	4.0	U	4.0	0.68
96-18-4	1,2,3-Trichloropropane	4.0	U	4.0	1.7
526-73-8	1,2,3-Trimethylbenzene	20	U	20	0.024
120-82-1	1,2,4-Trichlorobenzene	4.0	U	4.0	0.60
95-63-6	1,2,4-Trimethylbenzene	4.0	U	4.0	0.48
96-12-8	1,2-Dibromo-3-Chloropropane	8.0	U	8.0	2.7
95-50-1	1,2-Dichlorobenzene	4.0	U	4.0	0.52
107-06-2	1,2-Dichloroethane	4.0	U	4.0	0.88
78-87-5	1,2-Dichloropropane	4.0	U	4.0	0.72
541-73-1	1,3-Dichlorobenzene	4.0	U	4.0	0.56
142-28-9	1,3-Dichloropropane	4.0	U	4.0	0.64
106-46-7	1,4-Dichlorobenzene	4.0	U	4.0	0.52
594-20-7	2,2-Dichloropropane	4.0	U	4.0	0.52
110-75-8	2-Chloroethyl vinyl ether	40	U	40	4.0
95-49-8	2-Chlorotoluene	4.0	U	4.0	0.44
591-78-6	2-Hexanone	40	U	40	1.6
108-86-1	Bromobenzene	4.0	U	4.0	0.52
74-97-5	Bromochloromethane	4.0	U	4.0	1.2
106-43-4	4-Chlorotoluene	4.0	U	4.0	0.72
99-87-6	p-Isopropyltoluene	4.0	U	4.0	0.48
67-64-1	Acetone	40	U	40	4.4
71-43-2	Benzene	4.0	U	4.0	0.52
75-25-2	Bromoform	4.0	U	4.0	2.6
74-83-9	Bromomethane	4.0	U	4.0	1.6
75-15-0	Carbon disulfide	4.0	U	4.0	0.52
56-23-5	Carbon tetrachloride	4.0	U	4.0	0.52
108-90-7	Chlorobenzene	4.0	U	4.0	0.60
75-00-3	Chloroethane	4.0	U	4.0	1.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 | Lab Sample ID: 240-10770-2

Matrix: Water | Lab File ID: UXM5318.D

Analysis Method: 8260C | Date Collected: 04/27/2012 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 18:51

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	4.0	U	4.0	0.64
74-87-3	Chloromethane	4.0	U	4.0	1.2
156-59-2	cis-1,2-Dichloroethene	1.4	J	4.0	0.68
10061-01-5	cis-1,3-Dichloropropene	4.0	U	4.0	0.56
87-68-3	Hexachlorobutadiene	4.0	U	4.0	1.2
74-95-3	Dibromomethane	4.0	U	4.0	1.1
75-27-4	Bromodichloromethane	4.0	U	4.0	0.60
75-71-8	Dichlorodifluoromethane	4.0	U	4.0	1.2
100-41-4	Ethylbenzene	4.0	U	4.0	0.68
106-93-4	1,2-Dibromoethane	4.0	U	4.0	0.96
108-20-3	Diisopropyl ether	40	U	40	6.0
91-20-3	Naphthalene	4.0	U	4.0	0.96
179601-23-1	m-Xylene & p-Xylene	8.0	U	8.0	0.96
104-51-8	n-Butylbenzene	4.0	U	4.0	0.48
98-82-8	Isopropylbenzene	4.0	U	4.0	0.52
103-65-1	n-Propylbenzene	4.0	U	4.0	0.56
78-93-3	2-Butanone	40	U	40	2.3
108-10-1	4-Methyl-2-pentanone	40	U	40	1.3
135-98-8	sec-Butylbenzene	4.0	U	4.0	0.52
1634-04-4	Methyl tert-butyl ether	20	U	20	0.68
994-05-8	Tert-amyl-methyl ether (TAME)	20	U	20	0.27
75-09-2	Methylene Chloride	4.0	U	4.0	1.3
95-47-6	o-Xylene	4.0	U	4.0	0.56
100-42-5	Styrene	4.0	U	4.0	0.44
637-92-3	Ethyl-t-butyl ether (ETBE)	20	U	20	0.44
98-06-6	tert-Butylbenzene	4.0	U	4.0	0.52
127-18-4	Tetrachloroethene	4.0	U	4.0	1.2
108-88-3	Toluene	4.0	U	4.0	0.52
156-60-5	trans-1,2-Dichloroethene	4.0	U	4.0	0.76
10061-02-6	trans-1,3-Dichloropropene	4.0	U	4.0	0.76
79-01-6	Trichloroethene	110		4.0	0.68
75-69-4	Trichlorofluoromethane	4.0	U	4.0	0.84
108-05-4	Vinyl acetate	8.0	U	8.0	0.76
75-01-4	Vinyl chloride	4.0	U	4.0	0.88
75-65-0	tert-Butyl alcohol	200	U	200	16
1330-20-7	Xylenes, Total	8.0	U	8.0	1.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 | Lab Sample ID: 240-10770-2

Matrix: Water | Lab File ID: UXM5318.D

Analysis Method: 8260C | Date Collected: 04/27/2012 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 18:51

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.0	U	4.0	0.72

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		63-129
460-00-4	4-Bromofluorobenzene (Surr)	91		66-117
2037-26-5	Toluene-d8 (Surr)	88		74-115
1868-53-7	Dibromofluoromethane (Surr)	85		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 Lab Sample ID: 240-10770-2

Matrix: Water Lab File ID: UXM5318.D

Analysis Method: 8260C Date Collected: 04/27/2012 10:14

Sample wt/vol: 5(mL) Date Analyzed: 05/01/2012 18:51

Soil Aliquot Vol: Dilution Factor: 4

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42324 Units: ug/L

Number TICs Found: 1 TIC Result Total: 5.8

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.61	5.8	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 | Lab Sample ID: 240-10770-3

Matrix: Water | Lab File ID: UXM5311.D

Analysis Method: 8260C | Date Collected: 04/27/2012 12:03

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 | Lab Sample ID: 240-10770-3

Matrix: Water | Lab File ID: UXM5311.D

Analysis Method: 8260C | Date Collected: 04/27/2012 12:03

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 | Lab Sample ID: 240-10770-3

Matrix: Water | Lab File ID: UXM5311.D

Analysis Method: 8260C | Date Collected: 04/27/2012 12:03

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		63-129
460-00-4	4-Bromofluorobenzene (Surr)	88		66-117
2037-26-5	Toluene-d8 (Surr)	84		74-115
1868-53-7	Dibromofluoromethane (Surr)	81		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 Lab Sample ID: 240-10770-3

Matrix: Water Lab File ID: UXM5311.D

Analysis Method: 8260C Date Collected: 04/27/2012 12:03

Sample wt/vol: 5(mL) Date Analyzed: 05/01/2012 16:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42324 Units: ug/L

Number TICs Found: 1 TIC Result Total: 1.4

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.61	1.4	T J N

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: TB-042712 | Lab Sample ID: 240-10770-1

Matrix: Water | Lab File ID: UXM5303.D

Analysis Method: 8260C | Date Collected: 04/27/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 13:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroet hane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: TB-042712 | Lab Sample ID: 240-10770-1

Matrix: Water | Lab File ID: UXM5303.D

Analysis Method: 8260C | Date Collected: 04/27/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 13:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: TB-042712
Lab Sample ID: 240-10770-1
Matrix: Water
Lab File ID: UXM5303.D
Analysis Method: 8260C
Date Collected: 04/27/2012 00:00
Sample wt/vol: 5(mL)
Date Analyzed: 05/01/2012 13:05
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42324
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-129
460-00-4	4-Bromofluorobenzene (Surr)	98		66-117
2037-26-5	Toluene-d8 (Surr)	95		74-115
1868-53-7	Dibromofluoromethane (Surr)	94		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: TB-042712 Lab Sample ID: 240-10770-1

Matrix: Water Lab File ID: UXM5303.D

Analysis Method: 8260C Date Collected: 04/27/2012 00:00

Sample wt/vol: 5(mL) Date Analyzed: 05/01/2012 13:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42324 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 | Lab Sample ID: 240-10770-4

Matrix: Water | Lab File ID: 20508021.D

Analysis Method: 8270C | Date Collected: 04/27/2012 13:53

Extract. Method: 3520C | Date Extracted: 05/03/2012 09:57

Sample wt/vol: 1030(mL) | Date Analyzed: 05/08/2012 14:56

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43126 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.97	U	0.97	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	52		28-110
367-12-4	2-Fluorophenol (Surr)	54		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	80		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	53		27-111
4165-62-2	Phenol-d5 (Surr)	56		10-110
1718-51-0	Terphenyl-d14 (Surr)	67		37-119

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW7-042712
Lab Sample ID: 240-10770-2
Matrix: Water
Lab File ID: 20508019.D
Analysis Method: 8270C
Date Collected: 04/27/2012 10:14
Extract. Method: 3520C
Date Extracted: 05/03/2012 09:57
Sample wt/vol: 1050(mL)
Date Analyzed: 05/08/2012 14:20
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 43126
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.95	U	0.95	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	54		28-110
367-12-4	2-Fluorophenol (Surr)	59		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	71		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	62		27-111
4165-62-2	Phenol-d5 (Surr)	60		10-110
1718-51-0	Terphenyl-d14 (Surr)	71		37-119

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 | Lab Sample ID: 240-10770-3

Matrix: Water | Lab File ID: 20508020.D

Analysis Method: 8270C | Date Collected: 04/27/2012 12:03

Extract. Method: 3520C | Date Extracted: 05/03/2012 09:57

Sample wt/vol: 1020(mL) | Date Analyzed: 05/08/2012 14:38

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43126 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.98	U	0.98	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	50		28-110
367-12-4	2-Fluorophenol (Surr)	48		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	67		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	52		27-111
4165-62-2	Phenol-d5 (Surr)	51		10-110
1718-51-0	Terphenyl-d14 (Surr)	65		37-119

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW4-042712
Lab Sample ID: 240-10770-4
Matrix: Water
Lab File ID: YF004313.D
Analysis Method: 8015B
Date Collected: 04/27/2012 13:53
Sample wt/vol: 5(mL)
Date Analyzed: 04/30/2012 16:41
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42123
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	55	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	64		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW7-042712
Lab Sample ID: 240-10770-2
Matrix: Water
Lab File ID: YF004309.D
Analysis Method: 8015B
Date Collected: 04/27/2012 10:14
Sample wt/vol: 5(mL)
Date Analyzed: 04/30/2012 13:57
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42123
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	96	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	61		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW8-042712
Lab Sample ID: 240-10770-3
Matrix: Water
Lab File ID: YF004312.D
Analysis Method: 8015B
Date Collected: 04/27/2012 12:03
Sample wt/vol: 5(mL)
Date Analyzed: 04/30/2012 16:00
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42123
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	57	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	61		10-150

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW4-042712
Lab Sample ID: 240-10770-4
Matrix: Water
Lab File ID: P5B05051.D
Analysis Method: 8015B
Date Collected: 04/27/2012 13:53
Extraction Method: 3510C
Date Extracted: 05/03/2012 11:54
Sample wt/vol: 990(mL)
Date Analyzed: 05/04/2012 13:08
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: ID:
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 42755
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	330	J	510	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	70		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 | Lab Sample ID: 240-10770-2

Matrix: Water | Lab File ID: P5B05049.D

Analysis Method: 8015B | Date Collected: 04/27/2012 10:14

Extraction Method: 3510C | Date Extracted: 05/03/2012 11:54

Sample wt/vol: 1000(mL) | Date Analyzed: 05/04/2012 12:07

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 42755 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	500	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	63		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 Lab Sample ID: 240-10770-3

Matrix: Water Lab File ID: P5B05050.D

Analysis Method: 8015B Date Collected: 04/27/2012 12:03

Extraction Method: 3510C Date Extracted: 05/03/2012 11:54

Sample wt/vol: 1050(mL) Date Analyzed: 05/04/2012 12:37

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 42755 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	480	U	480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	73		10-110

Appendix C

Support Documentation

MARTIN STATE AIRPORT - GROUNDWATER
SDG 240-10770-1

SAMPLE IDENTIFICATION	GSP-MW7-042712
COMPOUND	TRICHLOROETHENE
COMPOUND AREA	987189
INTERNAL STANDARD AMOUNT (ng)	50
VOLUME WATER PURGED (ml)	5
DILUTION FACTOR	4
INTERNAL STANDARD AREA	1362003
AVERAGE RRF	0.2698
ml to µl	1000
ng to µg	1000
=	107.5 µg/L

987189 x 50 ng x 4 x 1000ml x 1µg /1362003 x 0.2698 x 5ml x 1L x 1000ng

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
29 3-Chloro-1-propene	76		3.484					
28 Methyl acetate	43		3.496					
30 Methylene Chloride	84	3.591	3.579	0.012	90	29855	0.1455	
31 2-Methyl-2-propanol	59		3.674					
32 Acrylonitrile	53		3.792					
33 trans-1,2-Dichloroethene	96		3.840					
34 Methyl tert-butyl ether	73		3.840					
35 Hexane	86		4.089					
36 1,1-Dichloroethane	63		4.208					
37 Vinyl acetate	86		4.243					
38 Isopropyl ether	87		4.279					
39 2-Chloro-1,3-butadiene	53		4.291					
40 Tert-butyl ethyl ether	59		4.587					
42 cis-1,2-Dichloroethene	96	4.717	4.706	0.011	64	15220	0.3619	
41 2-Butanone (MEK)	43		4.706					
43 2,2-Dichloropropane	77		4.717					
44 Propionitrile	54		4.753					
45 Ethyl acetate	43		4.765					
46 Methacrylonitrile	41		4.895					
47 Chlorobromomethane	128		4.919					
48 Tetrahydrofuran	42		4.966					
49 Chloroform	83		4.978					
50 1,1,1-Trichloroethane	97		5.156					
51 Cyclohexane	56		5.215					
52 1,1-Dichloropropene	75		5.299					
53 Carbon tetrachloride	117		5.310					
54 Isobutyl alcohol	41		5.346					
56 1,2-Dichloroethane	62		5.465					
55 Benzene	78		5.476					
57 Tert-amyl methyl ether	73		5.559					
61 Ethyl acrylate	55		5.605					
58 n-Heptane	100		5.702					
59 n-Butanol	56		5.903					
60 Trichloroethene	130	6.022	6.022	0.0	96	987189	26.9	
63 Methylcyclohexane	83		6.200					
62 1,2-Dichloropropane	63		6.212					
64 Methyl methacrylate	41		6.283					
65 Dibromomethane	93		6.306					
66 1,4-Dioxane	88		6.318					
67 Dichlorobromomethane	83		6.437					
68 2-Nitropropane	41		6.627					
69 2-Chloroethyl vinyl ether	63		6.686					
70 cis-1,3-Dichloropropene	75		6.828					
71 4-Methyl-2-pentanone (MIBK)	43		6.947					
72 Toluene	91		7.137					
73 trans-1,3-Dichloropropene	75		7.314					
74 Ethyl methacrylate	69		7.386					
75 1,1,2-Trichloroethane	97		7.480					
76 1,3-Dichloropropane	76		7.635					
77 Tetrachloroethene	164		7.646					
78 2-Hexanone	43		7.694					
81 1-Chlorohexane	91		7.788					

RRF = 0.2698

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
132 n-Butyl acetate	43		7.813					
79 Chlorodibromomethane	129		7.848					
80 Tetrahydrothiophene	60		7.860					
123 Ethylene Dibromide	107		7.967					
82 Chlorobenzene	112		8.429					
83 1,1,1,2-Tetrachloroethane	131		8.488					
84 Ethylbenzene	106		8.524					
10 m-Xylene & p-Xylene	106		8.631					
85 o-Xylene	106		9.010					
86 Styrene	104		9.010					
87 Bromoform	173		9.188					
88 Isopropylbenzene	105		9.354					
89 Cyclohexanone	55		9.437					
135 1,4-Dichlorobutane	55		9.437					
90 1,1,2,2-Tetrachloroethane	83		9.615					
91 Bromobenzene	156		9.662					
93 trans-1,4-Dichloro-2-butene	53		9.674					
92 1,2,3-Trichloropropane	110		9.674					
94 N-Propylbenzene	120		9.757					
95 2-Chlorotoluene	126		9.840					
96 1,3,5-Trimethylbenzene	105		9.923					
104 4-Chlorotoluene	126		9.947					
97 tert-Butylbenzene	119		10.244					
98 1,2,4-Trimethylbenzene	105		10.291					
99 sec-Butylbenzene	105		10.457					
100 1,3-Dichlorobenzene	146		10.576					
101 4-Isopropyltoluene	119		10.599					
102 1,4-Dichlorobenzene	146		10.659					
103 1,2,3-Trimethylbenzene	105		10.706					
105 n-Butylbenzene	91		11.002					
106 1,2-Dichlorobenzene	146		11.026					
107 1,2-Dibromo-3-Chloropropane	157		11.797					
108 1,3,5-Trichlorobenzene	180		12.022					
109 1,2,4-Trichlorobenzene	180		12.639					
110 Hexachlorobutadiene	225		12.817					
111 Naphthalene	128		12.888					
112 1,2,3-Trichlorobenzene	180		13.149					
113 2-Methylnaphthalene	142		14.240					
S 137 Trihalomethanes, Total	1		0.000					
S 11 1,2-Dichloroethene, Total	96				0		0.3619	
S 9 1,3-Dichloropropene, Total	75		6.760					
S 114 Xylenes, Total	106		16.530					

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A3UX16\20120501-9570.b\UXM5318.D		
Lims ID:	240-10770-B-2	Client ID:	GSP-MW7-042712
Inject. Date:	01-May-2012 18:51:30	Dil. Factor:	4.0000
Sample Type:	Client		
Sample ID:	240-0009570-021		
Misc. Info.:	M20501A,8260LLUX16,,1644		
Operator:	1644	Instrument ID:	A3UX16
Vol. Injected:	1.0000	ALS Bottle#:	20
Lims Batch ID:	42324	Lims Sample ID:	21
Detector:	MS SCAN		
Method:	\\Ncchrom\ChromData\A3UX16\20120501-9570.b\8260_16.m		
Last Update:	02-May-2012 10:55:43	Calib Date:	29-Apr-2012 19:50:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A3UX16\20120429-9509.b\UXM5250.D		
Limit Group:	MSV 8260DOD ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Process Host:	CORP-CTX-17		

First Level Reviewer: williamsla Date: 02-May-2012 11:07:24

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 141 1-Chlorooctane	1		0.000					
* 1 Fluorobenzene	96	5.702	5.702	0.0	98	1362003	10.0	
* 2 Chlorobenzene-d5	117	8.393	8.394	-0.001	90	922953	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.635	10.635	0.0	98	426990	10.0	
$ 142 2,5-Dibromotoluene	1		0.000					
$ 5 Dibromofluoromethane (Surr)	113	5.121	5.109	0.012	65	283913	8.72	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	5.405	5.405	0.0	0	468123	8.89	
$ 7 Toluene-d8 (Surr)	98	7.077	7.077	0.0	95	1283387	8.96	
$ 131 4-Bromofluorobenzene (Surr)	95	9.508	9.508	0.0	81	477229	9.34	
136 Hexachloroethane TIC	1		0.000					
133 Benzyl chloride	126		0.000					
134 Chlorodifluoromethane TIC	1		0.000					
138 Butyl Methacrylate TIC	1		0.000					
139 C6-C12	1		0.000					
140 C6-C10	1		0.000					
12 Dichlorodifluoromethane	85		1.658					
13 Chloromethane	50		1.824					
14 Vinyl chloride	62		1.954					
15 Bromomethane	94		2.298					
16 Chloroethane	64		2.405					
17 Dichlorofluoromethane	67		2.595					
18 Trichlorofluoromethane	101		2.666					
25 Methylal	45		2.856					
19 Ethyl ether	59		2.927					
20 Acrolein	56		3.034					
21 1,1-Dichloroethene	96		3.152					
23 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.176					
22 Acetone	43		3.176					
24 Iodomethane	142		3.294					
26 Carbon disulfide	76		3.366					
27 Acetonitrile	41		3.425					

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A2HP5R\20120504-9661.b\P5B05051.D		
Lims ID:	240-10770-K-4-A	Client ID:	GSP-MW4-042712
Inject. Date:	04-May-2012 13:08:07	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0009661-011		
Misc. Info.:			
Operator:	2398	Instrument ID:	A2HP5R
Vol. Injected:	1.0000	ALS Bottle#:	61
Lims Batch ID:	42755	Lims Sample ID:	11
Detector:	GC FID2B		

Method:	\\Ncchrom\ChromData\A2HP5R\20120504-9661.b\TPH5R.m		
Last Update:	07-May-2012 11:41:19	Calib Date:	30-Apr-2012 15:32:13
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A2HP5R\20120430-9518.b\P5B04314.D		
Limit Group:	GC TPH DIESEL ICAL		
Integrator:	Falcon		
Process Host:	CORP-CTX-18		

RT	EXP RT	DLT RT	Response	On-Col Amt ng/ul	Flags
$ 8 n-Nonane					
4.034	4.028	0.006	14443839	70.1	
A 15 Diesel					
9.356	5.058 - 13.654		8259365	48.3	
A 17 C10-C32					
10.045	5.058 - 15.033		11057698	64.6	

extraction - 990ml / 5ml

$\overline{CF}$ = 171121.938

$$\frac{11057698\ ng/\mu l}{171121.938} \times \frac{5ml}{990ml} \times \frac{1\ mg}{1000\ ng} \times \frac{1000\ 000\ \mu l}{1\ L}$$

= 326 mg/L

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location:
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact

Company Name: Tetra Tech Inc.	Client Project Manager: Tony Apanavage	Site Contact: Walt Payne	Lab Contact: Pat O'Meara	COC No:
Address: 20251 Century Blvd.	Telephone: 301 528-3021	Telephone: 301 991-3914	Telephone: 330-497-9396	1 of 1 COCs
City/State/Zip: Germantown MD 20874	Email:	Analysis Turnaround Time (In BUS days)		
Phone: 301 528-3021		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: MSA Ground water Sampling	Method of Shipment/Carrier: Fed Ex			
Project Number: 112IC04021-02	Shipping/Tracking No:			
PO#				

For lab use only: Walk-in client ☐ Lab pickup ☐ Lab sampling ☐ Job/SDG No.

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C/Grab=G	Analyses: VOCs	Total ppm	Diss ppm	1,4 Dioxane	DRO	GRO	Perchlorate				Sample Specific Notes / Special Instructions:
TB-042712	4-27-12	—		X						2					N	G	X										
GSP-MW7-042712	↓	1014		X					2	5			5		↓	↓	X	X	X	X	X	X	X				
GSP-MW8-042712		1203		X					2	5			5				X	X	X	X	X	X	X				
GSP-MW4-042712		1353		X					2	5			5				X	X	X	X	X	X	X				

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walt Payne	TT Inc.	4-27-12 / 1517	Paul Hayward	TestAmerica	4/27/12/1517
Paul Hayward	TestAmerica	4/27/12/1620			
			Received in Laboratory by: Mike Ha[illegible]	TA	4/28/12 1000

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

TAL-0018 (1008)

05/30/2012

CASE NARRATIVE

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Project: MSA Groundwater Sampling

Report Number: 240-10770-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The Perchlorate analysis was performed at the TestAmerica West Sacramento Laboratory.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 04/28/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.4 and 1.2 C.

VOLATILE ORGANIC COMPOUNDS (GC MS)

Samples TB-042712 (240-10770-1), GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for volatile organic compounds (GC MS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 05/01/2012.

1,2,3-Trichlorobenzene was detected in method blank MB 240-42324/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

2-Chloroethyl vinyl ether failed the recovery criteria low for the MS/MSD of sample GSP-MW7-042712MS/MSD (240-10770-2) in batch 240-42324.

Refer to the QC report for details.

Sample GSP-MW7-042712 (240-10770-2)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 05/03/2012 and analyzed on 05/08/2012.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 43632/8270.

No other difficulties were encountered during the SVOCs analyses. All quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 04/30/2012.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-42123/7 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 05/03/2012 and analyzed on 05/04/2012.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 42661.

No other difficulties were encountered during the DRO analyses. All quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

No difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

Several analytes were detected in method blank MB 240-42485/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/02/2012 and 05/03/2012 and analyzed on 05/03/2012 and 05/04/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/02/2012 and 05/03/2012 and analyzed on 05/03/2012 and 05/04/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10770-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-10770-1TB	TB-042712	Water	04/27/2012 0000	04/28/2012 1000
240-10770-2	GSP-MW7-042712	Water	04/27/2012 1014	04/28/2012 1000
240-10770-3	GSP-MW8-042712	Water	04/27/2012 1203	04/28/2012 1000
240-10770-4	GSP-MW4-042712	Water	04/27/2012 1353	04/28/2012 1000

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10770-1

Lab Section	Qualifier	Description
GC/MS VOA		
	J	Indicates an Estimated Value for TICs
	U	Indicates the analyte was analyzed for but not detected.
	F	MS or MSD exceeds the control limits
	T	Result is a tentatively identified compound (TIC) and an estimated value.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	N	This flag indicates the presumptive evidence of a compound.
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
GC VOA		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Metals		
	B	Compound was found in the blank and sample.
	^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-042712	240-10770-1	94	92	95	98
GSP-MW7-042712	240-10770-2	85	87	88	91
GSP-MW8-042712	240-10770-3	81	82	84	88
GSP-MW4-042712	240-10770-4	87	86	88	91
	MB 240-42324/5	87	88	90	94
	LCS 240-42324/4	87	82	87	95
GSP-MW7-042712 MS	240-10770-2 MS	89	85	91	95
GSP-MW7-042712 MSD	240-10770-2 MSD	86	84	91	95

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-115
BFB = 4-Bromofluorobenzene (Surr)	66-117

Column to be used to flag recovery values

FORM II 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: STD8260 240-42092/4 Date Analyzed: 04/29/2012 16:26

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM5241.D Heated Purge: (Y/N) N

Calibration ID: 8426

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1530000	5.70	1036987	8.39	499405	10.64
UPPER LIMIT		3060000	6.20	2073974	8.89	998810	11.14
LOWER LIMIT		765000	5.20	518494	7.89	249703	10.14
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-42092/14		1382789	5.70	929711	8.39	462842	10.64
CCVIS 240-42324/2		1685652	5.70	1127991	8.39	551448	10.64

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCVIS 240-42324/2 Date Analyzed: 05/01/2012 10:57

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM5299.D Heated Purge: (Y/N) N

Calibration ID: 8428

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1685652	5.70	1127991	8.39	551448	10.64
UPPER LIMIT		3371304	6.20	2255982	8.89	1102896	11.14
LOWER LIMIT		842826	5.20	563996	7.89	275724	10.14
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-42324/3		1584858	5.70	1039768	8.39	509719	10.64
LCS 240-42324/4		1635403	5.70	1080601	8.39	561237	10.64
MB 240-42324/5		1511836	5.70	1024126	8.39	489807	10.64
240-10770-1	TB-042712	1435323	5.70	969675	8.39	455010	10.64
240-10770-3	GSP-MW8-042712	1507618	5.70	1016861	8.39	471906	10.64
240-10770-4	GSP-MW4-042712	1457135	5.70	982988	8.39	456091	10.64
240-10770-2	GSP-MW7-042712	1362003	5.70	922953	8.39	426990	10.64
240-10770-2 MS	GSP-MW7-042712 MS	1398521	5.70	928051	8.39	457817	10.64
240-10770-2 MSD	GSP-MW7-042712 MSD	1446927	5.70	965602	8.39	481690	10.64

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: BFB2914.D BFB Injection Date: 04/29/2012

Instrument ID: A3UX16 BFB Injection Time: 15:11

Analysis Batch No.: 42092

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.4	
75	30.0 - 60.0 % of mass 95	55.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.3	(0.4)1
174	50.0 - 120.00 % of mass 95	67.2	
175	5.0 - 9.0 % of mass 174	4.9	(7.4)1
176	95.0 - 101.0 % of mass 174	65.5	(97.4)1
177	5.0 - 9.0 % of mass 176	4.1	(6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-42092/2	UXM5239.D	04/29/2012	15:41
	STD8260 240-42092/3	UXM5240.D	04/29/2012	16:03
	STD8260 240-42092/4	UXM5241.D	04/29/2012	16:26
	STD8260 240-42092/5	UXM5242.D	04/29/2012	16:49
	STD8260 240-42092/6	UXM5243.D	04/29/2012	17:12
	STD8260 240-42092/7	UXM5244.D	04/29/2012	17:34
	STD1 240-42092/8	UXM5245.D	04/29/2012	17:57
	STD2 240-42092/9	UXM5246.D	04/29/2012	18:20
	STD3 240-42092/10	UXM5247.D	04/29/2012	18:42
	STD4 240-42092/11	UXM5248.D	04/29/2012	19:05
	STD5 240-42092/12	UXM5249.D	04/29/2012	19:28
	STD6 240-42092/13	UXM5250.D	04/29/2012	19:50
	ICV 240-42092/14	UXM5251.D	04/29/2012	20:13

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-42092/7	UXM5244.D
Level 2	STD8260 240-42092/6	UXM5243.D
Level 3	STD8260 240-42092/5	UXM5242.D
Level 4	STD8260 240-42092/4	UXM5241.D
Level 5	STD8260 240-42092/3	UXM5240.D
Level 6	STD8260 240-42092/2	UXM5239.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2475 0.3038	0.2649	0.2905	0.2889	0.3016	Ave		0.2829			0.1000	7.8		15.0			
Chloromethane	0.4695 0.4320	0.4893	0.4830	0.4487	0.4452	Ave		0.4613			0.1000	4.9		15.0			
Vinyl chloride	0.4202 0.4041	0.4409	0.4365	0.4256	0.4202	Ave		0.4246			0.1000	3.1		15.0			
Bromomethane	0.1730 0.1493	0.1760	0.1733	0.1676	0.1710	Ave		0.1684			0.0500	5.8		15.0			
Chloroethane	0.2470 0.2229	0.2473	0.2344	0.2374	0.2336	Ave		0.2371				3.9		15.0			
Trichlorofluoromethane	0.2704 0.3132	0.3068	0.3031	0.3070	0.3204	Ave		0.3035			0.1000	5.7		15.0			
Acrolein	0.0469 0.0473	0.0483	0.0502	0.0508	0.0498	Ave		0.0489				3.3		15.0			
1,1-Dichloroethene	0.2340 0.2501	0.2402	0.2424	0.2499	0.2511	Ave		0.2446			0.1000	2.8		15.0			
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.1512 0.1622	0.1553	0.1500	0.1479	0.1608	Ave		0.1546			0.0500	3.8		15.0			
Acetone	0.2162 0.0864	0.1595	0.1181	0.1099	0.0970	Lin1	0.2842	0.0868			0.0500				0.9960		0.9950
Iodomethane	0.3345 0.3288	0.3415	0.3505	0.3469	0.3574	Ave		0.3433				3.1		15.0			
Carbon disulfide	0.6238 0.8183	0.6509	0.6976	0.7556	0.8104	Ave		0.7261			0.1000	11.0		15.0			
Acetonitrile	0.0391 0.0299	0.0368	0.0353	0.0335	0.0333	Ave		0.0346				9.2		15.0			
Methyl acetate	0.2451 0.2094	0.2377	0.2404	0.2374	0.2264	Ave		0.2327			0.1000	5.6		15.0			
Methylene Chloride	0.4532 0.2926	0.3791	0.3449	0.3188	0.3120	Lin1	0.1763	0.2950			0.1000				0.9990		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
tert-Butyl alcohol	0.0187 0.0171	0.0206	0.0189	0.0189	0.0192	Ave		0.0189				6.0		15.0			
Acrylonitrile	0.1145 0.1022	0.1105	0.1139	0.1170	0.1105	Ave		0.1114				4.6		15.0			
trans-1,2-Dichloroethene	0.2839 0.2770	0.2945	0.2944	0.2851	0.2889	Ave		0.2873			0.1000	2.4		15.0			
Methyl tert-butyl ether	0.8507 0.8216	0.8205	0.8460	0.8461	0.8566	Ave		0.8402			0.1000	1.8		15.0			
Hexane	0.0529 0.0560	0.0521	0.0488	0.0501	0.0574	Ave		0.0529				6.3		15.0			
1,1-Dichloroethane	0.5478 0.5504	0.5906	0.5789	0.5698	0.5773	Ave		0.5691			0.1000	3.0		15.0			
Vinyl acetate	0.0438 0.0547	0.0420	0.0492	0.0562	0.0568	Ave		0.0505				13.0		15.0			
2-Butanone	0.1431 0.1214	0.1392	0.1413	0.1375	0.1314	Ave		0.1356			0.0500	5.9		15.0			
cis-1,2-Dichloroethene	0.3153 0.3006	0.3006	0.3107	0.3096	0.3157	Ave		0.3087			0.1000	2.2		15.0			
2,2-Dichloropropane	0.2459 0.3076	0.2799	0.2938	0.3057	0.3261	Ave		0.2932				9.5		15.0			
Bromochloromethane	0.1255 0.1262	0.1225	0.1298	0.1329	0.1330	Ave		0.1283				3.3		15.0			
Tetrahydrofuran	0.0875 0.0744	0.0826	0.0830	0.0854	0.0842	Ave		0.0828				5.4		15.0			
Chloroform	0.5169 0.5153	0.5299	0.5388	0.5290	0.5477	Ave		0.5296				2.4		15.0			
1,1,1-Trichloroethane	0.3234 0.3831	0.3500	0.3674	0.3840	0.3986	Ave		0.3678			0.1000	7.4		15.0			
Cyclohexane	0.4217 0.4832	0.4863	0.4431	0.4476	0.4809	Ave		0.4605			0.1000	5.8		15.0			
1,1-Dichloropropene	0.4359 0.4194	0.4199	0.4223	0.4252	0.4356	Ave		0.4264				1.8		15.0			
Carbon tetrachloride	0.2456 0.3072	0.2543	0.2617	0.2867	0.3066	Ave		0.2770			0.1000	9.7		15.0			
1,2-Dichloroethane	0.4838 0.4518	0.4761	0.4673	0.4667	0.4711	Ave		0.4694			0.1000	2.3		15.0			
Benzene	1.2256 1.2453	1.2535	1.2750	1.2420	1.2666	Ave		1.2513			0.5000	1.4		15.0			
Trichloroethene	0.2714 0.2655	0.2671	0.2733	0.2695	0.2719	Ave		0.2698			0.2000	1.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methylcyclohexane	0.3056 0.3781	0.3553	0.3486	0.3331	0.3656	Ave		0.3477			0.1000	7.4		15.0			
1,2-Dichloropropane	0.2994 0.3048	0.3058	0.3148	0.3132	0.3116	Ave		0.3083			0.1000	1.9		15.0			
Dibromomethane	0.1675 0.1555	0.1521	0.1644	0.1597	0.1644	Ave		0.1606				3.7		15.0			
1,4-Dioxane	0.0023 0.0020	0.0024	0.0025	0.0025	0.0025	Ave		0.0024				8.2		15.0			
Bromodichloromethane	0.2586 0.3533	0.2732	0.3036	0.3210	0.3455	Ave		0.3092			0.1000	12.0		15.0			
2-Chloroethyl vinyl ether	0.1532 0.1582	0.1459	0.1670	0.1699	0.1653	Ave		0.1599				5.8		15.0			
cis-1,3-Dichloropropene	0.3061 0.4576	0.3249	0.3845	0.4238	0.4469	Lin1	-0.212	0.4568			0.1500				0.9990		0.9950
4-Methyl-2-pentanone	0.2451 0.2575	0.2540	0.2759	0.2780	0.2752	Ave		0.2643			0.0500	5.3		15.0			
Toluene	1.7728 1.9294	1.8880	1.8619	1.8474	1.9604	Ave		1.8766			0.4000	3.5		15.0			
trans-1,3-Dichloropropene	0.3835 0.6056	0.4211	0.4964	0.5287	0.6010	Lin1	-0.314	0.6041			0.1000				0.9980		0.9950
Ethyl methacrylate	0.4455 0.5778	0.5229	0.5765	0.5788	0.6242	Ave		0.5543				11.0		15.0			
1,1,2-Trichloroethane	0.3279 0.3212	0.3141	0.3421	0.3341	0.3447	Ave		0.3307			0.1000	3.6		15.0			
1,3-Dichloropropane	0.6891 0.6635	0.6944	0.7152	0.6928	0.7223	Ave		0.6962				3.0		15.0			
Tetrachloroethene	0.2452 0.2600	0.2630	0.2668	0.2612	0.2738	Ave		0.2617			0.2000	3.6		15.0			
2-Hexanone	0.2323 0.2576	0.2818	0.2796	0.2822	0.2852	Ave		0.2698			0.0500	7.8		15.0			
Dibromochloromethane	0.1872 0.3114	0.2160	0.2464	0.2709	0.3057	Lin1	-0.171	0.3097							0.9980		0.9950
1,2-Dibromoethane	0.2962 0.3220	0.3089	0.3344	0.3261	0.3462	Ave		0.3223				5.5		15.0			
Chlorobenzene	1.0759 1.0855	1.1279	1.1114	1.0941	1.1299	Ave		1.1041			0.3000	2.0		15.0			
1,1,1,2-Tetrachloroethane	0.2665 0.3469	0.2706	0.3066	0.3249	0.3538	Ave		0.3116				12.0		15.0			
Ethylbenzene	0.5227 0.5869	0.5825	0.6026	0.5858	0.6163	Ave		0.5828				5.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
m-Xylene & p-Xylene	0.6757 0.7551	0.7220	0.7191	0.7176	0.7638	Ave		0.7256				4.3		15.0			
o-Xylene	0.6806 0.7276	0.7176	0.7304	0.7130	0.7551	Ave		0.7207				3.4		15.0			
Styrene	1.0565 1.2902	1.1310	1.1966	1.1904	1.2870	Ave		1.1920			0.3000	7.6		15.0			
Bromoform	0.0815 0.1487	0.0938	0.1133	0.1171	0.1413	Lin1	-0.094	0.1455			0.1000				0.9950		0.9950
Isopropylbenzene	1.5492 1.8304	1.6861	1.6648	1.6944	1.8507	Ave		1.7126			0.1000	6.6		15.0			
1,1,2,2-Tetrachloroethane	0.8553 0.8338	0.9184	0.9469	0.9293	0.9310	Ave		0.9025			0.3000	5.1		15.0			
Bromobenzene	0.8074 0.7779	0.8287	0.8325	0.8084	0.8409	Ave		0.8159				2.8		15.0			
1,2,3-Trichloropropane	0.2880 0.2558	0.2803	0.2925	0.2919	0.2938	Ave		0.2837				5.1		15.0			
trans-1,4-Dichloro-2-butene	0.2181 0.2689	0.2471	0.2346	0.2535	0.2845	Ave		0.2511				9.5		15.0			
n-Propylbenzene	0.7292 0.8665	0.8823	0.8741	0.8947	0.9118	Ave		0.8598				7.7		15.0			
2-Chlorotoluene	0.8583 0.7918	0.8579	0.8258	0.8361	0.8474	Ave		0.8362				3.0		15.0			
1,3,5-Trimethylbenzene	2.5787 2.8481	2.7830	2.7962	2.7951	2.9477	Ave		2.7914				4.3		15.0			
4-Chlorotoluene	0.8421 0.8602	0.8907	0.8940	0.8564	0.9136	Ave		0.8762				3.1		15.0			
tert-Butylbenzene	2.2870 2.5025	2.5077	2.4568	2.4969	2.5752	Ave		2.4710				4.0		15.0			
1,2,4-Trimethylbenzene	2.7586 2.9544	2.8331	2.8754	2.9504	3.0668	Ave		2.9065				3.7		15.0			
sec-Butylbenzene	2.8024 3.1977	3.0238	2.9596	3.0216	3.2137	Ave		3.0365				5.1		15.0			
1,3-Dichlorobenzene	1.5037 1.4698	1.4901	1.5135	1.5069	1.5495	Ave		1.5056			0.6000	1.8		15.0			
p-Isopropyltoluene	2.2069 2.6255	2.4647	2.4703	2.4761	2.6715	Ave		2.4858				6.6		15.0			
1,4-Dichlorobenzene	1.6073 1.5308	1.6512	1.5577	1.5557	1.6211	Ave		1.5873			0.5000	2.9		15.0			
n-Butylbenzene	2.0896 2.4436	2.2004	2.2368	2.2659	2.4792	Ave		2.2859				6.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dichlorobenzene	1.4966 1.3945	1.5126	1.5119	1.4682	1.5239	Ave		1.4846			0.4000	3.2		15.0			
1,2-Dibromo-3-Chloropropane	0.0886 0.0950	0.0916	0.0904	0.0972	0.1086	Ave		0.0952			0.0500	7.6		15.0			
1,3,5-Trichlorobenzene	0.7904 0.7093	0.7633	0.7631	0.7837	0.8038	Ave		0.7690				4.3		15.0			
1,2,4-Trichlorobenzene	0.6476 0.5852	0.7228	0.7185	0.6951	0.7215	Ave		0.6818			0.2000	8.1		15.0			
Hexachlorobutadiene	0.2814 0.2092	0.2884	0.2495	0.2645	0.2531	Ave		0.2577				11.0		15.0			
Naphthalene	1.9527 1.6802	2.0647	2.2163	2.2497	2.2115	Ave		2.0625				11.0		15.0			
1,2,3-Trichlorobenzene	0.6221 0.4278	0.6296	0.6285	0.6505	0.5938	Ave		0.5920				14.0		15.0			
Dibromofluoromethane (Surr)	0.2331 0.2366	0.2278	0.2460	0.2403	0.2499	Ave		0.2389				3.4		15.0			
1,2-Dichloroethane-d4 (Surr)	0.4238 0.3659	0.3675	0.3946	0.3884	0.3801	Ave		0.3867				5.5		15.0			
Toluene-d8 (Surr)	1.5539 1.5702	1.4814	1.5599	1.5466	1.5977	Ave		1.5516				2.5		15.0			
4-Bromofluorobenzene (Surr)	0.5499 0.5492	0.5504	0.5556	0.5412	0.5764	Ave		0.5538				2.2		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 17:57 Calibration End Date: 04/29/2012 19:50 Calibration ID: 8428

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD6 240-42092/13	UXM5250.D
Level 2	STD5 240-42092/12	UXM5249.D
Level 3	STD4 240-42092/11	UXM5248.D
Level 4	STD3 240-42092/10	UXM5247.D
Level 5	STD2 240-42092/9	UXM5246.D
Level 6	STD1 240-42092/8	UXM5245.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorofluoromethane	0.4944 0.5457	0.5179	0.5366	0.5411	0.5388	Ave		0.5291				3.7		15.0			
Ethyl ether	0.2959 0.3118	0.3149	0.3299	0.3322	0.3247	Ave		0.3182				4.3		15.0			
3-Chloro-1-propene	0.1138 0.1626	0.1307	0.1332	0.1472	0.1572	Ave		0.1408				13.0		15.0			
Diisopropyl ether	0.2325 0.3039	0.2698	0.2820	0.2880	0.2888	Ave		0.2775				8.9		15.0			
2-Chloro-1,3-butadiene	0.4443 0.5618	0.4913	0.5190	0.5386	0.5385	Ave		0.5156				8.2		15.0			
Ethyl-t-butyl ether (ETBE)	0.7557 0.9819	0.8293	0.9029	0.9314	0.9383	Ave		0.8899				9.3		15.0			
Propionitrile	0.0349 0.0408	0.0346	0.0382	0.0420	0.0412	Ave		0.0386				8.5		15.0			
Ethyl acetate	0.2532 0.2900	0.2546	0.2741	0.2771	0.2824	Ave		0.2719				5.5		15.0			
Methacrylonitrile	0.1606 0.2023	0.1897	0.1949	0.2046	0.2003	Ave		0.1921				8.5		15.0			
Isobutyl alcohol	0.0077 0.0091	0.0077	0.0086	0.0094	0.0092	Ave		0.0086				8.8		15.0			
Tert-amyl-methyl ether (TAME)	0.5871 0.7972	0.6671	0.7241	0.7535	0.7651	Ave		0.7157				11.0		15.0			
n-Heptane	0.0338 0.0458	0.0359	0.0418	0.0425	0.0440	Ave		0.0406				12.0		15.0			
n-Butanol	0.0041 0.0069	0.0052	0.0059	0.0064	0.0070	Lin1	-0.068	0.0070							0.9990		0.9950
2-Nitropropane	0.0349 0.0534	0.0349	0.0424	0.0409	0.0453	Qua	0	0.0373	0.0002						1.0000		0.9900
Cyclohexanone	0.0676 0.1071	0.0696	0.0924	0.0940	0.1083	Lin1	-0.573	0.1077							0.9980		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 17:57 Calibration End Date: 04/29/2012 19:50 Calibration ID: 8428

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,3-Trimethylbenzene	2.3062 3.3384	2.8522	3.0020	3.1126	3.2823	Ave		2.9823				13.0		15.0			
2-Methylnaphthalene	0.5487 0.8482	0.7229	0.8158	0.9225	1.0313	Qua	-2.422	1.2182	-0.004						0.9970		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2829	0.2340	0.1000	8.27	10.0	-17.3	20.0
Chloromethane	Ave	0.4613	0.4720	0.1000	10.2	10.0	2.3	20.0
Vinyl chloride	Ave	0.4246	0.4443	0.1000	10.5	10.0	4.6	20.0
Bromomethane	Ave	0.1684	0.1539	0.0500	9.14	10.0	-8.6	20.0
Chloroethane	Ave	0.2371	0.2329	0.0500	9.82	10.0	-1.8	20.0
Trichlorofluoromethane	Ave	0.3035	0.3240	0.1000	10.7	10.0	6.8	20.0
Acrolein	Ave	0.0489	0.0264		16.2	30.0	-46.0*	20.0
1,1-Dichloroethene	Ave	0.2446	0.2652	0.1000	10.8	10.0	8.4	20.0
1,1,2-Trichloro-1,2,2-trichf luoroethane	Ave	0.1546	0.1709	0.0500	11.1	10.0	10.6	20.0
Acetone	Lin1		0.1057	0.0500	21.1	20.0	5.5	20.0
Iodomethane	Ave	0.3433	0.3416		9.95	10.0	-0.5	20.0
Carbon disulfide	Ave	0.7261	0.7042	0.1000	9.70	10.0	-3.0	20.0
Acetonitrile	Ave	0.0346	0.0393		34.0	30.0	13.4	20.0
Methyl acetate	Ave	0.2327	0.2751	0.1000	11.8	10.0	18.2	20.0
Methylene Chloride	Lin1		0.3299	0.1000	10.6	10.0	6.0	20.0
tert-Butyl alcohol	Ave	0.0189	0.0195		207	200	3.2	20.0
Acrylonitrile	Ave	0.1114	0.1186		31.9	30.0	6.5	20.0
Methyl tert-butyl ether	Ave	0.8402	0.8405	0.1000	10.0	10.0	0.0	20.0
trans-1,2-Dichloroethene	Ave	0.2873	0.2952	0.1000	10.3	10.0	2.7	20.0
Hexane	Ave	0.0529	0.0579		10.9	10.0	9.4	20.0
1,1-Dichloroethane	Ave	0.5691	0.6028	0.1000	10.6	10.0	5.9	20.0
Vinyl acetate	Ave	0.0505	0.0387		7.67	10.0	-23.3*	20.0
2-Butanone	Ave	0.1356	0.1389	0.0500	20.5	20.0	2.4	20.0
2,2-Dichloropropane	Ave	0.2932	0.2855		9.74	10.0	-2.6	20.0
cis-1,2-Dichloroethene	Ave	0.3087	0.3186	0.1000	10.3	10.0	3.2	20.0
Bromochloromethane	Ave	0.1283	0.1312		10.2	10.0	2.2	20.0
Tetrahydrofuran	Ave	0.0828	0.0852		10.3	10.0	2.9	20.0
Chloroform	Ave	0.5296	0.5462	0.2000	10.3	10.0	3.1	20.0
1,1,1-Trichloroethane	Ave	0.3678	0.3794	0.1000	10.3	10.0	3.2	20.0
Cyclohexane	Ave	0.4605	0.4767	0.1000	10.4	10.0	3.5	20.0
1,1-Dichloropropene	Ave	0.4264	0.4383		10.3	10.0	2.8	20.0
Carbon tetrachloride	Ave	0.2770	0.2912	0.1000	10.5	10.0	5.1	20.0
1,2-Dichloroethane	Ave	0.4694	0.4938	0.1000	10.5	10.0	5.2	20.0
Benzene	Ave	1.251	1.319	0.5000	10.5	10.0	5.4	20.0
Trichloroethene	Ave	0.2698	0.2968	0.2000	11.0	10.0	10.0	20.0
1,2-Dichloropropane	Ave	0.3083	0.3319	0.1000	10.8	10.0	7.7	20.0
Methylcyclohexane	Ave	0.3477	0.3665	0.1000	10.5	10.0	5.4	20.0
Dibromomethane	Ave	0.1606	0.1738		10.8	10.0	8.2	20.0
Bromodichloromethane	Ave	0.3092	0.3331	0.1000	10.8	10.0	7.7	20.0
2-Chloroethyl vinyl ether	Ave	0.1599	0.1722		10.8	10.0	7.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
cis-1,3-Dichloropropene	Lin1		0.4089	0.1500	9.41	10.0	-5.9	20.0
4-Methyl-2-pentanone	Ave	0.2643	0.2914	0.0500	22.1	20.0	10.3	20.0
Toluene	Ave	1.877	1.918	0.4000	10.2	10.0	2.2	20.0
trans-1,3-Dichloropropene	Lin1		0.5291	0.1000	9.28	10.0	-7.2	20.0
1,1,2-Trichloroethane	Ave	0.3307	0.3442	0.1000	10.4	10.0	4.1	20.0
1,3-Dichloropropane	Ave	0.6962	0.7105		10.2	10.0	2.0	20.0
Tetrachloroethene	Ave	0.2617	0.2644	0.2000	10.1	10.0	1.0	20.0
2-Hexanone	Ave	0.2698	0.2927	0.0500	21.7	20.0	8.5	20.0
Dibromochloromethane	Lin1		0.2623		9.02	10.0	-9.8	20.0
1,2-Dibromoethane	Ave	0.3223	0.3341		10.4	10.0	3.7	20.0
Chlorobenzene	Ave	1.104	1.136	0.3000	10.3	10.0	2.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3116	0.3283		10.5	10.0	5.4	20.0
Ethylbenzene	Ave	0.5828	0.6250		10.7	10.0	7.2	20.0
m-Xylene & p-Xylene	Ave	0.7256	0.7452		20.5	20.0	2.7	20.0
o-Xylene	Ave	0.7207	0.7518		10.4	10.0	4.3	20.0
Styrene	Ave	1.192	1.255	0.3000	10.5	10.0	5.3	20.0
Bromoform	Lin1		0.1220	0.1000	9.03	10.0	-9.7	20.0
Isopropylbenzene	Ave	1.713	1.779	0.1000	10.4	10.0	3.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9025	0.9195	0.3000	10.2	10.0	1.9	20.0
Bromobenzene	Ave	0.8159	0.8010		9.82	10.0	-1.8	20.0
1,2,3-Trichloropropane	Ave	0.2837	0.2982		10.5	10.0	5.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2511	0.2617		20.8	20.0	4.2	20.0
n-Propylbenzene	Ave	0.8598	0.9010		10.5	10.0	4.8	20.0
2-Chlorotoluene	Ave	0.8362	0.8214		9.82	10.0	-1.8	20.0
1,3,5-Trimethylbenzene	Ave	2.791	2.836		10.2	10.0	1.6	20.0
4-Chlorotoluene	Ave	0.8762	0.8813		10.1	10.0	0.6	20.0
tert-Butylbenzene	Ave	2.471	2.497		10.1	10.0	1.1	20.0
1,2,4-Trimethylbenzene	Ave	2.906	2.988		10.3	10.0	2.8	20.0
sec-Butylbenzene	Ave	3.036	3.064		10.1	10.0	0.9	20.0
1,3-Dichlorobenzene	Ave	1.506	1.484	0.6000	9.85	10.0	-1.5	20.0
p-Isopropyltoluene	Ave	2.486	2.579		10.4	10.0	3.8	20.0
1,4-Dichlorobenzene	Ave	1.587	1.584	0.5000	9.98	10.0	-0.2	20.0
n-Butylbenzene	Ave	2.286	2.295		10.0	10.0	0.4	20.0
1,2-Dichlorobenzene	Ave	1.485	1.504	0.4000	10.1	10.0	1.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0952	0.1049	0.0500	11.0	10.0	10.1	20.0
1,2,4-Trichlorobenzene	Ave	0.6818	0.6660	0.2000	9.77	10.0	-2.3	20.0
Hexachlorobutadiene	Ave	0.2577	0.2217		8.60	10.0	-14.0	20.0
Naphthalene	Ave	2.063	2.211		10.7	10.0	7.2	20.0
1,2,3-Trichlorobenzene	Ave	0.5920	0.6250		10.6	10.0	5.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2389	0.2274		9.72	10.2	-4.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3867	0.3583		9.46	10.2	-7.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Toluene-d8 (Surr)	Ave	1.552	1.491		9.81	10.2	-3.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5538	0.5469		10.1	10.2	-1.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 17:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 19:50

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.3182	0.3065		9.63	10.0	-3.7	20.0
Diisopropyl ether	Ave	0.2775	0.2745		9.89	10.0	-1.1	20.0
Isobutyl alcohol	Ave	0.0086	0.0091		527	500	5.4	20.0
Cyclohexanone	Lin1		0.0256		52.9	200	-73.6*	20.0
1,2,3-Trimethylbenzene	Ave	2.982	3.178		10.7	10.0	6.6	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: BFB2918.D BFB Injection Date: 05/01/2012

Instrument ID: A3UX16 BFB Injection Time: 10:27

Analysis Batch No.: 42324

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	22.3	
75	30.0 - 60.0 % of mass 95	55.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.1	
173	Less than 2.0 % of mass 174	0.4	(0.5)1
174	50.0 - 120.00 % of mass 95	65.4	
175	5.0 - 9.0 % of mass 174	4.4	(6.7)1
176	95.0 - 101.0 % of mass 174	62.9	(96.2)1
177	5.0 - 9.0 % of mass 176	4.0	(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-42324/2	UXM5299.D	05/01/2012	10:57
	CCV 240-42324/3	UXM5300.D	05/01/2012	11:20
	LCS 240-42324/4	UXM5301.D	05/01/2012	11:42
	MB 240-42324/5	UXM5302.D	05/01/2012	12:05
TB-042712	240-10770-1	UXM5303.D	05/01/2012	13:05
GSP-MW8-042712	240-10770-3	UXM5311.D	05/01/2012	16:12
GSP-MW4-042712	240-10770-4	UXM5312.D	05/01/2012	16:35
GSP-MW7-042712	240-10770-2	UXM5318.D	05/01/2012	18:51
GSP-MW7-042712 MS	240-10770-2 MS	UXM5319.D	05/01/2012	19:14
GSP-MW7-042712 MSD	240-10770-2 MSD	UXM5320.D	05/01/2012	19:37

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCVIS 240-42324/2 Calibration Date: 05/01/2012 10:57

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5299.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2829	0.2970	0.1000	10.5	10.0	5.0	20.0
Chloromethane	Ave	0.4613	0.4543	0.1000	9.85	10.0	-1.5	20.0
Vinyl chloride	Ave	0.4246	0.4174	0.1000	9.83	10.0	-1.7	20.0
Bromomethane	Ave	0.1684	0.1468	0.0500	8.72	10.0	-12.8	20.0
Chloroethane	Ave	0.2371	0.2172	0.0500	9.16	10.0	-8.4	20.0
Trichlorofluoromethane	Ave	0.3035	0.3345	0.1000	11.0	10.0	10.2	20.0
Acrolein	Ave	0.0489	0.0408		83.3	100	-16.7	20.0
1,1-Dichloroethene	Ave	0.2446	0.2333	0.1000	9.54	10.0	-4.6	20.0
1,1,2-Trichloro-1,2,2-trichf luoroethane	Ave	0.1546	0.1599	0.0500	10.3	10.0	3.5	20.0
Acetone	Lin1		0.0858	0.0500	16.5	20.0	-17.5	20.0
Iodomethane	Ave	0.3433	0.3386		9.86	10.0	-1.4	20.0
Carbon disulfide	Ave	0.7261	0.7276	0.1000	10.0	10.0	0.2	20.0
Acetonitrile	Ave	0.0346	0.0275		79.3	100	-20.7*	20.0
Methyl acetate	Ave	0.2327	0.1924	0.1000	16.5	20.0	-17.3	20.0
Methylene Chloride	Lin1		0.3022	0.1000	9.65	10.0	-3.5	20.0
tert-Butyl alcohol	Ave	0.0189	0.0167		176	200	-11.8	20.0
Acrylonitrile	Ave	0.1114	0.0928		16.7	20.0	-16.7	20.0
Methyl tert-butyl ether	Ave	0.8402	0.7564	0.1000	9.00	10.0	-10.0	20.0
trans-1,2-Dichloroethene	Ave	0.2873	0.2720	0.1000	9.47	10.0	-5.3	20.0
Hexane	Ave	0.0529	0.0545		10.3	10.0	3.0	20.0
1,1-Dichloroethane	Ave	0.5691	0.5175	0.1000	9.09	10.0	-9.1	20.0
Vinyl acetate	Ave	0.0505	0.0467		9.26	10.0	-7.4	20.0
2-Butanone	Ave	0.1356	0.1103	0.0500	16.3	20.0	-18.7	20.0
cis-1,2-Dichloroethene	Ave	0.3087	0.2874	0.1000	9.31	10.0	-6.9	20.0
2,2-Dichloropropane	Ave	0.2932	0.2845		9.70	10.0	-3.0	20.0
Bromochloromethane	Ave	0.1283	0.1235		9.62	10.0	-3.8	20.0
Tetrahydrofuran	Ave	0.0828	0.0679		8.20	10.0	-18.0	20.0
Chloroform	Ave	0.5296	0.4972	0.2000	9.39	10.0	-6.1	20.0
1,1,1-Trichloroethane	Ave	0.3678	0.3668	0.1000	9.97	10.0	-0.3	20.0
Cyclohexane	Ave	0.4605	0.4548	0.1000	9.88	10.0	-1.2	20.0
1,1-Dichloropropene	Ave	0.4264	0.3992		9.36	10.0	-6.4	20.0
Carbon tetrachloride	Ave	0.2770	0.2807	0.1000	10.1	10.0	1.3	20.0
1,2-Dichloroethane	Ave	0.4694	0.4211	0.1000	8.97	10.0	-10.3	20.0
Benzene	Ave	1.251	1.160	0.5000	9.27	10.0	-7.3	20.0
Trichloroethene	Ave	0.2698	0.2566	0.2000	9.51	10.0	-4.9	20.0
Methylcyclohexane	Ave	0.3477	0.3573	0.1000	10.3	10.0	2.7	20.0
1,2-Dichloropropane	Ave	0.3083	0.2800	0.1000	9.08	10.0	-9.2	20.0
Dibromomethane	Ave	0.1606	0.1466		9.13	10.0	-8.7	20.0
1,4-Dioxane	Ave	0.0024	0.0019		407	500	-18.6	20.0
Bromodichloromethane	Ave	0.3092	0.3093	0.1000	10.0	10.0	0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCVIS 240-42324/2 Calibration Date: 05/01/2012 10:57

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5299.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1599	0.1407		17.6	20.0	-12.0	20.0
cis-1,3-Dichloropropene	Lin1		0.3920	0.1500	9.05	10.0	-9.5	20.0
4-Methyl-2-pentanone	Ave	0.2643	0.2298	0.0500	17.4	20.0	-13.0	20.0
Toluene	Ave	1.877	1.757	0.4000	9.36	10.0	-6.4	20.0
trans-1,3-Dichloropropene	Lin1		0.4892	0.1000	8.62	10.0	-13.8	20.0
Ethyl methacrylate	Ave	0.5543	0.5192		9.37	10.0	-6.3	20.0
1,1,2-Trichloroethane	Ave	0.3307	0.3008	0.1000	9.10	10.0	-9.0	20.0
1,3-Dichloropropane	Ave	0.6962	0.6149		8.83	10.0	-11.7	20.0
Tetrachloroethene	Ave	0.2617	0.2658	0.2000	10.2	10.0	1.6	20.0
2-Hexanone	Ave	0.2698	0.2311	0.0500	17.1	20.0	-14.3	20.0
Dibromochloromethane	Lin1		0.2569		8.85	10.0	-11.5	20.0
1,2-Dibromoethane	Ave	0.3223	0.2904		9.01	10.0	-9.9	20.0
Chlorobenzene	Ave	1.104	1.009	0.3000	9.14	10.0	-8.6	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3116	0.3090		9.92	10.0	-0.8	20.0
Ethylbenzene	Ave	0.5828	0.5479		9.40	10.0	-6.0	20.0
m-Xylene & p-Xylene	Ave	0.7256	0.6861		18.9	20.0	-5.4	20.0
o-Xylene	Ave	0.7207	0.6592		9.15	10.0	-8.5	20.0
Styrene	Ave	1.192	1.127	0.3000	9.45	10.0	-5.5	20.0
Bromoform	Lin1		0.1151	0.1000	8.56	10.0	-14.4	20.0
Isopropylbenzene	Ave	1.713	1.644	0.1000	9.60	10.0	-4.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9025	0.7806	0.3000	8.65	10.0	-13.5	20.0
Bromobenzene	Ave	0.8159	0.7710		9.45	10.0	-5.5	20.0
1,2,3-Trichloropropane	Ave	0.2837	0.2458		8.66	10.0	-13.4	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2511	0.2026		8.07	10.0	-19.3	20.0
n-Propylbenzene	Ave	0.8598	0.8329		9.69	10.0	-3.1	20.0
2-Chlorotoluene	Ave	0.8362	0.7811		9.34	10.0	-6.6	20.0
1,3,5-Trimethylbenzene	Ave	2.791	2.681		9.60	10.0	-4.0	20.0
4-Chlorotoluene	Ave	0.8762	0.8220		9.38	10.0	-6.2	20.0
tert-Butylbenzene	Ave	2.471	2.351		9.51	10.0	-4.9	20.0
1,2,4-Trimethylbenzene	Ave	2.906	2.770		9.53	10.0	-4.7	20.0
sec-Butylbenzene	Ave	3.036	2.925		9.63	10.0	-3.7	20.0
1,3-Dichlorobenzene	Ave	1.506	1.424	0.6000	9.46	10.0	-5.4	20.0
p-Isopropyltoluene	Ave	2.486	2.368		9.52	10.0	-4.8	20.0
1,4-Dichlorobenzene	Ave	1.587	1.488	0.5000	9.38	10.0	-6.2	20.0
n-Butylbenzene	Ave	2.286	2.212		9.68	10.0	-3.2	20.0
1,2-Dichlorobenzene	Ave	1.485	1.376	0.4000	9.27	10.0	-7.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0952	0.0868	0.0500	9.12	10.0	-8.8	20.0
1,3,5-Trichlorobenzene	Ave	0.7690	0.7679		9.99	10.0	-0.1	20.0
1,2,4-Trichlorobenzene	Ave	0.6818	0.6628	0.2000	9.72	10.0	-2.8	20.0
Hexachlorobutadiene	Ave	0.2577	0.2465		9.56	10.0	-4.4	20.0
Naphthalene	Ave	2.063	1.789		8.67	10.0	-13.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCVIS 240-42324/2 Calibration Date: 05/01/2012 10:57

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5299.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Ave	0.5920	0.5701		9.63	10.0	-3.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2389	0.2122		9.07	10.2	-11.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3867	0.3050		8.05	10.2	-21.1*	20.0
Toluene-d8 (Surr)	Ave	1.552	1.334		8.78	10.2	-14.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5538	0.4954		9.13	10.2	-10.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42324/3 Calibration Date: 05/01/2012 11:20

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 17:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 19:50

Lab File ID: UXM5300.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.5291	0.5354		10.1	10.0	1.2	20.0
Ethyl ether	Ave	0.3182	0.2987		9.39	10.0	-6.1	20.0
3-Chloro-1-propene	Ave	0.1408	0.1459		10.4	10.0	3.6	20.0
Diisopropyl ether	Ave	0.2775	0.2701		48.7	50.0	-2.7	20.0
2-Chloro-1,3-butadiene	Ave	0.5156	0.5114		9.92	10.0	-0.8	20.0
Ethyl-t-butyl ether (ETBE)	Ave	0.8899	0.8626		9.69	10.0	-3.1	20.0
Propionitrile	Ave	0.0386	0.0370		19.1	20.0	-4.3	20.0
Ethyl acetate	Ave	0.2719	0.2520		18.5	20.0	-7.3	20.0
Methacrylonitrile	Ave	0.1921	0.1757		9.15	10.0	-8.5	20.0
Isobutyl alcohol	Ave	0.0086	0.0077		178	200	-11.0	20.0
Tert-amyl-methyl ether (TAME)	Ave	0.7157	0.7080		9.89	10.0	-1.1	20.0
n-Heptane	Ave	0.0406	0.0444		10.9	10.0	9.3	20.0
n-Butanol	Lin1		0.0054		163	200	-18.7	20.0
2-Nitropropane	Qua		0.0417		20.2	20.0	1.0	20.0
Cyclohexanone	Lin1		0.0639		64.6	100	-35.4*	20.0
1,2,3-Trimethylbenzene	Ave	2.982	2.860		9.59	10.0	-4.1	20.0
2-Methylnaphthalene	Qua		0.5682		11.8	20.0	-41.0*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42324/3 Calibration Date: 05/01/2012 11:20

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5300.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2389	0.2164		9.25	10.2	-9.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3867	0.3361		8.87	10.2	-13.1	20.0
Toluene-d8 (Surr)	Ave	1.552	1.436		9.45	10.2	-7.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5538	0.5323		9.81	10.2	-3.9	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: UXM5302.D Lab Sample ID: MB 240-42324/5

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 05/01/2012 12:05

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-42324/4	UXM5301.D	05/01/2012 11:42
TB-042712	240-10770-1	UXM5303.D	05/01/2012 13:05
GSP-MW8-042712	240-10770-3	UXM5311.D	05/01/2012 16:12
GSP-MW4-042712	240-10770-4	UXM5312.D	05/01/2012 16:35
GSP-MW7-042712	240-10770-2	UXM5318.D	05/01/2012 18:51
GSP-MW7-042712 MS	240-10770-2 MS	UXM5319.D	05/01/2012 19:14
GSP-MW7-042712 MSD	240-10770-2 MSD	UXM5320.D	05/01/2012 19:37

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-42324/5

Matrix: Water | Lab File ID: UXM5302.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 12:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.280	J	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-42324/5

Matrix: Water | Lab File ID: UXM5302.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 12:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-42324/5

Matrix: Water | Lab File ID: UXM5302.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 12:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-129
460-00-4	4-Bromofluorobenzene (Surr)	94		66-117
2037-26-5	Toluene-d8 (Surr)	90		74-115
1868-53-7	Dibromofluoromethane (Surr)	87		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42324/5
Matrix: Water
Lab File ID: UXM5302.D
Analysis Method: 8260C
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 05/01/2012 12:05
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42324
Units: ug/L
Number TICs Found: 0
TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5301.D

Lab ID: LCS 240-42324/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	9.45	95	72-116	
1,1,1-Trichloroethane	10.0	9.44	94	74-118	
1,1,2,2-Tetrachloroethane	10.0	8.83	88	68-118	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	9.91	99	74-151	
1,1-Dichloroethane	10.0	9.10	91	82-115	
1,1-Dichloroethene	10.0	9.77	98	78-131	
1,1-Dichloropropene	10.0	9.02	90	83-114	
1,2,3-Trichlorobenzene	10.0	9.28	93	54-126	
1,2,3-Trichloropropane	10.0	8.93	89	73-129	
1,2,3-Trimethylbenzene	10.0	9.10	91	70-130	
1,2,4-Trichlorobenzene	10.0	8.99	90	48-135	
1,2,4-Trimethylbenzene	10.0	8.94	89	76-120	
1,2-Dibromo-3-Chloropropane	10.0	9.30	93	42-136	
1,2-Dichlorobenzene	10.0	8.93	89	81-110	
1,2-Dichloroethane	10.0	9.17	92	71-127	
1,2-Dichloropropane	10.0	9.19	92	81-115	
1,3-Dichlorobenzene	10.0	8.91	89	80-110	
1,3-Dichloropropane	10.0	8.90	89	79-116	
1,4-Dichlorobenzene	10.0	8.70	87	82-110	
2,2-Dichloropropane	10.0	9.56	96	50-129	
2-Chloroethyl vinyl ether	10.0	9.03 J	90	52-131	
2-Chlorotoluene	10.0	8.56	86	76-116	
2-Hexanone	20.0	19.6	98	55-133	
Bromobenzene	10.0	8.72	87	76-115	
Bromochloromethane	10.0	9.54	95	77-120	
4-Chlorotoluene	10.0	8.66	87	77-115	
p-Isopropyltoluene	10.0	9.32	93	74-120	
Acetone	20.0	21.9	110	43-136	
Benzene	10.0	9.17	92	83-112	
Bromoform	10.0	8.47	85	40-131	
Bromomethane	10.0	7.98	80	11-185	
Carbon disulfide	10.0	8.80	88	62-142	
Carbon tetrachloride	10.0	9.85	99	66-128	
Chlorobenzene	10.0	9.08	91	85-110	
Chloroethane	10.0	8.25	83	25-153	
Chloroform	10.0	8.99	90	79-117	
Chloromethane	10.0	8.26	83	44-126	
cis-1,2-Dichloroethene	10.0	9.25	93	80-113	
cis-1,3-Dichloropropene	10.0	8.18	82	61-115	
Hexachlorobutadiene	10.0	8.21	82	36-134	
Dibromomethane	10.0	9.38	94	81-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5301.D

Lab ID: LCS 240-42324/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Bromodichloromethane	10.0	9.82	98	72-121	
Dichlorodifluoromethane	10.0	6.28	63	19-129	
Ethylbenzene	10.0	9.32	93	83-112	
1,2-Dibromoethane	10.0	9.45	95	79-113	
Diisopropyl ether	10.0	8.96 J	90	77-118	
Naphthalene	10.0	9.17	92	32-141	
m-Xylene & p-Xylene	20.0	18.5	93	83-113	
n-Butylbenzene	10.0	8.95	90	66-125	
Isopropylbenzene	10.0	9.38	94	75-114	
n-Propylbenzene	10.0	9.12	91	74-121	
2-Butanone	20.0	18.6	93	60-126	
4-Methyl-2-pentanone	20.0	18.8	94	63-128	
sec-Butylbenzene	10.0	8.81	88	70-117	
Methyl tert-butyl ether	10.0	8.97	90	52-144	
Methylene Chloride	10.0	9.15	92	66-131	
o-Xylene	10.0	9.45	95	83-113	
Styrene	10.0	9.49	95	79-114	
tert-Butylbenzene	10.0	8.75	88	71-115	
Tetrachloroethene	10.0	9.38	94	79-114	
Toluene	10.0	9.07	91	84-111	
trans-1,2-Dichloroethene	10.0	8.96	90	83-117	
trans-1,3-Dichloropropene	10.0	8.21	82	58-117	
Trichloroethene	10.0	9.28	93	76-117	
Trichlorofluoromethane	10.0	10.5	105	49-157	
Vinyl acetate	10.0	8.54	85	46-161	
Vinyl chloride	10.0	8.63	86	53-127	
tert-Butyl alcohol	200	195	98	70-130	
Xylenes, Total	30.0	28.0	93	83-112	
Dibromochloromethane	10.0	8.17	82	64-119	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5319.D

Lab ID: 240-10770-2 MS Client ID: GSP-MW7-042712 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	40.0	4.0 U	40.8	102	64-118	
1,1,1-Trichloroethane	40.0	4.0 U	38.3	96	68-121	
1,1,2,2-Tetrachloroethane	40.0	4.0 U	39.7	99	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	40.0	4.0 U	42.8	107	70-152	
1,1-Dichloroethane	40.0	4.0 U	39.4	98	79-116	
1,1-Dichloroethene	40.0	4.0 U	40.4	101	74-135	
1,1-Dichloropropene	40.0	4.0 U	38.5	96	80-114	
1,2,3-Trichlorobenzene	40.0	4.0 U	42.0	105	45-129	
1,2,3-Trichloropropane	40.0	4.0 U	39.8	100	67-132	
1,2,3-Trimethylbenzene	40.0	20 U	40.4	101	70-130	
1,2,4-Trichlorobenzene	40.0	4.0 U	38.7	97	38-138	
1,2,4-Trimethylbenzene	40.0	4.0 U	39.2	98	67-124	
1,2-Dibromo-3-Chloropropane	40.0	8.0 U	39.8	100	32-139	
1,2-Dichlorobenzene	40.0	4.0 U	39.6	99	75-111	
1,2-Dichloroethane	40.0	4.0 U	40.0	100	68-129	
1,2-Dichloropropane	40.0	4.0 U	39.6	99	78-115	
1,3-Dichlorobenzene	40.0	4.0 U	38.8	97	73-110	
1,3-Dichloropropane	40.0	4.0 U	39.4	99	74-118	
1,4-Dichlorobenzene	40.0	4.0 U	38.8	97	75-110	
2,2-Dichloropropane	40.0	4.0 U	36.1	90	38-127	
2-Chloroethyl vinyl ether	40.0	40 U	40 U	0	10-150	F
2-Chlorotoluene	40.0	4.0 U	37.7	94	69-117	
2-Hexanone	80.0	40 U	83.2	104	47-139	
Bromobenzene	40.0	4.0 U	38.6	97	71-116	
Bromochloromethane	40.0	4.0 U	39.0	98	73-121	
4-Chlorotoluene	40.0	4.0 U	37.9	95	71-116	
p-Isopropyltoluene	40.0	4.0 U	41.2	103	64-122	
Acetone	80.0	40 U	82.4	103	33-145	
Benzene	40.0	4.0 U	39.5	99	72-121	
Bromoform	40.0	4.0 U	32.5	81	32-128	
Bromomethane	40.0	4.0 U	30.2	76	10-186	
Carbon disulfide	40.0	4.0 U	34.8	87	57-147	
Carbon tetrachloride	40.0	4.0 U	38.9	97	59-129	
Chlorobenzene	40.0	4.0 U	39.2	98	80-110	
Chloroethane	40.0	4.0 U	35.6	89	21-165	
Chloroform	40.0	4.0 U	37.7	94	76-118	
Chloromethane	40.0	4.0 U	40.8	102	33-132	
cis-1,2-Dichloroethene	40.0	1.4 J	40.4	97	70-120	
cis-1,3-Dichloropropene	40.0	4.0 U	32.8	82	51-110	
Hexachlorobutadiene	40.0	4.0 U	34.7	87	27-132	
Dibromomethane	40.0	4.0 U	40.0	100	77-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5319.D

Lab ID: 240-10770-2 MS Client ID: GSP-MW7-042712 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Bromodichloromethane	40.0	4.0 U	39.3	98	67-120	
Dichlorodifluoromethane	40.0	4.0 U	26.6	66	17-128	
Ethylbenzene	40.0	4.0 U	38.8	97	75-116	
1,2-Dibromoethane	40.0	4.0 U	39.3	98	74-113	
Diisopropyl ether	40.0	40 U	35.6 J	89	73-118	
Naphthalene	40.0	4.0 U	40.8	102	15-158	
m-Xylene & p-Xylene	80.0	8.0 U	78.0	98	75-117	
n-Butylbenzene	40.0	4.0 U	39.2	98	56-127	
Isopropylbenzene	40.0	4.0 U	39.7	99	68-116	
n-Propylbenzene	40.0	4.0 U	40.4	101	64-124	
2-Butanone	80.0	40 U	80.0	100	54-129	
4-Methyl-2-pentanone	80.0	40 U	83.6	105	56-131	
sec-Butylbenzene	40.0	4.0 U	39.0	97	60-119	
Methyl tert-butyl ether	40.0	20 U	35.9	90	46-144	
Methylene Chloride	40.0	4.0 U	39.9	100	63-128	
o-Xylene	40.0	4.0 U	39.4	98	76-116	
Styrene	40.0	4.0 U	39.8	100	71-117	
tert-Butylbenzene	40.0	4.0 U	38.7	97	61-119	
Tetrachloroethene	40.0	4.0 U	40.4	101	70-117	
Toluene	40.0	4.0 U	39.0	98	78-114	
trans-1,2-Dichloroethene	40.0	4.0 U	39.0	98	80-119	
trans-1,3-Dichloropropene	40.0	4.0 U	32.7	82	46-116	
Trichloroethene	40.0	110	145	93	66-120	
Trichlorofluoromethane	40.0	4.0 U	41.2	103	46-157	
Vinyl acetate	40.0	8.0 U	37.0	93	43-157	
Vinyl chloride	40.0	4.0 U	38.8	97	49-130	
tert-Butyl alcohol	800	200 U	821	103	70-130	
Xylenes, Total	120	8.0 U	117	98	76-116	
Dibromochloromethane	40.0	4.0 U	34.9	87	56-118	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5320.D

Lab ID: 240-10770-2 MSD Client ID: GSP-MW7-042712 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	40.0	40.0	100	2	30	64-118	
1,1,1-Trichloroethane	40.0	38.7	97	1	30	68-121	
1,1,2,2-Tetrachloroethane	40.0	39.9	100	1	30	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	40.0	42.0	105	2	30	70-152	
1,1-Dichloroethane	40.0	39.1	98	1	30	79-116	
1,1-Dichloroethene	40.0	40.8	102	1	30	74-135	
1,1-Dichloropropene	40.0	38.3	96	1	30	80-114	
1,2,3-Trichlorobenzene	40.0	40.4	101	4	30	45-129	
1,2,3-Trichloropropane	40.0	38.3	96	4	30	67-132	
1,2,3-Trimethylbenzene	40.0	39.6	99	2	30	70-130	
1,2,4-Trichlorobenzene	40.0	37.4	94	3	30	38-138	
1,2,4-Trimethylbenzene	40.0	38.4	96	2	30	67-124	
1,2-Dibromo-3-Chloropropane	40.0	42.0	105	5	30	32-139	
1,2-Dichlorobenzene	40.0	38.4	96	3	30	75-111	
1,2-Dichloroethane	40.0	39.8	99	1	30	68-129	
1,2-Dichloropropane	40.0	39.4	99	1	30	78-115	
1,3-Dichlorobenzene	40.0	39.2	98	1	30	73-110	
1,3-Dichloropropane	40.0	39.8	99	1	30	74-118	
1,4-Dichlorobenzene	40.0	37.8	95	3	30	75-110	
2,2-Dichloropropane	40.0	35.1	88	3	30	38-127	
2-Chloroethyl vinyl ether	40.0	40 U	0	NC	30	10-150	F
2-Chlorotoluene	40.0	37.6	94	0	30	69-117	
2-Hexanone	80.0	84.4	106	1	30	47-139	
Bromobenzene	40.0	38.5	96	0	30	71-116	
Bromochloromethane	40.0	39.0	98	0	30	73-121	
4-Chlorotoluene	40.0	37.2	93	2	30	71-116	
p-Isopropyltoluene	40.0	39.0	98	5	30	64-122	
Acetone	80.0	73.2	92	12	30	33-145	
Benzene	40.0	39.5	99	0	30	72-121	
Bromoform	40.0	33.7	84	4	30	32-128	
Bromomethane	40.0	30.3	76	0	30	10-186	
Carbon disulfide	40.0	35.0	88	1	30	57-147	
Carbon tetrachloride	40.0	38.7	97	1	30	59-129	
Chlorobenzene	40.0	39.0	97	1	30	80-110	
Chloroethane	40.0	34.5	86	3	30	21-165	
Chloroform	40.0	37.6	94	0	30	76-118	
Chloromethane	40.0	38.2	96	6	30	33-132	
cis-1,2-Dichloroethene	40.0	39.8	96	1	30	70-120	
cis-1,3-Dichloropropene	40.0	33.3	83	1	30	51-110	
Hexachlorobutadiene	40.0	35.1	88	1	30	27-132	
Dibromomethane	40.0	40.4	101	1	30	77-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5320.D

Lab ID: 240-10770-2 MSD Client ID: GSP-MW7-042712 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Bromodichloromethane	40.0	40.4	101	3	30	67-120	
Dichlorodifluoromethane	40.0	26.5	66	0	30	17-128	
Ethylbenzene	40.0	39.1	98	1	30	75-116	
1,2-Dibromoethane	40.0	40.0	100	2	30	74-113	
Diisopropyl ether	40.0	36.8 J	92	3	30	73-118	
Naphthalene	40.0	39.7	99	3	30	15-158	
m-Xylene & p-Xylene	80.0	78.0	98	0	30	75-117	
n-Butylbenzene	40.0	37.6	94	4	30	56-127	
Isopropylbenzene	40.0	39.0	97	2	30	68-116	
n-Propylbenzene	40.0	38.5	96	5	30	64-124	
2-Butanone	80.0	79.2	99	1	30	54-129	
4-Methyl-2-pentanone	80.0	84.8	106	1	30	56-131	
sec-Butylbenzene	40.0	37.6	94	3	30	60-119	
Methyl tert-butyl ether	40.0	36.4	91	2	30	46-144	
Methylene Chloride	40.0	38.1	95	5	30	63-128	
o-Xylene	40.0	39.0	97	1	30	76-116	
Styrene	40.0	39.7	99	0	30	71-117	
tert-Butylbenzene	40.0	37.7	94	3	30	61-119	
Tetrachloroethene	40.0	40.4	101	0	30	70-117	
Toluene	40.0	39.0	98	0	30	78-114	
trans-1,2-Dichloroethene	40.0	37.5	94	4	30	80-119	
trans-1,3-Dichloropropene	40.0	33.8	85	3	30	46-116	
Trichloroethene	40.0	142	87	2	30	66-120	
Trichlorofluoromethane	40.0	41.2	103	0	30	46-157	
Vinyl acetate	40.0	36.6	92	1	30	43-157	
Vinyl chloride	40.0	38.9	97	0	30	49-130	
tert-Butyl alcohol	800	808	101	2	30	70-130	
Xylenes, Total	120	117	98	0	30	76-116	
Dibromochloromethane	40.0	35.1	88	1	30	56-118	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
GSP-MW7-042712	240-10770-2	59	60	62	54	71	71
GSP-MW8-042712	240-10770-3	48	51	52	50	67	65
GSP-MW4-042712	240-10770-4	54	56	53	52	80	67
	MB 240-42632/8-A	58	60	54	55	76	79
	LCS 240-42632/9-A	77	81	73	68	98	80

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	10-110
PHL = Phenol-d5 (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	27-111
FBP = 2-Fluorobiphenyl (Surr)	28-110
TBP = 2,4,6-Tribromophenol (Surr)	22-120
TPH = Terphenyl-d14 (Surr)	37-119

Column to be used to flag recovery values

FORM II 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: STD6 240-42463/10 Date Analyzed: 05/02/2012 12:54

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20502010.D Heated Purge: (Y/N) N

Calibration ID: 8490

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		203831	3.51	750748	4.40	449631	5.66
UPPER LIMIT		407662	4.01	1501496	4.90	899262	6.16
LOWER LIMIT		101916	3.01	375374	3.90	224816	5.16
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-42463/11		219450	3.51	793338	4.40	481824	5.66
CCV 240-43126/2 CCVIS		203268	3.39	807358	4.28	443644	5.54

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: STD6 240-42463/10 Date Analyzed: 05/02/2012 12:54

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20502010.D Heated Purge: (Y/N) N

Calibration ID: 8490

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		701859	6.74	609578	8.73	444154	10.12
UPPER LIMIT		1403718	7.24	1219156	9.23	888308	10.62
LOWER LIMIT		350930	6.24	304789	8.23	222077	9.62
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-42463/11		750463	6.74	697064	8.71	502891	10.10
CCV 240-43126/2 CCVIS		728055	6.61	667024	8.58	498151	9.89

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCV 240-43126/2 Date Analyzed: 05/08/2012 09:05

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20508002.D Heated Purge: (Y/N) N

Calibration ID: 8498

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		203268	3.39	807358	4.28	443644	5.54
UPPER LIMIT		406536	3.89	1614716	4.78	887288	6.04
LOWER LIMIT		101634	2.89	403679	3.78	221822	5.04
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-42632/8-A		211107	3.40	855069	4.28	486388	5.53
LCS 240-42632/9-A		184504	3.39	751512	4.28	442403	5.54
240-10770-2	GSP-MW7-042712	230198	3.39	895040	4.28	542958	5.53
240-10770-3	GSP-MW8-042712	221630	3.39	884395	4.28	518699	5.53
240-10770-4	GSP-MW4-042712	236232	3.39	906019	4.28	535464	5.53

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCV 240-43126/2 Date Analyzed: 05/08/2012 09:05

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20508002.D Heated Purge: (Y/N) N

Calibration ID: 8498

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		728055	6.61	667024	8.58	498151	9.89
UPPER LIMIT		1456110	7.11	1334048	9.08	996302	10.39
LOWER LIMIT		364028	6.11	333512	8.08	249076	9.39
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-42632/8-A		779010	6.61	700518	8.57	536668	9.87
LCS 240-42632/9-A		707870	6.61	666696	8.56	502242	9.85
240-10770-2	GSP-MW7-042712	851955	6.61	779875	8.59	600062	9.90
240-10770-3	GSP-MW8-042712	821335	6.61	760311	8.56	592310	9.87
240-10770-4	GSP-MW4-042712	867539	6.61	812616	8.58	631764	9.89

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: 20508007.D Lab Sample ID: MB 240-42632/8-A

Matrix: Water Date Extracted: 05/03/2012 09:57

Instrument ID: A4HP7 Date Analyzed: 05/08/2012 10:37

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-42632/9-A	20508008.D	05/08/2012 10:56
GSP-MW7-042712	240-10770-2	20508019.D	05/08/2012 14:20
GSP-MW8-042712	240-10770-3	20508020.D	05/08/2012 14:38
GSP-MW4-042712	240-10770-4	20508021.D	05/08/2012 14:56

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42632/8-A
Matrix: Water
Lab File ID: 20508007.D
Analysis Method: 8270C
Date Collected:
Extract. Method: 3520C
Date Extracted: 05/03/2012 09:57
Sample wt/vol: 1000(mL)
Date Analyzed: 05/08/2012 10:37
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 43126
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.0	U	1.0	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	55		28-110
367-12-4	2-Fluorophenol (Surr)	58		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	76		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	54		27-111
4165-62-2	Phenol-d5 (Surr)	60		10-110
1718-51-0	Terphenyl-d14 (Surr)	79		37-119

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20508008.D

Lab ID: LCS 240-42632/9-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	20.0	12.2	61	10-110	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: 20502001.D DFTPP Injection Date: 05/02/2012

Instrument ID: A4HP7 DFTPP Injection Time: 10:03

Analysis Batch No.: 42463

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	60.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	45.5	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	50.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.2	
365	Greater than 0.75% of mass 198	2.0	
441	Present, but less than mass 443	7.0	
442	40.0 - 110.0% of mass 198	44.8	
443	15.0 - 24.0% of mass 442	8.8	(19.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-42463/2	20502002.D	05/02/2012	10:23
	STD4 240-42463/3	20502003.D	05/02/2012	10:42
	STD3 240-42463/4	20502004.D	05/02/2012	11:01
	STD2 240-42463/5	20502005.D	05/02/2012	11:19
	STD1 240-42463/6	20502006.D	05/02/2012	11:38
	STD9 240-42463/7	20502007.D	05/02/2012	11:57
	STD8 240-42463/8	20502008.D	05/02/2012	12:16
	STD7 240-42463/9	20502009.D	05/02/2012	12:35
	STD6 240-42463/10	20502010.D	05/02/2012	12:54
	ICV 240-42463/11	20502011.D	05/02/2012	13:13

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42463

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2012 10:23 Calibration End Date: 05/02/2012 12:54 Calibration ID: 8490

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-42463/6	20502006.D
Level 2	STD2 240-42463/5	20502005.D
Level 3	STD3 240-42463/4	20502004.D
Level 4	STD4 240-42463/3	20502003.D
Level 5	STD5 240-42463/2	20502002.D
Level 6	STD6 240-42463/10	20502010.D
Level 7	STD7 240-42463/9	20502009.D
Level 8	STD8 240-42463/8	20502008.D
Level 9	STD9 240-42463/7	20502007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5797	0.7266 0.5728	0.4617 0.6094	0.5087 0.5684	0.4851	Ave		0.5640				15.0		15.0			
N-Nitrosodimethylamine	0.8841	0.7933 0.8811	0.7168 0.9316	0.7448 0.9112	0.7452	Ave		0.8260				10.0		15.0			
Pyridine	1.5075	1.3258 1.5146	1.1707 1.6776	1.1870 1.6034	1.1707	Ave		1.3947				15.0		15.0			
Ethyl methacrylate	1.1731	0.9728 1.1757	1.0484 1.2864	1.0037 1.2062	1.0290	Ave		1.1119				10.0		15.0			
Benzaldehyde	1.3735 0.7433	1.0441 +++++	1.0548 +++++	1.0867 +++++	0.9578	Ave		1.0434				20.0	*	15.0			
3-Chloropropionitrile	1.0012	0.9519 1.0222	0.9033 1.1093	0.8667 1.0492	0.8718	Ave		0.9719				9.1		15.0			
Malononitrile	1.5032	1.4102 1.2671	1.3756 1.2102	1.4463 1.0266	1.4564	Ave		1.3370				12.0		15.0			
Benzoic acid	0.2334	+++++ 0.2441	+++++ 0.2610	0.1647 0.2825	0.2322	Qua	0.0075	0.1951	0.0017						0.9990		0.9900
Phenol	1.7085	1.5885 1.7359	1.4815 1.9095	1.5782 1.8649	1.5731	Ave		1.6800				9.0		15.0			
Aniline	2.1278	1.9210 2.1146	1.8743 2.3821	2.0349 2.3349	1.9327	Ave		2.0903				9.0		15.0			
Bis(2-chloroethyl)ether	1.2927	1.2120 1.4453	1.3088 1.4464	1.1722 1.4211	1.1887	Ave		1.3109				8.8		15.0			
2-Chlorophenol	1.5020	1.3476 1.5269	1.3800 1.6760	1.4496 1.6251	1.4098	Ave		1.4896				7.8		15.0			
1,3-Dichlorobenzene	1.6350	1.3701 1.6113	1.5553 1.7820	1.5792 1.6988	1.5113	Ave		1.5929				7.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42463/11 Calibration Date: 05/02/2012 13:13

Instrument ID: A4HP7 Calib Start Date: 05/02/2012 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 05/02/2012 12:54

Lab File ID: 20502011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5640	0.5264		9.33	10.0	-6.7	50.0
N-Nitrosodimethylamine	Ave	0.8260	0.8251		9.99	10.0	-0.1	50.0
Pyridine	Ave	1.395	1.479		10.6	10.0	6.0	50.0
Ethyl methacrylate	Ave	1.112	1.109		9.97	10.0	-0.3	50.0
3-Chloropropionitrile	Ave	0.9719	0.9803		10.1	10.0	0.9	50.0
Malononitrile	Ave	1.337	1.496		11.2	10.0	11.9	50.0
Benzaldehyde	Ave	1.043	0.6145		5.89	10.0	-41.1	50.0
Phenol	Ave	1.680	1.722		10.2	10.0	2.5	20.0
Aniline	Ave	2.090	2.144		10.3	10.0	2.6	50.0
Bis(2-chloroethyl)ether	Ave	1.311	1.327		10.1	10.0	1.2	50.0
2-Chlorophenol	Ave	1.490	1.506		10.1	10.0	1.1	50.0
1,3-Dichlorobenzene	Ave	1.593	1.567		9.84	10.0	-1.6	50.0
1,4-Dichlorobenzene	Ave	1.646	1.623		9.86	10.0	-1.4	20.0
Benzyl alcohol	Ave	0.8859	0.8898		10.0	10.0	0.4	50.0
1,2-Dichlorobenzene	Ave	1.544	1.517		9.83	10.0	-1.7	50.0
2-Methylphenol	Ave	1.290	1.293		10.0	10.0	0.2	50.0
bis (2-chloroisopropyl) ether	Ave	1.740	1.616		9.29	10.0	-7.1	50.0
3 & 4 Methylphenol	Ave	1.324	1.366		10.3	10.0	3.2	50.0
N-Nitrosodi-n-propylamine	Ave	0.8988	0.8701	0.0500	9.68	10.0	-3.2	50.0
Acetophenone	Ave	1.873	1.869		9.98	10.0	-0.2	50.0
Hexachloroethane	Ave	0.5453	0.5299		9.72	10.0	-2.8	50.0
Nitrobenzene	Ave	0.3636	0.3573		9.83	10.0	-1.7	50.0
Isophorone	Ave	0.6461	0.6605		10.2	10.0	2.2	50.0
2,4-Dimethylphenol	Ave	0.3785	0.3876		10.2	10.0	2.4	50.0
2-Nitrophenol	Ave	0.2067	0.2181		10.5	10.0	5.5	20.0
1,3,5-Trichlorobenzene	Ave	0.3633	0.3733		10.3	10.0	2.8	50.0
Bis(2-chloroethoxy)methane	Ave	0.3739	0.3789		10.1	10.0	1.3	50.0
Benzoic acid	Qua		0.2340		20.3	20.0	1.5	50.0
2,4-Dichlorophenol	Ave	0.3173	0.3295		10.4	10.0	3.8	20.0
1,2,4-Trichlorobenzene	Ave	0.3480	0.3617		10.4	10.0	3.9	50.0
Naphthalene	Ave	1.144	1.159		10.1	10.0	1.3	50.0
4-Chloroaniline	Ave	0.4747	0.4591		9.67	10.0	-3.3	50.0
Hexachlorobutadiene	Ave	0.1832	0.1824		9.96	10.0	-0.4	20.0
1,2,3-Trichlorobenzene	Ave	0.3305	0.3260		9.86	10.0	-1.4	50.0
Caprolactam	Qua		0.1203		10.5	10.0	5.0	50.0
4-Chloro-3-methylphenol	Ave	0.3023	0.3207		10.6	10.0	6.1	20.0
2-Methylnaphthalene	Ave	0.7358	0.7408		10.1	10.0	0.7	50.0
1-Methylnaphthalene	Ave	0.7008	0.7068		10.1	10.0	0.8	50.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5580	0.5505		9.87	10.0	-1.3	50.0
Hexachlorocyclopentadiene	Ave	0.3259	0.3366	0.0500	10.3	10.0	3.3	50.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: 20508001.D DFTPP Injection Date: 05/08/2012

Instrument ID: A4HP7 DFTPP Injection Time: 08:46

Analysis Batch No.: 43126

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	61.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	58.2	
70	Less than 2.0% of mass 69	0.3	(0.5)1
127	25.0 - 75.0% of mass 198	61.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	26.3	
365	Greater than 0.75% of mass 198	2.9	
441	Present, but less than mass 443	11.9	
442	40.0 - 110.0% of mass 198	74.4	
443	15.0 - 24.0% of mass 442	14.6	(19.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-43126/2	20508002.D	05/08/2012	09:05
	MB 240-42632/8-A	20508007.D	05/08/2012	10:37
	LCS 240-42632/9-A	20508008.D	05/08/2012	10:56
GSP-MW7-042712	240-10770-2	20508019.D	05/08/2012	14:20
GSP-MW8-042712	240-10770-3	20508020.D	05/08/2012	14:38
GSP-MW4-042712	240-10770-4	20508021.D	05/08/2012	14:56

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-43126/2 Calibration Date: 05/08/2012 09:05

Instrument ID: A4HP7 Calib Start Date: 05/02/2012 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 05/02/2012 12:54

Lab File ID: 20508002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5640	0.5272		9.35	10.0	-6.5	50.0
N-Nitrosodimethylamine	Ave	0.8260	0.7907		9.57	10.0	-4.3	50.0
Pyridine	Ave	1.395	1.390		9.97	10.0	-0.3	50.0
Ethyl methacrylate	Ave	1.112	1.104		9.92	10.0	-0.8	50.0
3-Chloropropionitrile	Ave	0.9719	0.8004		8.24	10.0	-17.6	50.0
Malononitrile	Ave	1.337	1.340		10.0	10.0	0.2	50.0
Benzaldehyde	Ave	1.043	0.7144		6.85	10.0	-31.5	50.0
Phenol	Ave	1.680	1.721		10.2	10.0	2.4	20.0
Aniline	Ave	2.090	2.189		10.5	10.0	4.7	50.0
Bis(2-chloroethyl)ether	Ave	1.311	1.311		10.0	10.0	0.0	50.0
2-Chlorophenol	Ave	1.490	1.473		9.89	10.0	-1.1	50.0
1,3-Dichlorobenzene	Ave	1.593	1.599		10.0	10.0	0.4	50.0
1,4-Dichlorobenzene	Ave	1.646	1.662		10.1	10.0	1.0	50.0
Benzyl alcohol	Ave	0.8859	0.8606		9.71	10.0	-2.9	50.0
1,2-Dichlorobenzene	Ave	1.544	1.529		9.91	10.0	-0.9	50.0
2-Methylphenol	Ave	1.290	1.300		10.1	10.0	0.7	50.0
bis (2-chloroisopropyl) ether	Ave	1.740	1.634		9.39	10.0	-6.1	50.0
3 & 4 Methylphenol	Ave	1.324	1.360		10.3	10.0	2.7	50.0
N-Nitrosodi-n-propylamine	Ave	0.8988	0.9308	0.0500	10.4	10.0	3.6	50.0
Acetophenone	Ave	1.873	1.935		10.3	10.0	3.3	50.0
Hexachloroethane	Ave	0.5453	0.5619		10.3	10.0	3.0	50.0
Nitrobenzene	Ave	0.3636	0.3688		10.1	10.0	1.4	50.0
Isophorone	Ave	0.6461	0.6574		10.2	10.0	1.7	50.0
2-Nitrophenol	Ave	0.2067	0.2114		10.2	10.0	2.3	20.0
2,4-Dimethylphenol	Ave	0.3785	0.3801		10.0	10.0	0.4	50.0
1,3,5-Trichlorobenzene	Ave	0.3633	0.3290		9.06	10.0	-9.4	50.0
Bis(2-chloroethoxy)methane	Ave	0.3739	0.3772		10.1	10.0	0.9	50.0
Benzoic acid	Qua		0.1909		17.0	20.0	-15.0	50.0
2,4-Dichlorophenol	Ave	0.3173	0.2887		9.10	10.0	-9.0	20.0
1,2,4-Trichlorobenzene	Ave	0.3480	0.3214		9.23	10.0	-7.7	50.0
Naphthalene	Ave	1.144	1.081		9.45	10.0	-5.5	50.0
4-Chloroaniline	Ave	0.4747	0.4497		9.48	10.0	-5.2	50.0
Hexachlorobutadiene	Ave	0.1832	0.1595		8.71	10.0	-12.9	20.0
1,2,3-Trichlorobenzene	Ave	0.3305	0.2901		8.78	10.0	-12.2	50.0
Caprolactam	Qua		0.1216		10.6	10.0	6.0	50.0
4-Chloro-3-methylphenol	Ave	0.3023	0.3096		10.2	10.0	2.4	20.0
2-Methylnaphthalene	Ave	0.7358	0.7177		9.75	10.0	-2.5	50.0
1-Methylnaphthalene	Ave	0.7008	0.6679		9.53	10.0	-4.7	50.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5580	0.5324		9.54	10.0	-4.6	50.0
Hexachlorocyclopentadiene	Ave	0.3259	0.3328	0.0500	10.2	10.0	2.1	50.0

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1 #
GSP-MW7-042712	240-10770-2	61
GSP-MW8-042712	240-10770-3	61
GSP-MW4-042712	240-10770-4	64
	MB 240-42123/7	63
	LCS 240-42123/8	80
GSP-MW7-042712 MS	240-10770-2 MS	34
GSP-MW7-042712 MSD	240-10770-2 MSD	72

	QC LIMITS
TFT = Trifluorotoluene (Surr)	10-150

Column to be used to flag recovery values

FORM II 8015B

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: MB 240-42123/7

Matrix: Water Date Extracted: 04/30/2012 12:37

Lab File ID:(1) YF004307.D Lab File ID:(2)

Date Analyzed:(1) 04/30/2012 12:37 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-42123/8	04/30/2012 13:17	
GSP-MW7-042712	240-10770-2	04/30/2012 13:57	
GSP-MW7-042712 MS	240-10770-2 MS	04/30/2012 14:38	
GSP-MW7-042712 MSD	240-10770-2 MSD	04/30/2012 15:19	
GSP-MW8-042712	240-10770-3	04/30/2012 16:00	
GSP-MW4-042712	240-10770-4	04/30/2012 16:41	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42123/7
Matrix: Water
Lab File ID: YF004307.D
Analysis Method: 8015B
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 04/30/2012 12:37
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42123
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	29.2	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	63		10-150

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF004308.D

Lab ID: LCS 240-42123/8 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	920	115	72-140	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF004310.D

Lab ID: 240-10770-2 MS Client ID: GSP-MW7-042712 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	96 J	961	108	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF004311.D

Lab ID: 240-10770-2 MSD Client ID: GSP-MW7-042712 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	996	113	4	20	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCV 240-42123/6 Date Analyzed: 04/30/2012 11:58

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF004306.D Heated Purge: (Y/N) N

Calibration ID: 6924

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				9.75		
UPPER LIMIT				9.85		
LOWER LIMIT				9.65		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-42123/6 CCVRT		04/30/2012 11:58	YF004306.D	9.75		
MB 240-42123/7		04/30/2012 12:37	YF004307.D	9.75		
LCS 240-42123/8		04/30/2012 13:17	YF004308.D	9.75		
240-10770-2	GSP-MW7-042712	04/30/2012 13:57	YF004309.D	9.74		
240-10770-2 MS	GSP-MW7-042712 MS	04/30/2012 14:38	YF004310.D	9.75		
240-10770-2 MSD	GSP-MW7-042712 MSD	04/30/2012 15:19	YF004311.D	9.75		
240-10770-3	GSP-MW8-042712	04/30/2012 16:00	YF004312.D	9.75		
240-10770-4	GSP-MW4-042712	04/30/2012 16:41	YF004313.D	9.75		
CCV 240-42123/14		04/30/2012 17:22	YF004314.D	9.75		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: YPID Start Date: 02/10/2012 10:35

Analysis Batch Number: 33435 End Date: 02/10/2012 23:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		02/10/2012 10:35	1		RTX-VRX 0.45(mm)
STD1 240-33435/12 IC		02/10/2012 16:17	1	YF021012.D	RTX-VRX 0.45(mm)
STD2 240-33435/13 IC		02/10/2012 16:55	1	YF021013.D	RTX-VRX 0.45(mm)
STD3 240-33435/14 IC		02/10/2012 17:32	1	YF021014.D	RTX-VRX 0.45(mm)
STD4 240-33435/15 ICRT		02/10/2012 18:11	1	YF021015.D	RTX-VRX 0.45(mm)
STD5 240-33435/16 IC		02/10/2012 18:49	1	YF021016.D	RTX-VRX 0.45(mm)
STD6 240-33435/17 IC		02/10/2012 19:27	1	YF021017.D	RTX-VRX 0.45(mm)
ICV 240-33435/18		02/10/2012 20:05	1	YF021018.D	RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 20:43	1		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 21:21	1		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 21:59	10		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 22:37	10		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 23:15	10		RTX-VRX 0.45(mm)
CCV 240-33435/24		02/10/2012 23:53	1		RTX-VRX 0.45(mm)

8015B

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 33435

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/10/2012 16:17 Calibration End Date: 02/10/2012 19:27 Calibration ID: 6924

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-33435/12	YF021012.D
Level 2	STD2 240-33435/13	YF021013.D
Level 3	STD3 240-33435/14	YF021014.D
Level 4	STD4 240-33435/15	YF021015.D
Level 5	STD5 240-33435/16	YF021016.D
Level 6	STD6 240-33435/17	YF021017.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Total Petroleum Hydrocarbons (C6-C10)	11.810	11.810	11.810	11.810	11.810	11.810					4.817 - 18.802	11.810
C6-C12	13.469	13.469	13.469	13.469	13.469	13.469					4.917 - 22.022	13.469
Trifluorotoluene (Surr)	9.768	9.772	9.769	9.772	9.771	9.774					9.522 - 10.022	9.771

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 33435

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/10/2012 16:17 Calibration End Date: 02/10/2012 19:27 Calibration ID: 6924

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-33435/12	YF021012.D
Level 2	STD2 240-33435/13	YF021013.D
Level 3	STD3 240-33435/14	YF021014.D
Level 4	STD4 240-33435/15	YF021015.D
Level 5	STD5 240-33435/16	YF021016.D
Level 6	STD6 240-33435/17	YF021017.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Total Petroleum Hydrocarbons (C6-C10)	318103 289067	320460 294590	282575	294457	Ave		299875.299				5.2		20.0			
C6-C12	375472 318195	363940 323226	316555	324196	Ave		336930.834				7.7		20.0			
Trifluorotoluene (Surr)	384133 460736	375012 483108	395882	424093	Ave		420494.083				10.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-33435/18 Calibration Date: 02/10/2012 20:05

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF021018.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	333932		891	800	11.4	20.0
C6-C12	Ave	336931	375679		892	800	11.5	20.0
Trifluorotoluene (Surr)	Ave	420494	416828		9.91	10.0	-0.9	20.0

FORM VII 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: YPID Start Date: 04/30/2012 10:39

Analysis Batch Number: 42123 End Date: 04/30/2012 17:22

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/30/2012 10:39	1		RTX-VRX 0.45(mm)
CCV 240-42123/6 CCVRT		04/30/2012 11:58	1	YF004306.D	RTX-VRX 0.45(mm)
MB 240-42123/7		04/30/2012 12:37	1	YF004307.D	RTX-VRX 0.45(mm)
LCS 240-42123/8		04/30/2012 13:17	1	YF004308.D	RTX-VRX 0.45(mm)
240-10770-2	GSP-MW7-042712	04/30/2012 13:57	1	YF004309.D	RTX-VRX 0.45(mm)
240-10770-2 MS	GSP-MW7-042712 MS	04/30/2012 14:38	1	YF004310.D	RTX-VRX 0.45(mm)
240-10770-2 MSD	GSP-MW7-042712 MSD	04/30/2012 15:19	1	YF004311.D	RTX-VRX 0.45(mm)
240-10770-3	GSP-MW8-042712	04/30/2012 16:00	1	YF004312.D	RTX-VRX 0.45(mm)
240-10770-4	GSP-MW4-042712	04/30/2012 16:41	1	YF004313.D	RTX-VRX 0.45(mm)
CCV 240-42123/14		04/30/2012 17:22	1	YF004314.D	RTX-VRX 0.45(mm)

8015B

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42123/6 Calibration Date: 04/30/2012 11:58

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF004306.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	314543		839	800	4.9	15.0
C6-C12	Ave	336931	352216		836	800	4.5	15.0
Trifluorotoluene (Surr)	Ave	420494	322967		7.68	10.0	-23.2*	15.0

FORM VII 8015B

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42123/14 Calibration Date: 04/30/2012 17:22

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF004314.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	313365		836	800	4.5	15.0
C6-C12	Ave	336931	350568		832	800	4.0	15.0
Trifluorotoluene (Surr)	Ave	420494	304096		7.23	10.0	-27.7*	15.0

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): ID:

Client Sample ID	Lab Sample ID	C91 #
GSP-MW7-042712	240-10770-2	63
GSP-MW8-042712	240-10770-3	73
GSP-MW4-042712	240-10770-4	70
	MB 240-42661/8-A	60
	LCS 240-42661/9-A	80

C9 = n-Nonane

QC LIMITS
10-110

Column to be used to flag recovery values

FORM II 8015B

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: MB 240-42661/8-A

Matrix: Water Date Extracted: 05/03/2012 11:54

Lab File ID:(1) P5B05052.D Lab File ID:(2)

Date Analyzed:(1) 05/04/2012 13:38 Date Analyzed:(2)

Instrument ID:(1) A2HP5R Instrument ID:(2)

GC Column:(1) ID: GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-MW7-042712	240-10770-2	05/04/2012 12:07	
GSP-MW8-042712	240-10770-3	05/04/2012 12:37	
GSP-MW4-042712	240-10770-4	05/04/2012 13:08	
	LCS 240-42661/9-A	05/04/2012 14:08	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42661/8-A
Matrix: Water
Lab File ID: P5B05052.D
Analysis Method: 8015B
Date Collected:
Extraction Method: 3510C
Date Extracted: 05/03/2012 11:54
Sample wt/vol: 1000(mL)
Date Analyzed: 05/04/2012 13:38
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: ID:
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 42755
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	500	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	60		10-110

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P5B05053.D

Lab ID: LCS 240-42661/9-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2500	2330	93	36-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCVRT 240-42755/4 Date Analyzed: 05/04/2012 09:33

Instrument ID: A2HP5R GC Column: ID: ()

Lab File ID (Standard): P5B05044.D Heated Purge: (Y/N) N

Calibration ID: 8454

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				C9		
				RT #		
CONTINUING CALIBRATION SURROGATE				4.03		
UPPER LIMIT				4.13		
LOWER LIMIT				3.93		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-42755/4		05/04/2012 09:33	P5B05044.D	4.03		
240-10770-2	GSP-MW7-042712	05/04/2012 12:07	P5B05049.D	4.03		
240-10770-3	GSP-MW8-042712	05/04/2012 12:37	P5B05050.D	4.03		
240-10770-4	GSP-MW4-042712	05/04/2012 13:08	P5B05051.D	4.03		
MB 240-42661/8-A		05/04/2012 13:38	P5B05052.D	4.03		
LCS 240-42661/9-A		05/04/2012 14:08	P5B05053.D	4.03		
CCV 240-42755/14		05/04/2012 14:39	P5B05054.D	4.03		

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: A2HP5R Start Date: 04/30/2012 10:28

Analysis Batch Number: 42117 End Date: 04/30/2012 17:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-42117/4 IC		04/30/2012 10:28	1	P5B04304.D	
STD2 240-42117/5 IC		04/30/2012 10:58	1	P5B04305.D	
ICRT 240-42117/6		04/30/2012 11:29	1	P5B04306.D	
STD4 240-42117/7 IC		04/30/2012 11:59	1	P5B04307.D	
STD5 240-42117/8 IC		04/30/2012 12:29	1	P5B04308.D	
ICV 240-42117/9		04/30/2012 12:59	1	P5B04309.D	
STD1 240-42117/10 IC		04/30/2012 13:30	1		
STD2 240-42117/11 IC		04/30/2012 14:00	1		
STD3 240-42117/12 IC		04/30/2012 14:31	1		
STD4 240-42117/13 IC		04/30/2012 15:01	1		
STD5 240-42117/14 IC		04/30/2012 15:32	1		
ICV 240-42117/15		04/30/2012 16:02	1		
ZZZZZ		04/30/2012 16:33	1		
CCV 240-42117/18		04/30/2012 17:33	1		

8015B

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42117

SDG No.:

Instrument ID: A2HP5R GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2012 10:28 Calibration End Date: 04/30/2012 12:29 Calibration ID: 8454

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-42117/4	P5B04304.D
Level 2	STD2 240-42117/5	P5B04305.D
Level 3	ICRT 240-42117/6	P5B04306.D
Level 4	STD4 240-42117/7	P5B04307.D
Level 5	STD5 240-42117/8	P5B04308.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel	9.351	9.351	9.351	9.351	9.351						5.054 - 13.650	9.351
n-Nonane	4.024	4.020	4.025	4.026	4.023						3.954 - 4.094	4.024

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42117

SDG No.:

Instrument ID: A2HP5R GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2012 10:28 Calibration End Date: 04/30/2012 12:29 Calibration ID: 8454

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-42117/4	P5B04304.D
Level 2	STD2 240-42117/5	P5B04305.D
Level 3	ICRT 240-42117/6	P5B04306.D
Level 4	STD4 240-42117/7	P5B04307.D
Level 5	STD5 240-42117/8	P5B04308.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	202380 139479	154697	180905	178149	Ave		171121.938				14.0		20.0			
n-Nonane	238010 169073	182724	223067	217729	Ave		206120.531				14.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42117/9 Calibration Date: 04/30/2012 12:59

Instrument ID: A2HP5R Calib Start Date: 04/30/2012 10:28

GC Column: ID: Calib End Date: 04/30/2012 12:29

Lab File ID: P5B04309.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	171122	171949		502	500	0.5	20.0

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: A2HP5R Start Date: 05/04/2012 09:33

Analysis Batch Number: 42755 End Date: 05/04/2012 14:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-42755/4		05/04/2012 09:33	1	P5B05044.D	
ZZZZZ		05/04/2012 10:04	1		
ZZZZZ		05/04/2012 10:35	1		
ZZZZZ		05/04/2012 11:06	1		
ZZZZZ		05/04/2012 11:36	1		
240-10770-2	GSP-MW7-042712	05/04/2012 12:07	1	P5B05049.D	
240-10770-3	GSP-MW8-042712	05/04/2012 12:37	1	P5B05050.D	
240-10770-4	GSP-MW4-042712	05/04/2012 13:08	1	P5B05051.D	
MB 240-42661/8-A		05/04/2012 13:38	1	P5B05052.D	
LCS 240-42661/9-A		05/04/2012 14:08	1	P5B05053.D	
CCV 240-42755/14		05/04/2012 14:39	1	P5B05054.D	

8015B

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCVRT 240-42755/4 Calibration Date: 05/04/2012 09:33

Instrument ID: A2HP5R Calib Start Date: 04/30/2012 10:28

GC Column: ID: Calib End Date: 04/30/2012 12:29

Lab File ID: P5B05044.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	171122	146148		427	500	-14.6	15.0
n-Nonane	Ave	206121	181559		44.0	50.0	-11.9	15.0

FORM VII 8015B

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42755/14 Calibration Date: 05/04/2012 14:39

Instrument ID: A2HP5R Calib Start Date: 04/30/2012 10:28

GC Column: ID: Calib End Date: 04/30/2012 12:29

Lab File ID: P5B05054.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	171122	185943		543	500	8.7	15.0
n-Nonane	Ave	206121	228814		55.5	50.0	11.0	15.0

FORM VII 8015B

HOLDTIME

SDG 240-10770-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
HG	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
HG	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
M	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
M	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
M	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
HGF	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
HGF	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
HGF	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
MF	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
MF	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
MF	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
PCL	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/7/2012	5/15/2012	10	8	18
PCL	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/7/2012	5/15/2012	10	8	18
PCL	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/7/2012	5/15/2012	10	8	18

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OS	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/8/2012	6	5	11
OS	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/8/2012	6	5	11
OS	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/3/2012	5/8/2012	6	5	11
OV	UG/L	TB-042712	240-10770-1	NM	4/27/2012	5/1/2012	5/1/2012	4	0	4
OV	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/1/2012	5/1/2012	4	0	4
OV	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/1/2012	5/1/2012	4	0	4
OV	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/1/2012	5/1/2012	4	0	4
OV	UG/L	TB-042712	240-10770-1	TB	4/27/2012	5/1/2012	5/1/2012	4	0	4
DRO	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
DRO	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
DRO	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
GRO	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	4/30/2012	4/30/2012	3	0	3
GRO	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	4/30/2012	4/30/2012	3	0	3
GRO	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	4/30/2012	4/30/2012	3	0	3

Tetra Tech **INTERNAL CORRESPONDENCE**

TO: **T. APANAVAGE** **DATE: JUNE 27, 2012**

FROM: **TERRI L. SOLOMON** **COPIES: DV FILE**

SUBJECT: **INORGANIC AND ORGANIC DATA VALIDATION – SELECT METALS, PERCHLORATE**
MARTIN STATE AIRPORT – GROUNDWATER
SAMPLE DELIVERY GROUP (SDG) – 240-10770-1

SAMPLES: 3/Aqueous/

GSP-MW4-042712 GSP-MW7-042712
GSP-MW8-042712

Overview

The sample set for Martin State Airport - Groundwater, SDG 240-10770-1, consists of three (3) aqueous environmental samples. No field duplicate pairs were included within this SDG.

All samples were analyzed for perchlorate and select total and dissolved metals including antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, tungsten, vanadium and zinc. The samples were collected by Tetra Tech on April 27, 2012 and analyzed by TestAmerica. Metals analyses were conducted using SW-846 method 6020. Mercury analyses were conducted using SW-846 method 7470A. Perchlorate analyses were conducted using SW-846 method 6850.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP interference results, laboratory control sample recoveries, matrix spike/matrix spike duplicate recoveries, ICP serial dilution results, internal standard recoveries, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems

None.

Minor Problems

- The contract required detection limit (CRDL) percent recoveries for copper and nickel were > 110% quality control limit affecting all samples. Positive results < 2X CRDL for copper and nickel were qualified as either biased high, "K" or estimated, "J", as a result of conflicting noncompliances.

- The following contaminants were detected in the laboratory method/preparation blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Antimony[1]	0.322 ug/L	1.61 ug/L
Cadmium[1]	0.172 ug/L	0.86 ug/L
Cobalt[1]	0.169 ug/L	0.845 ug/L
Lead[1]	0.191 ug/L	0.955 ug/L
Molybdenum[1]	0.854 ug/L	4.27 ug/L
Thallium[1]	0.686 ug/L	3.43 ug/L
Tungsten[1]	0.956 ug/L	4.78 ug/L
Barium[2]	0.541 ug/L	2.705 ug/L
Copper[2]	0.388 ug/L	1.94 ug/L
Zinc[2]	4.57 ug/L	22.85 ug/L

  [1] Maximum concentration present in a method blank affecting all samples.
  [2] Maximum concentration present in a preparation blank (240-42485) affecting all total and dissolved samples.

  An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The positive results less than the blank action level reported for antimony, cadmium, copper, lead, molybdenum and thallium were qualified "B" as a result of laboratory blank contamination.

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated, "J".

Notes

Nondetected results are reported to the method detection limits.

The contract required detection limit (CRDL) percent recoveries for barium, cadmium, cobalt, copper, lead, nickel, silver and thallium were > 110% quality control limit affecting all samples. However, no validation actions were required as all sample results were either > 2X CRDL, nondetects or were qualified as a result of blank contamination.

Executive Summary

Laboratory Performance: Several contaminants were present in the laboratory method / preparation blanks. The CRDL percent recoveries for copper and nickel were > 110% quality control limit affecting all samples.

Other Factors Affecting Data Quality: Positive results reported below the RL but above the MDL were qualified as estimated.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993 and the Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994).

The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Terri L. Solomon
Environmental Scientist

Tetra Tech
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3		
FRACTION: M	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.13	U		0.41	B	A	0.13	B	A
ARSENIC		6.5			1.4	J	P	0.85	J	P
BARIUM		27			44			48		
BERYLLIUM		0.2	U		0.22	J	P	0.35	J	P
CADMIUM		0.13	U		0.13	U		0.13	U	
CHROMIUM		0.71	U		0.71	U		0.71	U	
COBALT		11			6.4			11		
COPPER		0.59	B	A	1.9	B	A	3.4	K	C
LEAD		0.18	U		0.28	B	A	0.53	B	A
MERCURY		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.26	B	A	1.2	B	A	0.24	B	A
NICKEL		0.94	J	CP	7.1			15		
SELENIUM		0.57	U		0.83	J	P	4.4	J	P
SILVER		0.08	U		0.08	U		0.08	U	
THALLIUM		0.35	B	A	0.82	B	A	0.32	B	A
TUNGSTEN		0.37	U		1	B	A	0.37	U	
VANADIUM		0.44	U		0.92	J	P	0.44	U	
ZINC		2.3	U		730			77		

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3		
FRACTION: MF	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.13	U		0.28	B	A	0.13	U	
ARSENIC		6.4			1.4	J	P	0.58	J	P
BARIUM		27			45			49		
BERYLLIUM		0.2	U		0.2	U		0.36	J	P
CADMIUM		0.13	U		0.13	U		0.2	B	A
CHROMIUM		0.71	U		0.71	U		0.71	U	
COBALT		11			6.3			12		
COPPER		0.5	B	A	1.5	B	A	3.8	K	C
LEAD		0.18	U		0.18	U		0.48	B	A
MERCURY		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.14	B	A	0.76	B	A	0.15	B	A
NICKEL		1.1	J	CP	7.2			16		
SELENIUM		0.58	J	P	0.57	U		4.7	J	P
SILVER		0.08	U		0.08	U		0.08	U	
THALLIUM		0.26	B	A	0.47	B	A	0.23	B	A
TUNGSTEN		0.37	U		0.47	B	A	0.37	U	
VANADIUM		0.44	U		0.71	J	P	0.44	U	
ZINC		2.3	U		760			72		

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3		
FRACTION: MISC	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.082	U		0.082	U		0.45	J	P

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: GSP-MW4-042712 Lab Sample ID: 240-10770-4

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG ID.:

Matrix: Water Date Sampled: 04/27/2012 13:53

Reporting Basis: WET Date Received: 04/28/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	6.5	5.0	0.40	ug/L			1	6020
7440-39-3	Barium	27	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	11	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	0.59	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	0.26	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	0.94	2.0	0.20	ug/L	J	^	1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.35	2.0	0.14	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7440-62-2	Vanadium	20	20	0.44	ug/L	U		1	6020
7440-66-6	Zinc	20	20	2.3	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW4-042712

Lab Sample ID: 240-10770-4

Lab Name: TestAmerica Canton

Job No.: 240-10770-1

SDG ID.:

Matrix: Water

Date Sampled: 04/27/2012 13:53

Reporting Basis: WET

Date Received: 04/28/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: GSP-MW7-042712
Lab Sample ID: 240-10770-2
Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG ID.:
Matrix: Water
Date Sampled: 04/27/2012 10:14
Reporting Basis: WET
Date Received: 04/28/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.41	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	1.4	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	44	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	0.22	1.0	0.20	ug/L	J		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	6.4	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	1.9	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	0.28	1.0	0.18	ug/L	J		1	6020
7439-98-7	Molybdenum	1.2	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	7.1	2.0	0.20	ug/L		^	1	6020
7782-49-2	Selenium	0.83	5.0	0.57	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.82	2.0	0.14	ug/L	J	B	1	6020
7440-33-7	Tungsten	1.0	10	0.37	ug/L	J		1	6020
7440-62-2	Vanadium	0.92	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	730	20	2.3	ug/L		B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW7-042712

Lab Sample ID: 240-10770-2

Lab Name: TestAmerica Canton

Job No.: 240-10770-1

SDG ID.:

Matrix: Water

Date Sampled: 04/27/2012 10:14

Reporting Basis: WET

Date Received: 04/28/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: GSP-MW8-042712
Lab Sample ID: 240-10770-3
Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG ID.:
Matrix: Water
Date Sampled: 04/27/2012 12:03
Reporting Basis: WET
Date Received: 04/28/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.13	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	0.85	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	48	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	0.35	1.0	0.20	ug/L	J		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	11	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	3.4	2.0	0.29	ug/L		B	1	6020
7439-92-1	Lead	0.53	1.0	0.18	ug/L	J		1	6020
7439-98-7	Molybdenum	0.24	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	15	2.0	0.20	ug/L		^	1	6020
7782-49-2	Selenium	4.4	5.0	0.57	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.32	2.0	0.14	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7440-62-2	Vanadium	20	20	0.44	ug/L	U		1	6020
7440-66-6	Zinc	77	20	2.3	ug/L		B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW8-042712
Lab Sample ID: 240-10770-3
Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG ID.:
Matrix: Water
Date Sampled: 04/27/2012 12:03
Reporting Basis: WET
Date Received: 04/28/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW4-042712
Lab Sample ID: 240-10770-4
Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG ID.:
Matrix: Water
Date Sampled: 04/27/2012 13:53
Reporting Basis: WET
Date Received: 04/28/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	6.4	5.0	0.40	ug/L			1	6020
7440-39-3	Barium	27	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	11	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	0.50	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	0.14	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	1.1	2.0	0.20	ug/L	J	^	1	6020
7782-49-2	Selenium	0.58	5.0	0.57	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.26	2.0	0.14	ug/L	J	B	1	6020
7440-62-2	Vanadium	20	20	0.44	ug/L	U		1	6020
7440-66-6	Zinc	20	20	2.3	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW7-042712
Lab Sample ID: 240-10770-2
Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG ID.:
Matrix: Water
Date Sampled: 04/27/2012 10:14
Reporting Basis: WET
Date Received: 04/28/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.28	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	1.4	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	45	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	6.3	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	1.5	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	0.76	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	7.2	2.0	0.20	ug/L		^	1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.47	2.0	0.14	ug/L	J	B	1	6020
7440-62-2	Vanadium	0.71	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	760	20	2.3	ug/L		B	1	6020
7440-33-7	Tungsten	0.47	10	0.37	ug/L	J		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW8-042712
Lab Sample ID: 240-10770-3
Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG ID.:
Matrix: Water
Date Sampled: 04/27/2012 12:03
Reporting Basis: WET
Date Received: 04/28/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	0.58	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	49	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	0.36	1.0	0.20	ug/L	J		1	6020
7440-43-9	Cadmium	0.20	1.0	0.13	ug/L	J		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	12	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	3.8	2.0	0.29	ug/L		B	1	6020
7439-92-1	Lead	0.48	1.0	0.18	ug/L	J		1	6020
7439-98-7	Molybdenum	0.15	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	16	2.0	0.20	ug/L		^	1	6020
7782-49-2	Selenium	4.7	5.0	0.57	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.23	2.0	0.14	ug/L	J	B	1	6020
7440-62-2	Vanadium	20	20	0.44	ug/L	U		1	6020
7440-66-6	Zinc	72	20	2.3	ug/L		B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

TestAmerica Canton

Client Sample ID: GSP-MW4-042712

Dissolved HPLC - Mass. Spec.

Lot-Sample #...:	G2E010422-003	**Work Order #...:**	MTAGG1AA	**Matrix.....:**	WATER
Date Sampled...:	04/27/12	**Date Received..:**	05/01/12		
Prep Date.....:	05/07/12	**Analysis Date..:**	05/15/12		
Prep Batch #...:	2128058				
Dilution Factor:	1	**Method.....:**	SW846 6850		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	ND	1.0	ug/L	0.082

TestAmerica Canton

Client Sample ID: GSP-MW7-042712

Dissolved HPLC - Mass. Spec.

Lot-Sample #...: G2E010422-001 Work Order #...: MTAGE1AA Matrix.....: WATER
Date Sampled...: 04/27/12 Date Received..: 05/01/12
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1 Method.....: SW846 6850

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	ND	1.0	ug/L	0.082

TestAmerica Canton

Client Sample ID: GSP-MW8-042712

Dissolved HPLC - Mass. Spec.

Lot-Sample #...: G2E010422-002 Work Order #...: MTAGF1AA Matrix.....: WATER
Date Sampled...: 04/27/12 Date Received..: 05/01/12
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1 Method.....: SW846 6850

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	0.45 J	1.0	ug/L	0.082

NOTE(S):

J Estimated result. Result is less than RL.

APPENDIX C
SUPPORT DOCUMENTATION

CASE NARRATIVE

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Project: MSA Groundwater Sampling

Report Number: 240-10770-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The Perchlorate analysis was performed at the TestAmerica West Sacramento Laboratory.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 04/28/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.4 and 1.2 C.

VOLATILE ORGANIC COMPOUNDS (GC MS)

Samples TB-042712 (240-10770-1), GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for volatile organic compounds (GC MS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 05/01/2012.

1,2,3-Trichlorobenzene was detected in method blank MB 240-42324/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

2-Chloroethyl vinyl ether failed the recovery criteria low for the MS/MSD of sample GSP-MW7-042712MS/MSD (240-10770-2) in batch 240-42324.

Refer to the QC report for details.

Sample GSP-MW7-042712 (240-10770-2)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 05/03/2012 and analyzed on 05/08/2012.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 43632/8270.

No other difficulties were encountered during the SVOCs analyses. All quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)

Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 04/30/2012.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-42123/7 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)

Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 05/03/2012 and analyzed on 05/04/2012.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 42661.

No other difficulties were encountered during the DRO analyses. All quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)

Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

No difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)

Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

Several analytes were detected in method blank MB 240-42485/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY

Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/02/2012 and 05/03/2012 and analyzed on 05/03/2012 and 05/04/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/02/2012 and 05/03/2012 and analyzed on 05/03/2012 and 05/04/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact			
Company Name: Tetra Tech Inc.	Client Project Manager: Tony Apanavage	Site Contact: Walt Payon	Lab Contact: Pat O'Meara
Address: 20251 Century Blvd.	Telephone: 301 528-3021	Telephone: 301 991-3914	Telephone: 330-497-9396
City/State/Zip: Germantown MD 20874	Email:	Analysis Turnaround Time (in BUS days)	COC No: 1 of 1 COCs
Phone: 301 528-3021		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	Analyses
Project Name: MSA Ground Water Sampling	Method of Shipment/Carrier: Fed Ex		For lab use only: Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Project Number: 112IC04021-02	Shipping/Tracking No:		Job/SDG No.:
PO #			

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (C)/Grab (G)	VOCs	Total PPM	Diss PPM	1,4 Dioxane	DRO	Gas	Perchlorate				Sample Specific Notes / Special Instructions:
TB-042712	4-27-12	—		X						2					N	G	X										
GSP-MW7-042712	↓	1014		X					2	5			5		↓	↓	X	X	X	X	X	X	X				
GSP-MW8-042712		1203		X					2	5			5				X	X	X	X	X	X	X				
GSP-MW4-042712		1353		X					2	5			5				X	X	X	X	X	X	X				

Page 852 of 855

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walt Payon	TT Inc.	4-27-12 / 1517	Paul Gaylord	TestAmerica	4/27/12/1517
Paul Gaylord	TestAmerica	4/27/12/1620			
			Received in Laboratory by: Mike Gafone	Company: TA	Date/Time: 4/28/12 1000

05/30/2012

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

TAL-0018 (1008)

HOLDTIME

SDG 240-10770-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
HG	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
HG	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
M	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
M	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
M	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
HGF	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
HGF	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
HGF	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
MF	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
MF	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
MF	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
PCL	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/7/2012	5/15/2012	10	8	18
PCL	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/7/2012	5/15/2012	10	8	18
PCL	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/7/2012	5/15/2012	10	8	18

SAMPLE SUMMARY

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10770-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-10770-1TB	TB-042712	Water	04/27/2012 0000	04/28/2012 1000
240-10770-2	GSP-MW7-042712	Water	04/27/2012 1014	04/28/2012 1000
240-10770-3	GSP-MW8-042712	Water	04/27/2012 1203	04/28/2012 1000
240-10770-4	GSP-MW4-042712	Water	04/27/2012 1353	04/28/2012 1000

METHOD SUMMARY

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10770-1

Description	Lab Location	Method	Preparation Method
Matrix Water			
Volatile Organic Compounds by GC/MS	TAL NC	SW846 8260C	
Purge and Trap	TAL NC		SW846 5030C
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270C	
Liquid-Liquid Extraction (Continuous)	TAL NC		SW846 3520C
Gasoline Range Organics - (GC)	TAL NC	SW846 8015B	
Purge and Trap	TAL NC		SW846 5030B
Diesel Range Organics (DRO) (GC)	TAL NC	SW846 8015B	
Liquid-Liquid Extraction (Separatory Funnel)	TAL NC		SW846 3510C
Metals (ICP/MS)	TAL NC	SW846 6020	
Preparation, Total Recoverable or Dissolved Metals	TAL NC		SW846 3005A
Metals (ICP/MS)	TAL NC	SW846 6020	
Preparation, Total Recoverable or Dissolved Metals	TAL NC		SW846 3005A
Sample Filtration, Field			FIELD_FLTRD
Mercury (CVAA)	TAL NC	SW846 7470A	
Preparation, Mercury	TAL NC		SW846 7470A
Mercury (CVAA)	TAL NC	SW846 7470A	
Preparation, Mercury	TAL NC		SW846 7470A
Sample Filtration, Field			FIELD_FLTRD
General Sub Contract Method	TAL WSC	Subcontract	

Lab References:

TAL NC = TestAmerica Canton

TAL WSC = TestAmerica West Sacramento

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

ICV Source: MTMSICVW_00014 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00039

Analyte	ICV 240-42666/5 05/03/2012 06:17				CCV 240-42666/22 05/03/2012 07:54				CCV 240-42666/34 05/03/2012 09:03			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	82.2		80.0	103	98.3		100	98	96.3		100	96
Arsenic	80.9		80.0	101	98.9		100	99	98.8		100	99
Barium	80.9		80.0	101	97.7		100	98	97.5		100	98
Beryllium	81.5		80.0	102	97.5		100	97	97.4		100	97
Cadmium	80.4		80.0	101	99.6		100	100	98.7		100	99
Chromium	79.7		80.0	100	96.9		100	97	98.0		100	98
Cobalt	81.2		80.0	102	99.0		100	99	100		100	100
Copper	83.2		80.0	104	101		100	101	101		100	101
Lead	82.4		80.0	103	99.3		100	99	96.7		100	97
Molybdenum	83.6		80.0	105	103		100	103	101		100	101
Nickel	83.1		80.0	104	101		100	101	102		100	102
Selenium	80.7		80.0	101	101		100	101	99.9		100	100
Silver	82.7		80.0	103	101		100	101	98.9		100	99
Thallium	81.3		80.0	102	100		100	100	100		100	100
Tungsten	80.4		80.0	101	98.4		100	98	97.0		100	97
Vanadium	79.7		80.0	100	96.7		100	97	96.8		100	97
Zinc	81.5		80.0	102	99.8		100	100	99.5		100	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

ICV Source: MTMSICVW_00014 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00039

Analyte	CCV 240-42666/46 05/03/2012 10:08											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	96.7		100	97								
Arsenic	99.6		100	100								
Barium	97.3		100	97								
Beryllium	98.3		100	98								
Cadmium	97.6		100	98								
Chromium	98.7		100	99								
Cobalt	99.6		100	100								
Copper	102		100	102								
Lead	94.3		100	94								
Molybdenum	101		100	101								
Nickel	101		100	101								
Selenium	101		100	101								
Silver	99.1		100	99								
Thallium	101		100	101								
Tungsten	96.5		100	96								
Vanadium	98.7		100	99								
Zinc	101		100	101								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

ICV Source: MTHGICVW_00289 Concentration Units: ug/L

CCV Source: MTHGCALW_00189

Analyte	ICV 240-42622/7-A 05/03/2012 16:06				CCVL 240-42622/10-A 05/03/2012 16:12				CCV 240-42622/12-A 05/03/2012 17:26			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.35		2.50	94	5.11		5.00	102	5.27		5.00	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

ICV Source: MTHGICVW_00289 Concentration Units: ug/L

CCV Source: MTHGCALW_00189

Analyte	CCV 240-42622/12-A 05/03/2012 17:51				CCV 240-42622/12-A 05/03/2012 18:17				CCV 240-42622/12-A 05/03/2012 18:42			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.23		5.00	105	5.24		5.00	105	5.24		5.00	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

ICV Source: MTHGICVW_00289 Concentration Units: ug/L

CCV Source: MTHGCALW_00189

Analyte	ICV 240-42622/7-A 05/04/2012 10:43				CCVL 240-42622/10-A 05/04/2012 10:53				CCV 240-42622/12-A 05/04/2012 12:07			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.29		2.50	92	5.09		5.00	102	5.15		5.00	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

ICV Source: MTHGICVW_00289 Concentration Units: ug/L

CCV Source: MTHGCALW_00189

Analyte	CCV 240-42622/12-A 05/04/2012 12:34											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.12		5.00	102								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Method: 6020 Instrument ID: I8

Lab Sample ID: CRI 240-42666/8 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRIW_00016

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	1.96	J	98	50-150
Arsenic	2.00	2.19	J	110	50-150
Barium	1.00	1.33	J	133	50-150
Beryllium	1.00	1.08		108	50-150
Cadmium	0.500	0.658	J	132	50-150
Chromium	2.00	2.08		104	50-150
Cobalt	1.00	1.20		120	50-150
Copper	2.00	2.72		136	50-150
Lead	1.00	1.22		122	50-150
Molybdenum	10.0	9.90	J	99	50-150
Nickel	2.00	3.13	^	156	50-150
Selenium	2.00	2.16	J	108	50-150
Silver	0.500	0.603	J	121	50-150
Thallium	1.00	1.20	J	120	50-150
Vanadium	5.00	4.78	J	96	50-150
Tungsten	10.0	9.47	J	95	50-150
Zinc	10.0	10.6	J	106	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Method: 7470A Instrument ID: H4

Lab Sample ID: CRA 240-42622/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00189

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.191	J	95	50-150

Lab Sample ID: CRA 240-42622/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00189

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.186	J	93	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-42666/6 05/03/2012 06:22		CCB 240-42666/23 05/03/2012 08:00		CCB 240-42666/35 05/03/2012 09:08		CCB 240-42666/47 05/03/2012 10:13	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.149	J	0.322	J	0.131	J	0.138	J
Arsenic	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Barium	5.0	5.0	U	0.239	J	5.0	U	5.0	U
Beryllium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Cadmium	1.0	1.0	U	0.172	J	1.0	U	1.0	U
Chromium	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Cobalt	1.0	0.0800	J	0.169	J	0.0610	J	1.0	U
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	1.0	U	0.191	J	1.0	U	1.0	U
Molybdenum	10	0.858	J	0.854	J	0.632	J	0.678	J
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	2.0	0.496	J	0.686	J	0.554	J	0.489	J
Tungsten	10	1.07	J	0.956	J	0.868	J	0.833	J
Vanadium	20	20	U	20	U	20	U	20	U
Zinc	20	20	U	20	U	20	U	20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-42622/8-A 05/03/2012 16:08		CCB 240-42622/11-A 05/03/2012 17:28		CCB 240-42622/11-A 05/03/2012 17:52		CCB 240-42622/11-A 05/03/2012 18:18	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U	0.20	U	0.20	U	0.20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-42622/11-A 05/03/2012 18:44							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-42622/8-A 05/04/2012 10:45		CCB 240-42622/11-A 05/04/2012 12:09		CCB 240-42622/11-A 05/04/2012 12:35			
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U	0.20	U	0.20	U		

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-42485/1-A

Instrument Code: I8 Batch No.: 42666

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6020
7440-38-2	Arsenic	5.0	U		6020
7440-39-3	Barium	0.541	J		6020
7440-41-7	Beryllium	1.0	U		6020
7440-43-9	Cadmium	1.0	U		6020
7440-47-3	Chromium	2.0	U		6020
7440-48-4	Cobalt	1.0	U		6020
7440-50-8	Copper	0.388	J		6020
7439-92-1	Lead	1.0	U		6020
7439-98-7	Molybdenum	0.312	J		6020
7440-02-0	Nickel	2.0	U	^	6020
7782-49-2	Selenium	5.0	U		6020
7440-22-4	Silver	1.0	U		6020
7440-28-0	Thallium	0.332	J		6020
7440-62-2	Vanadium	20	U		6020
7440-33-7	Tungsten	10	U		6020
7440-66-6	Zinc	4.57	J		6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-42491/1-A

Instrument Code: H4 Batch No.: 42777

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.20	U		7470A

FORM III-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-42671/1-A

Instrument Code: H4 Batch No.: 42975

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.20	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICSA 240-42666/9 Instrument ID: I8

Lab File ID: I8050312A.csv ICS Source: MTMSICSAW_00014

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.163**	
Arsenic		**0.572**	
Barium		**0.131**	
Beryllium		**0.0050**	
Cadmium		**-0.414**	
Chromium		**0.479**	
Cobalt		**0.118**	
Copper		**0.523**	
Lead		**0.0560**	
Molybdenum	**1000**	**1018**	**102**
Nickel		**0.562**	
Selenium		**0.0360**	
Silver		**0.0380**	
Thallium		**0.111**	
Tungsten		**0.347**	
Vanadium		**0.0780**	
Zinc		**1.08**	
Aluminum	*50000*	*48650*	*97*
Boron		*0.397*	
Calcium	*50000*	*50780*	*102*
Iron	*50000*	*50610*	*101*
Magnesium	*50000*	*50890*	*102*
Manganese		*0.237*	
Potassium	*50000*	*50870*	*102*
Sodium	*50000*	*51340*	*103*
Strontium		*0.331*	
Tin		*0.0580*	
Titanium	*1000*	*1045*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICSAB 240-42666/10 Instrument ID: I8

Lab File ID: I8050312A.csv ICS Source: MTMSICSABW_00014

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**100**	**100**
Arsenic	**100**	**98.6**	**99**
Barium	**100**	**101**	**101**
Beryllium	**100**	**104**	**104**
Cadmium	**100**	**98.5**	**98**
Chromium	**100**	**105**	**105**
Cobalt	**100**	**100**	**100**
Copper	**100**	**101**	**101**
Lead	**100**	**106**	**106**
Molybdenum	**1100**	**1138**	**103**
Nickel	**100**	**107**	**107**
Selenium	**100**	**101**	**101**
Silver	**100**	**101**	**101**
Thallium	**100**	**104**	**104**
Tungsten	**100**	**99.6**	**100**
Vanadium	**100**	**99.2**	**99**
Zinc	**100**	**103**	**103**
Aluminum	*50000*	*48390*	*97*
Boron	*100*	*99.3*	*99*
Calcium	*50000*	*51380*	*103*
Iron	*50000*	*50960*	*102*
Magnesium	*50000*	*50690*	*101*
Manganese	*100*	*107*	*107*
Potassium	*50000*	*50370*	*101*
Sodium	*50000*	*51610*	*103*
Strontium	*100*	*95.2*	*95*
Tin	*100*	*98.8*	*99*
Titanium	*1100*	*1153*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: GSP-MW8-042712 MS

Lab ID: 240-10770-3 MS

Lab Name: TestAmerica Canton

Job No.: 240-10770-1

SDG No.:

Matrix: Water

Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.913		0.20	U	1.00	91	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Not in SDG

Client ID: _____ Lab ID: 240-10807-B-5-B MS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	95.7		0.42	J	100	95	44-153		6020
Arsenic	959		2.7	J	1000	96	82-123		6020
Barium	1360		370		1000	99	45-144		6020
Beryllium	980		1.0	U	1000	98	77-124		6020
Cadmium	933		0.14	J	1000	93	78-117		6020
Chromium	974		2.6		1000	97	72-110		6020
Cobalt	968		2.6		1000	97	67-114		6020
Copper	931		0.63	J	1000	93	60-123		6020
Lead	984		0.19	J	1000	98	73-115		6020
Molybdenum	104		0.87	J	100	103	80-110		6020
Nickel	962		10		1000	95	72-111	^	6020
Selenium	948		0.87	J	1000	95	72-148		6020
Silver	92.5		1.0	U	100	92	10-139		6020
Thallium	244		0.66	J	250	97	69-117		6020
Vanadium	978		20	U	1000	98	70-112		6020
Tungsten	96.9		2.2	J	100	95	43-133		6020
Zinc	921		3.7	J	1000	92	49-156		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

NOT IN SDG

Client ID:

Lab ID: 240-10725-K-8-B MS

Lab Name: TestAmerica Canton

Job No.: 240-10770-1

SDG No.:

Matrix: Water

Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.01		0.20	U	1.00	101	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Not in SDG

Client ID:

Lab ID: 240-10725-N-8-B MS

Lab Name: TestAmerica Canton

Job No.: 240-10770-1

SDG No.:

Matrix: Water

Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.04		0.20	U	1.00	104	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: GSP-MW8-042712 MSD
Lab ID: 240-10770-3 MSD
Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.918		1.00	92	69-134	1	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

NOT IN SDG

Client ID:

Lab ID: 240-10807-B-5-C MSD

Lab Name: TestAmerica Canton

Job No.: 240-10770-1

SDG No.:

Matrix: Water

Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	95.8		100	95	44-153	0	20		6020
Arsenic	958		1000	96	82-123	0	20		6020
Barium	1350		1000	98	45-144	1	20		6020
Beryllium	964		1000	96	77-124	2	20		6020
Cadmium	918		1000	92	78-117	2	20		6020
Chromium	973		1000	97	72-110	0	20		6020
Cobalt	963		1000	96	67-114	1	20		6020
Copper	932		1000	93	60-123	0	20		6020
Lead	981		1000	98	73-115	0	20		6020
Molybdenum	103		100	103	80-110	0	20		6020
Nickel	957		1000	95	72-111	1	20	^	6020
Selenium	947		1000	95	72-148	0	20		6020
Silver	92.4		100	92	10-139	0	20		6020
Thallium	247		250	98	69-117	1	20		6020
Vanadium	979		1000	98	70-112	0	20		6020
Tungsten	97.8		100	96	43-133	1	20		6020
Zinc	920		1000	92	49-156	0	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

NOT IN SDG

Client ID: _____ Lab ID: 240-10725-K-8-C MSD

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	1.04		1.00	104	69-134	3	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

NOT IN SDG

Client ID: _____ Lab ID: 240-10725-N-8-C MSD

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	1.04		1.00	104	69-134	0	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-42485/2-A

Lab Name: TestAmerica Canton Job No.: 240-10770-1

Sample Matrix: Water LCS Source: MTICPMSB_00008

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	92.0		92	80	120		6020
Arsenic	1000	918		92	80	120		6020
Barium	1000	918		92	80	120		6020
Beryllium	1000	905		91	80	120		6020
Cadmium	1000	934		93	80	120		6020
Chromium	1000	943		94	80	120		6020
Cobalt	1000	951		95	80	120		6020
Copper	1000	975		98	80	120		6020
Lead	1000	1010		101	80	120		6020
Molybdenum	100	92.2		92	80	120		6020
Nickel	1000	979		98	80	120	^	6020
Selenium	1000	939		94	80	120		6020
Silver	100	97.5		98	80	120		6020
Thallium	250	242		97	80	120		6020
Vanadium	1000	921		92	80	120		6020
Tungsten	100	88.0		88	80	120		6020
Zinc	1000	962		96	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-42491/2-A

Lab Name: TestAmerica Canton Job No.: 240-10770-1

Sample Matrix: Water LCS Source: MTHGICVW_00288

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.10		102	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-42671/2-A

Lab Name: TestAmerica Canton Job No.: 240-10770-1

Sample Matrix: Water LCS Source: MTHGICVW_00289

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.45		89	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-10807-B-5-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-10770-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.42	J	0.670	J	NC		6020
Arsenic	2.7	J	3.93	J	NC		6020
Barium	370		371		NC		6020
Beryllium	1.0	U	5.0	U	NC		6020
Cadmium	0.14	J	5.0	U	NC		6020
Chromium	2.6		10	U	NC		6020
Cobalt	2.6		2.89	J	NC		6020
Copper	0.63	J	10	U	NC		6020
Lead	0.19	J	5.0	U	NC		6020
Molybdenum	0.87	J	1.34	J	NC		6020
Nickel	10		11.6		NC	^	6020
Selenium	0.87	J	25	U	NC		6020
Silver	1.0	U	5.0	U	NC		6020
Thallium	0.66	J	1.64	J	NC		6020
Vanadium	20	U	100	U	NC		6020
Tungsten	2.2	J	3.01	J	NC		6020
Zinc	3.7	J	100	U	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-10770-1

SDG Number:

Matrix: Water Instrument ID: I8

Method: 6020 MDL Date: 02/09/2010 15:53

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.13
Arsenic	75.00	5	0.4
Barium	137.00	5	0.19
Beryllium	9.00	1	0.2
Cadmium	111.00	1	0.13
Chromium	52.00	2	0.71
Cobalt	59.00	1	0.058
Copper	65.00	2	0.29
Lead	208.00	1	0.18
Molybdenum	95.00	10	0.093
Nickel	60.00	2	0.2
Selenium	78.00	5	0.57
Silver	107.00	1	0.08
Thallium	205.00	2	0.14
Tungsten	182.00	10	0.37
Vanadium	51.00	20	0.44
Zinc	66.00	20	2.3

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-10770-1

SDG Number:

Matrix: Water Instrument ID: I8

Method: 6020 MDL Date: 02/09/2010 15:53

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.13
Arsenic	75.00	5	0.4
Barium	137.00	5	0.19
Beryllium	9.00	1	0.2
Cadmium	111.00	1	0.13
Chromium	52.00	2	0.71
Cobalt	59.00	1	0.058
Copper	65.00	2	0.29
Lead	208.00	1	0.18
Molybdenum	95.00	10	0.093
Nickel	60.00	2	0.2
Selenium	78.00	5	0.57
Silver	107.00	1	0.08
Thallium	205.00	2	0.14
Tungsten	182.00	10	0.37
Vanadium	51.00	20	0.44
Zinc	66.00	20	2.3

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-10770-1

SDG Number:

Matrix: Water Instrument ID: H4

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-10770-1

SDG Number:

Matrix: Water Instrument ID: H4

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-42485/1-A	05/02/2012 10:01	42485		50	50
LCS 240-42485/2-A	05/02/2012 10:01	42485		50	50
240-10807-B-5-B MS	05/02/2012 10:01	42485		50	50
240-10807-B-5-C MSD	05/02/2012 10:01	42485		50	50
240-10770-2	05/02/2012 10:01	42485		50	50
240-10770-2	05/02/2012 10:01	42485		50	50
240-10770-3	05/02/2012 10:01	42485		50	50
240-10770-3	05/02/2012 10:01	42485		50	50
240-10770-4	05/02/2012 10:01	42485		50	50
240-10770-4	05/02/2012 10:01	42485		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-42491/1-A	05/02/2012 13:55	42491		100	100
LCS 240-42491/2-A	05/02/2012 13:55	42491		100	100
240-10725-K-8-B MS	05/02/2012 13:55	42491		100	100
240-10725-K-8-C MSD	05/02/2012 13:55	42491		100	100
240-10725-N-8-B MS	05/02/2012 13:55	42491		100	100
240-10725-N-8-C MSD	05/02/2012 13:55	42491		100	100
240-10770-2	05/02/2012 13:55	42491		100	100
240-10770-2	05/02/2012 13:55	42491		100	100

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-42671/1-A	05/03/2012 15:55	42671		100	100
LCS 240-42671/2-A	05/03/2012 15:55	42671		100	100
240-10770-3	05/03/2012 15:55	42671		100	100
240-10770-3 MS	05/03/2012 15:55	42671		100	100
240-10770-3 MSD	05/03/2012 15:55	42671		100	100
240-10770-3	05/03/2012 15:55	42671		100	100
240-10770-4	05/03/2012 15:55	42671		100	100
240-10770-4	05/03/2012 15:55	42671		100	100

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

ICP-MS Instrument ID: I8 Start Date: 05/03/2012 End Date: 05/03/2012

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li	Q	Element Sc	Q	Element Sc	Q	Element Ge	Q	Element In	Q
STD2 240-42666/2 IC	06:00	95		94		97		94		95	
STD3 240-42666/3 IC	06:05	94		93		92		88		91	
STD4 240-42666/4 IC	06:12	102		112		104		106		104	
ICV 240-42666/5	06:17	98		102		99		97		97	
ICB 240-42666/6	06:22	104		113		105		103		103	
CRI 240-42666/8	06:33	104		112		103		102		102	
ICSA 240-42666/9	06:39	86		92		87		88		91	
ICSAB 240-42666/10	06:44	70		84		84		85		89	
CCV 240-42666/22	07:54	83		93		90		87		89	
CCB 240-42666/23	08:00	93		105		95		95		95	
MB 240-42485/1-A	08:05	95		106		98		96		95	
LCS 240-42485/2-A	08:11	92		101		94		92		94	
240-10807-B-5-A SD	08:23	89		102		93		90		90	
240-10807-B-5-B MS	08:28	75		82		77		73		76	
240-10807-B-5-C MSD	08:34	75		83		77		72		77	
240-10770-2	08:41	95		107		95		92		92	
240-10770-2	08:46	92		104		95		91		91	
240-10770-3	08:52	92		106		96		94		93	
240-10770-3	08:57	93		105		95		94		93	
CCV 240-42666/34	09:03	85		96		89		86		86	
CCB 240-42666/35	09:08	95		107		97		94		94	
240-10770-4	09:14	88		98		90		86		85	
240-10770-4	09:19	84		97		88		84		84	
CCV 240-42666/46	10:08	85		97		86		83		83	
CCB 240-42666/47	10:13	93		107		94		92		90	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

ICP-MS Instrument ID: I8 Start Date: 05/03/2012 End Date: 05/03/2012

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD2 240-42666/2 IC	06:00			98							
STD3 240-42666/3 IC	06:05			94							
STD4 240-42666/4 IC	06:12			103							
ICV 240-42666/5	06:17			99							
ICB 240-42666/6	06:22			101							
CRI 240-42666/8	06:33			102							
ICSA 240-42666/9	06:39			91							
ICSAB 240-42666/10	06:44			91							
CCV 240-42666/22	07:54			90							
CCB 240-42666/23	08:00			94							
MB 240-42485/1-A	08:05			95							
LCS 240-42485/2-A	08:11			95							
240-10807-B-5-A SD	08:23			91							
240-10807-B-5-B MS	08:28			80							
240-10807-B-5-C MSD	08:34			79							
240-10770-2	08:41			91							
240-10770-2	08:46			89							
240-10770-3	08:52			91							
240-10770-3	08:57			91							
CCV 240-42666/34	09:03			86							
CCB 240-42666/35	09:08			90							
240-10770-4	09:14			86							
240-10770-4	09:19			86							
CCV 240-42666/46	10:08			81							
CCB 240-42666/47	10:13			86							

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 05/03/2012 05:54 End Date: 05/03/2012 10:51

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn			
ICIS 240-42666/1			05:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD2 240-42666/2 IC	1		06:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD3 240-42666/3 IC	1		06:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD4 240-42666/4 IC	1		06:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICV 240-42666/5	1		06:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICB 240-42666/6	1		06:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CRI 240-42666/7			06:28																				
CRI 240-42666/8	1		06:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSA 240-42666/9	1		06:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSAB 240-42666/10	1		06:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-42666/11			06:50																				
CCB 240-42666/12			06:55																				
CCV 240-42666/13			07:04																				
CCB 240-42666/14			07:10																				
ZZZZZZ			07:15																				
ZZZZZZ			07:21																				
ZZZZZZ			07:26																				
ZZZZZZ			07:31																				
ZZZZZZ			07:37																				
ZZZZZZ			07:42																				
ZZZZZZ			07:49																				
CCV 240-42666/22	1		07:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42666/23	1		08:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
MB 240-42485/1-A	1	R	08:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
LCS 240-42485/2-A	1	R	08:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			08:17																				
240-10807-B-5-A SD ^5	5	R	08:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10807-B-5-B MS	1	R	08:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10807-B-5-C MSD	1	R	08:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10770-2	1	R	08:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10770-2	1	D	08:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10770-3	1	R	08:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10770-3	1	D	08:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-42666/34	1		09:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42666/35	1		09:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10770-4	1	R	09:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10770-4	1	D	09:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			09:24																				
ZZZZZZ			09:30																				
ZZZZZZ			09:35																				
ZZZZZZ			09:41																				
ZZZZZZ			09:46																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 05/03/2012 05:54 End Date: 05/03/2012 10:51

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn			
ZZZZZZ			09:52																				
ZZZZZZ			09:57																				
ZZZZZZ			10:02																				
CCV 240-42666/46	1		10:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42666/47	1		10:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			10:19																				
ZZZZZZ			10:24																				
ZZZZZZ			10:29																				
ZZZZZZ			10:35																				
ZZZZZZ			10:40																				
CCV 240-42666/53			10:45																				
CCB 240-42666/54			10:51																				

Prep Types

D = Dissolved

R = Total Recoverable

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/03/2012 15:54 End Date: 05/03/2012 19:41

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 240-42622/1-A			15:54	X																			
IC 240-42622/2-A			15:55	X																			
IC 240-42622/3-A			15:57	X																			
IC 240-42622/4-A			15:59	X																			
IC 240-42622/5-A			16:01	X																			
IC 240-42622/6-A			16:04	X																			
ICV 240-42622/7-A	1		16:06	X																			
ICB 240-42622/8-A	1		16:08	X																			
CRA 240-42622/9-A	1		16:09	X																			
CCVL 240-42622/10-A	1		16:12	X																			
CCB 240-42622/11-A			16:14																				
ZZZZZZ			16:16																				
ZZZZZZ			16:18																				
ZZZZZZ			16:20																				
ZZZZZZ			16:22																				
ZZZZZZ			16:24																				
ZZZZZZ			16:26																				
ZZZZZZ			16:28																				
ZZZZZZ			16:30																				
ZZZZZZ			16:32																				
ZZZZZZ			16:34																				
CCV 240-42622/12-A			16:36																				
CCB 240-42622/11-A			16:38																				
ZZZZZZ			16:40																				
ZZZZZZ			16:42																				
ZZZZZZ			16:44																				
ZZZZZZ			16:46																				
ZZZZZZ			16:48																				
ZZZZZZ			16:50																				
ZZZZZZ			16:52																				
ZZZZZZ			16:54																				
ZZZZZZ			16:56																				
ZZZZZZ			16:59																				
CCV 240-42622/12-A			17:01																				
CCB 240-42622/11-A			17:03																				
ZZZZZZ			17:06																				
ZZZZZZ			17:08																				
ZZZZZZ			17:10																				
ZZZZZZ			17:12																				
ZZZZZZ			17:14																				
ZZZZZZ			17:16																				
ZZZZZZ			17:18																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/03/2012 15:54 End Date: 05/03/2012 19:41

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			17:20																				
ZZZZZZ			17:22																				
ZZZZZZ			17:24																				
CCV 240-42622/12-A	1		17:26	X																			
CCB 240-42622/11-A	1		17:28	X																			
ZZZZZZ			17:30																				
ZZZZZZ			17:32																				
MB 240-42491/1-A	1	T	17:34	X																			
LCS 240-42491/2-A	1	T	17:36	X																			
ZZZZZZ			17:38																				
240-10725-K-8-B MS	1	T	17:40	X																			
240-10725-K-8-C MSD	1	T	17:42	X																			
ZZZZZZ			17:44																				
240-10725-N-8-B MS	1	D	17:46	X																			
240-10725-N-8-C MSD	1	D	17:49	X																			
CCV 240-42622/12-A	1		17:51	X																			
CCB 240-42622/11-A	1		17:52	X																			
ZZZZZZ			17:54																				
ZZZZZZ			17:56																				
ZZZZZZ			17:59																				
ZZZZZZ			18:01																				
ZZZZZZ			18:04																				
ZZZZZZ			18:06																				
ZZZZZZ			18:08																				
ZZZZZZ			18:10																				
ZZZZZZ			18:13																				
ZZZZZZ			18:15																				
CCV 240-42622/12-A	1		18:17	X																			
CCB 240-42622/11-A	1		18:18	X																			
ZZZZZZ			18:21																				
ZZZZZZ			18:23																				
ZZZZZZ			18:25																				
240-10770-2	1	T	18:28	X																			
240-10770-2	1	D	18:30	X																			
ZZZZZZ			18:32																				
ZZZZZZ			18:34																				
ZZZZZZ			18:36																				
ZZZZZZ			18:38																				
ZZZZZZ			18:40																				
CCV 240-42622/12-A	1		18:42	X																			
CCB 240-42622/11-A	1		18:44	X																			
ZZZZZZ			18:46																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/03/2012 15:54 End Date: 05/03/2012 19:41

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			18:48																				
ZZZZZZ			18:50																				
ZZZZZZ			18:52																				
ZZZZZZ			18:54																				
ZZZZZZ			18:56																				
ZZZZZZ			18:58																				
ZZZZZZ			19:00																				
ZZZZZZ			19:02																				
ZZZZZZ			19:04																				
CCV 240-42622/12-A			19:06																				
CCB 240-42622/11-A			19:08																				
ZZZZZZ			19:10																				
ZZZZZZ			19:12																				
ZZZZZZ			19:13																				
ZZZZZZ			19:16																				
ZZZZZZ			19:17																				
ZZZZZZ			19:19																				
ZZZZZZ			19:21																				
ZZZZZZ			19:23																				
ZZZZZZ			19:25																				
ZZZZZZ			19:28																				
CCV 240-42622/12-A			19:30																				
CCB 240-42622/11-A			19:32																				
ZZZZZZ			19:34																				
ZZZZZZ			19:37																				
CCV 240-42622/12-A			19:39																				
CCB 240-42622/11-A			19:41																				

Prep Types

D = Dissolved

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 240-42622/1-A			10:31	X																			
IC 240-42622/2-A			10:33	X																			
IC 240-42622/3-A			10:35	X																			
IC 240-42622/4-A			10:37	X																			
IC 240-42622/5-A			10:39	X																			
IC 240-42622/6-A			10:41	X																			
ICV 240-42622/7-A	1		10:43	X																			
ICB 240-42622/8-A	1		10:45	X																			
CRA 240-42622/9-A	1		10:48	X																			
CCVL 240-42622/10-A	1		10:53	X																			
CCB 240-42622/11-A			10:55																				
ZZZZZZ			10:56																				
ZZZZZZ			10:58																				
ZZZZZZ			11:00																				
ZZZZZZ			11:02																				
ZZZZZZ			11:04																				
ZZZZZZ			11:06																				
ZZZZZZ			11:09																				
ZZZZZZ			11:11																				
ZZZZZZ			11:13																				
ZZZZZZ			11:15																				
CCV 240-42622/12-A			11:17																				
CCB 240-42622/11-A			11:19																				
ZZZZZZ			11:21																				
ZZZZZZ			11:24																				
ZZZZZZ			11:26																				
ZZZZZZ			11:28																				
ZZZZZZ			11:30																				
ZZZZZZ			11:32																				
ZZZZZZ			11:34																				
ZZZZZZ			11:36																				
ZZZZZZ			11:38																				
ZZZZZZ			11:40																				
CCV 240-42622/12-A			11:42																				
CCB 240-42622/11-A			11:44																				
ZZZZZZ			11:46																				
ZZZZZZ			11:48																				
ZZZZZZ			11:50																				
ZZZZZZ			11:53																				
ZZZZZZ			11:55																				
ZZZZZZ			11:57																				
ZZZZZZ			11:59																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			12:00																				
ZZZZZZ			12:03																				
ZZZZZZ			12:05																				
CCV 240-42622/12-A	1		12:07	X																			
CCB 240-42622/11-A	1		12:09	X																			
MB 240-42671/1-A	1	T	12:12	X																			
LCS 240-42671/2-A	1	T	12:14	X																			
240-10770-3	1	T	12:16	X																			
240-10770-3 MS	1	T	12:18	X																			
240-10770-3 MSD	1	T	12:20	X																			
240-10770-3	1	D	12:22	X																			
240-10770-4	1	T	12:25	X																			
240-10770-4	1	D	12:27	X																			
ZZZZZZ			12:29																				
ZZZZZZ			12:31																				
CCV 240-42622/12-A	1		12:34	X																			
CCB 240-42622/11-A	1		12:35	X																			
ZZZZZZ			12:37																				
ZZZZZZ			12:39																				
ZZZZZZ			12:41																				
ZZZZZZ			12:43																				
ZZZZZZ			12:46																				
ZZZZZZ			12:47																				
ZZZZZZ			12:49																				
ZZZZZZ			12:51																				
ZZZZZZ			12:53																				
ZZZZZZ			12:55																				
CCV 240-42622/12-A			12:59																				
CCB 240-42622/11-A			13:00																				
ZZZZZZ			13:03																				
ZZZZZZ			13:06																				
CCV 240-42622/12-A			13:09																				
CCB 240-42622/11-A			13:11																				
CCV 240-42622/12-A			14:41																				
CCB 240-42622/11-A			14:43																				
ZZZZZZ			14:45																				
ZZZZZZ			14:47																				
ZZZZZZ			14:49																				
ZZZZZZ			14:51																				
ZZZZZZ			14:53																				
ZZZZZZ			14:55																				
ZZZZZZ			14:57																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			14:59																				
ZZZZZZ			15:01																				
ZZZZZZ			15:03																				
CCV 240-42622/12-A			15:05																				
CCB 240-42622/11-A			15:07																				
ZZZZZZ			15:09																				
ZZZZZZ			15:11																				
CCV 240-42622/12-A			15:13																				
CRA 240-42622/9-A			15:15																				
CCB 240-42622/11-A			15:18																				
ZZZZZZ			15:20																				
ZZZZZZ			15:22																				
ZZZZZZ			15:24																				
ZZZZZZ			15:26																				
ZZZZZZ			15:28																				
ZZZZZZ			15:30																				
ZZZZZZ			15:33																				
ZZZZZZ			15:34																				
ZZZZZZ			15:36																				
ZZZZZZ			15:39																				
CCV 240-42622/12-A			15:40																				
CCB 240-42622/11-A			15:42																				
ZZZZZZ			15:44																				
ZZZZZZ			15:46																				
ZZZZZZ			15:48																				
ZZZZZZ			15:50																				
ZZZZZZ			15:52																				
ZZZZZZ			15:54																				
ZZZZZZ			15:57																				
ZZZZZZ			15:58																				
ZZZZZZ			16:01																				
ZZZZZZ			16:04																				
CCV 240-42622/12-A			16:06																				
CCB 240-42622/11-A			16:08																				
ZZZZZZ			16:10																				
ZZZZZZ			16:12																				
ZZZZZZ			16:14																				
ZZZZZZ			16:16																				
ZZZZZZ			16:18																				
ZZZZZZ			16:19																				
ZZZZZZ			16:21																				
ZZZZZZ			16:23																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			16:25																				
ZZZZZZ			16:27																				
CCV 240-42622/12-A			16:29																				
CCB 240-42622/11-A			16:31																				
ZZZZZZ			16:33																				
ZZZZZZ			16:35																				
ZZZZZZ			16:37																				
ZZZZZZ			16:39																				
ZZZZZZ			16:41																				
ZZZZZZ			16:43																				
CCV 240-42622/12-A			16:46																				
CRA 240-42622/9-A			16:48																				
CCB 240-42622/11-A			16:50																				
ZZZZZZ			16:52																				
ZZZZZZ			16:54																				
ZZZZZZ			16:56																				
ZZZZZZ			16:58																				
ZZZZZZ			17:00																				
ZZZZZZ			17:02																				
ZZZZZZ			17:04																				
ZZZZZZ			17:07																				
ZZZZZZ			17:10																				
ZZZZZZ			17:12																				
CCV 240-42622/12-A			17:14																				
CCB 240-42622/11-A			17:17																				
ZZZZZZ			17:20																				
ZZZZZZ			17:22																				
ZZZZZZ			17:24																				
ZZZZZZ			17:25																				
ZZZZZZ			17:27																				
ZZZZZZ			17:29																				
ZZZZZZ			17:31																				
ZZZZZZ			17:33																				
ZZZZZZ			17:35																				
ZZZZZZ			17:38																				
CCV 240-42622/12-A			17:40																				
CCB 240-42622/11-A			17:42																				
ZZZZZZ			17:44																				
ZZZZZZ			17:46																				
ZZZZZZ			17:48																				
ZZZZZZ			17:49																				
ZZZZZZ			17:52																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			17:54																				
ZZZZZZ			17:56																				
ZZZZZZ			17:58																				
ZZZZZZ			18:00																				
ZZZZZZ			18:03																				
CCV 240-42622/12-A			18:05																				
CCB 240-42622/11-A			18:07																				
ZZZZZZ			18:09																				
ZZZZZZ			18:11																				
ZZZZZZ			18:13																				
ZZZZZZ			18:15																				
ZZZZZZ			18:17																				
ZZZZZZ			18:20																				
ZZZZZZ			18:21																				
ZZZZZZ			18:25																				
ZZZZZZ			18:27																				
ZZZZZZ			18:29																				
CCV 240-42622/12-A			18:31																				
CCB 240-42622/11-A			18:33																				
ZZZZZZ			18:35																				
ZZZZZZ			18:37																				
CCV 240-42622/12-A			18:39																				
CRA 240-42622/9-A			18:41																				
CCB 240-42622/11-A			18:44																				

Prep Types
D = Dissolved
T = Total/NA

Sample 65P-MW07-042712 total arsenic result 1.4ug/L

240-10770-h-2-a, 5/3/2012 08:41:26 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
x		95.138%	0.215	47.650
%RSD		4.706	2.012	5.747
Run	**Time**	**23Na**	**25Mg**	**27Al**
		ppb	ppb	ppb
x		T 35510.000	4923.000	309.100
%RSD		T 1.500	1.897	1.244
Run	**Time**	**35Cl**	**39K**	**43Ca**
		ppb	ppb	ppb
x		T 0.000	T 4861.000	14060.000
%RSD		T 0.000	T 1.151	0.244
Run	**Time**	**45Sc**	**45Sc**	**47Ti**
		ppb	ppb	ppb
x		T 107.140%	94.743%	1.506
%RSD		T 2.809	0.513	6.344
Run	**Time**	**51V**	**52Cr**	**53Cr O**
		ppb	ppb	ppb
x		0.924	0.469	0.666
%RSD		25.890	12.570	137.600
Run	**Time**	**55Mn**	**56Fe**	**59Co**
		ppb	ppb	ppb
x		T 200.700	258.000	6.361
%RSD		T 0.881	0.953	0.578
Run	**Time**	**60Ni**	**65Cu**	**66Zn**
		ppb	ppb	ppb
x		7.071	1.886	M 734.800
%RSD		6.517	2.103	M 0.752
Run	**Time**	**72Ge**	**75As**	**77As O**
		ppb	ppb	ppb
x		92.416%	1.350	0.375
%RSD		1.145	5.097	17.170
Run	**Time**	**78Se**	**88Sr**	**95Mo**
		ppb	ppb	ppb
x		0.829	71.490	1.248
%RSD		23.240	0.513	10.500
Run	**Time**	**105Pd**	**107Ag**	**108Mo O**
		ppb	ppb	ppb
x		0.000	0.009	0.502
%RSD		0.000	89.730	291.200
Run	**Time**	**111Cd**	**115In**	**118Sn**
		ppb	ppb	ppb
x		0.091	92.122%	0.156
%RSD		29.000	0.344	6.583
Run	**Time**	**121Sb**	**137Ba**	**159Tb**
		ppb	ppb	ppb
x		0.411	43.540	0.000
%RSD		3.510	0.448	0.000
Run	**Time**	**165Ho**	**182W**	**205Tl**
		ppb	ppb	ppb
x		90.659%	1.003	0.823
%RSD		0.560	12.910	6.298
Run	**Time**	**208Pb**	**209Bi**	
		ppb	ppb	
x		0.279	0.000	
%RSD		3.127	0.000	

Case Narrative

TestAmerica West Sacramento Project Number G2E010422

WATER, 6850, Perchlorate
Samples: 1, 2, 3
In accordance with the requirements of Method 6850, both a Laboratory Control Sample (LCS) and a Synthetic Matrix Check Sample (SMCS) were analyzed with the associated samples. Both are reported on the LCS data evaluation and recovery reports, and are differentiated from one another by their workorder number:

LCS: MTELA1AC
SMCS: MTELA1AD

There are no other anomalies associated with this project.

ANALYTICAL METHODS SUMMARY

G2E010422

PARAMETER	ANALYTICAL METHOD
Perchlorate by 6850	SW846 6850

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD BLANK REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010422 Work Order #...: MTELA1AA Matrix.....: WATER
MB Lot-Sample #: G2E070000-058

Prep Date.....: 05/07/12
Analysis Date..: 05/14/12 Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Perchlorate	ND	1.0	ug/L	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010422 Work Order #...: MTELA1AC Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Perchlorate	92	(80 - 120)	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010422 Work Order #...: MTELA1AC Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Perchlorate	5.00	4.62	ug/L	92	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010422 Work Order #...: MTELA1AD Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Perchlorate	97	(80 - 120)	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010422 Work Order #...: MTELA1AD Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Perchlorate	5.00	4.86	ug/L	97	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010422 Work Order #...: MTDHX1AC-MS Matrix.....: WATER
MS Lot-Sample #: G2E030450-004 MTDHX1AD-MSD
Date Sampled...: 05/01/12 Date Received..: 05/03/12
Prep Date.....: 05/07/12 Analysis Date..: 05/16/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Perchlorate	99	(80 - 120)			SW846 6850
	97	(80 - 120)	1.8	(0-15)	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010422 Work Order #...: MTDHX1AC-MS Matrix.....: WATER
MS Lot-Sample #: G2E030450-004 MTDHX1AD-MSD
Date Sampled...: 05/01/12 Date Received..: 05/03/12
Prep Date.....: 05/07/12 Analysis Date..: 05/16/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Perchlorate	ND	5.00	4.95	ug/L	99		SW846 6850
	ND	5.00	4.86	ug/L	97	1.8	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Tetra Tech, Inc. **INTERNAL CORRESPONDENCE**

TO:	**A. APANAVAGE**	**DATE:**	**JUNE 21, 2012**
FROM:	**MICHELLE L. ALLEN**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC/1,4-DIOXANE/DRO/GRO**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
SDG 240-10808-1

SAMPLES: 4/Aqueous/VOC

GSP-MW5-043012 GSP-MW6-043012 MT-MW02S-043012
TB-043012

3/Aqueous/1,4-DIOXANE/DRO/GRO

GSP-MW5-043012 GSP-MW6-043012 MT-MW02S-043012

Overview

The sample set for LMC-MSA, SDG 240-10808-1 consisted of three (3) aqueous environmental samples and one (1) trip blank. All four (4) aqueous samples were analyzed for volatile organic compounds (VOC). The three (3) aqueous environmental samples were analyzed for the semi-volatile organic compound (SVOC), 1,4-dioxane, diesel range organics (DRO) and gasoline range organics (GRO). No field duplicate sample pair was included in this SDG.

The samples were collected by Tetra Tech, Inc. on April 30, 2012 and analyzed by Test America, Inc. All analyses were conducted in accordance with SW-846 Methods 8260C, 8270C, and 8015B analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, trip blank results, surrogate spike recoveries, blank spike results, matrix spike/matrix spike duplicate results, internal standard recoveries, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major

- The initial and continuing calibrations performed on instrument A3UX16 in the VOC fraction had Relative Response Factors (RRFs) for tert-butyl alcohol and vinyl acetate below the 0.050 minimum response criterion. All samples were affected. The non-detected results reported for these compounds in the affected samples were qualified as rejected, (UR).

- Tentatively identified compounds (TICs) identified as silanol compounds were qualified as rejected (R), because these are indicative of column bleed.

Minor

- The following contaminants were detected in the laboratory method blanks at the following

maximum concentrations:

Compound	Maximum Concentration (µg/L)	Action Level (µg/L)
1,2,3-Trichlorobenzene [1]	0.372	1.86
1,2,4-Trichlorobenzene [1]	0.247	1.24
Hexachlorobutadiene [1]	0.462	2.31
GRO (C6-C10) [2]	28	140

1 Maximum concentration detected in the laboratory method blank, MB 240-43549/5, affecting all samples.
2 Maximum concentration detected in the laboratory method blank, MB 240-42995/7, affecting all samples.

An action level of 5X the maximum concentration was used to evaluate for blank contamination. Sample aliquot and dilution factor, if applicable, were taken into consideration when evaluating for blank contamination. Positive results for GRO reported below the established action level were qualified as non-detected, (B). No action was necessary for the remaining compounds because no positive results were reported for these compounds in the affected samples.

- Positive results reported below the Reporting Limit (RL) limit but above the Method Detection Limit (MDL) were qualified as estimated, (J).
- Tentatively identified compounds (TICs) were qualified as estimated presumptively present, (NJ).

Notes

The VOC compounds, 2-chloroethyl vinyl ether and 2-butanone, were not recovered in the Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses. No action was taken because the sample for the MS/MSD analyses was not from this SDG and the blank spike sample had acceptable %Rs for these compounds.

Sample MT-MW02S-043012 was diluted 5X prior to analysis in the VOC fraction. The RLs of the non-detected results were elevated.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: Initial and continuing calibration RRFs for tert-butyl alcohol and vinyl acetate were below the quality control criterion resulting in the rejection of the non-detected results. Laboratory method blank contamination was noted in the VOC and GRO fractions.

Other Factors Affecting Data Quality: One sample required a dilution for the VOC fraction.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994) and SW-846 Methods 8260C, 8270C, and 8015B analytical and reporting protocols. The text of this report has been formulated to address only those problem areas affecting data quality.

for Tetra Tech, Inc.
Michelle L. Allen
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Quality Assurance Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 04021	NSAMPLE	GSP-MW5-043012			GSP-MW6-043012			MT-MW02S-043012			TB-043012		
SDG: 240-10808-1	LAB_ID	240-10808-2			240-10808-3			240-10808-4			240-10808-1		
FRACTION: OV	SAMP_DATE	4/30/2012			4/30/2012			4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		1.2	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		1.1	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.9	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		1.4	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.75	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.95	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.65	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.85	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		2.2	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		2.4	J	P	0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.75	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		9.2			0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		3.4	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		1.2	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.65	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		3.8	J	P	0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.9	U		0.18	U	
1,3,5-TRIMETHYLBENZENE								47					
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.7	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.8	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.65	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.65	U		0.13	U	
2,4-PENTANEDIONE, 3-METHYL-								7.8	NJ	Z1			
2-BUTANONE		0.57	U		0.57	U		2.9	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		5	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.55	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		2.1	U		0.41	U	
3-PENTANOL, 2,2-DIMETHYL-								6.5	NJ	Z1			
3-PENTANONE, 2,4-DIMETHYL-								12	NJ	Z1			
4-CHLOROTOLUENE		0.18	U		0.18	U		0.9	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		1.6	J	P	0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		2.5	J	P	0.32	U	
ACETONE		1.1	U		1.1	U		90			1.1	U	
BENZENE		0.13	U		0.13	U		87			0.13	U	
BENZENE, 1-ETHYL-2-METHYL-								7.3	NJ	Z1			

PROJ_NO: 04021	NSAMPLE	GSP-MW5-043012			GSP-MW6-043012			MT-MW02S-043012			TB-043012		
SDG: 240-10808-1	LAB_ID	240-10808-2			240-10808-3			240-10808-4			240-10808-1		
FRACTION: OV	SAMP_DATE	4/30/2012			4/30/2012			4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZENE, 1-ETHYL-3-METHYL-								10	NJ	Z1			
BROMOBENZENE		0.13	U		0.13	U		0.65	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		1.5	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.75	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		3.2	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		2.1	U		0.41	U	
CARBON DISULFIDE		0.13	J	P	0.13	U		0.65	U		0.13	U	
CARBON TETRACHLORIDE		1.9			0.13	U		0.65	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U		0.75	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.9	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		1.5	U		0.29	U	
CHLOROFORM		0.68	J	P	0.16	U		0.8	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		1.5	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		0.17	U		4.8	J	P	0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.7	U		0.14	U	
CYCLOBUTANE, METHYL-								9.8	NJ	Z1			
CYCLOHEXANE								45					
CYCLOPENTANE, METHYL-								19	NJ	Z1			
DIBROMOMETHANE		0.28	U		0.28	U		1.4	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		1.6	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		7.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.55	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		180			0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		1.5	U		0.3	U	
INDANE								8.1	NJ	Z1			
ISOPROPYLBENZENE		0.13	U		0.13	U		31			0.13	U	
M+P-XYLENES		0.24	U		0.24	U		50			0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.85	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		1.7	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		1.2	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.6	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		9.7			0.14	U	
O-XYLENE		0.14	U		0.14	U		22			0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.75	J	P	0.13	U	
SILANOL, TRIMETHYL-		3.5	R	Z2	1.2	R	Z2				2.1	R	Z2

PROJ_NO: 04021	NSAMPLE	GSP-MW5-043012			GSP-MW6-043012			MT-MW02S-043012			TB-043012		
SDG: 240-10808-1	LAB_ID	240-10808-2			240-10808-3			240-10808-4			240-10808-1		
FRACTION: OV	SAMP_DATE	4/30/2012			4/30/2012			4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
STYRENE		0.11	U		0.11	U		0.55	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.34	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.65	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C	20	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U		1.5	U		0.29	U	
TOLUENE		0.13	U		0.13	U		0.65	U		0.13	U	
TOTAL XYLENES		0.28	U		0.28	U		72			0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.95	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.95	U		0.19	U	
TRICHLOROETHENE		0.17	U		0.17	U		0.85	U		0.17	U	
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		1.1	U		0.21	U	
VINYL ACETATE		0.19	UR	C	0.19	UR	C	0.95	UR	C	0.19	UR	C
VINYL CHLORIDE		0.22	U		0.22	U		1.1	U		0.22	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW5-043012			GSP-MW6-043012			MT-MW02S-043012		
SDG: 240-10808-1	LAB_ID	240-10808-2			240-10808-3			240-10808-4		
FRACTION: OS	SAMP_DATE	4/30/2012			4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.47	U		0.47	U		0.49	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW5-043012			GSP-MW6-043012			MT-MW02S-043012		
SDG: 240-10808-1	LAB_ID	240-10808-2			240-10808-3			240-10808-4		
FRACTION: PET	SAMP_DATE	4/30/2012			4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		37	B	A	41	B	A	1400		
TPH (C10-C32)		1200			490			3700		

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: GSP-MW5-043012 | Lab Sample ID: 240-10808-2

Matrix: Water | Lab File ID: UXM5697.D

Analysis Method: 8260C | Date Collected: 04/30/2012 10:30

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 12:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	J	1.0	0.13
56-23-5	Carbon tetrachloride	1.9		1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: GSP-MW5-043012 | Lab Sample ID: 240-10808-2

Matrix: Water | Lab File ID: UXM5697.D

Analysis Method: 8260C | Date Collected: 04/30/2012 10:30

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 12:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	0.68	J	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: GSP-MW5-043012
Lab Sample ID: 240-10808-2
Matrix: Water
Lab File ID: UXM5697.D
Analysis Method: 8260C
Date Collected: 04/30/2012 10:30
Sample wt/vol: 5(mL)
Date Analyzed: 05/10/2012 12:47
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 43549
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		63-129
460-00-4	4-Bromofluorobenzene (Surr)	98		66-117
2037-26-5	Toluene-d8 (Surr)	95		74-115
1868-53-7	Dibromofluoromethane (Surr)	102		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: GSP-MW5-043012 | Lab Sample ID: 240-10808-2

Matrix: Water | Lab File ID: UXM5697.D

Analysis Method: 8260C | Date Collected: 04/30/2012 10:30

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 12:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 3.5

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.60	3.5	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: GSP-MW6-043012 | Lab Sample ID: 240-10808-3

Matrix: Water | Lab File ID: UXM5698.D

Analysis Method: 8260C | Date Collected: 04/30/2012 11:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 13:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: GSP-MW6-043012 | Lab Sample ID: 240-10808-3

Matrix: Water | Lab File ID: UXM5698.D

Analysis Method: 8260C | Date Collected: 04/30/2012 11:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 13:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: GSP-MW6-043012 | Lab Sample ID: 240-10808-3

Matrix: Water | Lab File ID: UXM5698.D

Analysis Method: 8260C | Date Collected: 04/30/2012 11:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 13:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-129
460-00-4	4-Bromofluorobenzene (Surr)	100		66-117
2037-26-5	Toluene-d8 (Surr)	98		74-115
1868-53-7	Dibromofluoromethane (Surr)	95		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: GSP-MW6-043012 | Lab Sample ID: 240-10808-3

Matrix: Water | Lab File ID: UXM5698.D

Analysis Method: 8260C | Date Collected: 04/30/2012 11:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 13:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 1.2

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.60	1.2	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: MT-MW02S-043012 | Lab Sample ID: 240-10808-4

Matrix: Water | Lab File ID: UXM5699.D

Analysis Method: 8260C | Date Collected: 04/30/2012 13:05

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 13:33

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	1.2
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	1.1
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.90
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	5.0	U	5.0	1.4
75-34-3	1,1-Dichloroethane	5.0	U	5.0	0.75
75-35-4	1,1-Dichloroethene	5.0	U	5.0	0.95
563-58-6	1,1-Dichloropropene	5.0	U	5.0	0.65
87-61-6	1,2,3-Trichlorobenzene	5.0	U	5.0	0.85
96-18-4	1,2,3-Trichloropropane	5.0	U	5.0	2.2
526-73-8	1,2,3-Trimethylbenzene	2.4	J	25	0.030
120-82-1	1,2,4-Trichlorobenzene	5.0	U	5.0	0.75
95-63-6	1,2,4-Trimethylbenzene	9.2		5.0	0.60
96-12-8	1,2-Dibromo-3-Chloropropane	10	U	10	3.4
95-50-1	1,2-Dichlorobenzene	5.0	U	5.0	0.65
107-06-2	1,2-Dichloroethane	3.8	J	5.0	1.1
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.90
541-73-1	1,3-Dichlorobenzene	5.0	U	5.0	0.70
142-28-9	1,3-Dichloropropane	5.0	U	5.0	0.80
106-46-7	1,4-Dichlorobenzene	5.0	U	5.0	0.65
594-20-7	2,2-Dichloropropane	5.0	U	5.0	0.65
110-75-8	2-Chloroethyl vinyl ether	50	U	50	5.0
95-49-8	2-Chlorotoluene	5.0	U	5.0	0.55
591-78-6	2-Hexanone	50	U	50	2.1
108-86-1	Bromobenzene	5.0	U	5.0	0.65
74-97-5	Bromochloromethane	5.0	U	5.0	1.5
106-43-4	4-Chlorotoluene	5.0	U	5.0	0.90
99-87-6	p-Isopropyltoluene	1.6	J	5.0	0.60
67-64-1	Acetone	90		50	5.5
71-43-2	Benzene	87		5.0	0.65
75-25-2	Bromoform	5.0	U	5.0	3.2
74-83-9	Bromomethane	5.0	U	5.0	2.1
75-15-0	Carbon disulfide	5.0	U	5.0	0.65
56-23-5	Carbon tetrachloride	5.0	U	5.0	0.65
108-90-7	Chlorobenzene	5.0	U	5.0	0.75
75-00-3	Chloroethane	5.0	U	5.0	1.5

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: MT-MW02S-043012 | Lab Sample ID: 240-10808-4

Matrix: Water | Lab File ID: UXM5699.D

Analysis Method: 8260C | Date Collected: 04/30/2012 13:05

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 13:33

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	5.0	U	5.0	0.80
74-87-3	Chloromethane	5.0	U	5.0	1.5
156-59-2	cis-1,2-Dichloroethene	4.8	J	5.0	0.85
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.70
87-68-3	Hexachlorobutadiene	5.0	U	5.0	1.5
74-95-3	Dibromomethane	5.0	U	5.0	1.4
75-27-4	Bromodichloromethane	5.0	U	5.0	0.75
75-71-8	Dichlorodifluoromethane	5.0	U	5.0	1.6
100-41-4	Ethylbenzene	180		5.0	0.85
106-93-4	1,2-Dibromoethane	5.0	U	5.0	1.2
108-20-3	Diisopropyl ether	50	U	50	7.5
91-20-3	Naphthalene	5.0	U	5.0	1.2
179601-23-1	m-Xylene & p-Xylene	50		10	1.2
104-51-8	n-Butylbenzene	5.0	U	5.0	0.60
98-82-8	Isopropylbenzene	31		5.0	0.65
103-65-1	n-Propylbenzene	9.7		5.0	0.70
78-93-3	2-Butanone	50	U	50	2.9
108-10-1	4-Methyl-2-pentanone	2.5	J	50	1.6
135-98-8	sec-Butylbenzene	0.75	J	5.0	0.65
1634-04-4	Methyl tert-butyl ether	25	U	25	0.85
994-05-8	Tert-amyl-methyl ether (TAME)	25	U	25	0.34
75-09-2	Methylene Chloride	5.0	U	5.0	1.7
95-47-6	o-Xylene	22		5.0	0.70
100-42-5	Styrene	5.0	U	5.0	0.55
637-92-3	Ethyl-t-butyl ether (ETBE)	25	U	25	0.55
98-06-6	tert-Butylbenzene	5.0	U	5.0	0.65
127-18-4	Tetrachloroethene	5.0	U	5.0	1.5
108-88-3	Toluene	5.0	U	5.0	0.65
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.95
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.95
79-01-6	Trichloroethene	5.0	U	5.0	0.85
75-69-4	Trichlorofluoromethane	5.0	U	5.0	1.1
108-05-4	Vinyl acetate	10	U	10	0.95
75-01-4	Vinyl chloride	5.0	U	5.0	1.1
75-65-0	tert-Butyl alcohol	250	U	250	20
1330-20-7	Xylenes, Total	72		10	1.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: MT-MW02S-043012 | Lab Sample ID: 240-10808-4

Matrix: Water | Lab File ID: UXM5699.D

Analysis Method: 8260C | Date Collected: 04/30/2012 13:05

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 13:33

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	5.0	U	5.0	0.90

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-129
460-00-4	4-Bromofluorobenzene (Surr)	105		66-117
2037-26-5	Toluene-d8 (Surr)	95		74-115
1868-53-7	Dibromofluoromethane (Surr)	100		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: MT-MW02S-043012
Lab Sample ID: 240-10808-4
Matrix: Water
Lab File ID: UXM5699.D
Analysis Method: 8260C
Date Collected: 04/30/2012 13:05
Sample wt/vol: 5(mL)
Date Analyzed: 05/10/2012 13:33
Soil Aliquot Vol:
Dilution Factor: 5
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 43549
Units: ug/L
Number TICs Found: 10
TIC Result Total: 172.5

CAS NO.	COMPOUND NAME	RT	RESULT	Q
598-61-8	Cyclobutane, methyl-	3.67	9.8	T J N
96-37-7	Cyclopentane, methyl-	4.63	19	T J N
110-82-7	Cyclohexane	5.22	45	
565-80-0	3-Pentanone, 2,4-dimethyl-	7.67	12	T J N
3970-62-5	3-Pentanol, 2,2-dimethyl-	8.11	6.5	T J N
815-57-6	2,4-Pentanedione, 3-methyl-	8.23	7.8	T J N
620-14-4	Benzene, 1-ethyl-3-methyl-	9.84	10	T J N
108-67-8	1,3,5-Trimethylbenzene	9.92	47	
611-14-3	Benzene, 1-ethyl-2-methyl-	10.13	7.3	T J N
496-11-7	Indane	10.91	8.1	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: TB-043012 | Lab Sample ID: 240-10808-1

Matrix: Water | Lab File ID: UXM5696.D

Analysis Method: 8260C | Date Collected: 04/30/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 12:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: TB-043012 | Lab Sample ID: 240-10808-1

Matrix: Water | Lab File ID: UXM5696.D

Analysis Method: 8260C | Date Collected: 04/30/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 12:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: TB-043012 | Lab Sample ID: 240-10808-1

Matrix: Water | Lab File ID: UXM5696.D

Analysis Method: 8260C | Date Collected: 04/30/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 12:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-129
460-00-4	4-Bromofluorobenzene (Surr)	97		66-117
2037-26-5	Toluene-d8 (Surr)	96		74-115
1868-53-7	Dibromofluoromethane (Surr)	91		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: TB-043012 | Lab Sample ID: 240-10808-1

Matrix: Water | Lab File ID: UXM5696.D

Analysis Method: 8260C | Date Collected: 04/30/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 12:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 2.1

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.60	2.1	T J N

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: GSP-MW5-043012
Lab Sample ID: 240-10808-2
Matrix: Water
Lab File ID: 20508035.D
Analysis Method: 8270C
Date Collected: 04/30/2012 10:30
Extract. Method: 3520C
Date Extracted: 05/05/2012 09:23
Sample wt/vol: 1050(mL)
Date Analyzed: 05/08/2012 19:16
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 43126
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.95	U	0.95	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	57		28-110
367-12-4	2-Fluorophenol (Surr)	57		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	82		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	52		27-111
4165-62-2	Phenol-d5 (Surr)	60		10-110
1718-51-0	Terphenyl-d14 (Surr)	66		37-119

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: GSP-MW6-043012
Lab Sample ID: 240-10808-3
Matrix: Water
Lab File ID: 20508036.D
Analysis Method: 8270C
Date Collected: 04/30/2012 11:45
Extract. Method: 3520C
Date Extracted: 05/05/2012 09:23
Sample wt/vol: 1050(mL)
Date Analyzed: 05/08/2012 19:35
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 43126
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.95	U	0.95	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	56		28-110
367-12-4	2-Fluorophenol (Surr)	48		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	84		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	50		27-111
4165-62-2	Phenol-d5 (Surr)	60		10-110
1718-51-0	Terphenyl-d14 (Surr)	64		37-119

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: MT-MW02S-043012
Lab Sample ID: 240-10808-4
Matrix: Water
Lab File ID: 20508037.D
Analysis Method: 8270C
Date Collected: 04/30/2012 13:05
Extract. Method: 3520C
Date Extracted: 05/05/2012 09:23
Sample wt/vol: 1010(mL)
Date Analyzed: 05/08/2012 19:53
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 43126
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.99	U	0.99	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	51		28-110
367-12-4	2-Fluorophenol (Surr)	56		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	77		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	64		27-111
4165-62-2	Phenol-d5 (Surr)	64		10-110
1718-51-0	Terphenyl-d14 (Surr)	59		37-119

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: GSP-MW5-043012
Lab Sample ID: 240-10808-2
Matrix: Water
Lab File ID: YF050708.D
Analysis Method: 8015B
Date Collected: 04/30/2012 10:30
Sample wt/vol: 5(mL)
Date Analyzed: 05/07/2012 14:40
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42995
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	37	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	60		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: GSP-MW6-043012
Lab Sample ID: 240-10808-3
Matrix: Water
Lab File ID: YF050711.D
Analysis Method: 8015B
Date Collected: 04/30/2012 11:45
Sample wt/vol: 5(mL)
Date Analyzed: 05/07/2012 16:42
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42995
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	41	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	56		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: MT-MW02S-043012
Lab Sample ID: 240-10808-4
Matrix: Water
Lab File ID: YF050712.D
Analysis Method: 8015B
Date Collected: 04/30/2012 13:05
Sample wt/vol: 5(mL)
Date Analyzed: 05/07/2012 17:23
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42995
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	1400	B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	94		10-150

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: GSP-MW5-043012
Lab Sample ID: 240-10808-2
Matrix: Water
Lab File ID: P5F05075.D
Analysis Method: 8015B
Date Collected: 04/30/2012 10:30
Extraction Method: 3510C
Date Extracted: 05/04/2012 12:16
Sample wt/vol: 1050(mL)
Date Analyzed: 05/07/2012 10:16
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: ID:
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 42964
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	1200		480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	69		10-110

FORM I

DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Client Sample ID: GSP-MW6-043012 Lab Sample ID: 240-10808-3

Matrix: Water Lab File ID: P5F05076.D

Analysis Method: 8015B Date Collected: 04/30/2012 11:45

Extraction Method: 3510C Date Extracted: 05/04/2012 12:16

Sample wt/vol: 1050(mL) Date Analyzed: 05/07/2012 10:46

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 42964 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	490		480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	67		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: MT-MW02S-043012
Lab Sample ID: 240-10808-4
Matrix: Water
Lab File ID: P5F05077.D
Analysis Method: 8015B
Date Collected: 04/30/2012 13:05
Extraction Method: 3510C
Date Extracted: 05/04/2012 12:16
Sample wt/vol: 1050(mL)
Date Analyzed: 05/07/2012 11:16
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: ID:
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 42964
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	3700		480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	57		10-110

Appendix C

Support Documentation

MARTIN STATE AIRPORT - GROUNDWATER
SDG 240-10808-1

SAMPLE IDENTIFICATION	MT-MW02S-043012
COMPOUND	ETHYLBENZENE
COMPOUND AREA	2379121
INTERNAL STANDARD AMOUNT (ng)	50
VOLUME WATER PURGED (ml)	5
DILUTION FACTOR	5
INTERNAL STANDARD AREA	1154735
AVERAGE RRF	0.5579
ml to µl	1000
ng to µg	1000
=	184.6 µg/L

2379121 x 50 ng x 5 x 1000ml x 1µg /1154735 x 0.5579 x 5ml x 1L x 1000ng

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A3UX16\20120510-9837.b\UXM5699.D		
Lims ID:	240-10808-A-4	Client ID:	MT-MW02S-043012
Inject. Date:	10-May-2012 13:33:30	Dil. Factor:	5.0000
Sample Type:	Client		
Sample ID:	240-0009837-009		
Misc. Info.:	M20510A,8260LLUX16,,1644		
Operator:	1644	Instrument ID:	A3UX16
Vol. Injected:	1.0000	ALS Bottle#:	8
Lims Batch ID:	43549	Lims Sample ID:	9
Detector:	MS SCAN		
Method:	\\Ncchrom\ChromData\A3UX16\20120510-9837.b\8260_16.m		
Last Update:	11-May-2012 10:46:30	Calib Date:	09-May-2012 18:43:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A3UX16\20120509-9809.b\UXM5665.D		
Limit Group:	MSV 8260DOD ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Process Host:	CORP-CTX-15		

First Level Reviewer: williamsla Date: 10-May-2012 14:02:51

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 141 1-Chlorooctane	1		0.000					
* 1 Fluorobenzene	96	5.702	5.702	0.0	98	1490431	10.0	
* 2 Chlorobenzene-d5	117	8.393	8.393	0.0	89	1154735	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.635	10.635	0.0	96	657198	10.0	
$ 5 Dibromofluoromethane (Surr)	113	5.109	5.109	0.0	58	384323	10.2	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	5.405	5.405	0.0	0	477366	10.0	
$ 7 Toluene-d8 (Surr)	98	7.077	7.077	0.0	95	1502646	9.67	
$ 131 4-Bromofluorobenzene (Surr)	95	9.508	9.508	0.0	89	639651	10.7	
12 Dichlorodifluoromethane	85		1.670					
13 Chloromethane	50		1.824					
14 Vinyl chloride	62		1.942					
15 Bromomethane	94		2.286					
16 Chloroethane	64		2.393					
18 Trichlorofluoromethane	101		2.654					
21 1,1-Dichloroethene	96		3.140					
23 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.164					
22 Acetone	43	3.176	3.176	0.0	99	288453	17.9	
26 Carbon disulfide	76		3.354					
30 Methylene Chloride	84		3.579					
31 2-Methyl-2-propanol	59		3.674					
34 Methyl tert-butyl ether	73		3.840					
33 trans-1,2-Dichloroethene	96		3.840					
36 1,1-Dichloroethane	63		4.207					
37 Vinyl acetate	86		4.243					
38 Isopropyl ether	87	4.267	4.267	0.0	93	10018	0.2422	
40 Tert-butyl ethyl ether	59		4.587					
41 2-Butanone (MEK)	43		4.706					
42 cis-1,2-Dichloroethene	96	4.705	4.706	-0.001	69	49677	0.9550	
43 2,2-Dichloropropane	77		4.717					
47 Chlorobromomethane	128		4.907					
49 Chloroform	83		4.978					

Report Date: 11-May-2012 10:46:33 Chrom Revision: 2.0 08-Feb-2012 11:07:54
Data File: \\Ncchrom\ChromData\A3UX16\20120510-9837.b\UXM5699.D

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
50 1,1,1-Trichloroethane	97		5.156					
52 1,1-Dichloropropene	75		5.287					
53 Carbon tetrachloride	117		5.298					
56 1,2-Dichloroethane	62	5.476	5.464	0.012	29	48692	0.7646	
55 Benzene	78	5.476	5.476	0.0	97	3022378	17.4	
57 Tert-amyl methyl ether	73		5.559					
60 Trichloroethene	130		6.022					
62 1,2-Dichloropropane	63		6.212					
65 Dibromomethane	93		6.306					
67 Dichlorobromomethane	83		6.437					
69 2-Chloroethyl vinyl ether	63		6.686					
70 cis-1,3-Dichloropropene	75		6.828					
71 4-Methyl-2-pentanone (MIBK)	43	6.947	6.947	0.0	70	21915	0.5062	
72 Toluene	91		7.137					
73 trans-1,3-Dichloropropene	75		7.314					
76 1,3-Dichloropropane	76		7.635					
77 Tetrachloroethene	164		7.646					
78 2-Hexanone	43		7.694					
79 Chlorodibromomethane	129		7.848					
123 Ethylene Dibromide	107		7.967					
82 Chlorobenzene	112		8.429					
83 1,1,1,2-Tetrachloroethane	131		8.488					
RRF 84 Ethylbenzene	106	8.524	8.524	0.0	98	2379121	36.9	
10 m-Xylene & p-Xylene	106	8.631	8.631	0.0	97	804959	9.94	
= 0.5579 85 o-Xylene	106	9.010	9.010	0.0	98	350770	4.36	
86 Styrene	104		9.010					
87 Bromoform	173		9.188					
88 Isopropylbenzene	105	9.354	9.354	0.0	96	1180910	6.16	
90 1,1,2,2-Tetrachloroethane	83		9.615					
91 Bromobenzene	156		9.662					
92 1,2,3-Trichloropropane	110		9.674					
94 N-Propylbenzene	120	9.757	9.757	0.0	98	97182	1.94	
95 2-Chlorotoluene	126		9.840					
104 4-Chlorotoluene	126		9.947					
97 tert-Butylbenzene	119		10.243					
98 1,2,4-Trimethylbenzene	105	10.291	10.291	0.0	97	291669	1.83	
99 sec-Butylbenzene	105	10.457	10.457	0.0	60	25068	0.1499	
100 1,3-Dichlorobenzene	146		10.575					
101 4-Isopropyltoluene	119	10.599	10.599	0.0	86	44914	0.3130	
102 1,4-Dichlorobenzene	146		10.658					
103 1,2,3-Trimethylbenzene	105	10.706	10.706	0.0	87	95991	0.4898	
105 n-Butylbenzene	91		11.002					
106 1,2-Dichlorobenzene	146		11.026					
107 1,2-Dibromo-3-Chloropropane	157		11.797					
109 1,2,4-Trichlorobenzene	180		12.639					
110 Hexachlorobutadiene	225		12.817					
111 Naphthalene	128	12.888	12.888	0.0	62	19213	0.1981	
112 1,2,3-Trichlorobenzene	180		13.149					
S 114 Xylenes, Total	106				0		14.3	

TestAmerica Laboratories
Tentatively Identified Quantitation Report

Data File:	\\Ncchrom\ChromData\A3UX16\20120510-9837.b\UXM5699.D		
Lims ID:	240-10808-A-4	Client ID:	MT-MW02S-043012
Inject. Date:	10-May-2012 13:33:30	Dil. Factor:	5.0000
Sample Type:	Client		
Sample ID:	240-0009837-009		
Misc. Info.:	M20510A,8260LLUX16,,1644		
Operator:	1644	Instrument ID:	A3UX16
Vol. Injected:	1.0000	ALS Bottle#:	8
Lims Batch ID:	43549	Lims Sample ID:	9
Detector:	MS SCAN		
Method:	\\Ncchrom\ChromData\A3UX16\20120510-9837.b\8260_16.m		
Last Update:	11-May-2012 10:46:30	Calib Date:	09-May-2012 18:43:30
Tic RT Window:	1.600 -0.000	Response:	area
Quant By:	Nearest ISTD	Quant LOD:	10.00000
MS Library:	\\Ncchrom\ChromData\Database\NIST98.L		
Min. Match:	10		
Process Host:	CORP-CTX-15		

First Level Reviewer: williamsla Date: 10-May-2012 14:02:51

Calibrated Tentative Identified Compound Results

Compound	RT	Response	Amount ug/l	Flags
Cyclohexane	5.215	878136	9.07	
1,3,5-Trimethylbenzene	9.923	1420029	9.31	

Tentative Identified Compound Results

RT	Response	Amount ug/l	Quant Cpnd	Qual	Lib Entry	Flags
598-61-8 Cyclobutane, methyl-						
3.674	644408	1.96	1	87	3261	
96-37-7 Cyclopentane, methyl-						
4.634	1220604	3.71	1	91	111861	
565-80-0 3-Pentanone, 2,4-dimethyl-						
7.670	996824	2.48	2	86	109868	
3970-62-5 3-Pentanol, 2,2-dimethyl-						
8.109	521792	1.30	2	64	113266	
815-57-6 2,4-Pentanedione, 3-methyl-						
8.227	622105	1.55	2	59	109965	
620-14-4 Benzene, 1-ethyl-3-methyl-						
9.840	877628	2.08	3	87	119287	
611-14-3 Benzene, 1-ethyl-2-methyl-						
10.125	611361	1.45	3	91	119281	
496-11-7 Indane						
10.907	677947	1.61	3	87	120526	

Report Date: 11-May-2012 10:46:33 Chrom Revision: 2.0 08-Feb-2012 11:07:54
Data File: \\Ncchrom\ChromData\A3UX16\20120510-9837.b\UXM5699.D
Quantitation Compounds

Compound	RT	Response	Amount ug/l
* 1 Fluorobenzene	5.702	3288690	10.0
* 2 Chlorobenzene-d5	8.393	4011431	10.0
* 3 1,4-Dichlorobenzene-d4	10.635	4220751	10.0

QC Flag Legend

Processing Flags

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A2HP5F\20120507-9715.b\P5F05077.D		
Lims ID:	240-10808-J-4-A	Client ID:	MT-MW02S-043012
Inject. Date:	07-May-2012 11:16:05	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0009715-007		
Misc. Info.:			
Operator:	2398	Instrument ID:	A2HP5F
Vol. Injected:	1.0000	ALS Bottle#:	7
Lims Batch ID:	42964	Lims Sample ID:	7
Detector:	GC FID1A		

Method:	\\Ncchrom\ChromData\A2HP5F\20120507-9715.b\TPH5F.m		
Last Update:	08-May-2012 07:46:28	Calib Date:	13-Apr-2012 15:06:59
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A2HP5F\20120413-9029.b\P5F04144.D		
Limit Group:	GC TPH DIESEL ICAL		
Integrator:	Falcon		
Process Host:	CORP-CTX-18		

RT	EXP RT	DLT RT	Response	On-Col Amt ng/ul	Flags
$ 8 n-Nonane					
3.799	3.796	0.003	12262811	56.6	
A 15 Diesel					
9.247	4.909 -	13.585	139437375	740.6	
A 17 C10-C32					
9.946	4.909 -	14.983	144521858	767.6	

$\overline{CF}$ = 188272.909

extraction = 1050ml / 5ml

$$\frac{144521858\ ng/ul}{188272.909} \times \frac{5ml}{1050ml} \times \frac{1\ mg}{1000ng} \times \frac{1000000\ ul}{1L}$$

= 3655.3 mg/L

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact			
Company Name: Tetra Tech	Client Project Manager: Tony Apanavage	Site Contact: Stu Cameron	Lab Contact:
Address: 20251 Century Blvd Ste 200	Telephone: (301)528-5552	Telephone: (703)342-8389	Telephone:
City/State/Zip: Germantown MD, 20874	Email: Tony.Apanavage@tetratech.com	Analysis Turnaround Time (in BUS days)	
Phone: (301) 528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	
Project Name: MSA GW Sampling	Method of Shipment/Carrier:		
Project Number: 112IC04021	Shipping/Tracking No:		
PO#			

COC No: 006079
1 of 1 COCs

For lab use only
Walk-in client: ☐
Lab packing: ☐
Lab sampling: ☐
Job/SDG No.:

Analyses

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite/Grab (C/G)	VOCs	Total Metals	Dissolved Metals	Perchlorate	1,4-Dioxane	TPH-GRO	TPH-DRO				Sample Specific Notes / Special Instructions:
TB-043012	—	—		X						2							X										
GSP-MW5-043012	4/30/12	1030		X					2	5			5			G	X	X	X	X	X	X	X				
GSP-MW6-043012	↓	1145		X					2	5			5			G	X	X	X	X	X	X	X				
MT-MW02S-043012	↓	1305		X					2	5			5			G	X	X	X	X	X	X	X				

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Stu Cameron	Tetra Tech	4-30-12/1445	Paul Gaffrey	TestAmerica	4/30/12 1446
[illegible]	TestAmerica	4-30-2012/1530			
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			[illegible]	TAL	5-1-12 930

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

TAL 0018-1 (04/10)

CASE NARRATIVE

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Project: MSA Groundwater Sampling

Report Number: 240-10808-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 6850 Perchlorate analysis was performed at the TestAmerica West Sacramento Laboratory.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 05/01/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.9 and 3.2 C.

VOLATILE ORGANIC COMPOUNDS (GC MS)

Samples TB-043012 (240-10808-1), GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for volatile organic compounds (GC MS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 05/10/2012.

1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene and Hexachlorobutadiene were detected in method blank MB 240-43549/5 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

2-Butanone and 2-Chloroethyl vinyl ether failed the recovery criteria low for the MS/MSD of sample 240-10837-5 in batch 240-43549. Refer to the QC report for details.

Sample MT-MW02S-043012 (240-10808-4)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 05/05/2012 and analyzed on 05/08/2012.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

1,4-Dioxane failed the recovery criteria high for the MSD of sample 240-10837-5 in batch 240-43126.

1,4-Dioxane failed the recovery criteria low for the MSD of sample 240-10842-8 in batch 240-43665. 1,4-Dioxane exceeded the rpd limit.

Refer to the QC report for details.

No other difficulties were encountered during the SVOCs analyses. All other quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 05/07/2012.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-42995/6 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 05/04/2012 and analyzed on 05/07/2012.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

No difficulties were encountered during the DRO analyses. All quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

No difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

Several analytes were detected in method blank MB 240-42485/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/03/2012 and 05/07/2012 and analyzed on 05/04/2012 and 05/08/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/03/2012 and 05/07/2012 and analyzed on 05/04/2012 and 05/08/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10808-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-10808-1TB	TB-043012	Water	04/30/2012 0000	05/01/2012 0930
240-10808-2	GSP-MW5-043012	Water	04/30/2012 1030	05/01/2012 0930
240-10808-3	GSP-MW6-043012	Water	04/30/2012 1145	05/01/2012 0930
240-10808-4	MT-MW02S-043012	Water	04/30/2012 1305	05/01/2012 0930

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10808-1

Lab Section	Qualifier	Description
GC/MS VOA		
	J	Indicates an Estimated Value for TICs
	U	Indicates the analyte was analyzed for but not detected.
	F	MS or MSD exceeds the control limits
	E	Result exceeded calibration range.
	T	Result is a tentatively identified compound (TIC) and an estimated value.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	N	This flag indicates the presumptive evidence of a compound.
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	F	MS or MSD exceeds the control limits
	F	RPD of the MS and MSD exceeds the control limits
GC VOA		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-043012	240-10808-1	91	97	96	97
GSP-MW5-043012	240-10808-2	102	102	95	98
GSP-MW6-043012	240-10808-3	95	96	98	100
MT-MW02S-043012	240-10808-4	100	98	95	105
	MB 240-43549/5	91	98	97	97
	LCS 240-43549/4	92	95	101	102
	240-10837-D-5 MS	97	100	101	102
	240-10837-E-5 MSD	94	93	95	96

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-115
BFB = 4-Bromofluorobenzene (Surr)	66-117

Column to be used to flag recovery values

FORM II 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: STD8260 240-43409/4 Date Analyzed: 05/09/2012 17:35

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM5662.D Heated Purge: (Y/N) N

Calibration ID: 8614

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1744720	5.70	1311107	8.39	771411	10.64
UPPER LIMIT		3489440	6.20	2622214	8.89	1542822	11.14
LOWER LIMIT		872360	5.20	655554	7.89	385706	10.14
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-43409/8		1716805	5.70	1288543	8.39	755167	10.64
CCVIS 240-43549/2		1685929	5.70	1198706	8.39	696224	10.64

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: CCVIS 240-43549/2 Date Analyzed: 05/10/2012 10:53

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM5692.D Heated Purge: (Y/N) N

Calibration ID: 8614

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1685929	5.70	1198706	8.39	696224	10.64
UPPER LIMIT		3371858	6.20	2397412	8.89	1392448	11.14
LOWER LIMIT		842965	5.20	599353	7.89	348112	10.14
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-43549/3		1693016	5.70	1283426	8.39	677855	10.64
LCS 240-43549/4		1679901	5.70	1201426	8.39	713156	10.64
MB 240-43549/5		1644585	5.70	1222754	8.39	644299	10.64
240-10808-1	TB-043012	1646516	5.70	1246377	8.39	643038	10.64
240-10808-2	GSP-MW5-043012	1572318	5.70	1192812	8.39	652627	10.64
240-10808-3	GSP-MW6-043012	1587946	5.70	1173345	8.39	631759	10.64
240-10808-4	MT-MW02S-043012	1490431	5.70	1154735	8.39	657198	10.64
240-10837-D-5 MS		1587604	5.70	1149469	8.39	664336	10.64
240-10837-E-5 MSD		1579177	5.70	1228432	8.39	675357	10.64

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab File ID: BFB2914.D BFB Injection Date: 04/29/2012

Instrument ID: A3UX16 BFB Injection Time: 15:11

Analysis Batch No.: 42092

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.4	
75	30.0 - 60.0 % of mass 95	55.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.3	(0.4)1
174	50.0 - 120.00 % of mass 95	67.2	
175	5.0 - 9.0 % of mass 174	4.9	(7.4)1
176	95.0 - 101.0 % of mass 174	65.5	(97.4)1
177	5.0 - 9.0 % of mass 176	4.1	(6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD1 240-42092/8	UXM5245.D	04/29/2012	17:57
	STD2 240-42092/9	UXM5246.D	04/29/2012	18:20
	STD3 240-42092/10	UXM5247.D	04/29/2012	18:42
	STD4 240-42092/11	UXM5248.D	04/29/2012	19:05
	STD5 240-42092/12	UXM5249.D	04/29/2012	19:28
	STD6 240-42092/13	UXM5250.D	04/29/2012	19:50

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 17:57 Calibration End Date: 04/29/2012 19:50 Calibration ID: 8428

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD6 240-42092/13	UXM5250.D
Level 2	STD5 240-42092/12	UXM5249.D
Level 3	STD4 240-42092/11	UXM5248.D
Level 4	STD3 240-42092/10	UXM5247.D
Level 5	STD2 240-42092/9	UXM5246.D
Level 6	STD1 240-42092/8	UXM5245.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorofluoromethane	0.4944 0.5457	0.5179	0.5366	0.5411	0.5388	Ave		0.5291				3.7		15.0			
Ethyl ether	0.2959 0.3118	0.3149	0.3299	0.3322	0.3247	Ave		0.3182				4.3		15.0			
3-Chloro-1-propene	0.1138 0.1626	0.1307	0.1332	0.1472	0.1572	Ave		0.1408				13.0		15.0			
Diisopropyl ether	0.2325 0.3039	0.2698	0.2820	0.2880	0.2888	Ave		0.2775				8.9		15.0			
2-Chloro-1,3-butadiene	0.4443 0.5618	0.4913	0.5190	0.5386	0.5385	Ave		0.5156				8.2		15.0			
Ethyl-t-butyl ether (ETBE)	0.7557 0.9819	0.8293	0.9029	0.9314	0.9383	Ave		0.8899				9.3		15.0			
Propionitrile	0.0349 0.0408	0.0346	0.0382	0.0420	0.0412	Ave		0.0386				8.5		15.0			
Ethyl acetate	0.2532 0.2900	0.2546	0.2741	0.2771	0.2824	Ave		0.2719				5.5		15.0			
Methacrylonitrile	0.1606 0.2023	0.1897	0.1949	0.2046	0.2003	Ave		0.1921				8.5		15.0			
Isobutyl alcohol	0.0077 0.0091	0.0077	0.0086	0.0094	0.0092	Ave		0.0086				8.8		15.0			
Tert-amyl-methyl ether (TAME)	0.5871 0.7972	0.6671	0.7241	0.7535	0.7651	Ave		0.7157				11.0		15.0			
n-Heptane	0.0338 0.0458	0.0359	0.0418	0.0425	0.0440	Ave		0.0406				12.0		15.0			
n-Butanol	0.0041 0.0069	0.0052	0.0059	0.0064	0.0070	Lin1	-0.068	0.0070							0.9990		0.9950
2-Nitropropane	0.0349 0.0534	0.0349	0.0424	0.0409	0.0453	Qua	0	0.0373	0.0002						1.0000		0.9900
Cyclohexanone	0.0676 0.1071	0.0696	0.0924	0.0940	0.1083	Lin1	-0.573	0.1077							0.9980		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 17:57 Calibration End Date: 04/29/2012 19:50 Calibration ID: 8428

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,3-Trimethylbenzene	2.3062 3.3384	2.8522	3.0020	3.1126	3.2823	Ave		2.9823				13.0		15.0			
2-Methylnaphthalene	0.5487 0.8482	0.7229	0.8158	0.9225	1.0313	Qua	-2.422	1.2182	-0.004						0.9970		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab File ID: BFB2951.D BFB Injection Date: 05/09/2012

Instrument ID: A3UX16 BFB Injection Time: 16:26

Analysis Batch No.: 43409

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.5	
75	30.0 - 60.0 % of mass 95	47.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.2	(0.2)1
174	50.0 - 120.00 % of mass 95	79.3	
175	5.0 - 9.0 % of mass 174	5.7	(7.2)1
176	95.0 - 101.0 % of mass 174	78.8	(99.5)1
177	5.0 - 9.0 % of mass 176	4.7	(5.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-43409/2	UXM5660.D	05/09/2012	16:50
	STD8260 240-43409/3	UXM5661.D	05/09/2012	17:12
	STD8260 240-43409/4	UXM5662.D	05/09/2012	17:35
	STD8260 240-43409/5	UXM5663.D	05/09/2012	17:58
	STD8260 240-43409/6	UXM5664.D	05/09/2012	18:20
	STD8260 240-43409/7	UXM5665.D	05/09/2012	18:43
	ICV 240-43409/8	UXM5666.D	05/09/2012	19:06

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 43409

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/09/2012 16:50 Calibration End Date: 05/09/2012 18:43 Calibration ID: 8614

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-43409/7	UXM5665.D
Level 2	STD8260 240-43409/6	UXM5664.D
Level 3	STD8260 240-43409/5	UXM5663.D
Level 4	STD8260 240-43409/4	UXM5662.D
Level 5	STD8260 240-43409/3	UXM5661.D
Level 6	STD8260 240-43409/2	UXM5660.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3032 0.3143	0.2539	0.2973	0.2657	0.3062	Ave		0.2901			0.1000	8.4		15.0			
Chloromethane	0.6852 0.6205	0.6371	0.6849	0.6156	0.6587	Ave		0.6503			0.1000	4.7		15.0			
Vinyl chloride	0.4547 0.4560	0.4270	0.4657	0.4279	0.4758	Ave		0.4512			0.1000	4.4		15.0			
Bromomethane	0.2084 0.1529	0.1821	0.1851	0.1563	0.1804	Ave		0.1775			0.0500	12.0		15.0			
Chloroethane	0.2573 0.2377	0.2580	0.2693	0.2344	0.2581	Ave		0.2524				5.4		15.0			
Trichlorofluoromethane	0.3101 0.3295	0.3079	0.3225	0.2997	0.3473	Ave		0.3195			0.1000	5.4		15.0			
Acrolein	0.0620 0.0594	0.0566	0.0598	0.0605	0.0630	Ave		0.0602				3.7		15.0			
1,1-Dichloroethene	0.2593 0.2847	0.2457	0.2768	0.2781	0.2948	Ave		0.2733			0.1000	6.5		15.0			
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.1558 0.2077	0.1678	0.1758	0.1970	0.2009	Ave		0.1842			0.0500	11.0		15.0			
Acetone	0.1950 0.0973	0.1448	0.1189	0.1063	0.1066	Lin1	0.1992	0.0970			0.0500				0.9990		0.9950
Iodomethane	0.4877 0.4873	0.4523	0.4923	0.4807	0.4978	Ave		0.4830				3.3		15.0			
Carbon disulfide	0.8203 0.9849	0.8078	0.8789	0.8856	0.9660	Ave		0.8906			0.1000	8.2		15.0			
Acetonitrile	0.0521 0.0408	0.0448	0.0457	0.0427	0.0442	Ave		0.0451				8.6		15.0			
Methyl acetate	0.2743 0.2474	0.2522	0.2631	0.2590	0.2628	Ave		0.2598			0.1000	3.6		15.0			
Methylene Chloride	0.5939 0.3427	0.4564	0.4050	0.3631	0.3666	Lin1	0.2534	0.3421			0.1000				0.9990		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 43409

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/09/2012 16:50 Calibration End Date: 05/09/2012 18:43 Calibration ID: 8614

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
tert-Butyl alcohol	0.0181 0.0174	0.0168	0.0177	0.0177	0.0194	Ave		0.0178				4.7		15.0			
Acrylonitrile	0.1490 0.1387	0.1316	0.1465	0.1448	0.1465	Ave		0.1429				4.6		15.0			
Methyl tert-butyl ether	0.6991 0.7388	0.6445	0.7170	0.7045	0.7607	Ave		0.7108			0.1000	5.6		15.0			
trans-1,2-Dichloroethene	0.3247 0.3331	0.3115	0.3413	0.3269	0.3476	Ave		0.3309			0.1000	3.9		15.0			
Hexane	0.0397 0.0512	0.0343	0.0407	0.0432	0.0497	Ave		0.0431				15.0		15.0			
1,1-Dichloroethane	0.6254 0.6679	0.6197	0.6585	0.6494	0.6816	Ave		0.6504			0.1000	3.7		15.0			
Vinyl acetate	0.0327 0.0428	0.0332	0.0366	0.0381	0.0440	Ave		0.0379				12.0		15.0			
2-Butanone	0.1740 0.1347	0.1309	0.1420	0.1355	0.1436	Ave		0.1434			0.0500	11.0		15.0			
cis-1,2-Dichloroethene	0.3366 0.3461	0.3446	0.3556	0.3479	0.3633	Ave		0.3490			0.1000	2.7		15.0			
2,2-Dichloropropane	0.2222 0.2905	0.2280	0.2554	0.2602	0.2941	Ave		0.2584				12.0		15.0			
Bromochloromethane	0.1381 0.1470	0.1360	0.1474	0.1506	0.1535	Ave		0.1454				4.8		15.0			
Tetrahydrofuran	0.1117 0.0863	0.0970	0.0944	0.0842	0.0925	Ave		0.0944				10.0		15.0			
Chloroform	0.5276 0.5351	0.4911	0.5175	0.5152	0.5505	Ave		0.5228				3.9		15.0			
1,1,1-Trichloroethane	0.3487 0.4394	0.3554	0.3763	0.4020	0.4407	Ave		0.3937			0.1000	10.0		15.0			
Cyclohexane	0.5218 0.7519	0.5837	0.6294	0.6832	0.7258	Ave		0.6493			0.1000	14.0		15.0			
1,1-Dichloropropene	0.3364 0.3821	0.3547	0.3491	0.3627	0.3860	Ave		0.3618				5.3		15.0			
Carbon tetrachloride	0.2463 0.3514	0.2420	0.2831	0.3062	0.3407	Lin1	-0.167	0.3472			0.1000				0.9970		0.9950
1,2-Dichloroethane	0.4421 0.4298	0.4100	0.4186	0.4137	0.4494	Ave		0.4273			0.1000	3.7		15.0			
Benzene	1.1834 1.2032	1.1025	1.1381	1.1389	1.2065	Ave		1.1621			0.5000	3.6		15.0			
Trichloroethene	0.2725 0.2825	0.2714	0.2654	0.2626	0.2924	Ave		0.2745			0.2000	4.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 43409

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/09/2012 16:50 Calibration End Date: 05/09/2012 18:43 Calibration ID: 8614

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methylcyclohexane	0.2834 0.4163	0.2994	0.3340	0.3600	0.3897	Ave		0.3471			0.1000	15.0		15.0			
1,2-Dichloropropane	0.3163 0.3393	0.3026	0.3214	0.3206	0.3464	Ave		0.3244			0.1000	4.9		15.0			
Dibromomethane	0.1317 0.1397	0.1303	0.1368	0.1366	0.1460	Ave		0.1369				4.1		15.0			
1,4-Dioxane	0.0019 0.0018	0.0020	0.0021	0.0020	0.0021	Ave		0.0020				7.2		15.0			
Bromodichloromethane	0.2564 0.3265	0.2419	0.2713	0.2771	0.3245	Ave		0.2830			0.1000	12.0		15.0			
2-Chloroethyl vinyl ether	0.1506 0.1609	0.1383	0.1637	0.1582	0.1703	Ave		0.1570				7.1		15.0			
cis-1,3-Dichloropropene	0.2551 0.3710	0.2499	0.2985	0.3081	0.3650	Lin1	-0.188	0.3666			0.1500				0.9960		0.9950
4-Methyl-2-pentanone	0.2837 0.2990	0.2651	0.2929	0.2909	0.3111	Ave		0.2905			0.0500	5.3		15.0			
Toluene	1.6482 1.7043	1.5200	1.5382	1.5720	1.7039	Ave		1.6145			0.4000	5.1		15.0			
trans-1,3-Dichloropropene	0.2583 0.4170	0.2712	0.3095	0.3332	0.4003	Qua	-0.269	0.3783	0.0012		0.1000				0.9990		0.9900
Ethyl methacrylate	0.3360 0.4227	0.3466	0.3745	0.3996	0.4375	Ave		0.3861				11.0		15.0			
1,1,2-Trichloroethane	0.2835 0.2793	0.2694	0.2686	0.2750	0.2894	Ave		0.2775			0.1000	2.9		15.0			
1,3-Dichloropropane	0.5297 0.5095	0.5041	0.4977	0.5018	0.5376	Ave		0.5134				3.2		15.0			
Tetrachloroethene	0.2829 0.3018	0.2688	0.2694	0.2845	0.3065	Ave		0.2856			0.2000	5.5		15.0			
2-Hexanone	0.2570 0.2616	0.2458	0.2583	0.2602	0.2737	Ave		0.2594			0.0500	3.5		15.0			
Dibromochloromethane	0.1998 0.2905	0.1878	0.2173	0.2406	0.2828	Lin1	-0.158	0.2858							0.9950		0.9950
1,2-Dibromoethane	0.2771 0.2885	0.2414	0.2810	0.2689	0.2989	Ave		0.2760				7.2		15.0			
Chlorobenzene	1.0779 1.0958	1.0292	1.0419	1.0268	1.0997	Ave		1.0619			0.3000	3.1		15.0			
1,1,1,2-Tetrachloroethane	0.2890 0.3687	0.2701	0.3001	0.3244	0.3603	Ave		0.3188				12.0		15.0			
Ethylbenzene	0.5370 0.5872	0.5263	0.5398	0.5618	0.5955	Ave		0.5579				5.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 43409

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/09/2012 16:50 Calibration End Date: 05/09/2012 18:43 Calibration ID: 8614

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
m-Xylene & p-Xylene	0.6927 0.7473	0.6545	0.6868	0.6838	0.7439	Ave		0.7015				5.2		15.0			
o-Xylene	0.6585 0.7303	0.6697	0.6826	0.7022	0.7337	Ave		0.6962				4.5		15.0			
Styrene	1.0101 1.2393	1.0332	1.0826	1.1410	1.2330	Ave		1.1232			0.3000	8.8		15.0			
Bromoform	0.0997 0.1652	0.1002	0.1141	0.1314	0.1520	Qua	-0.092	0.1394	0.0007		0.1000				1.0000		0.9900
Isopropylbenzene	1.5686 1.8453	1.5081	1.5792	1.6843	1.7759	Ave		1.6603			0.1000	7.9		15.0			
1,1,2,2-Tetrachloroethane	0.6421 0.6392	0.5897	0.6508	0.6293	0.6884	Ave		0.6399			0.3000	5.0		15.0			
Bromobenzene	0.7124 0.8007	0.7229	0.7655	0.7154	0.8316	Ave		0.7581				6.6		15.0			
1,2,3-Trichloropropane	0.2331 0.2050	0.1899	0.2018	0.2064	0.2197	Ave		0.2093				7.2		15.0			
trans-1,4-Dichloro-2-butene	0.0972 0.1779	0.1139	0.1228	0.1331	0.1671	Qua	-0.117	0.1526	0.0007						0.9990		0.9900
n-Propylbenzene	0.7268 0.8204	0.6778	0.7587	0.7438	0.8378	Ave		0.7609				7.8		15.0			
2-Chlorotoluene	0.6703 0.7397	0.6758	0.6924	0.6931	0.7657	Ave		0.7061				5.4		15.0			
1,3,5-Trimethylbenzene	2.0828 2.5958	2.0405	2.3124	2.3306	2.5681	Ave		2.3217				10.0		15.0			
4-Chlorotoluene	0.7205 0.7747	0.6930	0.7396	0.7189	0.7965	Ave		0.7405				5.2		15.0			
tert-Butylbenzene	1.9330 2.3935	1.9972	1.9127	2.1455	2.3504	Ave		2.1221				9.9		15.0			
1,2,4-Trimethylbenzene	2.2784 2.6594	2.2133	2.3747	2.3863	2.6735	Ave		2.4310				8.0		15.0			
sec-Butylbenzene	2.3140 2.8409	2.3222	2.4938	2.5429	2.7579	Ave		2.5453				8.6		15.0			
1,3-Dichlorobenzene	1.3846 1.4804	1.3348	1.4061	1.3608	1.4933	Ave		1.4100			0.6000	4.6		15.0			
p-Isopropyltoluene	1.8496 2.5189	1.9566	2.1436	2.2002	2.4336	Ave		2.1837				12.0		15.0			
1,4-Dichlorobenzene	1.5343 1.5331	1.3976	1.4633	1.4252	1.5585	Ave		1.4853			0.5000	4.5		15.0			
n-Butylbenzene	1.5207 2.0613	1.5638	1.6967	1.7858	1.9861	Ave		1.7691				12.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 43409

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/09/2012 16:50 Calibration End Date: 05/09/2012 18:43 Calibration ID: 8614

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dichlorobenzene	1.3844 1.4205	1.3540	1.3870	1.3472	1.4582	Ave		1.3919			0.4000	3.0		15.0			
1,2-Dibromo-3-Chloropropane	0.0794 0.0870	0.0683	0.0814	0.0746	0.0883	Ave		0.0798			0.0500	9.5		15.0			
1,3,5-Trichlorobenzene	0.7539 0.8344	0.7656	0.7991	0.8104	0.8665	Ave		0.8050				5.2		15.0			
1,2,4-Trichlorobenzene	0.6479 0.6976	0.6519	0.6850	0.7123	0.7408	Ave		0.6892			0.2000	5.2		15.0			
Hexachlorobutadiene	0.2984 0.2880	0.3131	0.3156	0.3236	0.3074	Ave		0.3077				4.2		15.0			
Naphthalene	1.3167 1.5171	1.2964	1.5138	1.5269	1.6839	Ave		1.4758				9.9		15.0			
1,2,3-Trichlorobenzene	0.6093 0.5088	0.5775	0.5956	0.5994	0.6006	Ave		0.5819				6.4		15.0			
Dibromofluoromethane (Surr)	0.2449 0.2557	0.2414	0.2613	0.2511	0.2697	Ave		0.2540				4.1		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3352 0.3180	0.3022	0.3162	0.3092	0.3364	Ave		0.3195				4.3		15.0			
Toluene-d8 (Surr)	1.3399 1.4228	1.2843	1.2848	1.3063	1.4382	Ave		1.3460				5.1		15.0			
4-Bromofluorobenzene (Surr)	0.5239 0.5294	0.5089	0.5007	0.5033	0.5393	Ave		0.5176				3.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICV 240-43409/8 Calibration Date: 05/09/2012 19:06

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 17:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 19:50

Lab File ID: UXM5666.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.3182	0.3514		11.0	10.0	10.4	20.0
Diisopropyl ether	Ave	0.2775	0.2746		9.89	10.0	-1.1	20.0
Isobutyl alcohol	Ave	0.0086	0.0089		517	500	3.5	20.0
Cyclohexanone	Lin1		0.0196		41.7	200	-79.2*	20.0
1,2,3-Trimethylbenzene	Ave	2.982	2.571		8.62	10.0	-13.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICV 240-43409/8 Calibration Date: 05/09/2012 19:06

Instrument ID: A3UX16 Calib Start Date: 05/09/2012 16:50

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/09/2012 18:43

Lab File ID: UXM5666.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2901	0.2045	0.1000	7.05	10.0	-29.5*	20.0
Chloromethane	Ave	0.6503	0.5741	0.1000	8.83	10.0	-11.7	20.0
Vinyl chloride	Ave	0.4512	0.4382	0.1000	9.71	10.0	-2.9	20.0
Bromomethane	Ave	0.1775	0.1621	0.0500	9.13	10.0	-8.7	20.0
Chloroethane	Ave	0.2524	0.2375	0.0500	9.41	10.0	-5.9	20.0
Trichlorofluoromethane	Ave	0.3195	0.3224	0.1000	10.1	10.0	0.9	20.0
Acrolein	Ave	0.0602	0.0316		15.7	30.0	-47.6*	20.0
1,1-Dichloroethene	Ave	0.2733	0.2968	0.1000	10.9	10.0	8.6	20.0
1,1,2-Trichloro-1,2,2-trichf luoroethane	Ave	0.1842	0.2129	0.0500	11.6	10.0	15.6	20.0
Acetone	Lin1		0.1000	0.0500	18.6	20.0	-7.0	20.0
Iodomethane	Ave	0.4830	0.4930		10.2	10.0	2.1	20.0
Carbon disulfide	Ave	0.8906	0.9121	0.1000	10.2	10.0	2.4	20.0
Acetonitrile	Ave	0.0451	0.0442		29.4	30.0	-2.0	20.0
Methyl acetate	Ave	0.2598	0.2961	0.1000	11.4	10.0	14.0	20.0
Methylene Chloride	Lin1		0.3698	0.1000	10.1	10.0	1.0	20.0
tert-Butyl alcohol	Ave	0.0178	0.0177		198	200	-1.0	20.0
Acrylonitrile	Ave	0.1429	0.1377		28.9	30.0	-3.6	20.0
Methyl tert-butyl ether	Ave	0.7108	0.7047	0.1000	9.91	10.0	-0.9	20.0
trans-1,2-Dichloroethene	Ave	0.3309	0.3422	0.1000	10.3	10.0	3.4	20.0
Hexane	Ave	0.0431	0.0478		11.1	10.0	10.8	20.0
1,1-Dichloroethane	Ave	0.6504	0.6789	0.1000	10.4	10.0	4.4	20.0
Vinyl acetate	Ave	0.0379	0.0349		9.19	10.0	-8.1	20.0
2-Butanone	Ave	0.1434	0.1319	0.0500	18.4	20.0	-8.1	20.0
2,2-Dichloropropane	Ave	0.2584	0.2680		10.4	10.0	3.7	20.0
cis-1,2-Dichloroethene	Ave	0.3490	0.3544	0.1000	10.2	10.0	1.5	20.0
Bromochloromethane	Ave	0.1454	0.1487		10.2	10.0	2.2	20.0
Tetrahydrofuran	Ave	0.0944	0.0879		9.32	10.0	-6.8	20.0
Chloroform	Ave	0.5228	0.5335	0.2000	10.2	10.0	2.0	20.0
1,1,1-Trichloroethane	Ave	0.3937	0.4102	0.1000	10.4	10.0	4.2	20.0
Cyclohexane	Ave	0.6493	0.6633	0.1000	10.2	10.0	2.2	20.0
1,1-Dichloropropene	Ave	0.3618	0.3695		10.2	10.0	2.1	20.0
Carbon tetrachloride	Lin1		0.3100	0.1000	9.41	10.0	-5.9	20.0
1,2-Dichloroethane	Ave	0.4273	0.4347	0.1000	10.2	10.0	1.7	20.0
Benzene	Ave	1.162	1.177	0.5000	10.1	10.0	1.2	20.0
Trichloroethene	Ave	0.2745	0.2806	0.2000	10.2	10.0	2.2	20.0
1,2-Dichloropropane	Ave	0.3244	0.3251	0.1000	10.0	10.0	0.2	20.0
Methylcyclohexane	Ave	0.3471	0.3473	0.1000	10.0	10.0	0.0	20.0
Dibromomethane	Ave	0.1369	0.1442		10.5	10.0	5.4	20.0
Bromodichloromethane	Ave	0.2830	0.2938	0.1000	10.4	10.0	3.8	20.0
2-Chloroethyl vinyl ether	Ave	0.1570	0.1413		9.00	10.0	-10.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICV 240-43409/8 Calibration Date: 05/09/2012 19:06

Instrument ID: A3UX16 Calib Start Date: 05/09/2012 16:50

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/09/2012 18:43

Lab File ID: UXM5666.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
cis-1,3-Dichloropropene	Lin1		0.3014	0.1500	8.73	10.0	-12.7	20.0
4-Methyl-2-pentanone	Ave	0.2905	0.2896	0.0500	19.9	20.0	-0.3	20.0
Toluene	Ave	1.614	1.572	0.4000	9.74	10.0	-2.6	20.0
trans-1,3-Dichloropropene	Qua		0.3327	0.1000	9.24	10.0	-7.6	20.0
1,1,2-Trichloroethane	Ave	0.2775	0.2762	0.1000	9.95	10.0	-0.5	20.0
1,3-Dichloropropane	Ave	0.5134	0.4975		9.69	10.0	-3.1	20.0
Tetrachloroethene	Ave	0.2856	0.2813	0.2000	9.85	10.0	-1.5	20.0
2-Hexanone	Ave	0.2594	0.2452	0.0500	18.9	20.0	-5.5	20.0
Dibromochloromethane	Lin1		0.2350		8.77	10.0	-12.3	20.0
1,2-Dibromoethane	Ave	0.2760	0.2737		9.92	10.0	-0.8	20.0
Chlorobenzene	Ave	1.062	1.051	0.3000	9.90	10.0	-1.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3188	0.3286		10.3	10.0	3.1	20.0
Ethylbenzene	Ave	0.5579	0.5654		10.1	10.0	1.3	20.0
m-Xylene & p-Xylene	Ave	0.7015	0.6978		19.9	20.0	-0.5	20.0
o-Xylene	Ave	0.6962	0.7046		10.1	10.0	1.2	20.0
Styrene	Ave	1.123	1.167	0.3000	10.4	10.0	3.9	20.0
Bromoform	Qua		0.1291	0.1000	9.47	10.0	-5.3	20.0
Isopropylbenzene	Ave	1.660	1.692	0.1000	10.2	10.0	1.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6399	0.6196	0.3000	9.68	10.0	-3.2	20.0
Bromobenzene	Ave	0.7581	0.7479		9.87	10.0	-1.3	20.0
1,2,3-Trichloropropane	Ave	0.2093	0.1984		9.48	10.0	-5.2	20.0
trans-1,4-Dichloro-2-butene	Qua		0.1324		16.8	20.0	-16.0	20.0
n-Propylbenzene	Ave	0.7609	0.7738		10.2	10.0	1.7	20.0
2-Chlorotoluene	Ave	0.7061	0.7155		10.1	10.0	1.3	20.0
1,3,5-Trimethylbenzene	Ave	2.322	2.338		10.1	10.0	0.7	20.0
4-Chlorotoluene	Ave	0.7405	0.7420		10.0	10.0	0.2	20.0
tert-Butylbenzene	Ave	2.122	2.147		10.1	10.0	1.2	20.0
1,2,4-Trimethylbenzene	Ave	2.431	2.470		10.2	10.0	1.6	20.0
sec-Butylbenzene	Ave	2.545	2.467		9.69	10.0	-3.1	20.0
1,3-Dichlorobenzene	Ave	1.410	1.419	0.6000	10.1	10.0	0.6	20.0
p-Isopropyltoluene	Ave	2.184	2.305		10.6	10.0	5.5	20.0
1,4-Dichlorobenzene	Ave	1.485	1.439	0.5000	9.69	10.0	-3.1	20.0
n-Butylbenzene	Ave	1.769	1.800		10.2	10.0	1.7	20.0
1,2-Dichlorobenzene	Ave	1.392	1.345	0.4000	9.66	10.0	-3.4	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0798	0.0779	0.0500	9.76	10.0	-2.4	20.0
1,2,4-Trichlorobenzene	Ave	0.6892	0.6576	0.2000	9.54	10.0	-4.6	20.0
Hexachlorobutadiene	Ave	0.3077	0.2672		8.69	10.0	-13.1	20.0
Naphthalene	Ave	1.476	1.471		9.97	10.0	-0.3	20.0
1,2,3-Trichlorobenzene	Ave	0.5819	0.5595		9.61	10.0	-3.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2540	0.2365		9.50	10.2	-6.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3195	0.2929		9.36	10.2	-8.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICV 240-43409/8 Calibration Date: 05/09/2012 19:06

Instrument ID: A3UX16 Calib Start Date: 05/09/2012 16:50

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/09/2012 18:43

Lab File ID: UXM5666.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Toluene-d8 (Surr)	Ave	1.346	1.233		9.35	10.2	-8.4	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5176	0.4948		9.76	10.2	-4.4	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab File ID: BFB2952.D BFB Injection Date: 05/10/2012

Instrument ID: A3UX16 BFB Injection Time: 10:23

Analysis Batch No.: 43549

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	26.4	
75	30.0 - 60.0 % of mass 95	47.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.4	(0.5)1
174	50.0 - 120.00 % of mass 95	78.6	
175	5.0 - 9.0 % of mass 174	4.8	(6.1)1
176	95.0 - 101.0 % of mass 174	77.5	(98.6)1
177	5.0 - 9.0 % of mass 176	5.0	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-43549/2	UXM5692.D	05/10/2012	10:53
	CCV 240-43549/3	UXM5693.D	05/10/2012	11:16
	LCS 240-43549/4	UXM5694.D	05/10/2012	11:39
	MB 240-43549/5	UXM5695.D	05/10/2012	12:02
TB-043012	240-10808-1	UXM5696.D	05/10/2012	12:25
GSP-MW5-043012	240-10808-2	UXM5697.D	05/10/2012	12:47
GSP-MW6-043012	240-10808-3	UXM5698.D	05/10/2012	13:10
MT-MW02S-043012	240-10808-4	UXM5699.D	05/10/2012	13:33
	240-10837-D-5 MS	UXM5716.D	05/10/2012	19:58
	240-10837-E-5 MSD	UXM5717.D	05/10/2012	20:21

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCVIS 240-43549/2 Calibration Date: 05/10/2012 10:53

Instrument ID: A3UX16 Calib Start Date: 05/09/2012 16:50

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/09/2012 18:43

Lab File ID: UXM5692.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2901	0.2790	0.1000	9.62	10.0	-3.8	20.0
Chloromethane	Ave	0.6503	0.6113	0.1000	9.40	10.0	-6.0	20.0
Vinyl chloride	Ave	0.4512	0.4262	0.1000	9.45	10.0	-5.5	20.0
Bromomethane	Ave	0.1775	0.1770	0.0500	9.97	10.0	-0.3	20.0
Chloroethane	Ave	0.2524	0.2504	0.0500	9.92	10.0	-0.8	20.0
Trichlorofluoromethane	Ave	0.3195	0.3217	0.1000	10.1	10.0	0.7	20.0
Acrolein	Ave	0.0602	0.0539		89.5	100	-10.5	20.0
1,1-Dichloroethene	Ave	0.2733	0.2791	0.1000	10.2	10.0	2.1	20.0
1,1,2-Trichloro-1,2,2-trichf luoroethane	Ave	0.1842	0.2017	0.0500	11.0	10.0	9.5	20.0
Acetone	Lin1		0.0988	0.0500	18.3	20.0	-8.5	20.0
Iodomethane	Ave	0.4830	0.4722		9.78	10.0	-2.2	20.0
Carbon disulfide	Ave	0.8906	0.9826	0.1000	11.0	10.0	10.3	20.0
Acetonitrile	Ave	0.0451	0.0445		98.8	100	-1.2	20.0
Methyl acetate	Ave	0.2598	0.2519	0.1000	19.4	20.0	-3.0	20.0
Methylene Chloride	Lin1		0.3834	0.1000	10.5	10.0	5.0	20.0
tert-Butyl alcohol	Ave	0.0178	0.0166		186	200	-7.1	20.0
Acrylonitrile	Ave	0.1429	0.1377		19.3	20.0	-3.6	20.0
Methyl tert-butyl ether	Ave	0.7108	0.6763	0.1000	9.52	10.0	-4.8	20.0
trans-1,2-Dichloroethene	Ave	0.3309	0.3410	0.1000	10.3	10.0	3.1	20.0
Hexane	Ave	0.0431	0.0483	N.L.T.C.	11.2	10.0	12.1	20.0
1,1-Dichloroethane	Ave	0.6504	0.6517	0.1000	10.0	10.0	0.2	20.0
Vinyl acetate	Ave	0.0379	0.0403		10.6	10.0	6.2	20.0
2-Butanone	Ave	0.1434	0.1404	0.0500	19.6	20.0	-2.1	20.0
cis-1,2-Dichloroethene	Ave	0.3490	0.3372	0.1000	9.66	10.0	-3.4	20.0
2,2-Dichloropropane	Ave	0.2584	0.2768		10.7	10.0	7.1	20.0
Bromochloromethane	Ave	0.1454	0.1447		9.95	10.0	-0.5	20.0
Tetrahydrofuran	Ave	0.0944	0.0879		9.32	10.0	-6.8	20.0
Chloroform	Ave	0.5228	0.5315	0.2000	10.2	10.0	1.7	20.0
1,1,1-Trichloroethane	Ave	0.3937	0.4191	0.1000	10.6	10.0	6.4	20.0
Cyclohexane	Ave	0.6493	0.6985	0.1000	10.8	10.0	7.6	20.0
1,1-Dichloropropene	Ave	0.3618	0.3859		10.7	10.0	6.6	20.0
Carbon tetrachloride	Lin1		0.3255	0.1000	9.86	10.0	-1.4	20.0
1,2-Dichloroethane	Ave	0.4273	0.4578	0.1000	10.7	10.0	7.1	20.0
Benzene	Ave	1.162	1.187	0.5000	10.2	10.0	2.2	20.0
Trichloroethene	Ave	0.2745	0.2912	0.2000	10.6	10.0	6.1	20.0
Methylcyclohexane	Ave	0.3471	0.3832	0.1000	11.0	10.0	10.4	20.0
1,2-Dichloropropane	Ave	0.3244	0.3319	0.1000	10.2	10.0	2.3	20.0
Dibromomethane	Ave	0.1369	0.1455		10.6	10.0	6.3	20.0
1,4-Dioxane	Ave	0.0020	0.0018		457	500	-8.7	20.0
Bromodichloromethane	Ave	0.2830	0.3185	0.1000	11.3	10.0	12.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCVIS 240-43549/2 Calibration Date: 05/10/2012 10:53

Instrument ID: A3UX16 Calib Start Date: 05/09/2012 16:50

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/09/2012 18:43

Lab File ID: UXM5692.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1570	0.1558		19.9	20.0	-0.7	20.0
cis-1,3-Dichloropropene	Lin1		0.3284	0.1500	9.47	10.0	-5.3	20.0
4-Methyl-2-pentanone	Ave	0.2905	0.2951	0.0500	20.3	20.0	1.6	20.0
Toluene	Ave	1.614	1.737	0.4000	10.8	10.0	7.6	20.0
trans-1,3-Dichloropropene	Qua		0.3546	0.1000	9.79	10.0	-2.1	20.0
Ethyl methacrylate	Ave	0.3861	0.4404		11.4	10.0	14.1	20.0
1,1,2-Trichloroethane	Ave	0.2775	0.2924	0.1000	10.5	10.0	5.3	20.0
1,3-Dichloropropane	Ave	0.5134	0.5380		10.5	10.0	4.8	20.0
Tetrachloroethene	Ave	0.2856	0.3170	0.2000	11.1	10.0	11.0	20.0
2-Hexanone	Ave	0.2594	0.2762	0.0500	21.3	20.0	6.5	20.0
Dibromochloromethane	Lin1		0.2723		10.1	10.0	1.0	20.0
1,2-Dibromoethane	Ave	0.2760	0.2994		10.9	10.0	8.5	20.0
Chlorobenzene	Ave	1.062	1.117	0.3000	10.5	10.0	5.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3188	0.3682		11.5	10.0	15.5	20.0
Ethylbenzene	Ave	0.5579	0.6165		11.0	10.0	10.5	20.0
m-Xylene & p-Xylene	Ave	0.7015	0.7510		21.4	20.0	7.1	20.0
o-Xylene	Ave	0.6962	0.7534		10.8	10.0	8.2	20.0
Styrene	Ave	1.123	1.258	0.3000	11.2	10.0	12.0	20.0
Bromoform	Qua		0.1388	0.1000	10.1	10.0	1.0	20.0
Isopropylbenzene	Ave	1.660	1.794	0.1000	10.8	10.0	8.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6399	0.6643	0.3000	10.4	10.0	3.8	20.0
Bromobenzene	Ave	0.7581	0.7834		10.3	10.0	3.3	20.0
1,2,3-Trichloropropane	Ave	0.2093	0.2152		10.3	10.0	2.8	20.0
trans-1,4-Dichloro-2-butene	Qua		0.0543		4.24	10.0	-57.6*	20.0
n-Propylbenzene	Ave	0.7609	0.8162		10.7	10.0	7.3	20.0
2-Chlorotoluene	Ave	0.7061	0.7430		10.5	10.0	5.2	20.0
1,3,5-Trimethylbenzene	Ave	2.322	2.504		10.8	10.0	7.9	20.0
4-Chlorotoluene	Ave	0.7405	0.8068		10.9	10.0	8.9	20.0
tert-Butylbenzene	Ave	2.122	2.300		10.8	10.0	8.4	20.0
1,2,4-Trimethylbenzene	Ave	2.431	2.614		10.8	10.0	7.5	20.0
sec-Butylbenzene	Ave	2.545	2.730		10.7	10.0	7.3	20.0
1,3-Dichlorobenzene	Ave	1.410	1.472	0.6000	10.4	10.0	4.4	20.0
p-Isopropyltoluene	Ave	2.184	2.381		10.9	10.0	9.0	20.0
1,4-Dichlorobenzene	Ave	1.485	1.576	0.5000	10.6	10.0	6.1	20.0
n-Butylbenzene	Ave	1.769	1.900		10.7	10.0	7.4	20.0
1,2-Dichlorobenzene	Ave	1.392	1.409	0.4000	10.1	10.0	1.2	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0798	0.0780	0.0500	9.77	10.0	-2.3	20.0
1,3,5-Trichlorobenzene	Ave	0.8050	0.8184		10.2	10.0	1.7	20.0
1,2,4-Trichlorobenzene	Ave	0.6892	0.6691	0.2000	9.71	10.0	-2.9	20.0
Hexachlorobutadiene	Ave	0.3077	0.3034		9.86	10.0	-1.4	20.0
Naphthalene	Ave	1.476	1.368		9.27	10.0	-7.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCVIS 240-43549/2 Calibration Date: 05/10/2012 10:53

Instrument ID: A3UX16 Calib Start Date: 05/09/2012 16:50

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/09/2012 18:43

Lab File ID: UXM5692.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Ave	0.5819	0.5411		9.30	10.0	-7.0	20.0
Dibromofluoromethane (Surr)	Ave	0.2540	0.2445		9.83	10.2	-3.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3195	0.3043		9.72	10.2	-4.8	20.0
Toluene-d8 (Surr)	Ave	1.346	1.370		10.4	10.2	1.8	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5176	0.5247		10.3	10.2	1.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCV 240-43549/3 Calibration Date: 05/10/2012 11:16

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 17:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 19:50

Lab File ID: UXM5693.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.5291	0.4896		9.25	10.0	-7.5	20.0
Ethyl ether	Ave	0.3182	0.3276		10.3	10.0	2.9	20.0
3-Chloro-1-propene	Ave	0.1408	0.1484		10.5	10.0	5.4	20.0
Diisopropyl ether	Ave	0.2775	0.2850		51.4	50.0	2.7	20.0
2-Chloro-1,3-butadiene	Ave	0.5156	0.6754		13.1	10.0	31.0*	20.0
Ethyl-t-butyl ether (ETBE)	Ave	0.8899	1.041		11.7	10.0	16.9	20.0
Propionitrile	Ave	0.0386	0.0464		24.0	20.0	20.1*	20.0
Ethyl acetate	Ave	0.2719	0.2669		19.6	20.0	-1.8	20.0
Methacrylonitrile	Ave	0.1921	0.1929		10.0	10.0	0.4	20.0
Isobutyl alcohol	Ave	0.0086	0.0091		210	200	5.0	20.0
Tert-amyl-methyl ether (TAME)	Ave	0.7157	0.6111		8.54	10.0	-14.6	20.0
n-Heptane	Ave	0.0406	0.0423		10.4	10.0	4.1	20.0
n-Butanol	Lin1		0.0066		197	200	-1.7	20.0
2-Nitropropane	Qua		0.0411		19.9	20.0	-0.5	20.0
Cyclohexanone	Lin1		0.0552		56.6	100	-43.4*	20.0
1,2,3-Trimethylbenzene	Ave	2.982	2.606		8.74	10.0	-12.6	20.0
2-Methylnaphthalene	Qua		0.3582		8.10	20.0	-59.5*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCV 240-43549/3 Calibration Date: 05/10/2012 11:16

Instrument ID: A3UX16 Calib Start Date: 05/09/2012 16:50

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/09/2012 18:43

Lab File ID: UXM5693.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2540	0.2276		9.15	10.2	-10.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3195	0.2873		9.18	10.2	-10.1	20.0
Toluene-d8 (Surr)	Ave	1.346	1.243		9.43	10.2	-7.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5176	0.4929		9.72	10.2	-4.8	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab File ID: UXM5695.D Lab Sample ID: MB 240-43549/5

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 05/10/2012 12:02

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-43549/4	UXM5694.D	05/10/2012 11:39
TB-043012	240-10808-1	UXM5696.D	05/10/2012 12:25
GSP-MW5-043012	240-10808-2	UXM5697.D	05/10/2012 12:47
GSP-MW6-043012	240-10808-3	UXM5698.D	05/10/2012 13:10
MT-MW02S-043012	240-10808-4	UXM5699.D	05/10/2012 13:33
	240-10837-D-5 MS	UXM5716.D	05/10/2012 19:58
	240-10837-E-5 MSD	UXM5717.D	05/10/2012 20:21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-43549/5

Matrix: Water | Lab File ID: UXM5695.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 12:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.372	J	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.247	J	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-43549/5
Matrix: Water
Lab File ID: UXM5695.D
Analysis Method: 8260C
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 05/10/2012 12:02
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 43549
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	0.462	J	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-43549/5

Matrix: Water | Lab File ID: UXM5695.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 12:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-129
460-00-4	4-Bromofluorobenzene (Surr)	97		66-117
2037-26-5	Toluene-d8 (Surr)	97		74-115
1868-53-7	Dibromofluoromethane (Surr)	91		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-43549/5

Matrix: Water Lab File ID: UXM5695.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/10/2012 12:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 43549 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5694.D

Lab ID: LCS 240-43549/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	10.8	108	72-116	
1,1,1-Trichloroethane	10.0	10.1	101	74-118	
1,1,2,2-Tetrachloroethane	10.0	9.44	94	68-118	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	11.7	117	74-151	
1,1-Dichloroethane	10.0	10.1	101	82-115	
1,1-Dichloroethene	10.0	10.8	108	78-131	
1,1-Dichloropropene	10.0	10.1	101	83-114	
1,2,3-Trichlorobenzene	10.0	8.98	90	54-126	
1,2,3-Trichloropropane	10.0	9.86	99	73-129	
1,2,3-Trimethylbenzene	10.0	8.55	86	70-130	
1,2,4-Trichlorobenzene	10.0	9.37	94	48-135	
1,2,4-Trimethylbenzene	10.0	10.2	102	76-120	
1,2-Dibromo-3-Chloropropane	10.0	9.58	96	42-136	
1,2-Dichlorobenzene	10.0	9.69	97	81-110	
1,2-Dichloroethane	10.0	10.4	104	71-127	
1,2-Dichloropropane	10.0	10.4	104	81-115	
1,3-Dichlorobenzene	10.0	9.93	99	80-110	
1,3-Dichloropropane	10.0	10.2	102	79-116	
1,4-Dichlorobenzene	10.0	9.91	99	82-110	
2,2-Dichloropropane	10.0	10.7	107	50-129	
2-Chloroethyl vinyl ether	10.0	9.48 J	95	52-131	
2-Chlorotoluene	10.0	9.87	99	76-116	
2-Hexanone	20.0	21.0	105	55-133	
Bromobenzene	10.0	10.1	101	76-115	
Bromochloromethane	10.0	9.77	98	77-120	
4-Chlorotoluene	10.0	10.1	101	77-115	
p-Isopropyltoluene	10.0	10.6	106	74-120	
Acetone	20.0	17.1	86	43-136	
Benzene	10.0	10.1	101	83-112	
Bromoform	10.0	8.83	88	40-131	
Bromomethane	10.0	8.94	89	11-185	
Carbon disulfide	10.0	10.4	104	62-142	
Carbon tetrachloride	10.0	9.42	94	66-128	
Chlorobenzene	10.0	10.1	101	85-110	
Chloroethane	10.0	8.97	90	25-153	
Chloroform	10.0	9.45	95	79-117	
Chloromethane	10.0	7.85	79	44-126	
cis-1,2-Dichloroethene	10.0	9.56	96	80-113	
cis-1,3-Dichloropropene	10.0	8.48	85	61-115	
Hexachlorobutadiene	10.0	9.10	91	36-134	
Dibromomethane	10.0	11.0	110	81-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5694.D

Lab ID: LCS 240-43549/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Bromodichloromethane	10.0	10.9	109	72-121	
Dichlorodifluoromethane	10.0	6.12	61	19-129	
Ethylbenzene	10.0	10.5	105	83-112	
1,2-Dibromoethane	10.0	10.0	100	79-113	
Diisopropyl ether	10.0	9.77 J	98	77-118	
Naphthalene	10.0	9.33	93	32-141	
m-Xylene & p-Xylene	20.0	20.7	104	83-113	
n-Butylbenzene	10.0	10.4	104	66-125	
Isopropylbenzene	10.0	10.6	106	75-114	
n-Propylbenzene	10.0	10.3	103	74-121	
2-Butanone	20.0	18.8	94	60-126	
4-Methyl-2-pentanone	20.0	20.3	102	63-128	
sec-Butylbenzene	10.0	10.2	102	70-117	
Methyl tert-butyl ether	10.0	9.74	97	52-144	
Methylene Chloride	10.0	10.0	100	66-131	
o-Xylene	10.0	10.6	106	83-113	
Styrene	10.0	10.7	107	79-114	
tert-Butylbenzene	10.0	10.3	103	71-115	
Tetrachloroethene	10.0	10.6	106	79-114	
Toluene	10.0	10.4	104	84-111	
trans-1,2-Dichloroethene	10.0	9.89	99	83-117	
trans-1,3-Dichloropropene	10.0	9.26	93	58-117	
Trichloroethene	10.0	10.5	105	76-117	
Trichlorofluoromethane	10.0	10.5	105	49-157	
Vinyl acetate	10.0	9.55	96	46-161	
Vinyl chloride	10.0	8.64	86	53-127	
tert-Butyl alcohol	200	192	96	70-130	
Xylenes, Total	30.0	31.3	104	83-112	
Dibromochloromethane	10.0	9.32	93	64-119	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5716.D

Lab ID: 240-10837-D-5 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	400	40 U	416	104	64-118	
1,1,1-Trichloroethane	400	40 U	399	100	68-121	
1,1,2,2-Tetrachloroethane	400	40 U	394	99	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	400	40 U	412	103	70-152	
1,1-Dichloroethane	400	40 U	412	103	79-116	
1,1-Dichloroethene	400	16 J	428	103	74-135	
1,1-Dichloropropene	400	40 U	412	103	80-114	
1,2,3-Trichlorobenzene	400	40 U	363	91	45-129	
1,2,3-Trichloropropane	400	40 U	397	99	67-132	
1,2,3-Trimethylbenzene	400	200 U	333	83	70-130	
1,2,4-Trichlorobenzene	400	40 U	354	89	38-138	
1,2,4-Trimethylbenzene	400	40 U	388	97	67-124	
1,2-Dibromo-3-Chloropropane	400	80 U	381	95	32-139	
1,2-Dichlorobenzene	400	40 U	380	95	75-111	
1,2-Dichloroethane	400	40 U	432	108	68-129	
1,2-Dichloropropane	400	40 U	404	101	78-115	
1,3-Dichlorobenzene	400	40 U	387	97	73-110	
1,3-Dichloropropane	400	40 U	400	100	74-118	
1,4-Dichlorobenzene	400	40 U	379	95	75-110	
2,2-Dichloropropane	400	40 U	368	92	38-127	
2-Chloroethyl vinyl ether	400	400 U	400 U	0	10-150	F
2-Chlorotoluene	400	40 U	386	97	69-117	
2-Hexanone	800	400 U	828	104	47-139	
Bromobenzene	400	40 U	397	99	71-116	
Bromochloromethane	400	40 U	395	99	73-121	
4-Chlorotoluene	400	40 U	393	98	71-116	
p-Isopropyltoluene	400	40 U	393	98	64-122	
Acetone	800	400 U	756	95	33-145	
Benzene	400	12 J	416	101	72-121	
Bromoform	400	40 U	368	92	32-128	
Bromomethane	400	40 U	334	83	10-186	
Carbon disulfide	400	40 U	391	98	57-147	
Carbon tetrachloride	400	40 U	366	91	59-129	
Chlorobenzene	400	240	648	103	80-110	
Chloroethane	400	40 U	345	86	21-165	
Chloroform	400	40 U	397	99	76-118	
Chloromethane	400	40 U	306	77	33-132	
cis-1,2-Dichloroethene	400	1400	1820	108	70-120	E
cis-1,3-Dichloropropene	400	40 U	320	80	51-110	
Hexachlorobutadiene	400	40 U	311	78	27-132	
Dibromomethane	400	40 U	432	108	77-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5716.D

Lab ID: 240-10837-D-5 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Bromodichloromethane	400	40 U	424	106	67-120	
Dichlorodifluoromethane	400	40 U	219	55	17-128	
Ethylbenzene	400	40 U	388	97	75-116	
1,2-Dibromoethane	400	40 U	399	100	74-113	
Diisopropyl ether	400	400 U	385 J	96	73-118	
Naphthalene	400	40 U	369	92	15-158	
m-Xylene & p-Xylene	800	80 U	788	99	75-117	
n-Butylbenzene	400	40 U	374	94	56-127	
Isopropylbenzene	400	40 U	384	96	68-116	
n-Propylbenzene	400	40 U	393	98	64-124	
2-Butanone	800	400 U	400 U	0	54-129	F
4-Methyl-2-pentanone	800	400 U	820	103	56-131	
sec-Butylbenzene	400	40 U	368	92	60-119	
Methyl tert-butyl ether	400	200 U	375	94	46-144	
Methylene Chloride	400	40 U	386	97	63-128	
o-Xylene	400	40 U	398	100	76-116	
Styrene	400	40 U	408	102	71-117	
tert-Butylbenzene	400	40 U	382	95	61-119	
Tetrachloroethene	400	40 U	389	97	70-117	
Toluene	400	6.0 J	404	100	78-114	
trans-1,2-Dichloroethene	400	14 J	404	98	80-119	
trans-1,3-Dichloropropene	400	40 U	355	89	46-116	
Trichloroethene	400	50	460	103	66-120	
Trichlorofluoromethane	400	40 U	384	96	46-157	
Vinyl acetate	400	80 U	376	94	43-157	
Vinyl chloride	400	910	1240	83	49-130	
tert-Butyl alcohol	8000	2000 U	7820	98	70-130	
Xylenes, Total	1200	80 U	1190	99	76-116	
Dibromochloromethane	400	40 U	359	90	56-118	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5717.D

Lab ID: 240-10837-E-5 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	400	391	98	6	30	64-118	
1,1,1-Trichloroethane	400	412	103	3	30	68-121	
1,1,2,2-Tetrachloroethane	400	408	102	3	30	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	400	424	106	3	30	70-152	
1,1-Dichloroethane	400	420	105	2	30	79-116	
1,1-Dichloroethene	400	440	106	3	30	74-135	
1,1-Dichloropropene	400	404	101	2	30	80-114	
1,2,3-Trichlorobenzene	400	386	97	6	30	45-129	
1,2,3-Trichloropropane	400	412	103	4	30	67-132	
1,2,3-Trimethylbenzene	400	345	86	4	30	70-130	
1,2,4-Trichlorobenzene	400	368	92	4	30	38-138	
1,2,4-Trimethylbenzene	400	408	102	5	30	67-124	
1,2-Dibromo-3-Chloropropane	400	362	91	5	30	32-139	
1,2-Dichlorobenzene	400	391	98	3	30	75-111	
1,2-Dichloroethane	400	424	106	2	30	68-129	
1,2-Dichloropropane	400	416	104	3	30	78-115	
1,3-Dichlorobenzene	400	392	98	1	30	73-110	
1,3-Dichloropropane	400	408	102	2	30	74-118	
1,4-Dichlorobenzene	400	389	97	3	30	75-110	
2,2-Dichloropropane	400	390	98	6	30	38-127	
2-Chloroethyl vinyl ether	400	400 U	0	NC	30	10-150	F
2-Chlorotoluene	400	400	100	4	30	69-117	
2-Hexanone	800	804	101	3	30	47-139	
Bromobenzene	400	408	102	3	30	71-116	
Bromochloromethane	400	412	103	4	30	73-121	
4-Chlorotoluene	400	404	101	3	30	71-116	
p-Isopropyltoluene	400	408	102	4	30	64-122	
Acetone	800	780	98	3	30	33-145	
Benzene	400	416	101	0	30	72-121	
Bromoform	400	363	91	1	30	32-128	
Bromomethane	400	350	88	5	30	10-186	
Carbon disulfide	400	398	100	2	30	57-147	
Carbon tetrachloride	400	378	95	3	30	59-129	
Chlorobenzene	400	640	101	1	30	80-110	
Chloroethane	400	364	91	5	30	21-165	
Chloroform	400	404	101	2	30	76-118	
Chloromethane	400	315	79	3	30	33-132	
cis-1,2-Dichloroethene	400	1790	102	1	30	70-120	E
cis-1,3-Dichloropropene	400	350	88	9	30	51-110	
Hexachlorobutadiene	400	338	85	8	30	27-132	
Dibromomethane	400	432	108	0	30	77-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5717.D

Lab ID: 240-10837-E-5 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Bromodichloromethane	400	420	105	1	30	67-120	
Dichlorodifluoromethane	400	214	54	2	30	17-128	
Ethylbenzene	400	400	100	3	30	75-116	
1,2-Dibromoethane	400	397	99	1	30	74-113	
Diisopropyl ether	400	395 J	99	2	30	73-118	
Naphthalene	400	392	98	6	30	15-158	
m-Xylene & p-Xylene	800	784	98	1	30	75-117	
n-Butylbenzene	400	388	97	4	30	56-127	
Isopropylbenzene	400	383	96	0	30	68-116	
n-Propylbenzene	400	408	102	4	30	64-124	
2-Butanone	800	400 U	0	NC	30	54-129	F
4-Methyl-2-pentanone	800	856	107	4	30	56-131	
sec-Butylbenzene	400	384	96	4	30	60-119	
Methyl tert-butyl ether	400	395	99	5	30	46-144	
Methylene Chloride	400	393	98	2	30	63-128	
o-Xylene	400	396	99	1	30	76-116	
Styrene	400	400	100	2	30	71-117	
tert-Butylbenzene	400	398	100	4	30	61-119	
Tetrachloroethene	400	381	95	2	30	70-117	
Toluene	400	397	98	2	30	78-114	
trans-1,2-Dichloroethene	400	416	101	3	30	80-119	
trans-1,3-Dichloropropene	400	363	91	2	30	46-116	
Trichloroethene	400	460	103	0	30	66-120	
Trichlorofluoromethane	400	400	100	4	30	46-157	
Vinyl acetate	400	390	98	4	30	43-157	
Vinyl chloride	400	1240	82	0	30	49-130	
tert-Butyl alcohol	8000	8060	101	3	30	70-130	
Xylenes, Total	1200	1180	98	1	30	76-116	
Dibromochloromethane	400	362	91	1	30	56-118	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
GSP-MW5-043012	240-10808-2	57	60	52	57	82	66
GSP-MW6-043012	240-10808-3	48	60	50	56	84	64
MT-MW02S-043012	240-10808-4	56	64	64	51	77	59
	MB 240-42901/22-A	66	67	62	59	76	79
	LCS 240-42901/23-A	69	71	65	67	95	78
	240-10842-O-8-A MS	62	66	58	56	83	64
	240-10837-Q-5-A MSD	69	71	65	66	95	77
	240-10842-R-8-A MSD	56	67	53	51	63	70

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	10-110
PHL = Phenol-d5 (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	27-111
FBP = 2-Fluorobiphenyl (Surr)	28-110
TBP = 2,4,6-Tribromophenol (Surr)	22-120
TPH = Terphenyl-d14 (Surr)	37-119

Column to be used to flag recovery values

FORM II 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: STD6 240-42463/10 Date Analyzed: 05/02/2012 12:54

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20502010.D Heated Purge: (Y/N) N

Calibration ID: 8490

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		203831	3.51	750748	4.40	449631	5.66
UPPER LIMIT		407662	4.01	1501496	4.90	899262	6.16
LOWER LIMIT		101916	3.01	375374	3.90	224816	5.16
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-42463/11		219450	3.51	793338	4.40	481824	5.66
CCV 240-43126/2 CCVIS		203268	3.39	807358	4.28	443644	5.54

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: STD6 240-42463/10 Date Analyzed: 05/02/2012 12:54

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20502010.D Heated Purge: (Y/N) N

Calibration ID: 8490

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		701859	6.74	609578	8.73	444154	10.12
UPPER LIMIT		1403718	7.24	1219156	9.23	888308	10.62
LOWER LIMIT		350930	6.24	304789	8.23	222077	9.62
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-42463/11		750463	6.74	697064	8.71	502891	10.10
CCV 240-43126/2 CCVIS		728055	6.61	667024	8.58	498151	9.89

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: CCV 240-43126/2 Date Analyzed: 05/08/2012 09:05

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20508002.D Heated Purge: (Y/N) N

Calibration ID: 8498

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		203268	3.39	807358	4.28	443644	5.54
UPPER LIMIT		406536	3.89	1614716	4.78	887288	6.04
LOWER LIMIT		101634	2.89	403679	3.78	221822	5.04
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-42901/22-A		215470	3.39	837951	4.28	473321	5.53
LCS 240-42901/23-A		211516	3.39	825101	4.28	475505	5.54
240-10837-Q-5-A MSD		209412	3.40	839319	4.28	485920	5.54
240-10808-2	GSP-MW5-043012	222949	3.39	924223	4.28	533114	5.54
240-10808-3	GSP-MW6-043012	219954	3.39	911722	4.28	536229	5.54
240-10808-4	MT-MW02S-043012	206091	3.39	873183	4.28	565534	5.55
240-10842-O-8-A MS		209225	3.40	835519	4.28	543280	5.54

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: CCV 240-43126/2 Date Analyzed: 05/08/2012 09:05

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20508002.D Heated Purge: (Y/N) N

Calibration ID: 8498

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		728055	6.61	667024	8.58	498151	9.89
UPPER LIMIT		1456110	7.11	1334048	9.08	996302	10.39
LOWER LIMIT		364028	6.11	333512	8.08	249076	9.39
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-42901/22-A		751385	6.61	713440	8.57	527924	9.87
LCS 240-42901/23-A		771734	6.61	721036	8.57	536929	9.87
240-10837-Q-5-A MSD		752567	6.61	706606	8.57	555213	9.87
240-10808-2	GSP-MW5-043012	853317	6.61	820134	8.57	633850	9.87
240-10808-3	GSP-MW6-043012	850410	6.61	804885	8.57	627018	9.87
240-10808-4	MT-MW02S-043012	805307	6.61	785402	8.57	599972	9.87
240-10842-O-8-A MS		811563	6.62	773792	8.57	591505	9.88

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: STD6 240-43665/10 Date Analyzed: 05/11/2012 11:47

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20511010.D Heated Purge: (Y/N) N

Calibration ID: 8680

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		437336	3.45	1550128	4.35	857737	5.61
UPPER LIMIT		874672	3.95	3100256	4.85	1715474	6.11
LOWER LIMIT		218668	2.95	775064	3.85	428869	5.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-43665/11		440902	3.45	1545336	4.35	858847	5.61
240-10842-R-8-A MSD		295486	3.45	1133322	4.35	755877	5.61

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: STD6 240-43665/10 Date Analyzed: 05/11/2012 11:47

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20511010.D Heated Purge: (Y/N) N

Calibration ID: 8680

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1328211	6.69	1262099	8.67	1119020	10.02
UPPER LIMIT		2656422	7.19	2524198	9.17	2238040	10.52
LOWER LIMIT		664106	6.19	631050	8.17	559510	9.52
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-43665/11		1301262	6.69	1208547	8.67	1044058	10.03
240-10842-R-8-A MSD		1034466	6.69	952330	8.66	891660	10.02

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab File ID: 20508011.D Lab Sample ID: MB 240-42901/22-A

Matrix: Water Date Extracted: 05/05/2012 09:23

Instrument ID: A4HP7 Date Analyzed: 05/08/2012 11:52

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-42901/23-A	20508012.D	05/08/2012 12:11
	240-10837-Q-5-A MSD	20508028.D	05/08/2012 17:06
GSP-MW5-043012	240-10808-2	20508035.D	05/08/2012 19:16
GSP-MW6-043012	240-10808-3	20508036.D	05/08/2012 19:35
MT-MW02S-043012	240-10808-4	20508037.D	05/08/2012 19:53
	240-10842-O-8-A MS	20508039.D	05/08/2012 20:30
	240-10842-R-8-A MSD	20511021.D	05/11/2012 15:14

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42901/22-A
Matrix: Water
Lab File ID: 20508011.D
Analysis Method: 8270C
Date Collected:
Extract. Method: 3520C
Date Extracted: 05/05/2012 09:23
Sample wt/vol: 1000(mL)
Date Analyzed: 05/08/2012 11:52
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 43126
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.0	U	1.0	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	59		28-110
367-12-4	2-Fluorophenol (Surr)	66		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	76		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	62		27-111
4165-62-2	Phenol-d5 (Surr)	67		10-110
1718-51-0	Terphenyl-d14 (Surr)	79		37-119

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20508012.D

Lab ID: LCS 240-42901/23-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	20.0	11.1	56	10-110	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20508039.D

Lab ID: 240-10842-O-8-A MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	19.0	14	22.9	44	10-110	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20508028.D

Lab ID: 240-10837-Q-5-A MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	19.0	82.3	112	7	30	10-110	F

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20511021.D

Lab ID: 240-10842-R-8-A MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	19.0	15.0	3	41	30	10-110	F

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab File ID: 20502001.D DFTPP Injection Date: 05/02/2012

Instrument ID: A4HP7 DFTPP Injection Time: 10:03

Analysis Batch No.: 42463

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	60.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	45.5	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	50.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.2	
365	Greater than 0.75% of mass 198	2.0	
441	Present, but less than mass 443	7.0	
442	40.0 - 110.0% of mass 198	44.8	
443	15.0 - 24.0% of mass 442	8.8	(19.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-42463/2	20502002.D	05/02/2012	10:23
	STD4 240-42463/3	20502003.D	05/02/2012	10:42
	STD3 240-42463/4	20502004.D	05/02/2012	11:01
	STD2 240-42463/5	20502005.D	05/02/2012	11:19
	STD1 240-42463/6	20502006.D	05/02/2012	11:38
	STD9 240-42463/7	20502007.D	05/02/2012	11:57
	STD8 240-42463/8	20502008.D	05/02/2012	12:16
	STD7 240-42463/9	20502009.D	05/02/2012	12:35
	STD6 240-42463/10	20502010.D	05/02/2012	12:54
	ICV 240-42463/11	20502011.D	05/02/2012	13:13

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 42463

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2012 10:23 Calibration End Date: 05/02/2012 12:54 Calibration ID: 8490

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-42463/6	20502006.D
Level 2	STD2 240-42463/5	20502005.D
Level 3	STD3 240-42463/4	20502004.D
Level 4	STD4 240-42463/3	20502003.D
Level 5	STD5 240-42463/2	20502002.D
Level 6	STD6 240-42463/10	20502010.D
Level 7	STD7 240-42463/9	20502009.D
Level 8	STD8 240-42463/8	20502008.D
Level 9	STD9 240-42463/7	20502007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5797	0.7266 0.5728	0.4617 0.6094	0.5087 0.5684	0.4851	Ave		0.5640				15.0		15.0			
N-Nitrosodimethylamine	0.8841	0.7933 0.8811	0.7168 0.9316	0.7448 0.9112	0.7452	Ave		0.8260				10.0		15.0			
Pyridine	1.5075	1.3258 1.5146	1.1707 1.6776	1.1870 1.6034	1.1707	Ave		1.3947				15.0		15.0			
Ethyl methacrylate	1.1731	0.9728 1.1757	1.0484 1.2864	1.0037 1.2062	1.0290	Ave		1.1119				10.0		15.0			
Benzaldehyde	1.3735 0.7433	1.0441 +++++	1.0548 +++++	1.0867 +++++	0.9578	Ave		1.0434				20.0	*	15.0			
3-Chloropropionitrile	1.0012	0.9519 1.0222	0.9033 1.1093	0.8667 1.0492	0.8718	Ave		0.9719				9.1		15.0			
Malononitrile	1.5032	1.4102 1.2671	1.3756 1.2102	1.4463 1.0266	1.4564	Ave		1.3370				12.0		15.0			
Benzoic acid	0.2334	+++++ 0.2441	+++++ 0.2610	0.1647 0.2825	0.2322	Qua	0.0075	0.1951	0.0017						0.9990		0.9900
Phenol	1.7085	1.5885 1.7359	1.4815 1.9095	1.5782 1.8649	1.5731	Ave		1.6800				9.0		15.0			
Aniline	2.1278	1.9210 2.1146	1.8743 2.3821	2.0349 2.3349	1.9327	Ave		2.0903				9.0		15.0			
Bis(2-chloroethyl)ether	1.2927	1.2120 1.4453	1.3088 1.4464	1.1722 1.4211	1.1887	Ave		1.3109				8.8		15.0			
2-Chlorophenol	1.5020	1.3476 1.5269	1.3800 1.6760	1.4496 1.6251	1.4098	Ave		1.4896				7.8		15.0			
1,3-Dichlorobenzene	1.6350	1.3701 1.6113	1.5553 1.7820	1.5792 1.6988	1.5113	Ave		1.5929				7.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICV 240-42463/11 Calibration Date: 05/02/2012 13:13

Instrument ID: A4HP7 Calib Start Date: 05/02/2012 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 05/02/2012 12:54

Lab File ID: 20502011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5640	0.5264		9.33	10.0	-6.7	50.0
N-Nitrosodimethylamine	Ave	0.8260	0.8251		9.99	10.0	-0.1	50.0
Pyridine	Ave	1.395	1.479		10.6	10.0	6.0	50.0
Ethyl methacrylate	Ave	1.112	1.109		9.97	10.0	-0.3	50.0
3-Chloropropionitrile	Ave	0.9719	0.9803		10.1	10.0	0.9	50.0
Malononitrile	Ave	1.337	1.496		11.2	10.0	11.9	50.0
Benzaldehyde	Ave	1.043	0.6145		5.89	10.0	-41.1	50.0
Phenol	Ave	1.680	1.722		10.2	10.0	2.5	20.0
Aniline	Ave	2.090	2.144		10.3	10.0	2.6	50.0
Bis(2-chloroethyl)ether	Ave	1.311	1.327		10.1	10.0	1.2	50.0
2-Chlorophenol	Ave	1.490	1.506		10.1	10.0	1.1	50.0
1,3-Dichlorobenzene	Ave	1.593	1.567		9.84	10.0	-1.6	50.0
1,4-Dichlorobenzene	Ave	1.646	1.623		9.86	10.0	-1.4	20.0
Benzyl alcohol	Ave	0.8859	0.8898		10.0	10.0	0.4	50.0
1,2-Dichlorobenzene	Ave	1.544	1.517		9.83	10.0	-1.7	50.0
2-Methylphenol	Ave	1.290	1.293		10.0	10.0	0.2	50.0
bis (2-chloroisopropyl) ether	Ave	1.740	1.616		9.29	10.0	-7.1	50.0
3 & 4 Methylphenol	Ave	1.324	1.366		10.3	10.0	3.2	50.0
N-Nitrosodi-n-propylamine	Ave	0.8988	0.8701	0.0500	9.68	10.0	-3.2	50.0
Acetophenone	Ave	1.873	1.869		9.98	10.0	-0.2	50.0
Hexachloroethane	Ave	0.5453	0.5299		9.72	10.0	-2.8	50.0
Nitrobenzene	Ave	0.3636	0.3573		9.83	10.0	-1.7	50.0
Isophorone	Ave	0.6461	0.6605		10.2	10.0	2.2	50.0
2,4-Dimethylphenol	Ave	0.3785	0.3876		10.2	10.0	2.4	50.0
2-Nitrophenol	Ave	0.2067	0.2181		10.5	10.0	5.5	20.0
1,3,5-Trichlorobenzene	Ave	0.3633	0.3733		10.3	10.0	2.8	50.0
Bis(2-chloroethoxy)methane	Ave	0.3739	0.3789		10.1	10.0	1.3	50.0
Benzoic acid	Qua		0.2340		20.3	20.0	1.5	50.0
2,4-Dichlorophenol	Ave	0.3173	0.3295		10.4	10.0	3.8	20.0
1,2,4-Trichlorobenzene	Ave	0.3480	0.3617		10.4	10.0	3.9	50.0
Naphthalene	Ave	1.144	1.159		10.1	10.0	1.3	50.0
4-Chloroaniline	Ave	0.4747	0.4591		9.67	10.0	-3.3	50.0
Hexachlorobutadiene	Ave	0.1832	0.1824		9.96	10.0	-0.4	20.0
1,2,3-Trichlorobenzene	Ave	0.3305	0.3260		9.86	10.0	-1.4	50.0
Caprolactam	Qua		0.1203		10.5	10.0	5.0	50.0
4-Chloro-3-methylphenol	Ave	0.3023	0.3207		10.6	10.0	6.1	20.0
2-Methylnaphthalene	Ave	0.7358	0.7408		10.1	10.0	0.7	50.0
1-Methylnaphthalene	Ave	0.7008	0.7068		10.1	10.0	0.8	50.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5580	0.5505		9.87	10.0	-1.3	50.0
Hexachlorocyclopentadiene	Ave	0.3259	0.3366	0.0500	10.3	10.0	3.3	50.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab File ID: 20508001.D DFTPP Injection Date: 05/08/2012

Instrument ID: A4HP7 DFTPP Injection Time: 08:46

Analysis Batch No.: 43126

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	61.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	58.2	
70	Less than 2.0% of mass 69	0.3	(0.5)1
127	25.0 - 75.0% of mass 198	61.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	26.3	
365	Greater than 0.75% of mass 198	2.9	
441	Present, but less than mass 443	11.9	
442	40.0 - 110.0% of mass 198	74.4	
443	15.0 - 24.0% of mass 442	14.6	(19.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-43126/2	20508002.D	05/08/2012	09:05
	MB 240-42901/22-A	20508011.D	05/08/2012	11:52
	LCS 240-42901/23-A	20508012.D	05/08/2012	12:11
	240-10837-Q-5-A MSD	20508028.D	05/08/2012	17:06
GSP-MW5-043012	240-10808-2	20508035.D	05/08/2012	19:16
GSP-MW6-043012	240-10808-3	20508036.D	05/08/2012	19:35
MT-MW02S-043012	240-10808-4	20508037.D	05/08/2012	19:53
	240-10842-O-8-A MS	20508039.D	05/08/2012	20:30

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCV 240-43126/2 Calibration Date: 05/08/2012 09:05

Instrument ID: A4HP7 Calib Start Date: 05/02/2012 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 05/02/2012 12:54

Lab File ID: 20508002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5640	0.5272		9.35	10.0	-6.5	50.0
N-Nitrosodimethylamine	Ave	0.8260	0.7907		9.57	10.0	-4.3	50.0
Pyridine	Ave	1.395	1.390		9.97	10.0	-0.3	50.0
Ethyl methacrylate	Ave	1.112	1.104		9.92	10.0	-0.8	50.0
3-Chloropropionitrile	Ave	0.9719	0.8004		8.24	10.0	-17.6	50.0
Malononitrile	Ave	1.337	1.340		10.0	10.0	0.2	50.0
Benzaldehyde	Ave	1.043	0.7144		6.85	10.0	-31.5	50.0
Phenol	Ave	1.680	1.721		10.2	10.0	2.4	20.0
Aniline	Ave	2.090	2.189		10.5	10.0	4.7	50.0
Bis(2-chloroethyl)ether	Ave	1.311	1.311		10.0	10.0	0.0	50.0
2-Chlorophenol	Ave	1.490	1.473		9.89	10.0	-1.1	50.0
1,3-Dichlorobenzene	Ave	1.593	1.599		10.0	10.0	0.4	50.0
1,4-Dichlorobenzene	Ave	1.646	1.662		10.1	10.0	1.0	50.0
Benzyl alcohol	Ave	0.8859	0.8606		9.71	10.0	-2.9	50.0
1,2-Dichlorobenzene	Ave	1.544	1.529		9.91	10.0	-0.9	50.0
2-Methylphenol	Ave	1.290	1.300		10.1	10.0	0.7	50.0
bis (2-chloroisopropyl) ether	Ave	1.740	1.634		9.39	10.0	-6.1	50.0
3 & 4 Methylphenol	Ave	1.324	1.360		10.3	10.0	2.7	50.0
N-Nitrosodi-n-propylamine	Ave	0.8988	0.9308	0.0500	10.4	10.0	3.6	50.0
Acetophenone	Ave	1.873	1.935		10.3	10.0	3.3	50.0
Hexachloroethane	Ave	0.5453	0.5619		10.3	10.0	3.0	50.0
Nitrobenzene	Ave	0.3636	0.3688		10.1	10.0	1.4	50.0
Isophorone	Ave	0.6461	0.6574		10.2	10.0	1.7	50.0
2-Nitrophenol	Ave	0.2067	0.2114		10.2	10.0	2.3	20.0
2,4-Dimethylphenol	Ave	0.3785	0.3801		10.0	10.0	0.4	50.0
1,3,5-Trichlorobenzene	Ave	0.3633	0.3290		9.06	10.0	-9.4	50.0
Bis(2-chloroethoxy)methane	Ave	0.3739	0.3772		10.1	10.0	0.9	50.0
Benzoic acid	Qua		0.1909		17.0	20.0	-15.0	50.0
2,4-Dichlorophenol	Ave	0.3173	0.2887		9.10	10.0	-9.0	20.0
1,2,4-Trichlorobenzene	Ave	0.3480	0.3214		9.23	10.0	-7.7	50.0
Naphthalene	Ave	1.144	1.081		9.45	10.0	-5.5	50.0
4-Chloroaniline	Ave	0.4747	0.4497		9.48	10.0	-5.2	50.0
Hexachlorobutadiene	Ave	0.1832	0.1595		8.71	10.0	-12.9	20.0
1,2,3-Trichlorobenzene	Ave	0.3305	0.2901		8.78	10.0	-12.2	50.0
Caprolactam	Qua		0.1216		10.6	10.0	6.0	50.0
4-Chloro-3-methylphenol	Ave	0.3023	0.3096		10.2	10.0	2.4	20.0
2-Methylnaphthalene	Ave	0.7358	0.7177		9.75	10.0	-2.5	50.0
1-Methylnaphthalene	Ave	0.7008	0.6679		9.53	10.0	-4.7	50.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5580	0.5324		9.54	10.0	-4.6	50.0
Hexachlorocyclopentadiene	Ave	0.3259	0.3328	0.0500	10.2	10.0	2.1	50.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab File ID: 20511001.D DFTPP Injection Date: 05/11/2012

Instrument ID: A4HP7 DFTPP Injection Time: 08:59

Analysis Batch No.: 43665

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	47.8	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	36.2	
70	Less than 2.0% of mass 69	0.1	(0.4)1
127	25.0 - 75.0% of mass 198	47.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	24.5	
365	Greater than 0.75% of mass 198	2.9	
441	Present, but less than mass 443	6.8	
442	40.0 - 110.0% of mass 198	85.6	
443	15.0 - 24.0% of mass 442	16.2	(18.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-43665/2	20511002.D	05/11/2012	09:17
	STD4 240-43665/3	20511003.D	05/11/2012	09:36
	STD3 240-43665/4	20511004.D	05/11/2012	09:54
	STD2 240-43665/5	20511005.D	05/11/2012	10:13
	STD1 240-43665/6	20511006.D	05/11/2012	10:32
	STD9 240-43665/7	20511007.D	05/11/2012	10:50
	STD8 240-43665/8	20511008.D	05/11/2012	11:09
	STD7 240-43665/9	20511009.D	05/11/2012	11:28
	STD6 240-43665/10	20511010.D	05/11/2012	11:47
	ICV 240-43665/11	20511011.D	05/11/2012	12:06
	240-10842-R-8-A MSD	20511021.D	05/11/2012	15:14

no samples

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 43665

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/11/2012 09:17 Calibration End Date: 05/11/2012 11:47 Calibration ID: 8680

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-43665/6	20511006.D
Level 2	STD2 240-43665/5	20511005.D
Level 3	STD3 240-43665/4	20511004.D
Level 4	STD4 240-43665/3	20511003.D
Level 5	STD5 240-43665/2	20511002.D
Level 6	STD6 240-43665/10	20511010.D
Level 7	STD7 240-43665/9	20511009.D
Level 8	STD8 240-43665/8	20511008.D
Level 9	STD9 240-43665/7	20511007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane		0.7424	0.8429	0.7470	0.6817	Ave		0.7827				7.1		15.0			
	0.8214	0.8345	0.7791	0.8123													
N-Nitrosodimethylamine		1.1966	1.1696	1.2470	1.0985	Ave		1.2544				7.6		15.0			
	1.3517	1.3430	1.3633	1.2652													
Pyridine		1.9328	1.9078	1.9502	1.8306	Ave		2.1214				11.0		15.0			
	2.2974	2.3707	2.3286	2.3534													
Ethyl methacrylate		1.3892	1.4486	1.5423	1.3388	Ave		1.5483				9.1		15.0			
	1.6866	1.6940	1.6548	1.6320													
Benzaldehyde	1.5333	1.2294	1.1836	1.2281	1.1826	Ave		1.2052				17.0	*	15.0			
	0.8741	+++++	+++++	+++++													
3-Chloropropionitrile		1.2595	1.3006	1.3044	1.2124	Ave		1.3636				8.0		15.0			
	1.4897	1.4622	1.4937	1.3859													
Malononitrile		1.9935	2.0845	2.1475	2.0596	Qua	-0.921	2.8087	-0.057						0.9970		0.9900
	2.2448	1.8577	1.6532	1.3326													
Phenol		1.8281	1.6617	1.8052	1.7580	Ave		1.8257				4.7		15.0			
	1.8841	1.8717	1.9458	1.8512													
Aniline		2.2639	2.0794	2.3016	2.2573	Ave		2.3556				7.4		15.0			
	2.4151	2.3911	2.6720	2.4648													
Bis(2-chloroethyl)ether		1.5295	1.6300	1.5935	1.4387	Ave		1.5829				4.7		15.0			
	1.6894	1.6002	1.6117	1.5697													
2-Chlorophenol		1.4241	1.3577	1.4941	1.4438	Ave		1.4641				3.8		15.0			
	1.5079	1.4922	1.5327	1.4601													
1,3-Dichlorobenzene		1.5840	1.5347	1.5653	1.4890	Ave		1.5417				2.0		15.0			
	1.5599	1.5209	1.5599	1.5199													
1,4-Dichlorobenzene		1.5357	1.5652	1.5720	1.5055	Ave		1.5648				2.2		15.0			
	1.5862	1.5490	1.6083	1.5963													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICV 240-43665/11 Calibration Date: 05/11/2012 12:06

Instrument ID: A4HP7 Calib Start Date: 05/11/2012 09:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 05/11/2012 11:47

Lab File ID: 20511011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7827	1.792		22.9	10.0	128.9*	50.0
N-Nitrosodimethylamine	Ave	1.254	1.385		11.0	10.0	10.4	50.0
Pyridine	Ave	2.121	2.312		10.9	10.0	9.0	50.0
Ethyl methacrylate	Ave	1.548	1.663		10.7	10.0	7.4	50.0
3-Chloropropionitrile	Ave	1.364	1.513		11.1	10.0	11.0	50.0
Malononitrile	Qua		2.271		10.8	10.0	8.0	50.0
Benzaldehyde	Ave	1.205	0.7368		6.11	10.0	-38.9	50.0
Phenol	Ave	1.826	1.912		10.5	10.0	4.7	20.0
Aniline	Ave	2.356	2.457		10.4	10.0	4.3	50.0
Bis(2-chloroethyl)ether	Ave	1.583	1.667		10.5	10.0	5.3	50.0
2-Chlorophenol	Ave	1.464	1.525		10.4	10.0	4.2	50.0
1,3-Dichlorobenzene	Ave	1.542	1.553		10.1	10.0	0.7	50.0
1,4-Dichlorobenzene	Ave	1.565	1.585		10.1	10.0	1.3	20.0
Benzyl alcohol	Ave	0.9081	0.9464		10.4	10.0	4.2	50.0
1,2-Dichlorobenzene	Ave	1.430	1.443		10.1	10.0	0.9	50.0
2-Methylphenol	Ave	1.285	1.318		10.3	10.0	2.6	50.0
bis (2-chloroisopropyl) ether	Ave	2.393	2.451		10.2	10.0	2.4	50.0
3 & 4 Methylphenol	Ave	1.345	1.375		10.2	10.0	2.3	50.0
N-Nitrosodi-n-propylamine	Ave	0.9738	1.018	0.0500	10.5	10.0	4.6	50.0
Acetophenone	Ave	1.885	1.946		10.3	10.0	3.2	50.0
Hexachloroethane	Ave	0.5545	0.5753		10.4	10.0	3.7	50.0
Nitrobenzene	Ave	0.4062	0.4273		10.5	10.0	5.2	50.0
Isophorone	Ave	0.7209	0.7540		10.5	10.0	4.6	50.0
2,4-Dimethylphenol	Ave	0.3697	0.3794		10.3	10.0	2.6	50.0
2-Nitrophenol	Ave	0.1894	0.1968		10.4	10.0	3.9	20.0
1,3,5-Trichlorobenzene	Ave	0.3433	0.3404		9.92	10.0	-0.8	50.0
Bis(2-chloroethoxy)methane	Ave	0.4323	0.4458		10.3	10.0	3.1	50.0
Benzoic acid	Qua		0.2483		21.0	20.0	5.0	50.0
2,4-Dichlorophenol	Ave	0.3052	0.3155		10.3	10.0	3.4	20.0
1,2,4-Trichlorobenzene	Ave	0.3316	0.3285		9.91	10.0	-0.9	50.0
Naphthalene	Ave	1.108	1.114		10.1	10.0	0.5	50.0
4-Chloroaniline	Ave	0.4507	0.4746		10.5	10.0	5.3	50.0
Hexachlorobutadiene	Ave	0.1695	0.1692		9.98	10.0	-0.2	20.0
1,2,3-Trichlorobenzene	Ave	0.3021	0.3048		10.1	10.0	0.9	50.0
Caprolactam	Ave	0.1145	0.1256		11.0	10.0	9.6	50.0
4-Chloro-3-methylphenol	Ave	0.2919	0.3026		10.4	10.0	3.7	20.0
2-Methylnaphthalene	Ave	0.6841	0.6838		10.0	10.0	-0.0	50.0
1-Methylnaphthalene	Ave	0.6531	0.6428		9.84	10.0	-1.6	50.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5500	0.5470		9.94	10.0	-0.6	50.0
Hexachlorocyclopentadiene	Ave	0.3241	0.3370	0.0500	10.4	10.0	4.0	50.0

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1 #
GSP-MW5-043012	240-10808-2	60
GSP-MW6-043012	240-10808-3	56
MT-MW02S-043012	240-10808-4	94
	MB 240-42995/6	58
	LCS 240-42995/7	70
GSP-MW5-043012 MS	240-10808-2 MS	73
GSP-MW5-043012 MSD	240-10808-2 MSD	71

	QC LIMITS
TFT = Trifluorotoluene (Surr)	10-150

Column to be used to flag recovery values

FORM II 8015B

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: MB 240-42995/6

Matrix: Water Date Extracted: 05/07/2012 13:20

Lab File ID:(1) YF050706.D Lab File ID:(2)

Date Analyzed:(1) 05/07/2012 13:20 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-42995/7	05/07/2012 14:00	
GSP-MW5-043012	240-10808-2	05/07/2012 14:40	
GSP-MW5-043012 MS	240-10808-2 MS	05/07/2012 15:20	
GSP-MW5-043012 MSD	240-10808-2 MSD	05/07/2012 16:00	
GSP-MW6-043012	240-10808-3	05/07/2012 16:42	
MT-MW02S-043012	240-10808-4	05/07/2012 17:23	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-42995/6

Matrix: Water Lab File ID: YF050706.D

Analysis Method: 8015B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/07/2012 13:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42995 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	28.0	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	58		10-150

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF050707.D

Lab ID: LCS 240-42995/7 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	942	118	72-140	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF050709.D

Lab ID: 240-10808-2 MS Client ID: GSP-MW5-043012 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	37 J	962	116	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF050710.D

Lab ID: 240-10808-2 MSD Client ID: GSP-MW5-043012 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	953	115	1	20	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: CCV 240-42995/5 Date Analyzed: 05/07/2012 12:40

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF050705.D Heated Purge: (Y/N) N

Calibration ID: 6924

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				9.76		
UPPER LIMIT				9.86		
LOWER LIMIT				9.66		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-42995/5 CCVRT		05/07/2012 12:40	YF050705.D	9.76		
MB 240-42995/6		05/07/2012 13:20	YF050706.D	9.75		
LCS 240-42995/7		05/07/2012 14:00	YF050707.D	9.75		
240-10808-2	GSP-MW5-043012	05/07/2012 14:40	YF050708.D	9.76		
240-10808-2 MS	GSP-MW5-043012 MS	05/07/2012 15:20	YF050709.D	9.76		
240-10808-2 MSD	GSP-MW5-043012 MSD	05/07/2012 16:00	YF050710.D	9.76		
240-10808-3	GSP-MW6-043012	05/07/2012 16:42	YF050711.D	9.75		
240-10808-4	MT-MW02S-043012	05/07/2012 17:23	YF050712.D	9.76		
CCV 240-42995/16		05/07/2012 20:05	YF050716.D	9.76		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: YPID Start Date: 02/10/2012 10:35

Analysis Batch Number: 33435 End Date: 02/10/2012 23:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		02/10/2012 10:35	1		RTX-VRX 0.45(mm)
STD1 240-33435/12 IC		02/10/2012 16:17	1	YF021012.D	RTX-VRX 0.45(mm)
STD2 240-33435/13 IC		02/10/2012 16:55	1	YF021013.D	RTX-VRX 0.45(mm)
STD3 240-33435/14 IC		02/10/2012 17:32	1	YF021014.D	RTX-VRX 0.45(mm)
STD4 240-33435/15 ICRT		02/10/2012 18:11	1	YF021015.D	RTX-VRX 0.45(mm)
STD5 240-33435/16 IC		02/10/2012 18:49	1	YF021016.D	RTX-VRX 0.45(mm)
STD6 240-33435/17 IC		02/10/2012 19:27	1	YF021017.D	RTX-VRX 0.45(mm)
ICV 240-33435/18		02/10/2012 20:05	1	YF021018.D	RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 20:43	1		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 21:21	1		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 21:59	10		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 22:37	10		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 23:15	10		RTX-VRX 0.45(mm)
CCV 240-33435/24		02/10/2012 23:53	1		RTX-VRX 0.45(mm)

8015B

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 33435

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/10/2012 16:17 Calibration End Date: 02/10/2012 19:27 Calibration ID: 6924

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-33435/12	YF021012.D
Level 2	STD2 240-33435/13	YF021013.D
Level 3	STD3 240-33435/14	YF021014.D
Level 4	STD4 240-33435/15	YF021015.D
Level 5	STD5 240-33435/16	YF021016.D
Level 6	STD6 240-33435/17	YF021017.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Total Petroleum Hydrocarbons (C6-C10)	11.810	11.810	11.810	11.810	11.810	11.810					4.817 - 18.802	11.810
C6-C12	13.469	13.469	13.469	13.469	13.469	13.469					4.917 - 22.022	13.469
Trifluorotoluene (Surr)	9.768	9.772	9.769	9.772	9.771	9.774					9.522 - 10.022	9.771

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 33435

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/10/2012 16:17 Calibration End Date: 02/10/2012 19:27 Calibration ID: 6924

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-33435/12	YF021012.D
Level 2	STD2 240-33435/13	YF021013.D
Level 3	STD3 240-33435/14	YF021014.D
Level 4	STD4 240-33435/15	YF021015.D
Level 5	STD5 240-33435/16	YF021016.D
Level 6	STD6 240-33435/17	YF021017.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Total Petroleum Hydrocarbons (C6-C10)	318103 289067	320460 294590	282575	294457	Ave		299875.299				5.2		20.0			
C6-C12	375472 318195	363940 323226	316555	324196	Ave		336930.834				7.7		20.0			
Trifluorotoluene (Surr)	384133 460736	375012 483108	395882	424093	Ave		420494.083				10.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICV 240-33435/18 Calibration Date: 02/10/2012 20:05

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF021018.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	333932		891	800	11.4	20.0
C6-C12	Ave	336931	375679		892	800	11.5	20.0
Trifluorotoluene (Surr)	Ave	420494	416828		9.91	10.0	-0.9	20.0

FORM VII 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: YPID Start Date: 05/07/2012 11:20

Analysis Batch Number: 42995 End Date: 05/07/2012 21:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		05/07/2012 11:20	1		RTX-VRX 0.45(mm)
CCV 240-42995/5 CCVRT		05/07/2012 12:40	1	YF050705.D	RTX-VRX 0.45(mm)
MB 240-42995/6		05/07/2012 13:20	1	YF050706.D	RTX-VRX 0.45(mm)
LCS 240-42995/7		05/07/2012 14:00	1	YF050707.D	RTX-VRX 0.45(mm)
240-10808-2	GSP-MW5-043012	05/07/2012 14:40	1	YF050708.D	RTX-VRX 0.45(mm)
240-10808-2 MS	GSP-MW5-043012 MS	05/07/2012 15:20	1	YF050709.D	RTX-VRX 0.45(mm)
240-10808-2 MSD	GSP-MW5-043012 MSD	05/07/2012 16:00	1	YF050710.D	RTX-VRX 0.45(mm)
240-10808-3	GSP-MW6-043012	05/07/2012 16:42	1	YF050711.D	RTX-VRX 0.45(mm)
240-10808-4	MT-MW02S-043012	05/07/2012 17:23	1	YF050712.D	RTX-VRX 0.45(mm)
ZZZZZ		05/07/2012 18:04	1		RTX-VRX 0.45(mm)
ZZZZZ		05/07/2012 18:45	1		RTX-VRX 0.45(mm)
ZZZZZ		05/07/2012 19:26	1		RTX-VRX 0.45(mm)
CCV 240-42995/16		05/07/2012 20:05	1	YF050716.D	RTX-VRX 0.45(mm)
ZZZZZ		05/07/2012 20:45	1		RTX-VRX 0.45(mm)
CCV 240-42995/18		05/07/2012 21:23	1		RTX-VRX 0.45(mm)

8015B

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCV 240-42995/5 Calibration Date: 05/07/2012 12:40

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF050705.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	319991		854	800	6.7	15.0
C6-C12	Ave	336931	352680		837	800	4.7	15.0
Trifluorotoluene (Surr)	Ave	420494	308604		7.34	10.0	-26.6*	15.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCV 240-42995/16 Calibration Date: 05/07/2012 20:05

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF050716.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	325536		869	800	8.6	15.0
C6-C12	Ave	336931	359447		854	800	6.7	15.0
Trifluorotoluene (Surr)	Ave	420494	291877		6.94	10.0	-30.6*	15.0

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): ID:

Client Sample ID	Lab Sample ID	C91 #
GSP-MW5-043012	240-10808-2	69
GSP-MW6-043012	240-10808-3	67
MT-MW02S-043012	240-10808-4	57
	MB 240-42831/9-A	64
	LCS 240-42831/10-A	74

C9 = n-Nonane

QC LIMITS
10-110

Column to be used to flag recovery values

FORM II 8015B

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: MB 240-42831/9-A

Matrix: Water Date Extracted: 05/04/2012 12:16

Lab File ID:(1) P5F05083.D Lab File ID:(2)

Date Analyzed:(1) 05/07/2012 14:15 Date Analyzed:(2)

Instrument ID:(1) A2HP5F Instrument ID:(2)

GC Column:(1) ID: GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-MW5-043012	240-10808-2	05/07/2012 10:16	
GSP-MW6-043012	240-10808-3	05/07/2012 10:46	
MT-MW02S-043012	240-10808-4	05/07/2012 11:16	
	LCS 240-42831/10-A	05/07/2012 14:45	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42831/9-A
Matrix: Water
Lab File ID: P5F05083.D
Analysis Method: 8015B
Date Collected:
Extraction Method: 3510C
Date Extracted: 05/04/2012 12:16
Sample wt/vol: 1000(mL)
Date Analyzed: 05/07/2012 14:15
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: ID:
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 42964
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	500	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	64		10-110

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P5F05084.D

Lab ID: LCS 240-42831/10-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2500	2230	89	36-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: CCVRT 240-42964/4 Date Analyzed: 05/07/2012 09:46

Instrument ID: A2HP5F GC Column: ID: ()

Lab File ID (Standard): P5F05074.D Heated Purge: (Y/N) N

Calibration ID: 8059

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				C9		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.80		
UPPER LIMIT				3.90		
LOWER LIMIT				3.70		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-42964/4		05/07/2012 09:46	P5F05074.D	3.80		
240-10808-2	GSP-MW5-043012	05/07/2012 10:16	P5F05075.D	3.80		
240-10808-3	GSP-MW6-043012	05/07/2012 10:46	P5F05076.D	3.80		
240-10808-4	MT-MW02S-043012	05/07/2012 11:16	P5F05077.D	3.80		
MB 240-42831/9-A		05/07/2012 14:15	P5F05083.D	3.80		
LCS 240-42831/10-A		05/07/2012 14:45	P5F05084.D	3.80		
CCV 240-42964/15		05/07/2012 15:15	P5F05085.D	3.80		

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: A2HP5F Start Date: 04/13/2012 10:08

Analysis Batch Number: 40180 End Date: 04/13/2012 15:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-40180/4 IC		04/13/2012 10:08	1	P5F04134.D	
STD2 240-40180/5 IC		04/13/2012 10:38	1	P5F04135.D	
STD3 240-40180/6 IC		04/13/2012 11:08	1	P5F04136.D	
STD4 240-40180/7 IC		04/13/2012 11:38	1	P5F04137.D	
STD5 240-40180/8 IC		04/13/2012 12:08	1	P5F04138.D	
ICV 240-40180/9		04/13/2012 12:38	1	P5F04139.D	
STD1 240-40180/10 IC		04/13/2012 13:08	1		
STD2 240-40180/11 IC		04/13/2012 13:38	1		
STD3 240-40180/12 IC		04/13/2012 14:08	1		
STD4 240-40180/13 IC		04/13/2012 14:37	1		
STD5 240-40180/14 IC		04/13/2012 15:06	1		
ICV 240-40180/15		04/13/2012 15:36	1		

8015B

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 40180

SDG No.:

Instrument ID: A2HP5F GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/13/2012 10:08 Calibration End Date: 04/13/2012 12:08 Calibration ID: 8059

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-40180/4	P5F04134.D
Level 2	STD2 240-40180/5	P5F04135.D
Level 3	STD3 240-40180/6	P5F04136.D
Level 4	STD4 240-40180/7	P5F04137.D
Level 5	STD5 240-40180/8	P5F04138.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel	9.179	9.179	9.179	9.179	9.179						4.893 - 13.468	9.179
n-Nonane	3.798	3.796	3.795	3.799	3.802						3.728 - 3.868	3.798

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 40180

SDG No.:

Instrument ID: A2HP5F GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/13/2012 10:08 Calibration End Date: 04/13/2012 12:08 Calibration ID: 8059

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-40180/4	P5F04134.D
Level 2	STD2 240-40180/5	P5F04135.D
Level 3	STD3 240-40180/6	P5F04136.D
Level 4	STD4 240-40180/7	P5F04137.D
Level 5	STD5 240-40180/8	P5F04138.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	197527 183497	194334	179644	186362	Ave		188272.909				4.0		20.0			
n-Nonane	222434 217668	222225	205767	214296	Ave		216478.041				3.2		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICV 240-40180/9 Calibration Date: 04/13/2012 12:38

Instrument ID: A2HP5F Calib Start Date: 04/13/2012 10:08

GC Column: ID: Calib End Date: 04/13/2012 12:08

Lab File ID: P5F04139.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	188273	191992		510	500	2.0	20.0

FORM VII 8015B

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: A2HP5F Start Date: 05/07/2012 09:46

Analysis Batch Number: 42964 End Date: 05/07/2012 15:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-42964/4		05/07/2012 09:46	1	P5F05074.D	
240-10808-2	GSP-MW5-043012	05/07/2012 10:16	1	P5F05075.D	
240-10808-3	GSP-MW6-043012	05/07/2012 10:46	1	P5F05076.D	
240-10808-4	MT-MW02S-043012	05/07/2012 11:16	1	P5F05077.D	
ZZZZZ		05/07/2012 11:45	1		
ZZZZZ		05/07/2012 12:15	1		
ZZZZZ		05/07/2012 12:45	1		
ZZZZZ		05/07/2012 13:15	1		
ZZZZZ		05/07/2012 13:45	1		
MB 240-42831/9-A		05/07/2012 14:15	1	P5F05083.D	
LCS 240-42831/10-A		05/07/2012 14:45	1	P5F05084.D	
CCV 240-42964/15		05/07/2012 15:15	1	P5F05085.D	

8015B

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCVRT 240-42964/4 Calibration Date: 05/07/2012 09:46

Instrument ID: A2HP5F Calib Start Date: 04/13/2012 10:08

GC Column: ID: Calib End Date: 04/13/2012 12:08

Lab File ID: P5F05074.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	188273	195069		518	500	3.6	15.0
n-Nonane	Ave	216478	235449		54.4	50.0	8.8	15.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCV 240-42964/15 Calibration Date: 05/07/2012 15:15

Instrument ID: A2HP5F Calib Start Date: 04/13/2012 10:08

GC Column: ID: Calib End Date: 04/13/2012 12:08

Lab File ID: P5F05085.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	188273	207212		550	500	10.1	15.0
n-Nonane	Ave	216478	240161		55.5	50.0	10.9	15.0

HOLDTIME

SDG 240-10808-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/3/2012	5/4/2012	3	1	4
HG	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/7/2012	5/8/2012	7	1	8
HG	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/7/2012	5/8/2012	7	1	8
M	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
M	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
M	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
HGF	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/7/2012	5/8/2012	7	1	8
HGF	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/3/2012	5/4/2012	3	1	4
HGF	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/7/2012	5/8/2012	7	1	8
MF	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
MF	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
MF	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
PCL	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/7/2012	5/15/2012	7	8	15
PCL	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/7/2012	5/15/2012	7	8	15
PCL	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/7/2012	5/15/2012	7	8	15

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OS	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/5/2012	5/8/2012	5	3	8
OS	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/5/2012	5/8/2012	5	3	8
OS	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/5/2012	5/8/2012	5	3	8
OV	UG/L	TB-043012	240-10808-1	NM	4/30/2012	5/10/2012	5/10/2012	10	0	10
OV	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/10/2012	5/10/2012	10	0	10
OV	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/10/2012	5/10/2012	10	0	10
OV	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/10/2012	5/10/2012	10	0	10
OV	UG/L	TB-043012	240-10808-1	TB	4/30/2012	5/10/2012	5/10/2012	10	0	10
DRO	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/4/2012	5/7/2012	4	3	7
DRO	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/4/2012	5/7/2012	4	3	7
DRO	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/4/2012	5/7/2012	4	3	7
GRO	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/7/2012	5/7/2012	7	0	7
GRO	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/7/2012	5/7/2012	7	0	7
GRO	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/7/2012	5/7/2012	7	0	7

Tetra Tech **INTERNAL CORRESPONDENCE**

TO: **T. APANAVAGE** **DATE: JUNE 29, 2012**

FROM: **TERRI L. SOLOMON** **COPIES: DV FILE**

SUBJECT: **ORGANIC / INORGANIC DATA VALIDATION – SELECT METALS, PERCHLORATE**
MARTIN STATE AIRPORT – GROUNDWATER
SAMPLE DELIVERY GROUP (SDG) – 240-10808-1

SAMPLES: 3/Aqueous/

GSP-MW5-043012 GSP-MW6-043012
MT-MW02S-043012

Overview

The sample set for Martin State Airport - Groundwater, SDG 240-10808-1, consists of three (3) aqueous environmental samples. No field duplicate pairs were included within this SDG.

All samples were analyzed for perchlorate and select total and dissolved metals including antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, tungsten, vanadium and zinc. The samples were collected by Tetra Tech on April 30, 2012 and analyzed by TestAmerica. Metals analyses were conducted using SW-846 method 6020. Mercury analyses were conducted using SW-846 method 7470A. Perchlorate analyses were conducted using SW-846 method 6850.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP interference results, laboratory control sample recoveries, matrix spike/matrix spike duplicate recoveries, ICP serial dilution results, internal standard recoveries, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems

None.

Minor Problems

- The contract required detection limit (CRDL) percent recoveries for cadmium, cobalt, lead and nickel were > 110% quality control limit affecting all samples. Positive results < 2X CRDL for cadmium, cobalt, lead and nickel were qualified as either biased high, "K" or estimated, "J", as a result of conflicting noncompliances.

- The following contaminants were detected in the laboratory method/preparation blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Antimony[1]	0.138 ug/L	0.69 ug/L
Cobalt[1]	0.0610 ug/L	0.305 ug/L
Molybdenum[1]	0.678 ug/L	3.39 ug/L
Thallium[1]	0.554 ug/L	2.77 ug/L
Tungsten[1]	0.868 ug/L	4.34 ug/L
Barium[2]	0.541 ug/L	2.705 ug/L
Copper[2]	0.388 ug/L	1.94 ug/L
Zinc[2]	4.57 ug/L	22.85 ug/L

[1] Maximum concentration present in a method blank affecting all samples.
[2] Maximum concentration present in a preparation blank affecting all samples.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The positive results less than the blank action level reported for copper, molybdenum and thallium were qualified "B" as a result of laboratory blank contamination.

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated, "J".

Notes

Nondetected results are reported to the method detection limits.

The contract required detection limit (CRDL) percent recoveries for barium, copper, silver and thallium were > 110% quality control limit affecting all samples. However, no validation actions were required as all sample results were either > 2X CRDL, nondetects or were qualified as a result of blank contamination.

Executive Summary

Laboratory Performance: Several contaminants were present in the laboratory method / preparation blanks. The CRDL percent recovery for several analytes was > 110% quality control limit affecting all samples.

Other Factors Affecting Data Quality: Positive results reported below the RL but above the MDL were qualified as estimated.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993 and the Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994).

The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Terri L. Solomon
Environmental Scientist

Tetra Tech
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 04021	NSAMPLE	GSP-MW5-043012			GSP-MW6-043012			MT-MW02S-043012		
SDG: 240-10808-1	LAB_ID	240-10808-2			240-10808-3			240-10808-4		
FRACTION: M	SAMP_DATE	4/30/2012			4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.13	U		0.92	J	P	0.13	U	
ARSENIC		3.4	J	P	4	J	P	2.3	J	P
BARIUM		21			42			120		
BERYLLIUM		1.3			0.2	U		0.74	J	P
CADMIUM		0.32	J	CP	0.13	U		0.13	U	
CHROMIUM		2.2			0.71	U		0.71	U	
COBALT		26			0.56	J	CP	30		
COPPER		4.9			5			1.4	B	A
LEAD		0.39	J	CP	0.18	U		1.3	K	C
MERCURY		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.34	B	A	2.7	B	A	0.093	U	
NICKEL		17			1.3	J	CP	48		
SELENIUM		2.2	J	P	14			0.57	U	
SILVER		0.08	U		0.08	U		0.08	U	
THALLIUM		0.14	U		0.25	B	A	0.15	B	A
TUNGSTEN		0.37	U		0.37	U		0.37	U	
VANADIUM		4.4	J	P	8.5	J	P	0.44	U	
ZINC		28			530			100		

PROJ_NO: 04021	NSAMPLE	GSP-MW5-043012			GSP-MW6-043012			MT-MW02S-043012		
SDG: 240-10808-1	LAB_ID	240-10808-2			240-10808-3			240-10808-4		
FRACTION: MF	SAMP_DATE	4/30/2012			4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.13	U		0.76	J	P	0.13	U	
ARSENIC		3.5	J	P	2.1	J	P	1.7	J	P
BARIUM		21			40			110		
BERYLLIUM		1.4			0.2	U		0.68	J	P
CADMIUM		0.31	J	CP	0.13	U		0.13	U	
CHROMIUM		0.78	J	P	0.71	U		0.71	U	
COBALT		29			0.45	J	CP	23		
COPPER		0.34	B	A	4.1			0.62	B	A
LEAD		0.18	U		0.18	U		1	K	C
MERCURY		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.35	B	A	2.2	B	A	0.093	U	
NICKEL		19			1.2	J	CP	39		
SELENIUM		2.7	J	P	13			0.57	U	
SILVER		0.08	U		0.08	U		0.08	U	
THALLIUM		0.26	B	A	0.2	B	A	0.14	U	
TUNGSTEN		0.37	U		0.37	U		0.37	U	
VANADIUM		1.8	J	P	6.5	J	P	0.44	U	
ZINC		25			460			57		

PROJ_NO: 04021	NSAMPLE	GSP-MW5-043012			GSP-MW6-043012			MT-MW02S-043012		
SDG: 240-10808-1	LAB_ID	240-10808-2			240-10808-3			240-10808-4		
FRACTION: MISC	SAMP_DATE	4/30/2012			4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.16	J	P	0.082	U		0.082	U	

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: GSP-MW5-043012

Lab Sample ID: 240-10808-2

Lab Name: TestAmerica Canton

Job No.: 240-10808-1

SDG ID.:

Matrix: Water

Date Sampled: 04/30/2012 10:30

Reporting Basis: WET

Date Received: 05/01/2012 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	3.4	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	21	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.3	1.0	0.20	ug/L			1	6020
7440-43-9	Cadmium	0.32	1.0	0.13	ug/L	J		1	6020
7440-47-3	Chromium	2.2	2.0	0.71	ug/L			1	6020
7440-48-4	Cobalt	26	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	4.9	2.0	0.29	ug/L		B	1	6020
7439-92-1	Lead	0.39	1.0	0.18	ug/L	J		1	6020
7439-98-7	Molybdenum	0.34	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	17	2.0	0.20	ug/L		^	1	6020
7782-49-2	Selenium	2.2	5.0	0.57	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7440-62-2	Vanadium	4.4	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	28	20	2.3	ug/L		B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW5-043012

Lab Sample ID: 240-10808-2

Lab Name: TestAmerica Canton

Job No.: 240-10808-1

SDG ID.:

Matrix: Water

Date Sampled: 04/30/2012 10:30

Reporting Basis: WET

Date Received: 05/01/2012 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: GSP-MW6-043012 Lab Sample ID: 240-10808-3

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG ID.:

Matrix: Water Date Sampled: 04/30/2012 11:45

Reporting Basis: WET Date Received: 05/01/2012 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.92	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	4.0	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	42	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.56	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	5.0	2.0	0.29	ug/L		B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	2.7	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	1.3	2.0	0.20	ug/L	J	^	1	6020
7782-49-2	Selenium	14	5.0	0.57	ug/L			1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.25	2.0	0.14	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7440-62-2	Vanadium	8.5	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	530	20	2.3	ug/L		B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW6-043012

Lab Sample ID: 240-10808-3

Lab Name: TestAmerica Canton

Job No.: 240-10808-1

SDG ID.:

Matrix: Water

Date Sampled: 04/30/2012 11:45

Reporting Basis: WET

Date Received: 05/01/2012 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MT-MW02S-043012
Lab Sample ID: 240-10808-4
Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG ID.:
Matrix: Water
Date Sampled: 04/30/2012 13:05
Reporting Basis: WET
Date Received: 05/01/2012 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	2.3	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	120	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	0.74	1.0	0.20	ug/L	J		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	30	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	1.4	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.3	1.0	0.18	ug/L			1	6020
7439-98-7	Molybdenum	10	10	0.093	ug/L	U		1	6020
7440-02-0	Nickel	48	2.0	0.20	ug/L		^	1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.15	2.0	0.14	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7440-62-2	Vanadium	20	20	0.44	ug/L	U		1	6020
7440-66-6	Zinc	100	20	2.3	ug/L		B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MT-MW02S-043012

Lab Sample ID: 240-10808-4

Lab Name: TestAmerica Canton

Job No.: 240-10808-1

SDG ID.:

Matrix: Water

Date Sampled: 04/30/2012 13:05

Reporting Basis: WET

Date Received: 05/01/2012 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW5-043012
Lab Sample ID: 240-10808-2
Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG ID.:
Matrix: Water
Date Sampled: 04/30/2012 10:30
Reporting Basis: WET
Date Received: 05/01/2012 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	3.5	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	21	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.4	1.0	0.20	ug/L			1	6020
7440-43-9	Cadmium	0.31	1.0	0.13	ug/L	J		1	6020
7440-47-3	Chromium	0.78	2.0	0.71	ug/L	J		1	6020
7440-48-4	Cobalt	29	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	0.34	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	0.35	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	19	2.0	0.20	ug/L		^	1	6020
7782-49-2	Selenium	2.7	5.0	0.57	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.26	2.0	0.14	ug/L	J	B	1	6020
7440-62-2	Vanadium	1.8	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	25	20	2.3	ug/L		B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW6-043012
Lab Sample ID: 240-10808-3
Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG ID.:
Matrix: Water
Date Sampled: 04/30/2012 11:45
Reporting Basis: WET
Date Received: 05/01/2012 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.76	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.1	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	40	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.45	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	4.1	2.0	0.29	ug/L		B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	2.2	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	1.2	2.0	0.20	ug/L	J	^	1	6020
7782-49-2	Selenium	13	5.0	0.57	ug/L			1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.20	2.0	0.14	ug/L	J	B	1	6020
7440-62-2	Vanadium	6.5	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	460	20	2.3	ug/L		B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MT-MW02S-043012
Lab Sample ID: 240-10808-4
Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG ID.:
Matrix: Water
Date Sampled: 04/30/2012 13:05
Reporting Basis: WET
Date Received: 05/01/2012 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	1.7	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	110	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	0.68	1.0	0.20	ug/L	J		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	23	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	0.62	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L			1	6020
7439-98-7	Molybdenum	10	10	0.093	ug/L	U		1	6020
7440-02-0	Nickel	39	2.0	0.20	ug/L		^	1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	20	20	0.44	ug/L	U		1	6020
7440-66-6	Zinc	57	20	2.3	ug/L		B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

TestAmerica Canton

Client Sample ID: GSP-MW5-043012

Dissolved HPLC - Mass. Spec.

Lot-Sample #...: G2E030413-001 Work Order #...: MTC2Q1AA Matrix.....: WATER
Date Sampled...: 04/30/12 Date Received..: 05/02/12
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1 Method.....: SW846 6850

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	0.16 J	1.0	ug/L	0.082

NOTE(S):

J Estimated result. Result is less than RL.

TestAmerica Canton

Client Sample ID: GSP-MW6-043012

Dissolved HPLC - Mass. Spec.

Lot-Sample #...:	G2E030413-002	Work Order #...:	MTC2R1AA	Matrix.....:	WATER
Date Sampled...:	04/30/12	Date Received..:	05/02/12		
Prep Date.....:	05/07/12	Analysis Date..:	05/15/12		
Prep Batch #...:	2128058				
Dilution Factor:	1	Method.....:	SW846 6850		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	ND	1.0	ug/L	0.082

TestAmerica Canton

Client Sample ID: MT-MW02S-043012

Dissolved HPLC - Mass. Spec.

Lot-Sample #...:	G2E030413-003	Work Order #...:	MTC2T1AA	Matrix.....:	WATER
Date Sampled...:	04/30/12	Date Received..:	05/02/12		
Prep Date.....:	05/07/12	Analysis Date..:	05/15/12		
Prep Batch #...:	2128058				
Dilution Factor:	1	Method.....:	SW846 6850		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	ND	1.0	ug/L	0.082

APPENDIX C
SUPPORT DOCUMENTATION

CASE NARRATIVE

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Project: MSA Groundwater Sampling

Report Number: 240-10808-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 6850 Perchlorate analysis was performed at the TestAmerica West Sacramento Laboratory.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 05/01/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.9 and 3.2 C.

VOLATILE ORGANIC COMPOUNDS (GC MS)

Samples TB-043012 (240-10808-1), GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for volatile organic compounds (GC MS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 05/10/2012.

1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene and Hexachlorobutadiene were detected in method blank MB 240-43549/5 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

2-Butanone and 2-Chloroethyl vinyl ether failed the recovery criteria low for the MS/MSD of sample 240-10837-5 in batch 240-43549. Refer to the QC report for details.

Sample MT-MW02S-043012 (240-10808-4)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 05/05/2012 and analyzed on 05/08/2012.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

1,4-Dioxane failed the recovery criteria high for the MSD of sample 240-10837-5 in batch 240-43126.

1,4-Dioxane failed the recovery criteria low for the MSD of sample 240-10842-8 in batch 240-43665. 1,4-Dioxane exceeded the rpd limit.

Refer to the QC report for details.

No other difficulties were encountered during the SVOCs analyses. All other quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 05/07/2012.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-42995/6 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 05/04/2012 and analyzed on 05/07/2012.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

No difficulties were encountered during the DRO analyses. All quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

No difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

Several analytes were detected in method blank MB 240-42485/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/03/2012 and 05/07/2012 and analyzed on 05/04/2012 and 05/08/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/03/2012 and 05/07/2012 and analyzed on 05/04/2012 and 05/08/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact			
Company Name: Tetra Tech	Client Project Manager: Tony Apanavage	Site Contact: Stu Cameron	Lab Contact:
Address: 20251 Century Blvd Ste 200	Telephone: (301)528-5552	Telephone: (703)342-8389	Telephone:
City/State/Zip: Germantown MD, 20874	Email: Tony.Apanavage@tetratech.com	Analysis Turnaround Time (in BUS days)	
Phone: (301) 528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	
Project Name: MSA GW Sampling	Method of Shipment/Carrier:		
Project Number: 112IC04021	Shipping/Tracking No:		
PO#			

COC No: 006079
1 of 1 COCs

For lab use only
Walk-in client
Lab pickup
Lab sampling
JOA/SDG No.

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (C)/Grab (G)	VOCs	Total Metals	Dissolved Metals	Perchlorate	1,4-Dioxane	TPH-GRO	TPH-DRO				Sample Specific Notes / Special Instructions:
TB-043012	—	—		X						2							X										
GSP-MW5-043012	4/30/12	1030		X					2	5			5			G	X	X	X	X	X	X	X				
GSP-MW6-043012	↓	1145		X					2	5			5			G	X	X	X	X	X	X	X				
MT-MW02S-043012	↓	1305		X					2	5			5			G	X	X	X	X	X	X	X				

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Stuart Cameron	Tetra Tech	4-30-12/1445	Paul Gaylord	TestAmerica	4/30/12 1446
[illegible]	TestAmerica	4-30-2012/1530			
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			[illegible]	TAL	5-1-12 930

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

TAL 0018- 1 (04/10)

HOLDTIME

SDG 240-10808-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/3/2012	5/4/2012	3	1	4
HG	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/7/2012	5/8/2012	7	1	8
HG	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/7/2012	5/8/2012	7	1	8
M	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
M	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
M	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
HGF	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/7/2012	5/8/2012	7	1	8
HGF	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/3/2012	5/4/2012	3	1	4
HGF	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/7/2012	5/8/2012	7	1	8
MF	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
MF	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
MF	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
PCL	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/7/2012	5/15/2012	7	8	15
PCL	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/7/2012	5/15/2012	7	8	15
PCL	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/7/2012	5/15/2012	7	8	15

SAMPLE SUMMARY

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10808-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-10808-1TB	TB-043012	Water	04/30/2012 0000	05/01/2012 0930
240-10808-2	GSP-MW5-043012	Water	04/30/2012 1030	05/01/2012 0930
240-10808-3	GSP-MW6-043012	Water	04/30/2012 1145	05/01/2012 0930
240-10808-4	MT-MW02S-043012	Water	04/30/2012 1305	05/01/2012 0930

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

ICV Source: MTMSICVW_00014 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00039

Analyte	ICV 240-42666/5 05/03/2012 06:17				CCV 240-42666/22 05/03/2012 07:54				CCV 240-42666/34 05/03/2012 09:03			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	82.2		80.0	103	98.3		100	98	96.3		100	96
Arsenic	80.9		80.0	101	98.9		100	99	98.8		100	99
Barium	80.9		80.0	101	97.7		100	98	97.5		100	98
Beryllium	81.5		80.0	102	97.5		100	97	97.4		100	97
Cadmium	80.4		80.0	101	99.6		100	100	98.7		100	99
Chromium	79.7		80.0	100	96.9		100	97	98.0		100	98
Cobalt	81.2		80.0	102	99.0		100	99	100		100	100
Copper	83.2		80.0	104	101		100	101	101		100	101
Lead	82.4		80.0	103	99.3		100	99	96.7		100	97
Molybdenum	83.6		80.0	105	103		100	103	101		100	101
Nickel	83.1		80.0	104	101		100	101	102		100	102
Selenium	80.7		80.0	101	101		100	101	99.9		100	100
Silver	82.7		80.0	103	101		100	101	98.9		100	99
Thallium	81.3		80.0	102	100		100	100	100		100	100
Tungsten	80.4		80.0	101	98.4		100	98	97.0		100	97
Vanadium	79.7		80.0	100	96.7		100	97	96.8		100	97
Zinc	81.5		80.0	102	99.8		100	100	99.5		100	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

ICV Source: MTMSICVW_00014 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00039

Analyte	CCV 240-42666/46 05/03/2012 10:08				CCV 240-42666/53 05/03/2012 10:45							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	96.7		100	97	95.8		100	96				
Arsenic	99.6		100	100	99.1		100	99				
Barium	97.3		100	97	97.5		100	97				
Beryllium	98.3		100	98	96.9		100	97				
Cadmium	97.6		100	98	96.9		100	97				
Chromium	98.7		100	99	96.9		100	97				
Cobalt	99.6		100	100	100		100	100				
Copper	102		100	102	101		100	101				
Lead	94.3		100	94	94.2		100	94				
Molybdenum	101		100	101	99.5		100	100				
Nickel	101		100	101	101		100	101				
Selenium	101		100	101	101		100	101				
Silver	99.1		100	99	98.9		100	99				
Thallium	101		100	101	101		100	101				
Tungsten	96.5		100	96	96.7		100	97				
Vanadium	98.7		100	99	97.5		100	98				
Zinc	101		100	101	101		100	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

ICV Source: MTHGICVW_00289 Concentration Units: ug/L

CCV Source: MTHGCALW_00189

Analyte	ICV 240-42622/7-A 05/04/2012 10:43				CCVL 240-42622/10-A 05/04/2012 10:53				CCV 240-42622/12-A 05/04/2012 12:07			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.29		2.50	92	5.09		5.00	102	5.15		5.00	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

ICV Source: MTHGICVW_00289 Concentration Units: ug/L

CCV Source: MTHGCALW_00189

Analyte	CCV 240-42622/12-A 05/04/2012 12:34											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.12		5.00	102								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

ICV Source: MTHGICVW_00292 Concentration Units: ug/L

CCV Source: MTHGCALW_00190

Analyte	ICV 240-43145/7-A 05/08/2012 14:43				CCVL 240-43145/10-A 05/08/2012 14:49				CCV 240-43145/12-A 05/08/2012 15:39			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.43		2.50	97	5.20		5.00	104	5.32		5.00	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

ICV Source: MTHGICVW_00292 Concentration Units: ug/L

CCV Source: MTHGCALW_00190

Analyte	CCV 240-43145/12-A 05/08/2012 16:04				CCV 240-43145/12-A 05/08/2012 16:29				CCV 240-43145/12-A 05/08/2012 16:55			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.31		5.00	106	5.11		5.00	102	5.12		5.00	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Method: 6020 Instrument ID: I8

Lab Sample ID: CRI 240-42666/8 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRIW_00016

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	1.96	J	98	50-150
Arsenic	2.00	2.19	J	110	50-150
Barium	1.00	1.33	J	133	50-150
Beryllium	1.00	1.08		108	50-150
Cadmium	0.500	0.658	J	132	50-150
Chromium	2.00	2.08		104	50-150
Cobalt	1.00	1.20		120	50-150
Copper	2.00	2.72		136	50-150
Lead	1.00	1.22		122	50-150
Molybdenum	10.0	9.90	J	99	50-150
Nickel	2.00	3.13	^	156	50-150
Selenium	2.00	2.16	J	108	50-150
Silver	0.500	0.603	J	121	50-150
Thallium	1.00	1.20	J	120	50-150
Vanadium	5.00	4.78	J	96	50-150
Tungsten	10.0	9.47	J	95	50-150
Zinc	10.0	10.6	J	106	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Method: 7470A Instrument ID: H4

Lab Sample ID: CRA 240-42622/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00189

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.186	J	93	50-150

Lab Sample ID: CRA 240-43145/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00190

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.224		112	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-42666/6 05/03/2012 06:22		CCB 240-42666/23 05/03/2012 08:00		CCB 240-42666/35 05/03/2012 09:08		CCB 240-42666/47 05/03/2012 10:13	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.149	J	0.322	J	0.131	J	0.138	J
Arsenic	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Barium	5.0	5.0	U	0.239	J	5.0	U	5.0	U
Beryllium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Cadmium	1.0	1.0	U	0.172	J	1.0	U	1.0	U
Chromium	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Cobalt	1.0	0.0800	J	0.169	J	0.0610	J	1.0	U
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	1.0	U	0.191	J	1.0	U	1.0	U
Molybdenum	10	0.858	J	0.854	J	0.632	J	0.678	J
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	2.0	0.496	J	0.686	J	0.554	J	0.489	J
Tungsten	10	1.07	J	0.956	J	0.868	J	0.833	J
Vanadium	20	20	U	20	U	20	U	20	U
Zinc	20	20	U	20	U	20	U	20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-42666/54 05/03/2012 10:51							
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.133	J						
Arsenic	5.0	5.0	U						
Barium	5.0	5.0	U						
Beryllium	1.0	1.0	U						
Cadmium	1.0	1.0	U						
Chromium	2.0	2.0	U						
Cobalt	1.0	1.0	U						
Copper	2.0	2.0	U						
Lead	1.0	1.0	U						
Molybdenum	10	0.662	J						
Nickel	2.0	2.0	U						
Selenium	5.0	5.0	U						
Silver	1.0	1.0	U						
Thallium	2.0	0.476	J						
Tungsten	10	0.810	J						
Vanadium	20	20	U						
Zinc	20	20	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-42622/8-A 05/04/2012 10:45		CCB 240-42622/11-A 05/04/2012 12:09		CCB 240-42622/11-A 05/04/2012 12:35			
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U	0.20	U	0.20	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-43145/8-A 05/08/2012 14:45		CCB 240-43145/11-A 05/08/2012 15:40		CCB 240-43145/11-A 05/08/2012 16:06		CCB 240-43145/11-A 05/08/2012 16:31	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U	0.20	U	0.20	U	0.20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-43145/11-A 05/08/2012 16:57							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-42485/1-A

Instrument Code: I8 Batch No.: 42666

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6020
7440-38-2	Arsenic	5.0	U		6020
7440-39-3	Barium	0.541	J		6020
7440-41-7	Beryllium	1.0	U		6020
7440-43-9	Cadmium	1.0	U		6020
7440-47-3	Chromium	2.0	U		6020
7440-48-4	Cobalt	1.0	U		6020
7440-50-8	Copper	0.388	J		6020
7439-92-1	Lead	1.0	U		6020
7439-98-7	Molybdenum	0.312	J		6020
7440-02-0	Nickel	2.0	U	^	6020
7782-49-2	Selenium	5.0	U		6020
7440-22-4	Silver	1.0	U		6020
7440-28-0	Thallium	0.332	J		6020
7440-62-2	Vanadium	20	U		6020
7440-33-7	Tungsten	10	U		6020
7440-66-6	Zinc	4.57	J		6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-42671/1-A

Instrument Code: H4 Batch No.: 42975

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.20	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-43054/1-A

Instrument Code: H4 Batch No.: 43362

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.20	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICSA 240-42666/9 Instrument ID: I8

Lab File ID: I8050312A.csv ICS Source: MTMSICSAW_00014

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.163**	
Arsenic		**0.572**	
Barium		**0.131**	
Beryllium		**0.0050**	
Cadmium		**-0.414**	
Chromium		**0.479**	
Cobalt		**0.118**	
Copper		**0.523**	
Lead		**0.0560**	
Molybdenum	**1000**	**1018**	**102**
Nickel		**0.562**	
Selenium		**0.0360**	
Silver		**0.0380**	
Thallium		**0.111**	
Tungsten		**0.347**	
Vanadium		**0.0780**	
Zinc		**1.08**	
Aluminum	*50000*	*48650*	*97*
Boron		*0.397*	
Calcium	*50000*	*50780*	*102*
Iron	*50000*	*50610*	*101*
Magnesium	*50000*	*50890*	*102*
Manganese		*0.237*	
Potassium	*50000*	*50870*	*102*
Sodium	*50000*	*51340*	*103*
Strontium		*0.331*	
Tin		*0.0580*	
Titanium	*1000*	*1045*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICSAB 240-42666/10 Instrument ID: I8

Lab File ID: I8050312A.csv ICS Source: MTMSICSABW_00014

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**100**	**100**
Arsenic	**100**	**98.6**	**99**
Barium	**100**	**101**	**101**
Beryllium	**100**	**104**	**104**
Cadmium	**100**	**98.5**	**98**
Chromium	**100**	**105**	**105**
Cobalt	**100**	**100**	**100**
Copper	**100**	**101**	**101**
Lead	**100**	**106**	**106**
Molybdenum	**1100**	**1138**	**103**
Nickel	**100**	**107**	**107**
Selenium	**100**	**101**	**101**
Silver	**100**	**101**	**101**
Thallium	**100**	**104**	**104**
Tungsten	**100**	**99.6**	**100**
Vanadium	**100**	**99.2**	**99**
Zinc	**100**	**103**	**103**
Aluminum	*50000*	*48390*	*97*
Boron	*100*	*99.3*	*99*
Calcium	*50000*	*51380*	*103*
Iron	*50000*	*50960*	*102*
Magnesium	*50000*	*50690*	*101*
Manganese	*100*	*107*	*107*
Potassium	*50000*	*50370*	*101*
Sodium	*50000*	*51610*	*103*
Strontium	*100*	*95.2*	*95*
Tin	*100*	*98.8*	*99*
Titanium	*1100*	*1153*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

NOT IN SDG

Client ID: _____ Lab ID: 240-10807-B-5-B MS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	95.7		0.42	J	100	95	44-153		6020
Arsenic	959		2.7	J	1000	96	82-123		6020
Barium	1360		370		1000	99	45-144		6020
Beryllium	980		1.0	U	1000	98	77-124		6020
Cadmium	933		0.14	J	1000	93	78-117		6020
Chromium	974		2.6		1000	97	72-110		6020
Cobalt	968		2.6		1000	97	67-114		6020
Copper	931		0.63	J	1000	93	60-123		6020
Lead	984		0.19	J	1000	98	73-115		6020
Molybdenum	104		0.87	J	100	103	80-110		6020
Nickel	962		10		1000	95	72-111	^	6020
Selenium	948		0.87	J	1000	95	72-148		6020
Silver	92.5		1.0	U	100	92	10-139		6020
Thallium	244		0.66	J	250	97	69-117		6020
Vanadium	978		20	U	1000	98	70-112		6020
Tungsten	96.9		2.2	J	100	95	43-133		6020
Zinc	921		3.7	J	1000	92	49-156		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

NOT IN SDG

Client ID:

Lab ID: 240-10770-H-3-C MS

Lab Name: TestAmerica Canton

Job No.: 240-10808-1

SDG No.:

Matrix: Water

Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.913		0.20	U	1.00	91	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

NOT IN SDG

Client ID: _____ Lab ID: 240-10837-N-5-C MS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR C		Sample Result (SR) C		Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.04		0.20	U	1.00	104	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

NOT IN SDG

Client ID:

Lab ID: 240-10837-M-5-C MS

Lab Name: TestAmerica Canton

Job No.: 240-10808-1

SDG No.:

Matrix: Water

Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.921		0.12	J	1.00	92	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

NOT IN SDG

Client ID:

Lab ID: 240-10807-B-5-C MSD

Lab Name: TestAmerica Canton

Job No.: 240-10808-1

SDG No.:

Matrix: Water

Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	95.8		100	95	44-153	0	20		6020
Arsenic	958		1000	96	82-123	0	20		6020
Barium	1350		1000	98	45-144	1	20		6020
Beryllium	964		1000	96	77-124	2	20		6020
Cadmium	918		1000	92	78-117	2	20		6020
Chromium	973		1000	97	72-110	0	20		6020
Cobalt	963		1000	96	67-114	1	20		6020
Copper	932		1000	93	60-123	0	20		6020
Lead	981		1000	98	73-115	0	20		6020
Molybdenum	103		100	103	80-110	0	20		6020
Nickel	957		1000	95	72-111	1	20	^	6020
Selenium	947		1000	95	72-148	0	20		6020
Silver	92.4		100	92	10-139	0	20		6020
Thallium	247		250	98	69-117	1	20		6020
Vanadium	979		1000	98	70-112	0	20		6020
Tungsten	97.8		100	96	43-133	1	20		6020
Zinc	920		1000	92	49-156	0	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

NOT IN SDG

Client ID: _____ Lab ID: 240-10770-H-3-D MSD

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.918		1.00	92	69-134	1	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

NOT IN SDG

6-IN
DUPLICATES
METALS

Client ID:

Lab ID: 240-10837-N-5-B DU

Lab Name: TestAmerica Canton

Job No.: 240-10808-1

SDG No.:

% Solids for Sample:

% Solids for Duplicate:

Matrix: Water

Concentration Units: ug/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Mercury	0.20	0.20	U	0.20	U	NC		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATES
METALS - DISSOLVED

NOT IP SOG

Client ID:

Lab ID: 240-10837-M-5-B DU

Lab Name: TestAmerica Canton

Job No.: 240-10808-1

SDG No.:

% Solids for Sample:

% Solids for Duplicate:

Matrix: Water

Concentration Units: ug/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Mercury	0.20	0.12	J	0.20	U	NC		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-42485/2-A

Lab Name: TestAmerica Canton Job No.: 240-10808-1

Sample Matrix: Water LCS Source: MTICPMSB_00008

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	92.0		92	80	120		6020
Arsenic	1000	918		92	80	120		6020
Barium	1000	918		92	80	120		6020
Beryllium	1000	905		91	80	120		6020
Cadmium	1000	934		93	80	120		6020
Chromium	1000	943		94	80	120		6020
Cobalt	1000	951		95	80	120		6020
Copper	1000	975		98	80	120		6020
Lead	1000	1010		101	80	120		6020
Molybdenum	100	92.2		92	80	120		6020
Nickel	1000	979		98	80	120	^	6020
Selenium	1000	939		94	80	120		6020
Silver	100	97.5		98	80	120		6020
Thallium	250	242		97	80	120		6020
Vanadium	1000	921		92	80	120		6020
Tungsten	100	88.0		88	80	120		6020
Zinc	1000	962		96	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-42671/2-A

Lab Name: TestAmerica Canton Job No.: 240-10808-1

Sample Matrix: Water LCS Source: MTHGICVW_00289

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.45		89	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-43054/2-A

Lab Name: TestAmerica Canton Job No.: 240-10808-1

Sample Matrix: Water LCS Source: MTHGICVW_00291

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.81		96	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

POT IN SDG

Lab ID: 240-10807-B-5-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-10808-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.42	J	0.670	J	NC		6020
Arsenic	2.7	J	3.93	J	NC		6020
Barium	370		371		NC		6020
Beryllium	1.0	U	5.0	U	NC		6020
Cadmium	0.14	J	5.0	U	NC		6020
Chromium	2.6		10	U	NC		6020
Cobalt	2.6		2.89	J	NC		6020
Copper	0.63	J	10	U	NC		6020
Lead	0.19	J	5.0	U	NC		6020
Molybdenum	0.87	J	1.34	J	NC		6020
Nickel	10		11.6		NC	^	6020
Selenium	0.87	J	25	U	NC		6020
Silver	1.0	U	5.0	U	NC		6020
Thallium	0.66	J	1.64	J	NC		6020
Vanadium	20	U	100	U	NC		6020
Tungsten	2.2	J	3.01	J	NC		6020
Zinc	3.7	J	100	U	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-10808-1

SDG Number:

Matrix: Water Instrument ID: I8

Method: 6020 MDL Date: 02/09/2010 15:53

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.13
Arsenic	75.00	5	0.4
Barium	137.00	5	0.19
Beryllium	9.00	1	0.2
Cadmium	111.00	1	0.13
Chromium	52.00	2	0.71
Cobalt	59.00	1	0.058
Copper	65.00	2	0.29
Lead	208.00	1	0.18
Molybdenum	95.00	10	0.093
Nickel	60.00	2	0.2
Selenium	78.00	5	0.57
Silver	107.00	1	0.08
Thallium	205.00	2	0.14
Tungsten	182.00	10	0.37
Vanadium	51.00	20	0.44
Zinc	66.00	20	2.3

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-10808-1

SDG Number:

Matrix: Water Instrument ID: I8

Method: 6020 MDL Date: 02/09/2010 15:53

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.13
Arsenic	75.00	5	0.4
Barium	137.00	5	0.19
Beryllium	9.00	1	0.2
Cadmium	111.00	1	0.13
Chromium	52.00	2	0.71
Cobalt	59.00	1	0.058
Copper	65.00	2	0.29
Lead	208.00	1	0.18
Molybdenum	95.00	10	0.093
Nickel	60.00	2	0.2
Selenium	78.00	5	0.57
Silver	107.00	1	0.08
Thallium	205.00	2	0.14
Tungsten	182.00	10	0.37
Vanadium	51.00	20	0.44
Zinc	66.00	20	2.3

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-10808-1

SDG Number:

Matrix: Water Instrument ID: H4

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-10808-1

SDG Number:

Matrix: Water Instrument ID: H4

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

FORM IX - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-42485/1-A	05/02/2012 10:01	42485		50	50
LCS 240-42485/2-A	05/02/2012 10:01	42485		50	50
240-10807-B-5-B MS	05/02/2012 10:01	42485		50	50
240-10807-B-5-C MSD	05/02/2012 10:01	42485		50	50
240-10808-2	05/02/2012 10:01	42485		50	50
240-10808-2	05/02/2012 10:01	42485		50	50
240-10808-3	05/02/2012 10:01	42485		50	50
240-10808-3	05/02/2012 10:01	42485		50	50
240-10808-4	05/02/2012 10:01	42485		50	50
240-10808-4	05/02/2012 10:01	42485		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-42671/1-A	05/03/2012 15:55	42671		100	100
LCS 240-42671/2-A	05/03/2012 15:55	42671		100	100
240-10770-H-3-C MS	05/03/2012 15:55	42671		100	100
240-10770-H-3-D MSD	05/03/2012 15:55	42671		100	100
240-10808-2	05/03/2012 15:55	42671		100	100
240-10808-2	05/03/2012 15:55	42671		100	100

FORM XII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-43054/1-A	05/07/2012 14:15	43054		100	100
LCS 240-43054/2-A	05/07/2012 14:15	43054		100	100
240-10837-N-5-B DU	05/07/2012 14:15	43054		100	100
240-10837-N-5-C MS	05/07/2012 14:15	43054		100	100
240-10837-M-5-B DU	05/07/2012 14:15	43054		100	100
240-10837-M-5-C MS	05/07/2012 14:15	43054		100	100
240-10808-3	05/07/2012 14:15	43054		100	100
240-10808-4	05/07/2012 14:15	43054		100	100
240-10808-3	05/07/2012 14:15	43054		100	100
240-10808-4	05/07/2012 14:15	43054		100	100

FORM XII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

ICP-MS Instrument ID: I8 Start Date: 05/03/2012 End Date: 05/03/2012

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li	Q	Element Sc	Q	Element Sc	Q	Element Ge	Q	Element In	Q
STD2 240-42666/2 IC	06:00	95		94		97		94		95	
STD3 240-42666/3 IC	06:05	94		93		92		88		91	
STD4 240-42666/4 IC	06:12	102		112		104		106		104	
ICV 240-42666/5	06:17	98		102		99		97		97	
ICB 240-42666/6	06:22	104		113		105		103		103	
CRI 240-42666/8	06:33	104		112		103		102		102	
ICSA 240-42666/9	06:39	86		92		87		88		91	
ICSAB 240-42666/10	06:44	70		84		84		85		89	
CCV 240-42666/22	07:54	83		93		90		87		89	
CCB 240-42666/23	08:00	93		105		95		95		95	
MB 240-42485/1-A	08:05	95		106		98		96		95	
LCS 240-42485/2-A	08:11	92		101		94		92		94	
240-10807-B-5-A SD	08:23	89		102		93		90		90	
240-10807-B-5-B MS	08:28	75		82		77		73		76	
240-10807-B-5-C MSD	08:34	75		83		77		72		77	
CCV 240-42666/34	09:03	85		96		89		86		86	
CCB 240-42666/35	09:08	95		107		97		94		94	
240-10808-2	10:02	89		103		92		89		88	
CCV 240-42666/46	10:08	85		97		86		83		83	
CCB 240-42666/47	10:13	93		107		94		92		90	
240-10808-2	10:19	91		103		92		88		86	
240-10808-3	10:24	87		98		86		82		82	
240-10808-3	10:29	85		96		85		81		81	
240-10808-4	10:35	87		100		91		89		88	
240-10808-4	10:40	85		99		90		88		88	
CCV 240-42666/53	10:45	80		92		85		80		80	
CCB 240-42666/54	10:51	89		101		90		89		87	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

ICP-MS Instrument ID: I8 Start Date: 05/03/2012 End Date: 05/03/2012

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD2 240-42666/2 IC	06:00			98							
STD3 240-42666/3 IC	06:05			94							
STD4 240-42666/4 IC	06:12			103							
ICV 240-42666/5	06:17			99							
ICB 240-42666/6	06:22			101							
CRI 240-42666/8	06:33			102							
ICSA 240-42666/9	06:39			91							
ICSAB 240-42666/10	06:44			91							
CCV 240-42666/22	07:54			90							
CCB 240-42666/23	08:00			94							
MB 240-42485/1-A	08:05			95							
LCS 240-42485/2-A	08:11			95							
240-10807-B-5-A SD	08:23			91							
240-10807-B-5-B MS	08:28			80							
240-10807-B-5-C MSD	08:34			79							
CCV 240-42666/34	09:03			86							
CCB 240-42666/35	09:08			90							
240-10808-2	10:02			91							
CCV 240-42666/46	10:08			81							
CCB 240-42666/47	10:13			86							
240-10808-2	10:19			91							
240-10808-3	10:24			82							
240-10808-3	10:29			80							
240-10808-4	10:35			86							
240-10808-4	10:40			86							
CCV 240-42666/53	10:45			80							
CCB 240-42666/54	10:51			83							

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 05/03/2012 05:54 End Date: 05/03/2012 10:51

Lab Sample ID	D/F	Type	Time	Analytes																		
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn			
ICIS 240-42666/1			05:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD2 240-42666/2 IC	1		06:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD3 240-42666/3 IC	1		06:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD4 240-42666/4 IC	1		06:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICV 240-42666/5	1		06:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICB 240-42666/6	1		06:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CRI 240-42666/7			06:28																				
CRI 240-42666/8	1		06:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSA 240-42666/9	1		06:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSAB 240-42666/10	1		06:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-42666/11			06:50																				
CCB 240-42666/12			06:55																				
CCV 240-42666/13			07:04																				
CCB 240-42666/14			07:10																				
ZZZZZZ			07:15																				
ZZZZZZ			07:21																				
ZZZZZZ			07:26																				
ZZZZZZ			07:31																				
ZZZZZZ			07:37																				
ZZZZZZ			07:42																				
ZZZZZZ			07:49																				
CCV 240-42666/22	1		07:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42666/23	1		08:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
MB 240-42485/1-A	1	R	08:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
LCS 240-42485/2-A	1	R	08:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			08:17																				
240-10807-B-5-A SD ^5	5	R	08:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10807-B-5-B MS	1	R	08:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10807-B-5-C MSD	1	R	08:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			08:41																				
ZZZZZZ			08:46																				
ZZZZZZ			08:52																				
ZZZZZZ			08:57																				
CCV 240-42666/34	1		09:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42666/35	1		09:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			09:14																				
ZZZZZZ			09:19																				
ZZZZZZ			09:24																				
ZZZZZZ			09:30																				
ZZZZZZ			09:35																				
ZZZZZZ			09:41																				
ZZZZZZ			09:46																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 05/03/2012 05:54 End Date: 05/03/2012 10:51

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn			
ZZZZZZ			09:52																				
ZZZZZZ			09:57																				
240-10808-2	1	R	10:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-42666/46	1		10:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42666/47	1		10:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10808-2	1	D	10:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10808-3	1	R	10:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10808-3	1	D	10:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10808-4	1	R	10:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10808-4	1	D	10:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-42666/53	1		10:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42666/54	1		10:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			

Prep Types

D = Dissolved

R = Total Recoverable

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 240-42622/1-A			10:31	X																			
IC 240-42622/2-A			10:33	X																			
IC 240-42622/3-A			10:35	X																			
IC 240-42622/4-A			10:37	X																			
IC 240-42622/5-A			10:39	X																			
IC 240-42622/6-A			10:41	X																			
ICV 240-42622/7-A	1		10:43	X																			
ICB 240-42622/8-A	1		10:45	X																			
CRA 240-42622/9-A	1		10:48	X																			
CCVL 240-42622/10-A	1		10:53	X																			
CCB 240-42622/11-A			10:55																				
ZZZZZZ			10:56																				
ZZZZZZ			10:58																				
ZZZZZZ			11:00																				
ZZZZZZ			11:02																				
ZZZZZZ			11:04																				
ZZZZZZ			11:06																				
ZZZZZZ			11:09																				
ZZZZZZ			11:11																				
ZZZZZZ			11:13																				
ZZZZZZ			11:15																				
CCV 240-42622/12-A			11:17																				
CCB 240-42622/11-A			11:19																				
ZZZZZZ			11:21																				
ZZZZZZ			11:24																				
ZZZZZZ			11:26																				
ZZZZZZ			11:28																				
ZZZZZZ			11:30																				
ZZZZZZ			11:32																				
ZZZZZZ			11:34																				
ZZZZZZ			11:36																				
ZZZZZZ			11:38																				
ZZZZZZ			11:40																				
CCV 240-42622/12-A			11:42																				
CCB 240-42622/11-A			11:44																				
ZZZZZZ			11:46																				
ZZZZZZ			11:48																				
ZZZZZZ			11:50																				
ZZZZZZ			11:53																				
ZZZZZZ			11:55																				
ZZZZZZ			11:57																				
ZZZZZZ			11:59																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			12:00																				
ZZZZZZ			12:03																				
ZZZZZZ			12:05																				
CCV 240-42622/12-A	1		12:07	X																			
CCB 240-42622/11-A	1		12:09	X																			
MB 240-42671/1-A	1	T	12:12	X																			
LCS 240-42671/2-A	1	T	12:14	X																			
ZZZZZZ			12:16																				
240-10770-H-3-C MS	1	T	12:18	X																			
240-10770-H-3-D MSD	1	T	12:20	X																			
ZZZZZZ			12:22																				
ZZZZZZ			12:25																				
ZZZZZZ			12:27																				
240-10808-2	1	T	12:29	X																			
240-10808-2	1	D	12:31	X																			
CCV 240-42622/12-A	1		12:34	X																			
CCB 240-42622/11-A	1		12:35	X																			
ZZZZZZ			12:37																				
ZZZZZZ			12:39																				
ZZZZZZ			12:41																				
ZZZZZZ			12:43																				
ZZZZZZ			12:46																				
ZZZZZZ			12:47																				
ZZZZZZ			12:49																				
ZZZZZZ			12:51																				
ZZZZZZ			12:53																				
ZZZZZZ			12:55																				
CCV 240-42622/12-A			12:59																				
CCB 240-42622/11-A			13:00																				
ZZZZZZ			13:03																				
ZZZZZZ			13:06																				
CCV 240-42622/12-A			13:09																				
CCB 240-42622/11-A			13:11																				
CCV 240-42622/12-A			14:41																				
CCB 240-42622/11-A			14:43																				
ZZZZZZ			14:45																				
ZZZZZZ			14:47																				
ZZZZZZ			14:49																				
ZZZZZZ			14:51																				
ZZZZZZ			14:53																				
ZZZZZZ			14:55																				
ZZZZZZ			14:57																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			14:59																				
ZZZZZZ			15:01																				
ZZZZZZ			15:03																				
CCV 240-42622/12-A			15:05																				
CCB 240-42622/11-A			15:07																				
ZZZZZZ			15:09																				
ZZZZZZ			15:11																				
CCV 240-42622/12-A			15:13																				
CRA 240-42622/9-A			15:15																				
CCB 240-42622/11-A			15:18																				
ZZZZZZ			15:20																				
ZZZZZZ			15:22																				
ZZZZZZ			15:24																				
ZZZZZZ			15:26																				
ZZZZZZ			15:28																				
ZZZZZZ			15:30																				
ZZZZZZ			15:33																				
ZZZZZZ			15:34																				
ZZZZZZ			15:36																				
ZZZZZZ			15:39																				
CCV 240-42622/12-A			15:40																				
CCB 240-42622/11-A			15:42																				
ZZZZZZ			15:44																				
ZZZZZZ			15:46																				
ZZZZZZ			15:48																				
ZZZZZZ			15:50																				
ZZZZZZ			15:52																				
ZZZZZZ			15:54																				
ZZZZZZ			15:57																				
ZZZZZZ			15:58																				
ZZZZZZ			16:01																				
ZZZZZZ			16:04																				
CCV 240-42622/12-A			16:06																				
CCB 240-42622/11-A			16:08																				
ZZZZZZ			16:10																				
ZZZZZZ			16:12																				
ZZZZZZ			16:14																				
ZZZZZZ			16:16																				
ZZZZZZ			16:18																				
ZZZZZZ			16:19																				
ZZZZZZ			16:21																				
ZZZZZZ			16:23																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			16:25																				
ZZZZZZ			16:27																				
CCV 240-42622/12-A			16:29																				
CCB 240-42622/11-A			16:31																				
ZZZZZZ			16:33																				
ZZZZZZ			16:35																				
ZZZZZZ			16:37																				
ZZZZZZ			16:39																				
ZZZZZZ			16:41																				
ZZZZZZ			16:43																				
CCV 240-42622/12-A			16:46																				
CRA 240-42622/9-A			16:48																				
CCB 240-42622/11-A			16:50																				
ZZZZZZ			16:52																				
ZZZZZZ			16:54																				
ZZZZZZ			16:56																				
ZZZZZZ			16:58																				
ZZZZZZ			17:00																				
ZZZZZZ			17:02																				
ZZZZZZ			17:04																				
ZZZZZZ			17:07																				
ZZZZZZ			17:10																				
ZZZZZZ			17:12																				
CCV 240-42622/12-A			17:14																				
CCB 240-42622/11-A			17:17																				
ZZZZZZ			17:20																				
ZZZZZZ			17:22																				
ZZZZZZ			17:24																				
ZZZZZZ			17:25																				
ZZZZZZ			17:27																				
ZZZZZZ			17:29																				
ZZZZZZ			17:31																				
ZZZZZZ			17:33																				
ZZZZZZ			17:35																				
ZZZZZZ			17:38																				
CCV 240-42622/12-A			17:40																				
CCB 240-42622/11-A			17:42																				
ZZZZZZ			17:44																				
ZZZZZZ			17:46																				
ZZZZZZ			17:48																				
ZZZZZZ			17:49																				
ZZZZZZ			17:52																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			17:54																				
ZZZZZZ			17:56																				
ZZZZZZ			17:58																				
ZZZZZZ			18:00																				
ZZZZZZ			18:03																				
CCV 240-42622/12-A			18:05																				
CCB 240-42622/11-A			18:07																				
ZZZZZZ			18:09																				
ZZZZZZ			18:11																				
ZZZZZZ			18:13																				
ZZZZZZ			18:15																				
ZZZZZZ			18:17																				
ZZZZZZ			18:20																				
ZZZZZZ			18:21																				
ZZZZZZ			18:25																				
ZZZZZZ			18:27																				
ZZZZZZ			18:29																				
CCV 240-42622/12-A			18:31																				
CCB 240-42622/11-A			18:33																				
ZZZZZZ			18:35																				
ZZZZZZ			18:37																				
CCV 240-42622/12-A			18:39																				
CRA 240-42622/9-A			18:41																				
CCB 240-42622/11-A			18:44																				

Prep Types
D = Dissolved
T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/08/2012 14:30 End Date: 05/08/2012 17:03

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 240-43145/1-A			14:30	X																			
IC 240-43145/2-A			14:33	X																			
IC 240-43145/3-A			14:35	X																			
IC 240-43145/4-A			14:37	X																			
IC 240-43145/5-A			14:39	X																			
IC 240-43145/6-A			14:41	X																			
ICV 240-43145/7-A	1		14:43	X																			
ICB 240-43145/8-A	1		14:45	X																			
CRA 240-43145/9-A	1		14:47	X																			
CCVL 240-43145/10-A	1		14:49	X																			
CCB 240-43145/11-A			14:51																				
ZZZZZZ			14:53																				
ZZZZZZ			14:55																				
ZZZZZZ			14:57																				
ZZZZZZ			15:00																				
ZZZZZZ			15:01																				
ZZZZZZ			15:04																				
ZZZZZZ			15:06																				
ZZZZZZ			15:08																				
ZZZZZZ			15:09																				
ZZZZZZ			15:12																				
CCV 240-43145/12-A			15:13																				
CCB 240-43145/11-A			15:15																				
ZZZZZZ			15:18																				
ZZZZZZ			15:20																				
ZZZZZZ			15:22																				
ZZZZZZ			15:23																				
ZZZZZZ			15:25																				
ZZZZZZ			15:28																				
ZZZZZZ			15:30																				
ZZZZZZ			15:32																				
ZZZZZZ			15:34																				
ZZZZZZ			15:36																				
CCV 240-43145/12-A	1		15:39	X																			
CCB 240-43145/11-A	1		15:40	X																			
ZZZZZZ			15:42																				
ZZZZZZ			15:45																				
ZZZZZZ			15:47																				
ZZZZZZ			15:49																				
MB 240-43054/1-A	1	T	15:51	X																			
LCS 240-43054/2-A	1	T	15:54	X																			
ZZZZZZ			15:56																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/08/2012 14:30 End Date: 05/08/2012 17:03

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
240-10837-N-5-B DU	1	T	15:58	X																			
240-10837-N-5-C MS	1	T	16:00	X																			
ZZZZZZ			16:02																				
CCV 240-43145/12-A	1		16:04	X																			
CCB 240-43145/11-A	1		16:06	X																			
240-10837-M-5-B DU	1	D	16:08	X																			
240-10837-M-5-C MS	1	D	16:10	X																			
240-10808-3	1	T	16:13	X																			
240-10808-4	1	T	16:15	X																			
ZZZZZZ			16:16																				
ZZZZZZ			16:19																				
ZZZZZZ			16:21																				
ZZZZZZ			16:23																				
ZZZZZZ			16:25																				
ZZZZZZ			16:27																				
CCV 240-43145/12-A	1		16:29	X																			
CCB 240-43145/11-A	1		16:31	X																			
ZZZZZZ			16:33																				
240-10808-3	1	D	16:35	X																			
240-10808-4	1	D	16:37	X																			
ZZZZZZ			16:39																				
ZZZZZZ			16:41																				
ZZZZZZ			16:43																				
ZZZZZZ			16:45																				
ZZZZZZ			16:48																				
ZZZZZZ			16:50																				
ZZZZZZ			16:52																				
CCV 240-43145/12-A	1		16:55	X																			
CCB 240-43145/11-A	1		16:57	X																			
CRA 240-43145/9-A			16:59																				
CCV 240-43145/12-A			17:01																				
CCB 240-43145/11-A			17:03																				

Prep Types

D = Dissolved

T = Total/NA

Sample 65P-MW05-043012

Arsenic rep result 3.4 ug/L

240-10808-h-2-a, 5/3/2012 10:02:46 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
x		88.899%	1.291	145.100
%RSD		3.358	3.521	4.185
Run	**Time**	**23Na**	**25Mg**	**27Al**
		ppb	ppb	ppb
x		T 22910.000	29720.000	M 1882.000
%RSD		T 0.610	1.116	M 1.593
Run	**Time**	**35Cl**	**39K**	**43Ca**
		ppb	ppb	ppb
x		T 0.000	T 7130.000	39970.000
%RSD		T 0.000	T 1.338	0.963
Run	**Time**	**45Sc**	**45Sc**	**47Ti**
		ppb	ppb	ppb
x		T 102.927%	91.766%	9.978
%RSD		T 3.285	0.615	87.350
Run	**Time**	**51V**	**52Cr**	**53Cr O**
		ppb	ppb	ppb
x		4.422	2.158	-1.078
%RSD		2.924	1.423	63.520
Run	**Time**	**55Mn**	**56Fe**	**59Co**
		ppb	ppb	ppb
x		T 724.000	3085.000	26.260
%RSD		T 0.118	0.626	0.579
Run	**Time**	**60Ni**	**65Cu**	**66Zn**
		ppb	ppb	ppb
x		17.070	4.879	27.900
%RSD		3.691	2.414	1.032
Run	**Time**	**72Ge**	**75As**	**77Ar Cl**
		ppb	ppb	ppb
x		89.055%	3.427	0.410
%RSD		0.656	5.055	8.212
Run	**Time**	**78Se**	**88Sr**	**95Mo**
		ppb	ppb	ppb
x		2.237	180.500	0.337
%RSD		12.880	0.921	25.110
Run	**Time**	**105Pd**	**107Ag**	**108Mo O**
		ppb	ppb	ppb
x		0.000	0.011	-25.870
%RSD		0.000	28.770	14.450
Run	**Time**	**111Cd**	**115In**	**118Sn**
		ppb	ppb	ppb
x		0.323	87.649%	0.103
%RSD		20.830	0.703	21.390
Run	**Time**	**121Sb**	**137Ba**	**159Tb**
		ppb	ppb	ppb
x		0.090	20.820	0.000
%RSD		19.370	0.871	0.000
Run	**Time**	**165Ho**	**182W**	**205Tl**
		ppb	ppb	ppb
x		91.414%	0.027	0.114
%RSD		1.992	10.410	13.610
Run	**Time**	**208Pb**	**209Bi**	
		ppb	ppb	
x		0.388	0.000	
%RSD		11.960	0.000	

Case Narrative

TestAmerica West Sacramento Project Number G2E030413

WATER, 6850, Perchlorate
Samples: 1, 2, 3
In accordance with the requirements of Method 6850, both a Laboratory Control Sample (LCS) and a Synthetic Matrix Check Sample (SMCS) were analyzed with the associated samples. Both are reported on the LCS data evaluation and recovery reports, and are differentiated from one another by their workorder number:

LCS: MTELA1AC
SMCS: MTELA1AD

There are no other anomalies associated with this project.

ANALYTICAL METHODS SUMMARY

G2E030413

PARAMETER	ANALYTICAL METHOD
Perchlorate by 6850	SW846 6850

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD BLANK REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E030413 Work Order #...: MTELA1AA Matrix.....: WATER
MB Lot-Sample #: G2E070000-058

Prep Date.....: 05/07/12
Analysis Date..: 05/14/12 Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Perchlorate	ND	1.0	ug/L	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E030413 Work Order #...: MTELA1AC Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Perchlorate	92	(80 - 120)	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E030413 Work Order #...: MTELA1AC Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Perchlorate	5.00	4.62	ug/L	92	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E030413 Work Order #...: MTELA1AD Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Perchlorate	97	(80 - 120)	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E030413 Work Order #...: MTELA1AD Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Perchlorate	5.00	4.86	ug/L	97	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E030413 Work Order #...: MTDHX1AC-MS Matrix.....: WATER
MS Lot-Sample #: G2E030450-004 MTDHX1AD-MSD
Date Sampled...: 05/01/12 Date Received..: 05/03/12
Prep Date.....: 05/07/12 Analysis Date..: 05/16/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Perchlorate	99	(80 - 120)			SW846 6850
	97	(80 - 120)	1.8	(0-15)	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E030413 Work Order #...: MTDHX1AC-MS Matrix.....: WATER
MS Lot-Sample #: G2E030450-004 MTDHX1AD-MSD
Date Sampled...: 05/01/12 Date Received..: 05/03/12
Prep Date.....: 05/07/12 Analysis Date..: 05/16/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Perchlorate	ND	5.00	4.95	ug/L	99		SW846 6850
	ND	5.00	4.86	ug/L	97	1.8	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Tetra Tech **INTERNAL CORRESPONDENCE**

TO:	**A. APANAVAGE**	**DATE:**	**MAY 21, 2012**
FROM:	**TERRI L. SOLOMON**	**COPIES:**	**DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – HEXAVALENT CHROMIUM**
MARTIN STATE AIRPORT – GROUNDWATER
SAMPLE DELIVERY GROUP (SDG) – R1202652

SAMPLES: 3/Aqueous/

GSP-MW1-042612 GSP-MW2-042612
GSP-MW3-042612

Overview

The sample set for Martin State Airport – Groundwater, SDG R1202652, consists of three (3) aqueous environmental samples. No field duplicate pairs were included in this SDG.

All samples were analyzed for hexavalent chromium. The samples were collected by Tetra Tech on April 26, 2012 and analyzed by Columbia Analytical Services, Inc. Hexavalent chromium analyses were conducted using EPA method 218.6.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, continuing calibration recoveries, laboratory method / preparation blank results, laboratory control sample recoveries, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems – None.

Minor Problems - None.

Notes

All samples were filtered in the laboratory and preserved by the laboratory to a pH of 9.3-9.7.

Nondetected results are reported to the method reporting limit.

Executive Summary

Laboratory Performance: None.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993.

The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Terri L. Solomon
Environmental Scientist

Tetra Tech
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 04021	NSAMPLE	GSP-MW1-042612			GSP-MW2-042612			GSP-MW3-042612		
SDG: R1202652	LAB_ID	R1202652-002			R1202652-001			R1202652-003		
FRACTION: MISC	SAMP_DATE	4/26/2012			4/26/2012			4/26/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.02	U		0.02	U		0.02	U	

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202652
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/26/12 1325
Sample Matrix:	Water	**Date Received:**	4/27/12
Sample Name:	GSP-MW1-042612		
Lab Code:	R1202652-002	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.004	1	NA	4/27/12 10:31	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202652
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/26/12 1320
Sample Matrix:	Water	**Date Received:**	4/27/12
Sample Name:	GSP-MW2-042612		
Lab Code:	R1202652-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.004	1	NA	4/27/12 10:48	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202652
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/26/12 1440
Sample Matrix:	Water	**Date Received:**	4/27/12
Sample Name:	GSP-MW3-042612		
Lab Code:	R1202652-003	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.004	1	NA	4/27/12 11:05	

APPENDIX C
SUPPORT DOCUMENTATION

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group

Client:	Tetra Tech NUS, Inc.	**Service Request No.:**	R1202652
Project:	MSA Groundwater	**Project Number:**	112IC04021 - 02
Sample Matrix:	Water	**Date Received:**	4/27/12

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 4/26/12 and received at CAS in good condition at a cooler temperature of 0.9 °C as noted on the cooler receipt and preservation check form. The samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the CAS CLP Batching sheets for a cross-reference between Client ID and CAS Job # and analyses requested.

Hexavalent Chromium Analysis – 218.6

Three water samples were analyzed for CR+6 by EPA method 218.6, low level. Values detected between the MDL and PQL have been flagged with a "J" as estimated.

All samples were analyzed within 24 hours of sampling.

All the initial and continuing calibration criteria were met.

The Blank Spike (LCS) recovery was within QC limits.

The Laboratory Blank associated with these samples was free of contamination.

No other analytical or QC problems were encountered.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Columbia Analytical Services

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1565 Jefferson Rd., Bldg. 300, Suite 360, Rochester, NY 14623 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE 1 OF 1

Project Name: MSA Ground water Sampling
Project Number: M2IC040021-02
Project Manager: Tony Apuzzage
Report CC:
Company/Address: Tetra Tech Inc.
20251 Century Blvd STE 200
Germantown MD 20874
Phone #: 301 528-3021
E-mail:
Sampler's Signature: Walt Ryon
Sampler's Printed Name: Walt Ryon

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☐ 8260 ☐ 624 ☐ CLP	GC/MS SVOA's ☐ 8270 ☐ 625	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES ☐ 8081 ☐ 608	PCB's ☐ 8082 ☐ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Hex Chrom							REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE													0							
GSP-MW2-042612		4-26-12	1320	Water	1								X							
GSP-MW1-042612		↓	1325	↓	1								X							
GSP-MW3-042612		↓	1440	↓	1								X							

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals 24 TAT

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED:

TURNAROUND REQUIREMENTS
X RUSH (SURCHARGES APPLY)
X 1 day ___ 2 day ___ 3 day
___ 4 day ___ 5 day
___ Standard
REQUESTED REPORT DATE

REPORT REQUIREMENTS
___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
Edata ___ Yes ___ No

INVOICE INFORMATION
PO #:
BILL TO:

R1202652 5
Tetra Tech NUS,Inc.
MSA Groundwater

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY
Signature: Walt Ryon	Signature: Amy Hentschke	Signature	Signature	Signature
Printed Name: Walt Ryon	Printed Name: Amy Hentschke	Printed Name	Printed Name	Printed Name
Firm: TT Inc.	Firm: AQ	Firm	Firm	Firm
Date/Time: 4-26-12 / 1700	Date/Time: 4/27/12 0925	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return To Originator

SCOC Rev. 7/2011

HOLDTIME

SDG R1202557

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
CR6	UG/L	MT-MW06S-042412	R1202581-002	NM	4/24/2012	4/26/2012	4/26/2012	2	0	2
CR6	UG/L	MT-MW05S-042512	R1202604-003	NM	4/25/2012	4/26/2012	4/26/2012	1	0	1
CR6	UG/L	MT-MW04S-042412	R1202581-001	NM	4/24/2012	4/26/2012	4/26/2012	2	0	2
CR6	UG/L	MT-MW03S-042512	R1202604-002	NM	4/25/2012	4/26/2012	4/26/2012	1	0	1
CR6	UG/L	MT-MW01S-042512	R1202604-001	NM	4/25/2012	4/26/2012	4/26/2012	1	0	1
CR6	UG/L	MSA-MW35S-042312	R1202557-006	NM	4/23/2012	4/24/2012	4/24/2012	1	0	1
CR6	UG/L	MSA-MW20S-042312	R1202557-001	NM	4/23/2012	4/24/2012	4/24/2012	1	0	1
CR6	UG/L	MSA-MW20I-042312	R1202557-002	NM	4/23/2012	4/24/2012	4/24/2012	1	0	1
CR6	UG/L	MSA-MW20D-042312	R1202557-003	NM	4/23/2012	4/24/2012	4/24/2012	1	0	1
CR6	UG/L	MSA-MW17S-042312	R1202557-004	NM	4/23/2012	4/24/2012	4/24/2012	1	0	1
CR6	UG/L	MSA-MW17I-042312	R1202557-005	NM	4/23/2012	4/24/2012	4/24/2012	1	0	1
CR6	UG/L	GSP-MW3-042612	R1202652-003	NM	4/26/2012	4/27/2012	4/27/2012	1	0	1
CR6	UG/L	GSP-MW2-042612	R1202652-001	NM	4/26/2012	4/27/2012	4/27/2012	1	0	1
CR6	UG/L	GSP-MW1-042612	R1202652-002	NM	4/26/2012	4/27/2012	4/27/2012	1	0	1

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
4/26/12 1000	R1202604 -003	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	4/25/12 1530	Yes No Field	R1SA54620K Millex HV	—	4.51	9.36	CMW 4/26/12 1133	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC1032785
—	Filter Blank for 4/26/12	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	4/25/12 —	Yes No Field	↓	—	8.40	9.39	CMW 4/26/12 1135	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC1032785
4/26/12 1000	R1202582 -010	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	4/25/12 1600	Yes No Field	—	—	5.51	9.46	CMW 4/26/12 1455	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC1032785
↓	R1202582 -012	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	4/25/12 1605	Yes No Field	—	—	5.63	9.39	CMW 4/26/12 1458	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC1032785
4/27/12 0925	Filter Blank For 4/27/12	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	—	Yes No Field	Millex HV R1SA54620K	—	7.65	9.33	CMW 4/27/12 1004	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
↓	MW1 R1202652-002	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	4/26/12 1325	Yes No Field	↓	—	6.60	9.38	CMW 4/27/12 1005	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
↓	MW2 R1202652 -001	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	4/26/12 1320	Yes No Field	↓	—	5.31	9.63	CMW 4/27/12 1007	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
↓	MW3 R1202652 -003	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	4/26/12 1440	Yes No Field	↓	—	6.01	9.67	CMW 4/27/12 1008	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optionnl
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

H:\SMODOCS\Forms\cr+6SMO log

Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 289262 **Method/Testcode:** 218.6/Cr6 D

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1204287-04	Chromium, Hexavalent, Dissolved	CCV		Water	0.52 µg/L	10 mL	0.523 µg/L	1					4/27/12 08:57:00	N	IV
RQ1204287-06	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.004	0.020			4/27/12 09:12:00	N	IV
RQ1204287-07	Chromium, Hexavalent, Dissolved	MB		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.004	0.020			4/27/12 09:12:00	N	IV
RQ1204287-08	Chromium, Hexavalent, Dissolved	LCS		Water	0.21 µg/L	10 mL	0.207 µg/L	1	0.004	0.020	103		4/27/12 09:27:00	N	IV
R1202652-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.004	0.020			4/27/12 10:31:00	N	IV
R1202652-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.004	0.020			4/27/12 10:48:00	N	IV
R1202652-003	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.004	0.020			4/27/12 11:05:00	N	IV
RQ1204287-01	Chromium, Hexavalent, Dissolved	DUP	R1202652-003	Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.004	0.020		NC	4/27/12 11:23:00	N	IV
RQ1204287-02	Chromium, Hexavalent, Dissolved	MS	R1202652-003	Water	0.18 µg/L	10 mL	0.181 µg/L	1	0.004	0.020	91		4/27/12 11:40:00	N	IV
RQ1204287-03	Chromium, Hexavalent, Dissolved	CCV		Water	0.52 µg/L	10 mL	0.518 µg/L	1					4/27/12 11:57:00	N	IV
RQ1204287-05	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.004	0.020			4/27/12 12:14:00	N	IV

00018

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202652
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1202652-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.004	1	NA	4/27/12 09:12	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04021- 02
Sample Matrix: Water

Service Request: R1202652
Date Analyzed: 4/27/12

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

		Lab Control Sample R1202652-LCS			
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**
Chromium, Hexavalent, Dissolved	218.6	0.207	0.200	103	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04021- 02

Service Request: R1202652

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6

Units: µg/L

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	289262	RQ1204287-04	4/27/12 08:57	0.500	0.523	105	95 - 105
CCV2	289262	RQ1204287-03	4/27/12 11:57	0.500	0.518	104	95 - 105

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04021- 02

Service Request: R1202652

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6

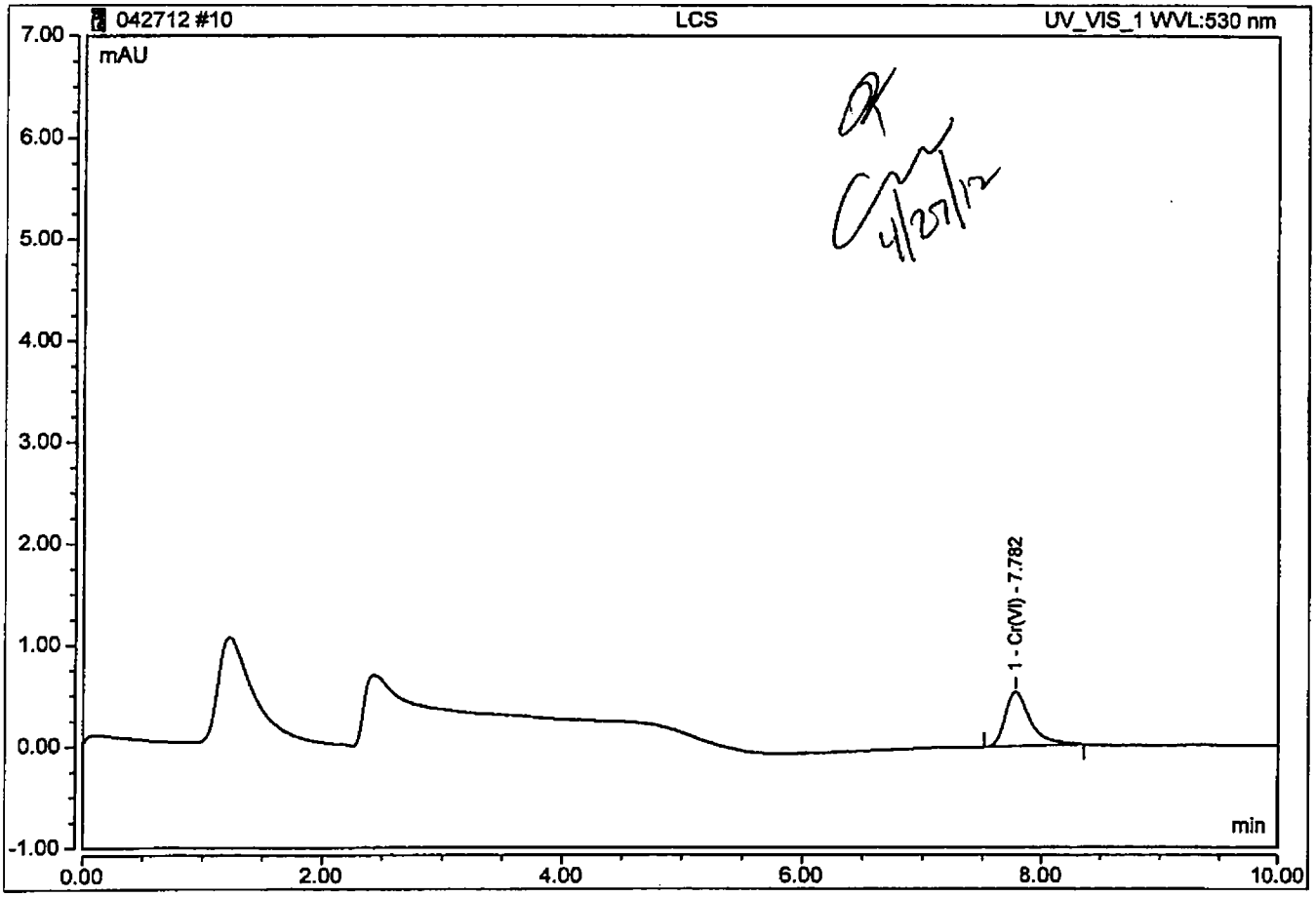
Units: µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	289262	RQ1204287-06	4/27/12 09:12	0.004	0.020	0.020	U
CCB2	289262	RQ1204287-05	4/27/12 12:14	0.004	0.020	0.020	U

Peak Integration Report

Sample Name:	LCS	*Inj. Vol.:*	1000.00
Injection Type:	Unknown	*Dilution Factor:*	1.0000
Processing Method:	8-042612	*Program:*	Cr(VI) 218.6
Inj. Date / Time:	27-Apr-2012 / 09:27	*Run Time:*	10.00

No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	7.78	Cr(VI)	BMB	0.134	0.529	0.2067
TOTAL:				0.13	0.53	0.21



OK
4/27/12

LCS
rep result
0.207 ug/L

Tetra Tech **INTERNAL CORRESPONDENCE**

TO:	**A. APANAVAGE**	**DATE:**	**JUNE 6, 2012**
FROM:	**TERRI L. SOLOMON**	**COPIES:**	**DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – HEXAVALENT CHROMIUM**
MARTIN STATE AIRPORT – GROUNDWATER
SAMPLE DELIVERY GROUP (SDG) – R1202694

SAMPLES: 6/Aqueous/

GSP-MW4-043012	GSP-MW5-043012
GSP-MW6-043012	GSP-MW7-043012
GSP-MW8-043012	MT-02S-043012

Overview

The sample set for Martin State Airport – Groundwater, SDG R1202694, consists of six (6) aqueous environmental samples. No field duplicate pairs were included in this SDG.

All samples were analyzed for hexavalent chromium. The samples were collected by Tetra Tech on April 30, 2012 and analyzed by Columbia Analytical Services, Inc. Hexavalent chromium analyses were conducted using EPA method 218.6.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, continuing calibration recoveries, laboratory method / preparation blank results, laboratory duplicate results, matrix spike recoveries, laboratory control sample recoveries, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems –None.

Minor Problems- None.

Notes

All samples were filtered in the laboratory and preserved by the laboratory to a pH of 9.3-9.7.

Nondetected results are reported to the method reporting limit.

Executive Summary

Laboratory Performance: None.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993.

The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Terri L. Solomon
Environmental Scientist

Tetra Tech
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 04021	NSAMPLE	GSP-MW4-043012			GSP-MW5-043012			GSP-MW6-043012			GSP-MW7-043012		
SDG: R1202694	LAB_ID	R1202694-003			R1202694-002			R1202694-001			R1202694-004		
FRACTION: MISC	SAMP_DATE	4/30/2012			4/30/2012			4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.02	U		0.02	U		0.118			0.11		

PROJ_NO: 04021	NSAMPLE	GSP-MW8-043012			MT-02S-043012		
SDG: R1202694	LAB_ID	R1202694-005			R1202694-006		
FRACTION: MISC	SAMP_DATE	4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.097			0.02	U	

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202694
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/30/12 1230
Sample Matrix:	Water	**Date Received:**	5/ 1/12
Sample Name:	GSP-MW4-043012		
Lab Code:	R1202694-003	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.004	1	NA	5/1/12 11:49	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202694
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/30/12 1220
Sample Matrix:	Water	**Date Received:**	5/ 1/12
Sample Name:	GSP-MW5-043012		
Lab Code:	R1202694-002	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.004	1	NA	5/1/12 11:34	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202694
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/30/12 1210
Sample Matrix:	Water	**Date Received:**	5/ 1/12
Sample Name:	GSP-MW6-043012		
Lab Code:	R1202694-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.118**		µg/L	0.020	0.004	1	NA	5/1/12 11:19	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202694
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/30/12 1235
Sample Matrix:	Water	**Date Received:**	5/ 1/12
Sample Name:	GSP-MW7-043012		
Lab Code:	R1202694-004	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.110**		µg/L	0.020	0.004	1	NA	5/1/12 12:04	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202694
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/30/12 1240
Sample Matrix:	Water	**Date Received:**	5/ 1/12
Sample Name:	GSP-MW8-043012		
Lab Code:	R1202694-005	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.097**		µg/L	0.020	0.004	1	NA	5/1/12 12:19	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202694
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/30/12 1320
Sample Matrix:	Water	**Date Received:**	5/ 1/12
Sample Name:	MT-02S-043012		
Lab Code:	R1202694-006	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.004	1	NA	5/1/12 12:34	

APPENDIX C
SUPPORT DOCUMENTATION

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group

Client:	Tetra Tech NUS, Inc.	**Service Request No.:**	R1202694
Project:	MSA Groundwater	**Project Number:**	112IC04021 - 02
Sample Matrix:	Water	**Date Received:**	5/01/12

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 4/30/12 and received at CAS in good condition at a cooler temperature of 2.9 °C as noted on the cooler receipt and preservation check form. The samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the CAS CLP Batching sheets for a cross-reference between Client ID and CAS Job # and analyses requested.

Hexavalent Chromium Analysis – 218.6

Six water samples were analyzed for CR+6 by EPA method 218.6, low level. Values detected between the MDL and PQL have been flagged with a "J" as estimated.

All samples were analyzed within 24 hours of sampling.

All the initial and continuing calibration criteria were met.

The Blank Spike (LCS) recovery was within QC limits.

A matrix spike and duplicate analyses was not requested but was analyzed on sample MT-02S-043012. The recovery and RPD were with QC limits.

The Laboratory Blank associated with these samples was free of contamination.

No other analytical or QC problems were encountered.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

ALS

Chain of Custody Record

ALS ~~TestAmerica~~ THE LEADER IN ENVIRONMENTAL TESTING

~~TestAmerica~~ Laboratory location: 1565 Jefferson Rd Rochester NY 14623

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact			
Company Name: Tetra Tech	Client Project Manager: Tony Apanavage	Site Contact: Steve Cameron	Lab Contact:
Address: 20251 Century Blvd Ste 200	Telephone: (301) 528-5552	Telephone: (703) 342-8389	Telephone:
City/State/Zip: Germantown MD 20874	Email: Tony.Apanavage@tetratech.com	Analysis Turnaround Time (in BUS days)	
Phone: (301) 528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	
Project Name: MSA GW Sampling	Method of Shipment/Carrier: Fed Ex		
Project Number: 112IC04021	Shipping/Tracking No: 873935710956		
PO#			

COC No: 006078

1 of 1 COCs

Analyses

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (C)/Grab (G)	Hexavalent Chromium	Sample Specific Notes / Special Instructions:
GSP-MW6-043012	4/30/12	1210		X									1		N	G	X	
GSP-MW5-043012	↓	1220		X									1		N	G	X	
GSP-MW4-043012	↓	1230		X									1		N	G	X	
GSP-MW7-043012	↓	1235		X									1		N	G	X	
GSP-MW8-043012	↓	1240		X									1		N	G	X	
MT-025-043012	↓	1320		X									1		N	G	X	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____

Special Instructions/QC Requirements & Comments:

Samples Must be analyzed within 24 hrs of sample time.

R1202694 5

Tetra Tech NUS,Inc.
MSA Groundwater

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	4-30-12 / 1500			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: ALS	Date/Time: 5/1/12 0815

00006

©2008 TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

TAL 0018- 1 (04/10)

HOLDTIME

SDG R1202694

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
CR6	UG/L	MSA-DMW6S-040312	R1202808-001	NM	5/3/2012	5/4/2012	5/4/2012	1	0	1
CR6	UG/L	GSP-MW5-043012	R1202694-002	NM	4/30/2012	5/1/2012	5/1/2012	1	0	1
CR6	UG/L	GSP-MW6-043012	R1202694-001	NM	4/30/2012	5/1/2012	5/1/2012	1	0	1
CR6	UG/L	GSP-MW7-043012	R1202694-004	NM	4/30/2012	5/1/2012	5/1/2012	1	0	1
CR6	UG/L	GSP-MW8-043012	R1202694-005	NM	4/30/2012	5/1/2012	5/1/2012	1	0	1
CR6	UG/L	MSA-DMW1A-050212	R1202767-005	NM	5/2/2012	5/3/2012	5/3/2012	1	0	1
CR6	UG/L	MSA-DMW1B-050212	R1202767-006	NM	5/2/2012	5/3/2012	5/3/2012	1	0	1
CR6	UG/L	MSA-DMW2A-040312	R1202808-005	NM	5/3/2012	5/4/2012	5/4/2012	1	0	1
CR6	UG/L	MSA-DMW4D-040312	R1202808-008	NM	5/3/2012	5/4/2012	5/4/2012	1	0	1
CR6	UG/L	MSA-DMW4I-040312	R1202808-007	NM	5/3/2012	5/4/2012	5/4/2012	1	0	1
CR6	UG/L	MSA-DMW4S-040312	R1202808-006	NM	5/3/2012	5/4/2012	5/4/2012	1	0	1
CR6	UG/L	GSP-MW4-043012	R1202694-003	NM	4/30/2012	5/1/2012	5/1/2012	1	0	1
CR6	UG/L	MSA-DMW6I-040312	R1202808-002	NM	5/3/2012	5/4/2012	5/4/2012	1	0	1
CR6	UG/L	MT-02S-043012	R1202694-006	NM	4/30/2012	5/1/2012	5/1/2012	1	0	1
CR6	UG/L	MSA-DMW7S-040312	R1202808-004	NM	5/3/2012	5/4/2012	5/4/2012	1	0	1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
CR6	UG/L	MSA-DMW8D-050212	R1202767-003	NM	5/2/2012	5/3/2012	5/3/2012	1	0	1
CR6	UG/L	MSA-DMW8I-050212	R1202767-002	NM	5/2/2012	5/3/2012	5/3/2012	1	0	1
CR6	UG/L	MSA-DMW8S-050212	R1202767-001	NM	5/2/2012	5/3/2012	5/3/2012	1	0	1
CR6	UG/L	MSA-MW14D-050112	R1202733-005	NM	5/1/2012	5/2/2012	5/2/2012	1	0	1
CR6	UG/L	MSA-MW14I-050112	R1202733-004	NM	5/1/2012	5/2/2012	5/2/2012	1	0	1
CR6	UG/L	MSA-MW26S-050112	R1202733-006	NM	5/1/2012	5/2/2012	5/2/2012	1	0	1
CR6	UG/L	MSA-MW32I-050112	R1202733-001	NM	5/1/2012	5/2/2012	5/2/2012	1	0	1
CR6	UG/L	MSA-MW32S-050212	R1202767-004	NM	5/2/2012	5/3/2012	5/3/2012	1	0	1
CR6	UG/L	MSA-MW33I-050112	R1202733-003	NM	5/1/2012	5/2/2012	5/2/2012	1	0	1
CR6	UG/L	MSA-MW33S-050112	R1202733-002	NM	5/1/2012	5/2/2012	5/2/2012	1	0	1
CR6	UG/L	MSA-DMW6D-040312	R1202808-003	NM	5/3/2012	5/4/2012	5/4/2012	1	0	1

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
5/1/12	Filter Blank for 4/5/1/12 CM 5/1/12	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	—	Yes No Field	Millex HV R8A54620K	—	5.27	9.41	CMW 5/1/12 0939	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
5/1/12 0815	R1202694-001	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	4/30/12 1210	Yes No Field		—	7.02	9.34	CMW 5/1/12 0941	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
	R1202694-002	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	4/30/12 1220	Yes No Field		—	5.98	9.43	CMW 5/1/12 0942	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
	R1202694-003	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	4/30/12 1230	Yes No Field		—	6.59	9.55	CMW 5/1/12 0944	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
	R1202694-004	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	4/30/12 1235	Yes No Field		—	5.38	9.60	CMW 5/1/12 0945	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
	R1202694-005	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	4/30/12 1240	Yes No Field		—	6.99	9.56	CMW 5/1/12 0947	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
	R1202694-006	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	4/30/12 1320	Yes No Field		—	5.68	9.53	CMW 5/1/12 0949	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
		7199 218.6 RL 218.6 LL 218.7	Water Drinking Water		Yes No Field						Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

H:\SMODOCS\Forms\cr+6SMO.log

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202694
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1202694-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.004	1	NA	5/1/12 10:49	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
QA/QC Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202694
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/30/12
Sample Matrix:	Water	**Date Received:**	5/1/12
		Date Analyzed:	5/ 1/12

Replicate Sample Summary
General Chemistry Parameters

Sample Name: MT-02S-043012
Lab Code: R1202694-006

Units: µg/L
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	MT-02S-043012DUP Duplicate Sample R1202694-006DUP Result	Average	RPD	RPD Limit
Chromium, Hexavalent, Dissolved	218.6	0.020	0.004	0.020 U	0.020 U	NC	NC	20

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
QA/QC Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202694
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/30/12
Sample Matrix:	Water	**Date Received:**	5/1/12
		Date Analyzed:	5/ 1/12

Matrix Spike Summary
General Chemistry Parameters

Sample Name:	MT-02S-043012	**Units:**	µg/L
Lab Code:	R1202694-006	**Basis:**	NA

Analytical Method: 218.6

MT-02S-043012MS
Matrix Spike
R1202694-006MS

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	ND	0.192	0.200	96	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04021- 02
Sample Matrix: Water

Service Request: R1202694
Date Analyzed: 5/ 1/12

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1202694-LCS Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6	0.203	0.200	102	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Tetra Tech NUS, Inc. **Service Request:** R1202694
Project: MSA Groundwater/112IC04021- 02

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 **Units:** µg/L

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	289669	RQ1204413-04	5/1/12 10:33	0.500	0.509	102	95 - 105
CCV2	289669	RQ1204413-03	5/1/12 13:33	0.500	0.511	102	95 - 105

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04021- 02

Service Request: R1202694

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6

Units: µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	289669	RQ1204413-06	5/1/12 10:49	0.004	0.020	0.020	U
CCB2	289669	RQ1204413-05	5/1/12 13:48	0.004	0.020	0.020	U

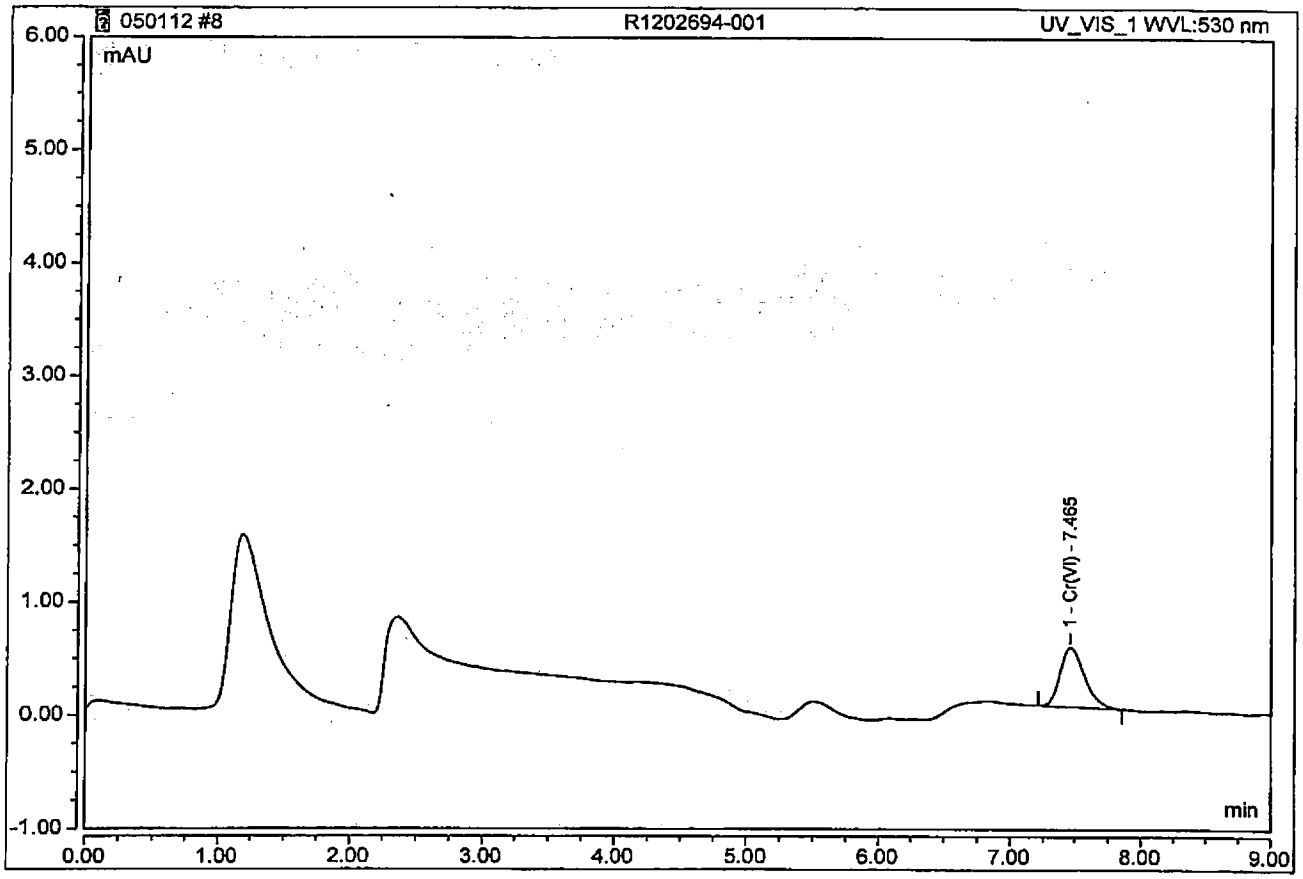
Sample GSP-mw6-043012

Peak Integration Report

Hex Reported 0.118 ug/L

Sample Name:	R1202694-001	Inj. Vol:	1000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Processing Method:	8-050112	Program:	Cr(VI) 218.6
Inj. Date / Time:	01-May-2012 / 11:19	Run Time:	9.00

No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	7.46	Cr(VI)	BMB	0.116	0.525	0.1177
TOTAL:				0.12	0.53	0.12



6-15-12
JAJ

X-VALUE	Y-VALUE	CORREL		SLOPE	
0.02	0.019		**0.999992545**		**1.005499755**
0.2	0.196	**Y-INTERC**			
1	1.003		**-0.002903234**		

MW6-043012 ✓

0.118252872	0.116

Calibration Batch Report

Sequence:	050112	Injection Volume (uL):	1,000.00
Processing Method:	8-050112	Calibration Type:	Lin. WithOffset, 1/A
Corr. Coefficient:	99.997	Instrument Method:	Cr(VI) 218.6

Calibration Summary

Injection Name Cr(VI)	Ret. Time min Cr(VI)	Area mAU*min Cr(VI)	Height mAU Cr(VI)	Amount ppb Cr(VI)
	UV_VIS_1	UV_VIS_1	UV_VIS_1	UV_VIS_1
STANDARD 1	n.a.	n.a.	n.a.	n.a.
STANDARD 2	7.487	0.0186	0.090	0.020
STANDARD 3	7.493	0.1956	0.846	0.197
STANDARD 4	7.490	1.0035	4.183	1.003
Average	7.490			
Rel. Std. Dev.	0.045 %			

Detection Parameters

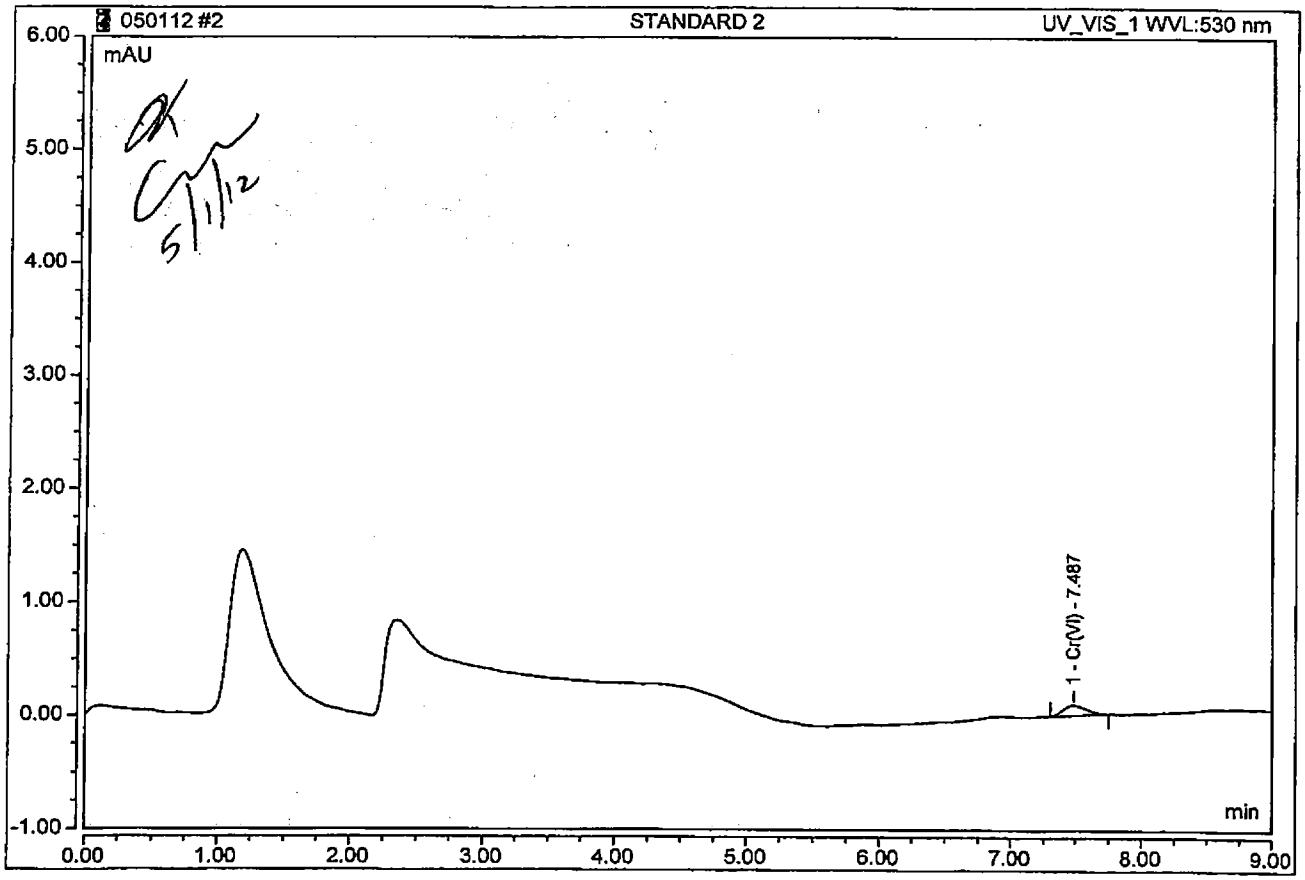
Ret. Time min	Param. Name	Param. Value	Inj. Type	Channel
0.000	Inhibit Integration	On	Any	All Channels
7.000	Valley To Valley	On	Any	All Channels
7.000	Inhibit Integration	Off	Any	All Channels
7.000	Minimum Area	0.0005 [Signal*min]	Any	All Channels
7.000	Maximum Height Reject	0.050 [Signal]	Any	All Channels

00052

Peak Integration Report

Sample Name:	STANDARD 2	Inj. Vol.:	1000.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Processing Method:	8-050112	Program:	Cr(VI) 218.6
Inj. Date & Time:	01-May-2012 / 09:46	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	7.49	Cr(VI)	BMB	0.019	0.090	0.0203
TOTAL:				0.02	0.09	0.02

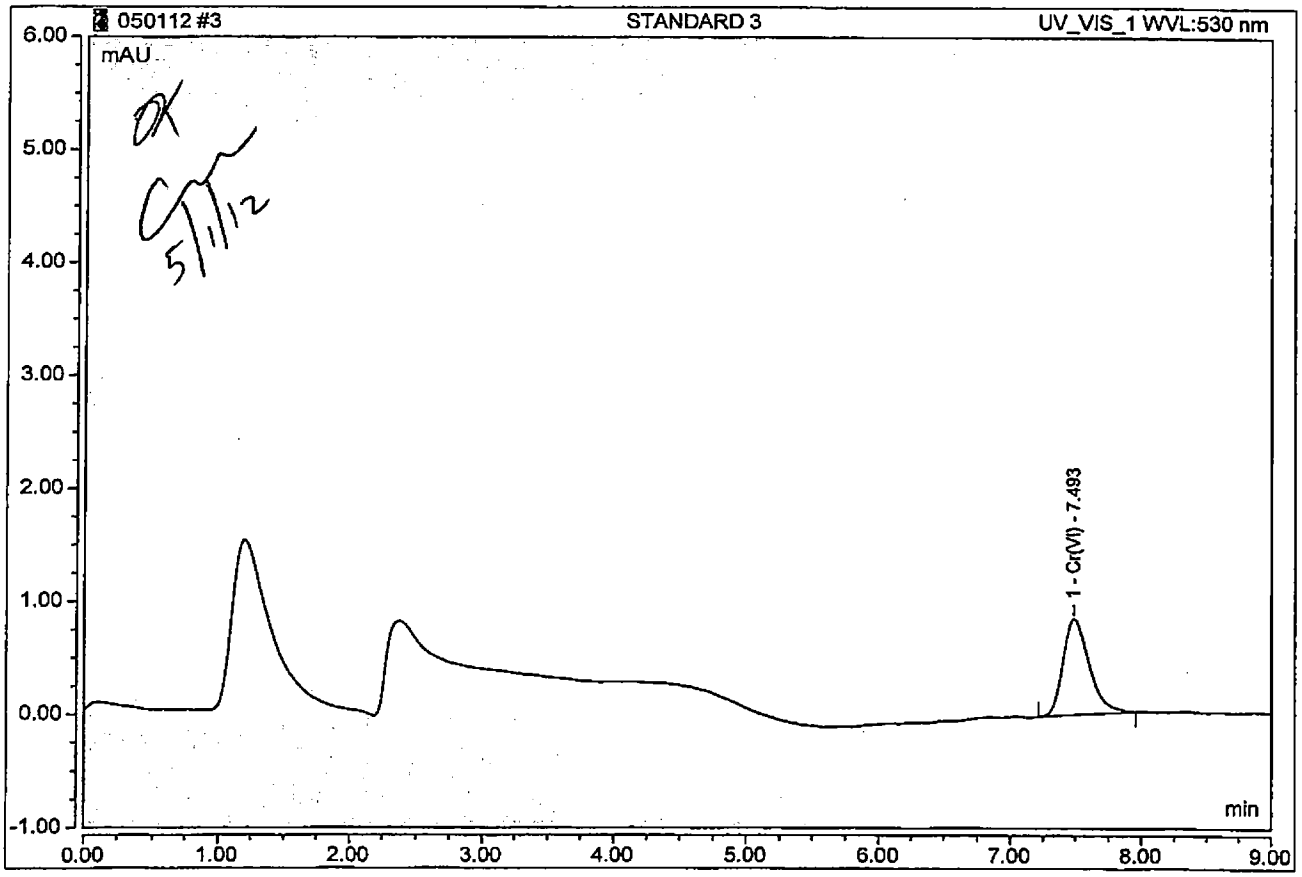


OK
5/1/12

Peak Integration Report

Sample Name:	STANDARD 3	Inj. Vol:	1000.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Processing Method:	8-050112	Program:	Cr(VI) 218.6
Inj. Date / Time:	01-May-2012 / 10:01	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	7.49	Cr(VI)	BMB	0.196	0.846	0.1969
TOTAL:				0.20	0.85	0.20

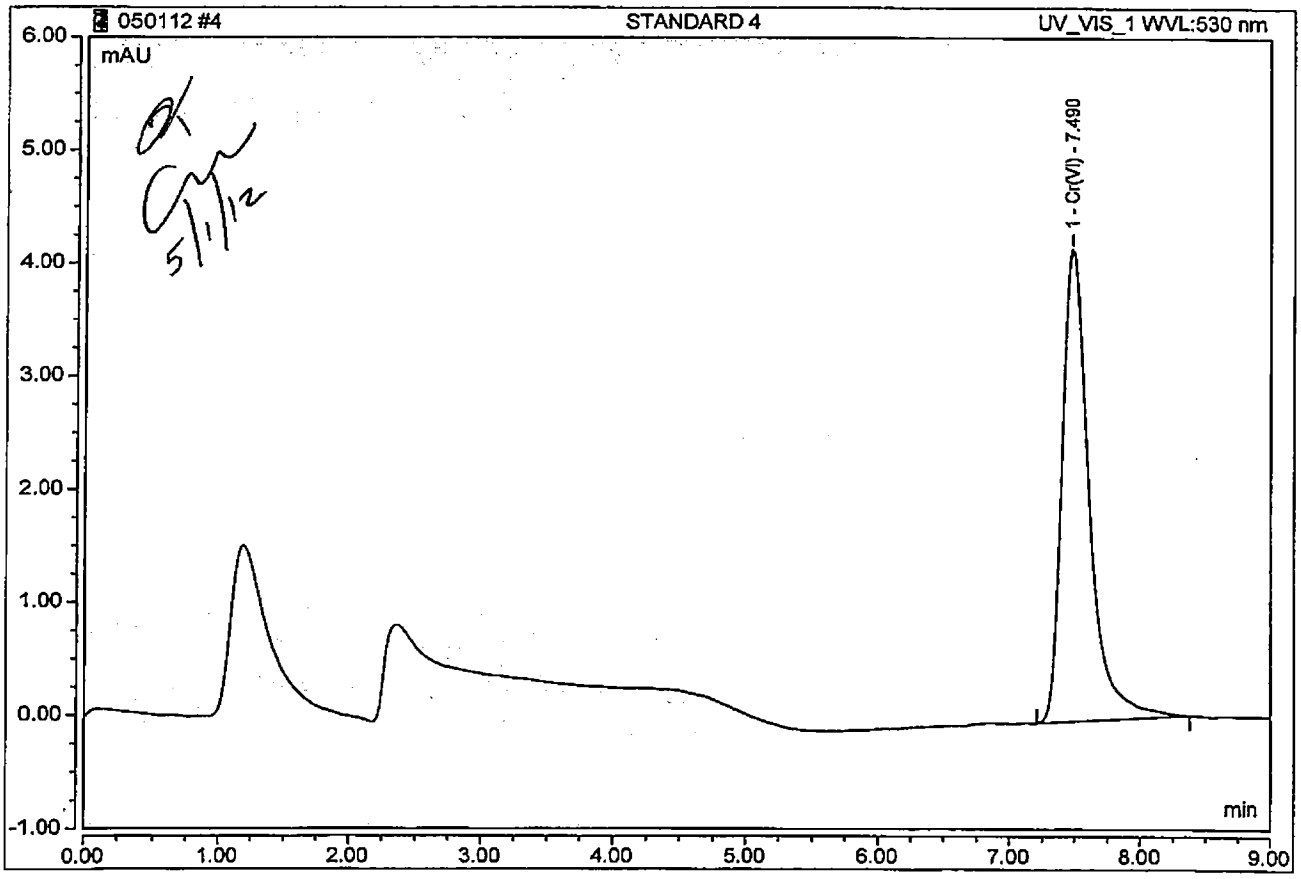


OK
5/1/12

Peak Integration Report

Sample Name:	STANDARD 4	Inj. Vol.:	1000.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Processing Method:	8-050112	Program:	Cr(VI) 218.6
Inj. Date / Time:	01-May-2012 / 10:17	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	7.49	Cr(VI)	BMB	1.003	4.183	1.0029
TOTAL:				1.00	4.18	1.00



OK
5/1/12

Tetra Tech **INTERNAL CORRESPONDENCE**

TO: **T. APANAVAGE** **DATE: JUNE 27, 2012**

FROM: **TERRI L. SOLOMON** **COPIES: DV FILE**

SUBJECT: **INORGANIC AND ORGANIC DATA VALIDATION – SELECT METALS, PERCHLORATE**
MARTIN STATE AIRPORT – GROUNDWATER
SAMPLE DELIVERY GROUP (SDG) – 240-10727-1

SAMPLES: 3/Aqueous/

GSP-MW1-042612 GSP-MW2-042612
GSP-MW3-042612

Overview

The sample set for Martin State Airport - Groundwater, SDG 240-10727-1, consists of three (3) aqueous environmental samples. No field duplicate pairs were included within this SDG.

All samples were analyzed for perchlorate and select total and dissolved metals including antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, tungsten, vanadium and zinc. The samples were collected by Tetra Tech on April 26, 2012 and analyzed by TestAmerica. Metals analyses were conducted using SW-846 method 6020. Mercury analyses were conducted using SW-846 method 7470A. Perchlorate analyses were conducted using SW-846 method 6850.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP interference results, laboratory control sample recoveries, matrix spike/matrix spike duplicate recoveries, ICP serial dilution results, internal standard recoveries, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems

None.

Minor Problems

- The contract required detection limit (CRDL) percent recovery for barium was > 110% quality control limit affecting all samples. Positive results < 2X CRDL for barium were qualified as biased high, "K".

- The following contaminants were detected in the laboratory method/preparation blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Antimony[1]	0.184 ug/L	0.92 ug/L
Cobalt[1]	0.0960 ug/L	0.48 ug/L
Molybdenum[1]	3.01 ug/L	15.05 ug/L
Thallium[1]	0.664 ug/L	3.32 ug/L
Tungsten[1]	1.17 ug/L	5.85 ug/L
Barium[2]	1.12 ug/L	5.6 ug/L
Copper[2]	0.546 ug/L	2.73 ug/L
Zinc[2]	6.30 ug/L	31.5 ug/L
Barium[3]	1.02 ug/L	5.1 ug/L
Copper[3]	0.607 ug/L	3.03 ug/L
Nickel[3]	0.216 ug/L	1.08 ug/L
Zinc[3]	9.92 ug/L	49.6 ug/L

(1) Maximum concentration present in a method blank affecting all samples.
(2) Maximum concentration present in a preparation blank (240-42315) affecting total and dissolved samples GSP-MW1-042612 and GSP-MW2-042612.
(3) Maximum concentration present in a preparation blank (240-42347) affecting total and dissolved samples GSP-MW3-042612.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The positive results less than the blank action level reported for antimony, copper, molybdenum, thallium, tungsten and zinc were qualified "B" as a result of laboratory blank contamination.

- The internal standard recoveries for Lithium-6 were < 60% quality control limit affecting total and dissolved sample GSP-MW1-042612. The nondetected results reported for beryllium were qualified as biased low, "UL".

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated, "J".

Notes

Nondetected results are reported to the method detection limits.

The contract required detection limit (CRDL) percent recoveries for cadmium, cobalt, copper, lead, nickel, silver and thallium were > 110% quality control limit affecting all samples. However,

no validation actions were required as all sample results were either > 2X CRDL, nondetects or were qualified as a result of blank contamination.

Executive Summary

Laboratory Performance: Several contaminants were present in the laboratory method / preparation blanks. The CRDL percent recovery for barium was > 110% quality control limit affecting all samples.

Other Factors Affecting Data Quality: Positive results reported below the RL but above the MDL were qualified as estimated. The internal standard recoveries for Lithium-6 were < 60% quality control limit affecting total and dissolved sample GSP-MW1-042612.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993 and the Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994).

The text of this report has been formulated to address only those problem areas affecting data quality.

Terri L Solomon

Tetra Tech
Terri L. Solomon
Environmental Scientist

Tetra Tech
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 04021	NSAMPLE	GSP-MW1-042612			GSP-MW2-042612			GSP-MW3-042612		
SDG: 240-10727-1	LAB_ID	240-10727-2			240-10727-3			240-10727-4		
FRACTION: M	SAMP_DATE	4/26/2012			4/26/2012			4/26/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.18	B	A	0.13	U		0.27	B	A
ARSENIC		5.7			0.99	J	P	6		
BARIUM		73			10			9.9	K	C
BERYLLIUM		0.2	UL	N	0.2	U		0.2	U	
CADMIUM		0.13	U		0.13	U		0.13	U	
CHROMIUM		0.86	J	P	0.71	U		0.71	U	
COBALT		9.3			12			17		
COPPER		1.6	B	A	1.3	B	A	1.8	B	A
LEAD		0.18	U		0.18	U		0.18	U	
MERCURY		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		2.1	B	A	0.13	B	A	0.84	B	A
NICKEL		8.6			12			16		
SELENIUM		0.59	J	P	0.57	U		0.57	U	
SILVER		0.08	U		0.08	U		0.08	U	
THALLIUM		0.16	B	A	0.21	B	A	0.88	B	A
TUNGSTEN		0.37	U		0.37	U		1	B	A
VANADIUM		0.8	J	P	0.44	U		0.55	J	P
ZINC		25	B	A	27	B	A	51		

PROJ_NO: 04021	NSAMPLE	GSP-MW1-042612			GSP-MW2-042612			GSP-MW3-042612		
SDG: 240-10727-1	LAB_ID	240-10727-2			240-10727-3			240-10727-4		
FRACTION: MF	SAMP_DATE	4/26/2012			4/26/2012			4/26/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.19	B	A	0.13	U		0.13	U	
ARSENIC		5.6			0.92	J	P	5.5		
BARIUM		76			9.9	K	C	9.5	K	C
BERYLLIUM		0.2	UL	N	0.2	U		0.2	U	
CADMIUM		0.13	U		0.13	U		0.13	U	
CHROMIUM		0.82	J	P	0.71	U		0.71	U	
COBALT		9.4			12			16		
COPPER		1	B	A	1.7	B	A	0.67	B	A
LEAD		0.18	U		0.18	U		0.18	U	
MERCURY		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		2.2	B	A	0.093	U		0.25	B	A
NICKEL		8.9			12			15		
SELENIUM		0.72	J	P	0.57	U		0.57	U	
SILVER		0.08	U		0.08	U		0.08	U	
THALLIUM		0.3	B	A	0.16	B	A	0.5	B	A
TUNGSTEN		0.37	U		0.37	U		0.41	B	A
VANADIUM		1	J	P	0.44	U		0.44	U	
ZINC		25	B	A	27	B	A	51		

PROJ_NO: 04021	NSAMPLE	GSP-MW1-042612			GSP-MW2-042612			GSP-MW3-042612		
SDG: 240-10727-1	LAB_ID	240-10727-2			240-10727-3			240-10727-4		
FRACTION: MISC	SAMP_DATE	4/26/2012			4/26/2012			4/26/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.082	U		0.082	U		0.082	U	

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: GSP-MW1-042612
Lab Sample ID: 240-10727-2
Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG ID.:
Matrix: Water
Date Sampled: 04/26/2012 10:14
Reporting Basis: WET
Date Received: 04/27/2012 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.18	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	5.7	5.0	0.40	ug/L			1	6020
7440-39-3	Barium	73	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	0.86	2.0	0.71	ug/L	J		1	6020
7440-48-4	Cobalt	9.3	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	1.6	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	2.1	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	8.6	2.0	0.20	ug/L			1	6020
7782-49-2	Selenium	0.59	5.0	0.57	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.16	2.0	0.14	ug/L	J		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7440-62-2	Vanadium	0.80	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	25	20	2.3	ug/L		B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW1-042612
Lab Sample ID: 240-10727-2
Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG ID.:
Matrix: Water
Date Sampled: 04/26/2012 10:14
Reporting Basis: WET
Date Received: 04/27/2012 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: GSP-MW2-042612
Lab Sample ID: 240-10727-3
Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG ID.:
Matrix: Water
Date Sampled: 04/26/2012 12:25
Reporting Basis: WET
Date Received: 04/27/2012 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	0.99	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	10	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	12	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	1.3	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	0.13	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	12	2.0	0.20	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.21	2.0	0.14	ug/L	J		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7440-62-2	Vanadium	20	20	0.44	ug/L	U		1	6020
7440-66-6	Zinc	27	20	2.3	ug/L		B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW2-042612

Lab Sample ID: 240-10727-3

Lab Name: TestAmerica Canton

Job No.: 240-10727-1

SDG ID.:

Matrix: Water

Date Sampled: 04/26/2012 12:25

Reporting Basis: WET

Date Received: 04/27/2012 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: GSP-MW3-042612
Lab Sample ID: 240-10727-4
Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG ID.:
Matrix: Water
Date Sampled: 04/26/2012 14:40
Reporting Basis: WET
Date Received: 04/27/2012 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.27	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	6.0	5.0	0.40	ug/L			1	6020
7440-39-3	Barium	9.9	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	17	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	1.8	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	0.84	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	16	2.0	0.20	ug/L		B	1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.88	2.0	0.14	ug/L	J		1	6020
7440-33-7	Tungsten	1.0	10	0.37	ug/L	J		1	6020
7440-62-2	Vanadium	0.55	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	51	20	2.3	ug/L		B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW3-042612
Lab Sample ID: 240-10727-4
Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG ID.:
Matrix: Water
Date Sampled: 04/26/2012 14:40
Reporting Basis: WET
Date Received: 04/27/2012 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW1-042612 Lab Sample ID: 240-10727-2

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG ID.:

Matrix: Water Date Sampled: 04/26/2012 10:14

Reporting Basis: WET Date Received: 04/27/2012 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.19	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	5.6	5.0	0.40	ug/L			1	6020
7440-39-3	Barium	76	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	0.82	2.0	0.71	ug/L	J		1	6020
7440-48-4	Cobalt	9.4	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	1.0	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	2.2	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	8.9	2.0	0.20	ug/L			1	6020
7782-49-2	Selenium	0.72	5.0	0.57	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.30	2.0	0.14	ug/L	J		1	6020
7440-62-2	Vanadium	1.0	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	25	20	2.3	ug/L		B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW2-042612
Lab Sample ID: 240-10727-3
Lab Name: TestAmerica Canton
Job No.: 240-10727-1
SDG ID.:
Matrix: Water
Date Sampled: 04/26/2012 12:25
Reporting Basis: WET
Date Received: 04/27/2012 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	0.92	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	9.9	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	12	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	1.7	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	10	10	0.093	ug/L	U		1	6020
7440-02-0	Nickel	12	2.0	0.20	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.16	2.0	0.14	ug/L	J		1	6020
7440-62-2	Vanadium	20	20	0.44	ug/L	U		1	6020
7440-66-6	Zinc	27	20	2.3	ug/L		B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW3-042612 Lab Sample ID: 240-10727-4

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG ID.:

Matrix: Water Date Sampled: 04/26/2012 14:40

Reporting Basis: WET Date Received: 04/27/2012 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	5.5	5.0	0.40	ug/L			1	6020
7440-39-3	Barium	9.5	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	16	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	0.67	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	0.25	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	15	2.0	0.20	ug/L		B	1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.50	2.0	0.14	ug/L	J		1	6020
7440-62-2	Vanadium	20	20	0.44	ug/L	U		1	6020
7440-66-6	Zinc	51	20	2.3	ug/L		B	1	6020
7440-33-7	Tungsten	0.41	10	0.37	ug/L	J		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

TestAmerica Canton

Client Sample ID: GSP-MW1-042612

Dissolved HPLC - Mass. Spec.

Lot-Sample #...:	G2E010420-001	Work Order #...:	MTAGA1AA	Matrix.....:	WATER
Date Sampled...:	04/26/12	Date Received..:	05/01/12		
Prep Date.....:	05/07/12	Analysis Date..:	05/15/12		
Prep Batch #...:	2128058				
Dilution Factor:	1	Method.....:	SW846 6850		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	ND	1.0	ug/L	0.082

TestAmerica Canton

Client Sample ID: GSP-MW2-042612

Dissolved HPLC - Mass. Spec.

Lot-Sample #...:	G2E010420-002	Work Order #...:	MTAGC1AA	Matrix.....:	WATER
Date Sampled...:	04/26/12	Date Received..:	05/01/12		
Prep Date.....:	05/07/12	Analysis Date..:	05/15/12		
Prep Batch #...:	2128058				
Dilution Factor:	1	Method.....:	SW846 6850		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	ND	1.0	ug/L	0.082

TestAmerica Canton

Client Sample ID: GSP-MW3-042612

Dissolved HPLC - Mass. Spec.

Lot-Sample #...:	G2E010420-003	**Work Order #...:**	MTAGD1AA	**Matrix.....:**	WATER
Date Sampled...:	04/26/12	**Date Received..:**	05/01/12		
Prep Date.....:	05/07/12	**Analysis Date..:**	05/15/12		
Prep Batch #...:	2128058				
Dilution Factor:	1	**Method.....:**	SW846 6850		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	ND	1.0	ug/L	0.082

APPENDIX C
SUPPORT DOCUMENTATION

CASE NARRATIVE

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Project: MSA Groundwater Sampling

Report Number: 240-10727-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The Perchlorate analysis was performed at the TestAmerica West Sacramento Laboratory.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 04/27/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.3 and 2.3 C.

VOLATILE ORGANIC COMPOUNDS (GC MS)

Samples TB-042612 (240-10727-1), GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for volatile organic compounds (GC MS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 05/01/2012.

1,2,3-Trichlorobenzene was detected in method blank MB 240-42324/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

2-Chloroethyl vinyl ether failed the recovery criteria low for the MS/MSD of sample 240-10770-2 in batch 240-42324.

Refer to the QC report for details.

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 05/03/2012 and analyzed on 05/09/2012.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

No difficulties were encountered during the SVOCs analyses. All quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 04/29/2012.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-42085/7 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 42628.

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 05/03/2012 and analyzed on 05/04/2012.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 42661.

No difficulties were encountered during the DRO analyses. All quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/01/2012 and analyzed on 05/02/2012.

The continuing calibration verification (CCV) for Molybdenum associated with batch 42586 recovered above the upper control limit. The samples and method blank associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/01/2012 and analyzed on 05/02/2012.

Barium, Copper and Zinc were detected in method blank MB 240-42315/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Several analytes were detected in method blank MB 240-42347/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The continuing calibration verification (CCV) for Molybdenum associated with batch 42586 recovered above the upper control limit. The samples and method blank associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples GSP-MW1-042612 (240-10727-2), GSP-MW2-042612 (240-10727-3) and GSP-MW3-042612 (240-10727-4) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact

Company Name: Tetra Tech Inc.	Client Project Manager: Tony Aparavage	Site Contact: Walt Pryor	Lab Contact: Pat O'Meara	COC No:
Address: 20251 Century Blvd.	Telephone: 301 528-3021	Telephone: 301 991-3914	Telephone: 330 497-9396	1 of 1 COCs
City/State/Zip: Germantown, MD 20874	Email:	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone: 301 528-3021		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client: ☐ Lab pickup: ☐ Lab sampling: ☐
Project Name: MSA Grounded Water Sampling	Method of Shipment/Carrier: Fed Ex			
Project Number: 112IC04021-02	Shipping/Tracking No:			Job/SDG No:
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite-C / Grab-G	VOCs	Total PPM	Diss PPM	1,4 Dioxane	DRO	GRO	Perchlorate				Sample Specific Notes / Special Instructions:
TB-042612	4-26-12	—		X						2					N	G	X										
GSP-MW1-042612	↓	1014		X					2	5			5		↓	↓	X	X	X	X	X	X	X				
GSP-MW2-042612		1225		X					2	5			5				X	X	X	X	X	X	X				
GSP-MW3-042612		1440		X					2	5			5				X	X	X	X	X	X	X				

Page 957 of 960

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walt Pr	TT Inc.	4-26-12 / 1700			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			Greg Burns	TA	4/27/12 0915

05/30/2012

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

TAL-0018 (1008)

HOLDTIME

SDG 240-10727-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	UG/L	GSP-MW1-042612	240-10727-2	NM	4/26/2012	5/2/2012	5/3/2012	6	1	7
HG	UG/L	GSP-MW2-042612	240-10727-3	NM	4/26/2012	5/2/2012	5/3/2012	6	1	7
HG	UG/L	GSP-MW3-042612	240-10727-4	NM	4/26/2012	5/2/2012	5/3/2012	6	1	7
M	UG/L	GSP-MW3-042612	240-10727-4	NM	4/26/2012	5/1/2012	5/2/2012	5	1	6
M	UG/L	GSP-MW2-042612	240-10727-3	NM	4/26/2012	5/1/2012	5/2/2012	5	1	6
M	UG/L	GSP-MW1-042612	240-10727-2	NM	4/26/2012	5/1/2012	5/2/2012	5	1	6
HGF	UG/L	GSP-MW3-042612	240-10727-4	NM	4/26/2012	5/2/2012	5/3/2012	6	1	7
HGF	UG/L	GSP-MW1-042612	240-10727-2	NM	4/26/2012	5/2/2012	5/3/2012	6	1	7
HGF	UG/L	GSP-MW2-042612	240-10727-3	NM	4/26/2012	5/2/2012	5/3/2012	6	1	7
MF	UG/L	GSP-MW3-042612	240-10727-4	NM	4/26/2012	5/1/2012	5/2/2012	5	1	6
MF	UG/L	GSP-MW2-042612	240-10727-3	NM	4/26/2012	5/1/2012	5/2/2012	5	1	6
MF	UG/L	GSP-MW1-042612	240-10727-2	NM	4/26/2012	5/1/2012	5/2/2012	5	1	6
PCL	UG/L	GSP-MW3-042612	240-10727-4	NM	4/26/2012	5/7/2012	5/15/2012	11	8	19
PCL	UG/L	GSP-MW2-042612	240-10727-3	NM	4/26/2012	5/7/2012	5/15/2012	11	8	19
PCL	UG/L	GSP-MW1-042612	240-10727-2	NM	4/26/2012	5/7/2012	5/15/2012	11	8	19

SAMPLE SUMMARY

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10727-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-10727-1	TB-042612	Water	04/26/2012 0000	04/27/2012 0915
240-10727-2	GSP-MW1-042612	Water	04/26/2012 1014	04/27/2012 0915
240-10727-3	GSP-MW2-042612	Water	04/26/2012 1225	04/27/2012 0915
240-10727-4	GSP-MW3-042612	Water	04/26/2012 1440	04/27/2012 0915

METHOD SUMMARY

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10727-1

Description	Lab Location	Method	Preparation Method
Matrix Water			
Volatile Organic Compounds by GC/MS	TAL NC	SW846 8260C	
Purge and Trap	TAL NC		SW846 5030C
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270C	
Liquid-Liquid Extraction (Continuous)	TAL NC		SW846 3520C
Gasoline Range Organics - (GC)	TAL NC	SW846 8015B	
Purge and Trap	TAL NC		SW846 5030B
Diesel Range Organics (DRO) (GC)	TAL NC	SW846 8015B	
Liquid-Liquid Extraction (Separatory Funnel)	TAL NC		SW846 3510C
Metals (ICP/MS)	TAL NC	SW846 6020	
Preparation, Total Recoverable or Dissolved Metals	TAL NC		SW846 3005A
Metals (ICP/MS)	TAL NC	SW846 6020	
Preparation, Total Recoverable or Dissolved Metals	TAL NC		SW846 3005A
Sample Filtration, Field			FIELD_FLTRD
Mercury (CVAA)	TAL NC	SW846 7470A	
Preparation, Mercury	TAL NC		SW846 7470A
Mercury (CVAA)	TAL NC	SW846 7470A	
Preparation, Mercury	TAL NC		SW846 7470A
Sample Filtration, Field			FIELD_FLTRD
General Sub Contract Method	TAL WSC	Subcontract	

Lab References:

TAL NC = TestAmerica Canton

TAL WSC = TestAmerica West Sacramento

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

ICV Source: MTMSICVW_00014 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00039

Analyte	ICV 240-42586/5 05/02/2012 06:12				CCV 240-42586/58 05/02/2012 11:16				CCV 240-42586/70 05/02/2012 12:22			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	83.3		80.0	104	95.6		100	96	94.5		100	95
Arsenic	80.4		80.0	101	98.6		100	99	98.0		100	98
Barium	82.0		80.0	102	96.5		100	96	95.2		100	95
Beryllium	79.3		80.0	99	98.3		100	98	94.7		100	95
Cadmium	81.4		80.0	102	96.8		100	97	96.5		100	96
Chromium	81.6		80.0	102	98.3		100	98	98.4		100	98
Cobalt	81.1		80.0	101	98.8		100	99	100		100	100
Copper	84.4		80.0	105	102		100	102	102		100	102
Lead	82.1		80.0	103	97.8		100	98	96.3		100	96
Molybdenum	84.9		80.0	106	99.5		100	99	99.9		100	100
Nickel	82.5		80.0	103	98.9		100	99	100		100	100
Selenium	82.3		80.0	103	101		100	101	99.7		100	100
Silver	83.8		80.0	105	98.7		100	99	97.9		100	98
Thallium	81.6		80.0	102	99.0		100	99	100		100	100
Tungsten	80.6		80.0	101	98.6		100	99	98.6		100	99
Vanadium	80.2		80.0	100	97.7		100	98	97.1		100	97
Zinc	82.6		80.0	103	100		100	100	99.8		100	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

ICV Source: MTMSICVW_00014 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00039

Analyte	CCV 240-42586/82 05/02/2012 13:30				CCV 240-42586/94 05/02/2012 14:35				CCV 240-42586/122 05/02/2012 17:12			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	94.0		100	94	93.3		100	93	95.8		100	96
Arsenic	98.4		100	98	98.7		100	99	97.4		100	97
Barium	96.0		100	96	94.1		100	94	95.6		100	96
Beryllium	96.8		100	97	94.8		100	95	96.2		100	96
Cadmium	95.8		100	96	96.1		100	96	96.5		100	97
Chromium	99.3		100	99	99.9		100	100	99.8		100	100
Cobalt	101		100	101	101		100	101	100		100	100
Copper	102		100	102	102		100	102	101		100	101
Lead	94.7		100	95	94.5		100	94	96.2		100	96
Molybdenum	99.8		100	100	99.3		100	99	112		100	112
Nickel	101		100	101	102		100	102	101		100	101
Selenium	99.8		100	100	99.9		100	100	98.2		100	98
Silver	97.8		100	98	97.3		100	97	98.9		100	99
Thallium	101		100	101	101		100	101	103		100	103
Tungsten	98.4		100	98	98.3		100	98	101		100	101
Vanadium	97.1		100	97	98.1		100	98	98.3		100	98
Zinc	101		100	101	102		100	102	102		100	102

NO Samples Affected

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

ICV Source: MTMSICVW_00014 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00039

Analyte	CCV 240-42586/134 05/02/2012 18:18				CCV 240-42586/146 05/02/2012 19:27							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	96.9		100	97	97.4		100	97				
Arsenic	98.8		100	99	98.8		100	99				
Barium	96.6		100	97	96.6		100	97				
Beryllium	95.1		100	95	95.1		100	95				
Cadmium	98.4		100	98	98.1		100	98				
Chromium	99.8		100	100	99.6		100	100				
Cobalt	100		100	100	99.9		100	100				
Copper	103		100	103	103		100	103				
Lead	97.7		100	98	98.9		100	99				
Molybdenum	100		100	100	100		100	100				
Nickel	101		100	101	101		100	101				
Selenium	98.5		100	98	98.7		100	99				
Silver	100		100	100	99.1		100	99				
Thallium	102		100	102	101		100	101				
Tungsten	99.9		100	100	100		100	100				
Vanadium	98.0		100	98	97.8		100	98				
Zinc	101		100	101	101		100	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

ICV Source: MTHGICVW_00289 Concentration Units: ug/L

CCV Source: MTHGCALW_00189

Analyte	ICV 240-42622/7-A 05/03/2012 16:06				CCVL 240-42622/10-A 05/03/2012 16:12				CCV 240-42622/12-A 05/03/2012 17:26			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.35		2.50	94	5.11		5.00	102	5.27		5.00	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

ICV Source: MTHGICVW_00289 Concentration Units: ug/L

CCV Source: MTHGCALW_00189

Analyte	CCV 240-42622/12-A 05/03/2012 17:51				CCV 240-42622/12-A 05/03/2012 18:17							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.23		5.00	105	5.24		5.00	105				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Method: 6020 Instrument ID: I8

Lab Sample ID: CRI 240-42586/7 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRIW_00016

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.09		105	50-150
Arsenic	2.00	2.08	J	104	50-150
Barium	1.00	1.15	J	115	50-150
Beryllium	1.00	1.04		104	50-150
Cadmium	0.500	0.625	J	125	50-150
Chromium	2.00	2.15		107	50-150
Cobalt	1.00	1.12		112	50-150
Copper	2.00	2.66		133	50-150
Lead	1.00	1.22		122	50-150
Molybdenum	10.0	10.0		100	50-150
Nickel	2.00	2.94		147	50-150
Selenium	2.00	2.12	J	106	50-150
Silver	0.500	0.569	J	114	50-150
Thallium	1.00	1.23	J	123	50-150
Vanadium	5.00	5.01	J	100	50-150
Tungsten	10.0	9.78	J	98	50-150
Zinc	10.0	10.4	J	104	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Method: 7470A Instrument ID: H4

Lab Sample ID: CRA 240-42622/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00189

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.191	J	95	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-42586/6 05/02/2012 06:18		CCB 240-42586/59 05/02/2012 11:21		CCB 240-42586/71 05/02/2012 12:27		CCB 240-42586/83 05/02/2012 13:35	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	2.0	U	0.151	J	0.149	J	0.138	J
Arsenic	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Barium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Beryllium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Cadmium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Chromium	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Cobalt	1.0	0.0630	J	0.0760	J	1.0	U	1.0	U
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Molybdenum	10	0.730	J	0.726	J	0.669	J	0.633	J
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	2.0	0.429	J	0.510	J	0.575	J	0.532	J
Tungsten	10	1.02	J	0.808	J	0.885	J	0.769	J
Vanadium	20	20	U	20	U	20	U	20	U
Zinc	20	20	U	20	U	20	U	20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-42586/95 05/02/2012 14:40		CCB 240-42586/123 05/02/2012 17:17		CCB 240-42586/135 05/02/2012 18:24		CCB 240-42586/147 05/02/2012 19:32	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	2.0	U	0.182	J	0.157	J	0.184	J
Arsenic	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Barium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Beryllium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Cadmium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Chromium	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Cobalt	1.0	1.0	U	1.0	U	0.0950	J	0.0960	J
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Molybdenum	10	0.755	J	3.01	J	0.820	J	0.869	J
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	2.0	0.512	J	0.664	J	0.626	J	0.570	J
Tungsten	10	0.857	J	1.17	J	0.925	J	0.888	J
Vanadium	20	20	U	20	U	20	U	20	U
Zinc	20	20	U	20	U	20	U	20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-42622/8-A 05/03/2012 16:08		CCB 240-42622/11-A 05/03/2012 17:28		CCB 240-42622/11-A 05/03/2012 17:52		CCB 240-42622/11-A 05/03/2012 18:18	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U	0.20	U	0.20	U	0.20	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-42315/1-A

Instrument Code: I8 Batch No.: 42586

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6020
7440-38-2	Arsenic	5.0	U		6020
7440-39-3	Barium	1.12	J		6020
7440-41-7	Beryllium	1.0	U		6020
7440-43-9	Cadmium	1.0	U		6020
7440-47-3	Chromium	2.0	U		6020
7440-48-4	Cobalt	1.0	U		6020
7440-50-8	Copper	0.546	J		6020
7439-92-1	Lead	1.0	U		6020
7439-98-7	Molybdenum	10	U		6020
7440-02-0	Nickel	2.0	U		6020
7782-49-2	Selenium	5.0	U		6020
7440-22-4	Silver	1.0	U		6020
7440-28-0	Thallium	2.0	U		6020
7440-62-2	Vanadium	20	U		6020
7440-33-7	Tungsten	10	U		6020
7440-66-6	Zinc	6.30	J		6020

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-42347/1-A

Instrument Code: I8 Batch No.: 42586

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6020
7440-38-2	Arsenic	5.0 OL	U		6020
7440-39-3	Barium	1.02	J		6020
7440-41-7	Beryllium	1.0	U		6020
7440-43-9	Cadmium	1.0	U		6020
7440-47-3	Chromium	2.0	U		6020
7440-48-4	Cobalt	1.0	U		6020
7440-50-8	Copper	0.607	J		6020
7439-92-1	Lead	1.0	U		6020
7439-98-7	Molybdenum	0.262	J	^	6020
7440-02-0	Nickel	0.216	J		6020
7782-49-2	Selenium	5.0	U		6020
7440-22-4	Silver	1.0	U		6020
7440-28-0	Thallium	2.0	U		6020
7440-62-2	Vanadium	20	U		6020
7440-33-7	Tungsten	10	U		6020
7440-66-6	Zinc	9.92	J		6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-42491/1-A

Instrument Code: H4 Batch No.: 42777

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.20	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: ICSA 240-42586/8 Instrument ID: I8

Lab File ID: I8050212A.csv ICS Source: MTMSICSAW_00014

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.212**	
Arsenic		**0.475**	
Barium		**0.435**	
Beryllium		**0.0650**	
Cadmium		**-0.259**	
Chromium		**0.720**	
Cobalt		**0.289**	
Copper		**0.650**	
Lead		**0.271**	
Molybdenum	**1000**	**1012**	**101**
Nickel		**0.712**	
Selenium		**0.216**	
Silver		**0.0660**	
Thallium		**0.194**	
Tungsten		**0.433**	
Vanadium		**0.271**	
Zinc		**1.99**	
Aluminum	*50000*	*50280*	*101*
Boron		*0.986*	
Calcium	*50000*	*51390*	*103*
Iron	*50000*	*50160*	*100*
Magnesium	*50000*	*51560*	*103*
Manganese		*0.358*	
Potassium	*50000*	*51690*	*103*
Sodium	*50000*	*51750*	*104*
Strontium		*1.18*	
Tin		*0.104*	
Titanium	*1000*	*1024*	*102*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: ICSAB 240-42586/9 Instrument ID: I8

Lab File ID: I8050212A.csv ICS Source: MTMSICSABW_00014

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**101**	**101**
Arsenic	**100**	**98.5**	**99**
Barium	**100**	**101**	**101**
Beryllium	**100**	**103**	**103**
Cadmium	**100**	**99.4**	**99**
Chromium	**100**	**106**	**106**
Cobalt	**100**	**99.2**	**99**
Copper	**100**	**101**	**101**
Lead	**100**	**105**	**105**
Molybdenum	**1100**	**1129**	**103**
Nickel	**100**	**104**	**104**
Selenium	**100**	**103**	**103**
Silver	**100**	**102**	**102**
Thallium	**100**	**104**	**104**
Tungsten	**100**	**100**	**100**
Vanadium	**100**	**100**	**100**
Zinc	**100**	**103**	**103**
Aluminum	*50000*	*51270*	*103*
Boron	*100*	*103*	*103*
Calcium	*50000*	*51570*	*103*
Iron	*50000*	*51710*	*103*
Magnesium	*50000*	*52440*	*105*
Manganese	*100*	*106*	*106*
Potassium	*50000*	*50790*	*102*
Sodium	*50000*	*52400*	*105*
Strontium	*100*	*94.6*	*95*
Tin	*100*	*99.4*	*99*
Titanium	*1100*	*1148*	*104*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: ICSA 240-42586/120 Instrument ID: I8

Lab File ID: I8050212A.csv ICS Source: MTMSICSAW_00014

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.179**	
Arsenic		**0.465**	
Barium		**0.208**	
Beryllium		**0.0940**	
Cadmium		**-0.411**	
Chromium		**0.513**	
Cobalt		**0.187**	
Copper		**0.596**	
Lead		**0.138**	
Molybdenum	**1000**	**1002**	**100**
Nickel		**0.561**	
Selenium		**0.0590**	
Silver		**0.0480**	
Thallium		**0.261**	
Tungsten		**0.349**	
Vanadium		**0.157**	
Zinc		**2.47**	
Aluminum	*50000*	*52270*	*105*
Boron		*6.99*	
Calcium	*50000*	*51730*	*103*
Iron	*50000*	*46660*	*93*
Magnesium	*50000*	*48690*	*97*
Manganese		*0.669*	
Potassium	*50000*	*47620*	*95*
Sodium	*50000*	*54360*	*109*
Strontium		*0.722*	
Tin		*0.178*	
Titanium	*1000*	*1027*	*103*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Lab Sample ID: ICSAB 240-42586/121 Instrument ID: I8

Lab File ID: I8050212A.csv ICS Source: MTMSICSABW_00014

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**96.6**	**97**
Arsenic	**100**	**97.5**	**97**
Barium	**100**	**97.3**	**97**
Beryllium	**100**	**97.8**	**98**
Cadmium	**100**	**95.5**	**96**
Chromium	**100**	**107**	**107**
Cobalt	**100**	**101**	**101**
Copper	**100**	**102**	**102**
Lead	**100**	**101**	**101**
Molybdenum	**1100**	**1116**	**101**
Nickel	**100**	**105**	**105**
Selenium	**100**	**100**	**100**
Silver	**100**	**98.0**	**98**
Thallium	**100**	**108**	**108**
Tungsten	**100**	**99.9**	**100**
Vanadium	**100**	**99.5**	**100**
Zinc	**100**	**104**	**104**
Aluminum	*50000*	*51690*	*103*
Boron	*100*	*101*	*101*
Calcium	*50000*	*52300*	*105*
Iron	*50000*	*47060*	*94*
Magnesium	*50000*	*48420*	*97*
Manganese	*100*	*109*	*109*
Potassium	*50000*	*47230*	*94*
Sodium	*50000*	*54020*	*108*
Strontium	*100*	*94.4*	*94*
Tin	*100*	*95.3*	*95*
Titanium	*1100*	*1155*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

NOT IN SDG

Client ID: _____ Lab ID: 240-10748-D-1-B MS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	96.8		0.26	J	100	97	44-153		6020
Arsenic	994		13		1000	98	82-123		6020
Barium	1090		110		1000	97	45-144		6020
Beryllium	944		1.0	U	1000	94	77-124		6020
Cadmium	955		1.0	U	1000	96	78-117		6020
Chromium	1020		2.0	U	1000	102	72-110		6020
Cobalt	1020		0.35	J	1000	102	67-114		6020
Copper	1010		0.33	J	1000	101	60-123		6020
Lead	1040		1.0	U	1000	104	73-115		6020
Molybdenum	106		9.4	J	100	97	80-110		6020
Nickel	1010		2.8		1000	101	72-111		6020
Selenium	977		5.0	U	1000	98	72-148		6020
Silver	98.9		1.0	U	100	99	10-139		6020
Thallium	260		0.62	J	250	104	69-117		6020
Vanadium	996		20	U	1000	100	70-112		6020
Tungsten	97.6		0.77	J	100	97	43-133		6020
Zinc	990		3.0	J	1000	99	49-156		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

NOT IN SDG

Client ID: _____ Lab ID: 240-10756-A-27-D MS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	97.3		0.31	J	100	97	44-153		6020
Arsenic	984		1.2	J	1000	98	82-123		6020
Barium	979		34		1000	94	45-144		6020
Beryllium	938		1.0	U	1000	94	77-124		6020
Cadmium	936		0.29	J	1000	94	78-117		6020
Chromium	979		1.3	J	1000	98	72-110		6020
Cobalt	965		0.20	J	1000	96	67-114		6020
Copper	960		2.9		1000	96	60-123		6020
Lead	989		2.8		1000	99	73-115		6020
Molybdenum	102		3.7	J	100	98	80-110		6020
Nickel	964		1.7	J	1000	96	72-111		6020
Selenium	978		1.5	J	1000	98	72-148		6020
Silver	96.7		1.0	U	100	97	10-139		6020
Thallium	246		0.66	J	250	98	69-117		6020
Vanadium	968		20	U	1000	97	70-112		6020
Tungsten	95.4		0.88	J	100	95	43-133		6020
Zinc	1060		110		1000	95	49-156		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

NOT IN SDG

Client ID: _____ Lab ID: 240-10725-K-8-B MS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.01		0.20	U	1.00	101	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

NOT IN SDG

Client ID: _____ Lab ID: 240-10725-N-8-B MS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.04		0.20	U	1.00	104	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

NOT IN SDG

Client ID:

Lab ID: 240-10748-D-1-C MSD

Lab Name: TestAmerica Canton

Job No.: 240-10727-1

SDG No.:

Matrix: Water

Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	95.0		100	95	44-153	2	20		6020
Arsenic	987		1000	97	82-123	1	20		6020
Barium	1080		1000	96	45-144	1	20		6020
Beryllium	908		1000	91	77-124	4	20		6020
Cadmium	948		1000	95	78-117	1	20		6020
Chromium	995		1000	100	72-110	2	20		6020
Cobalt	989		1000	99	67-114	3	20		6020
Copper	1010		1000	100	60-123	0	20		6020
Lead	1020		1000	102	73-115	2	20		6020
Molybdenum	107		100	98	80-110	1	20		6020
Nickel	1000		1000	100	72-111	1	20		6020
Selenium	981		1000	98	72-148	0	20		6020
Silver	98.8		100	99	10-139	0	20		6020
Thallium	257		250	102	69-117	1	20		6020
Vanadium	984		1000	98	70-112	1	20		6020
Tungsten	96.2		100	95	43-133	1	20		6020
Zinc	989		1000	99	49-156	0	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

NOT IN SDG

Client ID: _____ Lab ID: 240-10756-A-27-E MSD

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	101		100	100	44-153	4	20		6020
Arsenic	1010		1000	101	82-123	3	20		6020
Barium	1010		1000	97	45-144	3	20		6020
Beryllium	950		1000	95	77-124	1	20		6020
Cadmium	957		1000	96	78-117	2	20		6020
Chromium	1010		1000	101	72-110	3	20		6020
Cobalt	997		1000	100	67-114	3	20		6020
Copper	985		1000	98	60-123	3	20		6020
Lead	1020		1000	101	73-115	3	20		6020
Molybdenum	104		100	101	80-110	3	20		6020
Nickel	992		1000	99	72-111	3	20		6020
Selenium	999		1000	100	72-148	2	20		6020
Silver	99.1		100	99	10-139	2	20		6020
Thallium	254		250	101	69-117	3	20		6020
Vanadium	1010		1000	101	70-112	4	20		6020
Tungsten	101		100	100	43-133	5	20		6020
Zinc	1080		1000	98	49-156	2	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

NOT IN SDG

Client ID: _____ Lab ID: 240-10725-K-8-C MSD

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	1.04		1.00	104	69-134	3	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

NOT IN SDG

Client ID:

Lab ID: 240-10725-N-8-C MSD

Lab Name: TestAmerica Canton

Job No.: 240-10727-1

SDG No.:

Matrix: Water

Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	1.04		1.00	104	69-134	0	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-42315/2-A

Lab Name: TestAmerica Canton Job No.: 240-10727-1

Sample Matrix: Water LCS Source: MTICPMSB_00008

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	93.6		94	80	120		6020
Arsenic	1000	948		95	80	120		6020
Barium	1000	942		94	80	120		6020
Beryllium	1000	916		92	80	120		6020
Cadmium	1000	948		95	80	120		6020
Chromium	1000	980		98	80	120		6020
Cobalt	1000	987		99	80	120		6020
Copper	1000	1020		102	80	120		6020
Lead	1000	1020		102	80	120		6020
Molybdenum	100	94.6		95	80	120		6020
Nickel	1000	1010		101	80	120		6020
Selenium	1000	966		97	80	120		6020
Silver	100	101		101	80	120		6020
Thallium	250	250		100	80	120		6020
Vanadium	1000	952		95	80	120		6020
Tungsten	100	90.9		91	80	120		6020
Zinc	1000	1000		100	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-42347/3-A

Lab Name: TestAmerica Canton Job No.: 240-10727-1

Sample Matrix: Water LCS Source: MTICPMSB_00008

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	99.2		99	80	120		6020
Arsenic	1000	984		98	80	120		6020
Barium	1000	965		96	80	120		6020
Beryllium	1000	942		94	80	120		6020
Cadmium	1000	985		98	80	120		6020
Chromium	1000	1020		102	80	120		6020
Cobalt	1000	1020		102	80	120		6020
Copper	1000	1060		106	80	120		6020
Lead	1000	1060		106	80	120		6020
Molybdenum	100	99.0		99	80	120	^	6020
Nickel	1000	1040		104	80	120		6020
Selenium	1000	987		99	80	120		6020
Silver	100	106		106	80	120		6020
Thallium	250	264		105	80	120		6020
Vanadium	1000	990		99	80	120		6020
Tungsten	100	97.2		97	80	120		6020
Zinc	1000	1050		105	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-42491/2-A

Lab Name: TestAmerica Canton Job No.: 240-10727-1

Sample Matrix: Water LCS Source: MTHGICVW_00288

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.10		102	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

NOT IN SDG

Lab ID: 240-10748-D-1-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-10727-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.26	J	10	U	NC		6020
Arsenic	13		13.3	J	NC		6020
Barium	110		114		NC		6020
Beryllium	1.0	U	5.0	U	NC		6020
Cadmium	1.0	U	5.0	U	NC		6020
Chromium	2.0	U	10	U	NC		6020
Cobalt	0.35	J	0.595	J	NC		6020
Copper	0.33	J	10	U	NC		6020
Lead	1.0	U	5.0	U	NC		6020
Molybdenum	9.4	J	9.71	J	NC		6020
Nickel	2.8		2.96	J	NC		6020
Selenium	5.0	U	25	U	NC		6020
Silver	1.0	U	5.0	U	NC		6020
Thallium	0.62	J	1.48	J	NC		6020
Vanadium	20	U	100	U	NC		6020
Tungsten	0.77	J	50	U	NC		6020
Zinc	3.0	J	100	U	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

NOT IN SDG

Lab ID: 240-10756-A-27-A SD

SDG No:

Lab Name: TestAmerica Canton Job No: 240-10727-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.31	J	2.0	U	NC		6020
Arsenic	1.2	J	5.0	U	NC		6020
Barium	34		6.82		NC		6020
Beryllium	1.0	U	1.0	U	NC		6020
Cadmium	0.29	J	1.0	U	NC		6020
Chromium	1.3	J	2.0	U	NC		6020
Cobalt	0.20	J	0.0820	J	NC		6020
Copper	2.9		0.610	J	NC		6020
Lead	2.8		0.560	J	NC		6020
Molybdenum	3.7	J	0.887	J	NC	^	6020
Nickel	1.7	J	0.372	J	NC		6020
Selenium	1.5	J	5.0	U	NC		6020
Silver	1.0	U	1.0	U	NC		6020
Thallium	0.66	J	0.338	J	NC		6020
Vanadium	20	U	20	U	NC		6020
Tungsten	0.88	J	10	U	NC		6020
Zinc	110		22.6		NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-10727-1

SDG Number:

Matrix: Water Instrument ID: I8

Method: 6020 MDL Date: 02/09/2010 15:53

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.13
Arsenic	75.00	5	0.4
Barium	137.00	5	0.19
Beryllium	9.00	1	0.2
Cadmium	111.00	1	0.13
Chromium	52.00	2	0.71
Cobalt	59.00	1	0.058
Copper	65.00	2	0.29
Lead	208.00	1	0.18
Molybdenum	95.00	10	0.093
Nickel	60.00	2	0.2
Selenium	78.00	5	0.57
Silver	107.00	1	0.08
Thallium	205.00	2	0.14
Tungsten	182.00	10	0.37
Vanadium	51.00	20	0.44
Zinc	66.00	20	2.3

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-10727-1

SDG Number:

Matrix: Water Instrument ID: I8

Method: 6020 MDL Date: 02/09/2010 15:53

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.13
Arsenic	75.00	5	0.4
Barium	137.00	5	0.19
Beryllium	9.00	1	0.2
Cadmium	111.00	1	0.13
Chromium	52.00	2	0.71
Cobalt	59.00	1	0.058
Copper	65.00	2	0.29
Lead	208.00	1	0.18
Molybdenum	95.00	10	0.093
Nickel	60.00	2	0.2
Selenium	78.00	5	0.57
Silver	107.00	1	0.08
Thallium	205.00	2	0.14
Tungsten	182.00	10	0.37
Vanadium	51.00	20	0.44
Zinc	66.00	20	2.3

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-10727-1

SDG Number:

Matrix: Water Instrument ID: H4

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-10727-1

SDG Number:

Matrix: Water Instrument ID: H4

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

FORM IX - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-42315/1-A	05/01/2012 09:57	42315		50	50
LCS 240-42315/2-A	05/01/2012 09:57	42315		50	50
240-10748-D-1-B MS	05/01/2012 09:57	42315		50	50
240-10748-D-1-C MSD	05/01/2012 09:57	42315		50	50
240-10727-2	05/01/2012 09:57	42315		50	50
240-10727-2	05/01/2012 09:57	42315		50	50
240-10727-3	05/01/2012 09:57	42315		50	50
240-10727-3	05/01/2012 09:57	42315		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-42347/1-A	05/01/2012 11:27	42347		50	50
LCS 240-42347/3-A	05/01/2012 11:27	42347		50	50
240-10756-A-27-D MS	05/01/2012 11:27	42347		50	50
240-10756-A-27-E MSD	05/01/2012 11:27	42347		50	50
240-10727-4	05/01/2012 11:27	42347		50	50
240-10727-4	05/01/2012 11:27	42347		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-42491/1-A	05/02/2012 13:55	42491		100	100
LCS 240-42491/2-A	05/02/2012 13:55	42491		100	100
240-10725-K-8-B MS	05/02/2012 13:55	42491		100	100
240-10725-K-8-C MSD	05/02/2012 13:55	42491		100	100
240-10725-N-8-B MS	05/02/2012 13:55	42491		100	100
240-10725-N-8-C MSD	05/02/2012 13:55	42491		100	100
240-10727-2	05/02/2012 13:55	42491		100	100
240-10727-2	05/02/2012 13:55	42491		100	100
240-10727-3	05/02/2012 13:55	42491		100	100
240-10727-3	05/02/2012 13:55	42491		100	100
240-10727-4	05/02/2012 13:55	42491		100	100
240-10727-4	05/02/2012 13:55	42491		100	100

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

ICP-MS Instrument ID: I8 Start Date: 05/02/2012 End Date: 05/02/2012

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li	Q	Element Sc	Q	Element Sc	Q	Element Ge	Q	Element In	Q
STD2 240-42586/2 IC	05:55	83		91		92		91		92	
STD3 240-42586/3 IC	06:01	77		87		87		84		87	
STD4 240-42586/4 IC	06:07	92		104		98		99		98	
ICV 240-42586/5	06:12	83		95		91		90		91	
ICB 240-42586/6	06:18	90		103		97		97		98	
CRI 240-42586/7	06:23	89		102		98		96		97	
ICSA 240-42586/8	06:28	70		84		82		81		85	
ICSAB 240-42586/9	06:34	61		79		78		79		83	
CCV 240-42586/58	11:16	65		88		82		79		81	
CCB 240-42586/59	11:21	74		97		87		86		86	
MB 240-42315/1-A	11:59	73		93		84		82		82	
LCS 240-42315/2-A	12:05	72		91		84		82		82	
240-10748-D-1-A SD	12:16	74		92		84		82		80	
CCV 240-42586/70	12:22	66		84		78		74		76	
CCB 240-42586/71	12:27	75		93		84		82		81	
240-10748-D-1-B MS	12:33	68		87		79		77		79	
240-10748-D-1-C MSD	12:39	73		90		81		78		79	
240-10727-2	13:24	59		80		73		69		71	
CCV 240-42586/82	13:30	59		80		74		71		72	
CCB 240-42586/83	13:35	70		89		80		78		78	
240-10727-2	13:41	58		79		73		68		71	
240-10727-3	13:46	65		87		79		78		78	
240-10727-3	13:51	68		87		79		78		77	
CCV 240-42586/94	14:35	65		83		75		71		72	
CCB 240-42586/95	14:40	75		92		82		79		78	
ICSA 240-42586/120	17:00	56		74		66		65		66	
ICSAB 240-42586/121	17:06	49		67		63		62		65	
CCV 240-42586/122	17:12	49		69		66		64		66	
CCB 240-42586/123	17:17	62		78		72		72		72	
MB 240-42347/1-A	17:55	55		74		71		71		71	
LCS 240-42347/3-A	18:01	56		74		70		69		70	
240-10756-A-27-A SD	18:13	60		78		71		70		70	
CCV 240-42586/134	18:18	54		73		67		65		66	
CCB 240-42586/135	18:24	63		80		72		71		70	
240-10756-A-27-D MS	18:30	53		73		66		64		65	
240-10756-A-27-E	18:36	52		72		65		63		64	
240-10727-4	18:43	66		81		72		72		71	
240-10727-4	18:49	65		80		72		72		71	
CCV 240-42586/146	19:27	57		75		68		66		66	
CCB 240-42586/147	19:32	66		82		74		73		71	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

ICP-MS Instrument ID: I8 Start Date: 05/02/2012 End Date: 05/02/2012

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD2 240-42586/2 IC	05:55			96							
STD3 240-42586/3 IC	06:01			91							
STD4 240-42586/4 IC	06:07			99							
ICV 240-42586/5	06:12			95							
ICB 240-42586/6	06:18			98							
CRI 240-42586/7	06:23			97							
ICSA 240-42586/8	06:28			87							
ICSAB 240-42586/9	06:34			87							
CCV 240-42586/58	11:16			82							
CCB 240-42586/59	11:21			85							
MB 240-42315/1-A	11:59			82							
LCS 240-42315/2-A	12:05			83							
240-10748-D-1-A SD	12:16			80							
CCV 240-42586/70	12:22			77							
CCB 240-42586/71	12:27			81							
240-10748-D-1-B MS	12:33			77							
240-10748-D-1-C MSD	12:39			78							
240-10727-2	13:24			73							
CCV 240-42586/82	13:30			74							
CCB 240-42586/83	13:35			77							
240-10727-2	13:41			72							
240-10727-3	13:46			77							
240-10727-3	13:51			77							
CCV 240-42586/94	14:35			72							
CCB 240-42586/95	14:40			76							
ICSA 240-42586/120	17:00			65							
ICSAB 240-42586/121	17:06			65							
CCV 240-42586/122	17:12			67							
CCB 240-42586/123	17:17			70							
MB 240-42347/1-A	17:55			71							
LCS 240-42347/3-A	18:01			70							
240-10756-A-27-A SD	18:13			70							
CCV 240-42586/134	18:18			67							
CCB 240-42586/135	18:24			70							
240-10756-A-27-D MS	18:30			68							
240-10756-A-27-E	18:36			67							
240-10727-4	18:43			70							
240-10727-4	18:49			70							
CCV 240-42586/146	19:27			67							
CCB 240-42586/147	19:32			71							

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 05/02/2012 05:49 End Date: 05/02/2012 19:55

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn			
ICIS 240-42586/1			05:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD2 240-42586/2 IC	1		05:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD3 240-42586/3 IC	1		06:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD4 240-42586/4 IC	1		06:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICV 240-42586/5	1		06:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICB 240-42586/6	1		06:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CRI 240-42586/7	1		06:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSA 240-42586/8	1		06:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSAB 240-42586/9	1		06:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-42586/10			06:39																				
CCB 240-42586/11			06:45																				
CCV 240-42586/12			06:50																				
CCB 240-42586/13			06:56																				
ZZZZZZ			07:02																				
ZZZZZZ			07:07																				
ZZZZZZ			07:13																				
ZZZZZZ			07:18																				
ZZZZZZ			07:23																				
ZZZZZZ			07:30																				
ZZZZZZ			07:38																				
ZZZZZZ			07:45																				
ZZZZZZ			07:52																				
ZZZZZZ			07:59																				
CCV 240-42586/24			08:06																				
CCB 240-42586/25			08:11																				
ZZZZZZ			08:17																				
CCV 240-42586/27			08:22																				
CCB 240-42586/28			08:28																				
ZZZZZZ			08:33																				
ZZZZZZ			08:39																				
ZZZZZZ			08:44																				
ZZZZZZ			08:49																				
ZZZZZZ			08:55																				
ZZZZZZ			09:01																				
CCV 240-42586/35			09:07																				
CCB 240-42586/36			09:13																				
ZZZZZZ			09:18																				
ZZZZZZ			09:23																				
ZZZZZZ			09:30																				
ZZZZZZ			09:36																				
ZZZZZZ			09:41																				
ZZZZZZ			09:48																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 05/02/2012 05:49 End Date: 05/02/2012 19:55

Lab Sample ID	D/F	Type	Time	Analytes																		
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn		
ZZZZZZ			09:55																			
ZZZZZZ			10:00																			
ZZZZZZ			10:05																			
CCV 240-42586/46			10:11																			
CCB 240-42586/47			10:16																			
ZZZZZZ			10:22																			
ZZZZZZ			10:27																			
ZZZZZZ			10:33																			
ZZZZZZ			10:38																			
ZZZZZZ			10:44																			
ZZZZZZ			10:49																			
ZZZZZZ			10:54																			
ZZZZZZ			11:00																			
ZZZZZZ			11:05																			
ZZZZZZ			11:11																			
CCV 240-42586/58	1		11:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 240-42586/59	1		11:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ZZZZZZ			11:27																			
ZZZZZZ			11:32																			
ZZZZZZ			11:38																			
ZZZZZZ			11:43																			
ZZZZZZ			11:48																			
ZZZZZZ			11:54																			
MB 240-42315/1-A	1	R	11:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCS 240-42315/2-A	1	R	12:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ZZZZZZ			12:11																			
240-10748-D-1-A SD ^5	5	D	12:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCV 240-42586/70	1		12:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 240-42586/71	1		12:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
240-10748-D-1-B MS	1	D	12:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
240-10748-D-1-C MSD	1	D	12:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ZZZZZZ			12:46																			
ZZZZZZ			12:52																			
ZZZZZZ			12:57																			
ZZZZZZ			13:02																			
ZZZZZZ			13:08																			
ZZZZZZ			13:13																			
ZZZZZZ			13:19																			
240-10727-2	1	R	13:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCV 240-42586/82	1		13:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 240-42586/83	1		13:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
240-10727-2	1	D	13:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 05/02/2012 05:49 End Date: 05/02/2012 19:55

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn			
240-10727-3	1	R	13:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10727-3	1	D	13:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			13:57																				
ZZZZZZ			14:02																				
ZZZZZZ			14:08																				
ZZZZZZ			14:13																				
ZZZZZZ			14:18																				
ZZZZZZ			14:24																				
ZZZZZZ			14:29																				
CCV 240-42586/94	1		14:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42586/95	1		14:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			14:46																				
ZZZZZZ			14:51																				
ZZZZZZ			14:56																				
ZZZZZZ			15:03																				
ZZZZZZ			15:08																				
ZZZZZZ			15:14																				
ZZZZZZ			15:20																				
ZZZZZZ			15:28																				
ZZZZZZ			15:33																				
ZZZZZZ			15:39																				
CCV 240-42586/106			15:44																				
CCB 240-42586/107			15:49																				
ZZZZZZ			15:55																				
ZZZZZZ			16:00																				
ZZZZZZ			16:06																				
ZZZZZZ			16:11																				
ZZZZZZ			16:17																				
ZZZZZZ			16:22																				
ZZZZZZ			16:28																				
ZZZZZZ			16:33																				
ZZZZZZ			16:39																				
ZZZZZZ			16:44																				
CCV 240-42586/118			16:49																				
CCB 240-42586/119			16:55																				
ICSA 240-42586/120	1		17:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSAB 240-42586/121	1		17:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-42586/122	1		17:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42586/123	1		17:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			17:23																				
ZZZZZZ			17:28																				
ZZZZZZ			17:34																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 05/02/2012 05:49 End Date: 05/02/2012 19:55

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn			
ZZZZZZ			17:39																				
ZZZZZZ			17:44																				
ZZZZZZ			17:50																				
MB 240-42347/1-A	1	R	17:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
LCS 240-42347/3-A	1	R	18:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			18:08																				
240-10756-A-27-A SD	1	R	18:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-42586/134	1		18:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42586/135	1		18:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10756-A-27-D MS	1	R	18:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10756-A-27-E MSD	1	R	18:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10727-4	1	R	18:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10727-4	1	D	18:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			18:54																				
ZZZZZZ			19:00																				
ZZZZZZ			19:05																				
ZZZZZZ			19:11																				
ZZZZZZ			19:16																				
ZZZZZZ			19:22																				
CCV 240-42586/146	1		19:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42586/147	1		19:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			19:38																				
ZZZZZZ			19:43																				
CCV 240-42586/150			19:49																				
CCB 240-42586/151			19:55																				

Prep Types

D = Dissolved

R = Total Recoverable

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/03/2012 15:54 End Date: 05/03/2012 19:41

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 240-42622/1-A			15:54	X																			
IC 240-42622/2-A			15:55	X																			
IC 240-42622/3-A			15:57	X																			
IC 240-42622/4-A			15:59	X																			
IC 240-42622/5-A			16:01	X																			
IC 240-42622/6-A			16:04	X																			
ICV 240-42622/7-A	1		16:06	X																			
ICB 240-42622/8-A	1		16:08	X																			
CRA 240-42622/9-A	1		16:09	X																			
CCVL 240-42622/10-A	1		16:12	X																			
CCB 240-42622/11-A			16:14																				
ZZZZZZ			16:16																				
ZZZZZZ			16:18																				
ZZZZZZ			16:20																				
ZZZZZZ			16:22																				
ZZZZZZ			16:24																				
ZZZZZZ			16:26																				
ZZZZZZ			16:28																				
ZZZZZZ			16:30																				
ZZZZZZ			16:32																				
ZZZZZZ			16:34																				
CCV 240-42622/12-A			16:36																				
CCB 240-42622/11-A			16:38																				
ZZZZZZ			16:40																				
ZZZZZZ			16:42																				
ZZZZZZ			16:44																				
ZZZZZZ			16:46																				
ZZZZZZ			16:48																				
ZZZZZZ			16:50																				
ZZZZZZ			16:52																				
ZZZZZZ			16:54																				
ZZZZZZ			16:56																				
ZZZZZZ			16:59																				
CCV 240-42622/12-A			17:01																				
CCB 240-42622/11-A			17:03																				
ZZZZZZ			17:06																				
ZZZZZZ			17:08																				
ZZZZZZ			17:10																				
ZZZZZZ			17:12																				
ZZZZZZ			17:14																				
ZZZZZZ			17:16																				
ZZZZZZ			17:18																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/03/2012 15:54 End Date: 05/03/2012 19:41

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			17:20																				
ZZZZZZ			17:22																				
ZZZZZZ			17:24																				
CCV 240-42622/12-A	1		17:26	X																			
CCB 240-42622/11-A	1		17:28	X																			
ZZZZZZ			17:30																				
ZZZZZZ			17:32																				
MB 240-42491/1-A	1	T	17:34	X																			
LCS 240-42491/2-A	1	T	17:36	X																			
ZZZZZZ			17:38																				
240-10725-K-8-B MS	1	T	17:40	X																			
240-10725-K-8-C MSD	1	T	17:42	X																			
ZZZZZZ			17:44																				
240-10725-N-8-B MS	1	D	17:46	X																			
240-10725-N-8-C MSD	1	D	17:49	X																			
CCV 240-42622/12-A	1		17:51	X																			
CCB 240-42622/11-A	1		17:52	X																			
240-10727-2	1	T	17:54	X																			
240-10727-2	1	D	17:56	X																			
240-10727-3	1	T	17:59	X																			
240-10727-3	1	D	18:01	X																			
240-10727-4	1	T	18:04	X																			
240-10727-4	1	D	18:06	X																			
ZZZZZZ			18:08																				
ZZZZZZ			18:10																				
ZZZZZZ			18:13																				
ZZZZZZ			18:15																				
CCV 240-42622/12-A	1		18:17	X																			
CCB 240-42622/11-A	1		18:18	X																			
ZZZZZZ			18:21																				
ZZZZZZ			18:23																				
ZZZZZZ			18:25																				
ZZZZZZ			18:28																				
ZZZZZZ			18:30																				
ZZZZZZ			18:32																				
ZZZZZZ			18:34																				
ZZZZZZ			18:36																				
ZZZZZZ			18:38																				
ZZZZZZ			18:40																				
CCV 240-42622/12-A			18:42																				
CCB 240-42622/11-A			18:44																				
ZZZZZZ			18:46																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10727-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/03/2012 15:54 End Date: 05/03/2012 19:41

Lab Sample ID	D / F	Type	Time	Analytes																				
				Hg																				
ZZZZZZ			18:48																					
ZZZZZZ			18:50																					
ZZZZZZ			18:52																					
ZZZZZZ			18:54																					
ZZZZZZ			18:56																					
ZZZZZZ			18:58																					
ZZZZZZ			19:00																					
ZZZZZZ			19:02																					
ZZZZZZ			19:04																					
CCV 240-42622/12-A			19:06																					
CCB 240-42622/11-A			19:08																					
ZZZZZZ			19:10																					
ZZZZZZ			19:12																					
ZZZZZZ			19:13																					
ZZZZZZ			19:16																					
ZZZZZZ			19:17																					
ZZZZZZ			19:19																					
ZZZZZZ			19:21																					
ZZZZZZ			19:23																					
ZZZZZZ			19:25																					
ZZZZZZ			19:28																					
CCV 240-42622/12-A			19:30																					
CCB 240-42622/11-A			19:32																					
ZZZZZZ			19:34																					
ZZZZZZ			19:37																					
CCV 240-42622/12-A			19:39																					
CCB 240-42622/11-A			19:41																					

Prep Types

D = Dissolved

T = Total/NA

sample GSP-MW3-042612 total Arsenic rep result 6.0 ug/L

240-10727-h-4-a, 5/2/2012 18:43:55 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
x		66.249%	0.167	23.520
%RSD		7.914	4.052	5.075
Run	**Time**	**23Na**	**25Mg**	**27Al**
		ppb	ppb	ppb
x		3988.000	404.700	52.670
%RSD		0.321	4.196	1.621
Run	**Time**	**35Cl**	**39K**	**43Ca**
		ppb	ppb	ppb
x		τ 0.000	429.900	2234.000
%RSD		τ 0.000	1.198	1.087
Run	**Time**	**45Sc**	**45Sc**	**47Ti**
		ppb	ppb	ppb
x		τ 80.611%	71.840%	0.842
%RSD		τ 1.133	0.331	33.560
Run	**Time**	**51V**	**52Cr**	**53Cl Cr**
		ppb	ppb	ppb
x		0.551	0.009	0.309
%RSD		16.190	706.400	20.670
Run	**Time**	**55Mn**	**56Fe**	**59Co**
		ppb	ppb	ppb
x		21.740	840.400	16.610
%RSD		2.587	1.665	1.707
Run	**Time**	**60Ni**	**65Cu**	**66Zn**
		ppb	ppb	ppb
x		15.810	1.817	51.330
%RSD		0.674	8.848	1.030
Run	**Time**	**72Ge**	**75As**	**77Ar Cl**
		ppb	ppb	ppb
x		72.106%	5.962	0.433
%RSD		0.754	6.524	18.800
Run	**Time**	**78Se**	**88Sr**	**95Mo**
		ppb	ppb	ppb
x		0.439	18.060	0.840
%RSD		6.941	0.188	9.362
Run	**Time**	**105Pd**	**107Ag**	**108Mo Os**
		ppb	ppb	ppb
x		0.000	0.005	-0.190
%RSD		0.000	59.790	619.300
Run	**Time**	**111Cd**	**115In**	**118Sn**
		ppb	ppb	ppb
x		0.046	70.769%	0.173
%RSD		9.057	1.286	17.470
Run	**Time**	**121Sb**	**137Ba**	**159Tb**
		ppb	ppb	ppb
x		0.272	9.893	0.000
%RSD		5.968	4.592	0.000
Run	**Time**	**165Ho**	**182W**	**205Tl**
		ppb	ppb	ppb
x		70.083%	1.049	0.883
%RSD		2.214	7.169	5.546
Run	**Time**	**208Pb**	**209Bi**	
		ppb	ppb	
x		0.093	0.000	
%RSD		64.430	0.000	

Case Narrative

TestAmerica West Sacramento Project Number G2E010420

WATER, 6850, Perchlorate
Sample: 1, 2, 3
In accordance with the requirements of Method 6850, both a Laboratory Control Sample (LCS) and a Synthetic Matrix Check Sample (SMCS) were analyzed with the associated samples. Both are reported on the LCS data evaluation and recovery reports, and are differentiated from one another by their workorder number:

LCS: MTELA1AC
SMCS: MTELA1AD

There are no other anomalies associated with this project.

ANALYTICAL METHODS SUMMARY

G2E010420

PARAMETER	ANALYTICAL METHOD
Perchlorate by 6850	SW846 6850

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD BLANK REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010420 Work Order #...: MTELA1AA Matrix.....: WATER
MB Lot-Sample #: G2E070000-058

Prep Date.....: 05/07/12
Analysis Date..: 05/14/12 Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Perchlorate	ND	1.0	ug/L	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010420 Work Order #...: MTELA1AC Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Perchlorate	92	(80 - 120)	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010420 Work Order #...: MTELA1AC Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Perchlorate	5.00	4.62	ug/L	92	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010420 Work Order #...: MTELA1AD Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Perchlorate	97	(80 - 120)	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010420 Work Order #...: MTELA1AD Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Perchlorate	5.00	4.86	ug/L	97	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010420 Work Order #...: MTDHX1AC-MS Matrix.....: WATER
MS Lot-Sample #: G2E030450-004 MTDHX1AD-MSD
Date Sampled...: 05/01/12 Date Received..: 05/03/12
Prep Date.....: 05/07/12 Analysis Date..: 05/16/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Perchlorate	99	(80 - 120)			SW846 6850
	97	(80 - 120)	1.8	(0-15)	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010420 Work Order #...: MTDHX1AC-MS Matrix.....: WATER
MS Lot-Sample #: G2E030450-004 MTDHX1AD-MSD
Date Sampled...: 05/01/12 Date Received..: 05/03/12
Prep Date.....: 05/07/12 Analysis Date..: 05/16/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Perchlorate	ND	5.00	4.95	ug/L	99		SW846 6850
	ND	5.00	4.86	ug/L	97	1.8	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Tetra Tech, Inc. **INTERNAL CORRESPONDENCE**

TO:	**A. APANAVAGE**	**DATE:**	**JUNE 27, 2012**
FROM:	**MICHELLE L. ALLEN**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC/1,4-DIOXANE/DRO/GRO**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
SDG 240-10770-1

SAMPLES: 4/Aqueous/VOC

GSP-MW4-042712 GSP-MW7-042712 GSP-MW8-042712
TB-042712

3/Aqueous/1,4-DIOXANE/DRO/GRO

GSP-MW4-042712 GSP-MW7-042712 GSP-MW8-042712

Overview

The sample set for LMC-MSA, SDG 240-10770-1 consisted of three (3) aqueous environmental samples and one (1) trip blank. All four (4) aqueous samples were analyzed for volatile organic compounds (VOC). The three (3) aqueous environmental samples were analyzed for the semi-volatile organic compound (SVOC), 1,4-dioxane, diesel range organics (DRO) and gasoline range organics (GRO). No field duplicate sample pair was included in this SDG.

The samples were collected by Tetra Tech, Inc. on April 27, 2012 and analyzed by Test America, Inc. All analyses were conducted in accordance with SW-846 Methods 8260C, 8270C, and 8015B analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, trip blank results, surrogate spike recoveries, blank spike results, matrix spike/matrix spike duplicate results, internal standard recoveries, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major

- The initial and continuing calibrations performed on instrument A3UX16 in the VOC fraction had Relative Response Factors (RRFs) for tert-butyl alcohol below the 0.050 minimum response criterion. In addition, the continuing calibration RRF for vinyl acetate was below 0.05. All samples were affected. The non-detected results reported for these compounds in the affected samples were qualified as rejected, (UR).

- The VOC compound, 2-chloroethyl vinyl ether was not recovered in the Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses of sample GSP-MW7-042712. The non-detected result reported for 2-chloroethyl vinyl ether was qualified as rejected, (UR), in the parent sample.

Minor

The following contaminants were detected in the laboratory method blanks at the following maximum concentrations:

Compound	Maximum Concentration (µg/L)	Action Level (µg/L)
1,2,3-Trichlorobenzene [1]	0.280	1.4
GRO (C6-C10) [2]	29.2	146

1 Maximum concentration detected in the laboratory method blank, MB 240-42324/5, affecting all samples.
2 Maximum concentration detected in the laboratory method blank, MB 240-42123/7, affecting all samples.

An action level of 5X the maximum concentration was used to evaluate for blank contamination. Sample aliquot and dilution factor, if applicable, were taken into consideration when evaluating for blank contamination. Positive results for GRO reported below the established action level were qualified as non-detected, (B). No action was necessary for 1,2,3-trichlorobenzene because no positive results were reported for this compound in the affected samples.

- Positive results reported below the Reporting Limit (RL) limit but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

Sample GSP-MW7-042712 was diluted 4X prior to analysis in the VOC fraction. The RLs of the non-detected results were elevated.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: Initial and/or continuing calibration RRFs for tert-butyl alcohol and vinyl acetate were below the quality control criterion resulting in the rejection of the non-detected results. Laboratory method blank contamination was noted in the VOC and GRO fractions.

Other Factors Affecting Data Quality: One sample required a dilution for the VOC fraction.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994) and SW-846 Methods 8260C, 8270C, and 8015B analytical and reporting protocols. The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech, Inc.
Michelle L. Allen
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Quality Assurance Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712			TB-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3			240-10770-1		
FRACTION: OV	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.92	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.88	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.72	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		1.1	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.6	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.76	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.52	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.68	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		1.7	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.024	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.6	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.48	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		2.7	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.96	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.88	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.72	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.56	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.64	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.52	U		0.13	U		0.13	U	
2-BUTANONE		0.57	U		2.3	U		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		4	UR	D	0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.44	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		1.6	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.72	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.48	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		1.3	U		0.32	U		0.32	U	
ACETONE		1.6	J	P	4.4	U		1.1	U		1.1	U	
BENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		1.2	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.6	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		2.6	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		1.6	U		0.41	U		0.41	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712			TB-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3			240-10770-1		
FRACTION: OV	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.52	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.52	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.6	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.72	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		1.2	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.64	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		1.2	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		1.7			1.4	J	P	0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.56	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		1.1	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		1.2	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		6	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.44	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.68	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		1.2	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.96	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.68	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		1.3	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.96	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.48	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.56	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.56	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
SILANOL, TRIMETHYL-					5.8	R	Z2	1.4	R	Z2			
STYRENE		0.11	U		0.44	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.27	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	16	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		1.2	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.52	U		0.13	U		0.13	U	
TOTAL XYLENES		0.28	U		1.1	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.76	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.76	U		0.19	U		0.19	U	
TRICHLOROETHENE		5.1			110			0.17	U		0.17	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712			TB-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3			240-10770-1		
FRACTION: OV	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.21	U		0.84	U		0.21	U		0.21	U	
VINYL ACETATE		0.19	UR	C	0.76	UR	C	0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		0.53	J	P	0.88	U		0.22	U		0.22	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3		
FRACTION: OS	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.48	U		0.47	U		0.48	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3		
FRACTION: PET	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		55	B	A	96	B	A	57	B	A
TPH (C10-C32)		330	J	P	240	U		230	U	

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 | Lab Sample ID: 240-10770-4

Matrix: Water | Lab File ID: UXM5312.D

Analysis Method: 8260C | Date Collected: 04/27/2012 13:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	1.6	J	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 | Lab Sample ID: 240-10770-4

Matrix: Water | Lab File ID: UXM5312.D

Analysis Method: 8260C | Date Collected: 04/27/2012 13:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.7		1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	5.1		1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.53	J	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 | Lab Sample ID: 240-10770-4

Matrix: Water | Lab File ID: UXM5312.D

Analysis Method: 8260C | Date Collected: 04/27/2012 13:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	86		63-129
460-00-4	4-Bromofluorobenzene (Surr)	91		66-117
2037-26-5	Toluene-d8 (Surr)	88		74-115
1868-53-7	Dibromofluoromethane (Surr)	87		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 Lab Sample ID: 240-10770-4

Matrix: Water Lab File ID: UXM5312.D

Analysis Method: 8260C Date Collected: 04/27/2012 13:53

Sample wt/vol: 5(mL) Date Analyzed: 05/01/2012 16:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42324 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 | Lab Sample ID: 240-10770-2

Matrix: Water | Lab File ID: UXM5318.D

Analysis Method: 8260C | Date Collected: 04/27/2012 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 18:51

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.0	U	4.0	0.92
71-55-6	1,1,1-Trichloroethane	4.0	U	4.0	0.88
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	4.0	0.72
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	4.0	U	4.0	1.1
75-34-3	1,1-Dichloroethane	4.0	U	4.0	0.60
75-35-4	1,1-Dichloroethene	4.0	U	4.0	0.76
563-58-6	1,1-Dichloropropene	4.0	U	4.0	0.52
87-61-6	1,2,3-Trichlorobenzene	4.0	U	4.0	0.68
96-18-4	1,2,3-Trichloropropane	4.0	U	4.0	1.7
526-73-8	1,2,3-Trimethylbenzene	20	U	20	0.024
120-82-1	1,2,4-Trichlorobenzene	4.0	U	4.0	0.60
95-63-6	1,2,4-Trimethylbenzene	4.0	U	4.0	0.48
96-12-8	1,2-Dibromo-3-Chloropropane	8.0	U	8.0	2.7
95-50-1	1,2-Dichlorobenzene	4.0	U	4.0	0.52
107-06-2	1,2-Dichloroethane	4.0	U	4.0	0.88
78-87-5	1,2-Dichloropropane	4.0	U	4.0	0.72
541-73-1	1,3-Dichlorobenzene	4.0	U	4.0	0.56
142-28-9	1,3-Dichloropropane	4.0	U	4.0	0.64
106-46-7	1,4-Dichlorobenzene	4.0	U	4.0	0.52
594-20-7	2,2-Dichloropropane	4.0	U	4.0	0.52
110-75-8	2-Chloroethyl vinyl ether	40	U	40	4.0
95-49-8	2-Chlorotoluene	4.0	U	4.0	0.44
591-78-6	2-Hexanone	40	U	40	1.6
108-86-1	Bromobenzene	4.0	U	4.0	0.52
74-97-5	Bromochloromethane	4.0	U	4.0	1.2
106-43-4	4-Chlorotoluene	4.0	U	4.0	0.72
99-87-6	p-Isopropyltoluene	4.0	U	4.0	0.48
67-64-1	Acetone	40	U	40	4.4
71-43-2	Benzene	4.0	U	4.0	0.52
75-25-2	Bromoform	4.0	U	4.0	2.6
74-83-9	Bromomethane	4.0	U	4.0	1.6
75-15-0	Carbon disulfide	4.0	U	4.0	0.52
56-23-5	Carbon tetrachloride	4.0	U	4.0	0.52
108-90-7	Chlorobenzene	4.0	U	4.0	0.60
75-00-3	Chloroethane	4.0	U	4.0	1.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 | Lab Sample ID: 240-10770-2

Matrix: Water | Lab File ID: UXM5318.D

Analysis Method: 8260C | Date Collected: 04/27/2012 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 18:51

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	4.0	U	4.0	0.64
74-87-3	Chloromethane	4.0	U	4.0	1.2
156-59-2	cis-1,2-Dichloroethene	1.4	J	4.0	0.68
10061-01-5	cis-1,3-Dichloropropene	4.0	U	4.0	0.56
87-68-3	Hexachlorobutadiene	4.0	U	4.0	1.2
74-95-3	Dibromomethane	4.0	U	4.0	1.1
75-27-4	Bromodichloromethane	4.0	U	4.0	0.60
75-71-8	Dichlorodifluoromethane	4.0	U	4.0	1.2
100-41-4	Ethylbenzene	4.0	U	4.0	0.68
106-93-4	1,2-Dibromoethane	4.0	U	4.0	0.96
108-20-3	Diisopropyl ether	40	U	40	6.0
91-20-3	Naphthalene	4.0	U	4.0	0.96
179601-23-1	m-Xylene & p-Xylene	8.0	U	8.0	0.96
104-51-8	n-Butylbenzene	4.0	U	4.0	0.48
98-82-8	Isopropylbenzene	4.0	U	4.0	0.52
103-65-1	n-Propylbenzene	4.0	U	4.0	0.56
78-93-3	2-Butanone	40	U	40	2.3
108-10-1	4-Methyl-2-pentanone	40	U	40	1.3
135-98-8	sec-Butylbenzene	4.0	U	4.0	0.52
1634-04-4	Methyl tert-butyl ether	20	U	20	0.68
994-05-8	Tert-amyl-methyl ether (TAME)	20	U	20	0.27
75-09-2	Methylene Chloride	4.0	U	4.0	1.3
95-47-6	o-Xylene	4.0	U	4.0	0.56
100-42-5	Styrene	4.0	U	4.0	0.44
637-92-3	Ethyl-t-butyl ether (ETBE)	20	U	20	0.44
98-06-6	tert-Butylbenzene	4.0	U	4.0	0.52
127-18-4	Tetrachloroethene	4.0	U	4.0	1.2
108-88-3	Toluene	4.0	U	4.0	0.52
156-60-5	trans-1,2-Dichloroethene	4.0	U	4.0	0.76
10061-02-6	trans-1,3-Dichloropropene	4.0	U	4.0	0.76
79-01-6	Trichloroethene	110		4.0	0.68
75-69-4	Trichlorofluoromethane	4.0	U	4.0	0.84
108-05-4	Vinyl acetate	8.0	U	8.0	0.76
75-01-4	Vinyl chloride	4.0	U	4.0	0.88
75-65-0	tert-Butyl alcohol	200	U	200	16
1330-20-7	Xylenes, Total	8.0	U	8.0	1.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 | Lab Sample ID: 240-10770-2

Matrix: Water | Lab File ID: UXM5318.D

Analysis Method: 8260C | Date Collected: 04/27/2012 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 18:51

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.0	U	4.0	0.72

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		63-129
460-00-4	4-Bromofluorobenzene (Surr)	91		66-117
2037-26-5	Toluene-d8 (Surr)	88		74-115
1868-53-7	Dibromofluoromethane (Surr)	85		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 Lab Sample ID: 240-10770-2

Matrix: Water Lab File ID: UXM5318.D

Analysis Method: 8260C Date Collected: 04/27/2012 10:14

Sample wt/vol: 5(mL) Date Analyzed: 05/01/2012 18:51

Soil Aliquot Vol: Dilution Factor: 4

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42324 Units: ug/L

Number TICs Found: 1 TIC Result Total: 5.8

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.61	5.8	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 | Lab Sample ID: 240-10770-3

Matrix: Water | Lab File ID: UXM5311.D

Analysis Method: 8260C | Date Collected: 04/27/2012 12:03

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 | Lab Sample ID: 240-10770-3

Matrix: Water | Lab File ID: UXM5311.D

Analysis Method: 8260C | Date Collected: 04/27/2012 12:03

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 | Lab Sample ID: 240-10770-3

Matrix: Water | Lab File ID: UXM5311.D

Analysis Method: 8260C | Date Collected: 04/27/2012 12:03

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		63-129
460-00-4	4-Bromofluorobenzene (Surr)	88		66-117
2037-26-5	Toluene-d8 (Surr)	84		74-115
1868-53-7	Dibromofluoromethane (Surr)	81		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 Lab Sample ID: 240-10770-3

Matrix: Water Lab File ID: UXM5311.D

Analysis Method: 8260C Date Collected: 04/27/2012 12:03

Sample wt/vol: 5(mL) Date Analyzed: 05/01/2012 16:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42324 Units: ug/L

Number TICs Found: 1 TIC Result Total: 1.4

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.61	1.4	T J N

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: TB-042712 | Lab Sample ID: 240-10770-1

Matrix: Water | Lab File ID: UXM5303.D

Analysis Method: 8260C | Date Collected: 04/27/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 13:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroet hane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: TB-042712 | Lab Sample ID: 240-10770-1

Matrix: Water | Lab File ID: UXM5303.D

Analysis Method: 8260C | Date Collected: 04/27/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 13:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: TB-042712
Lab Sample ID: 240-10770-1
Matrix: Water
Lab File ID: UXM5303.D
Analysis Method: 8260C
Date Collected: 04/27/2012 00:00
Sample wt/vol: 5(mL)
Date Analyzed: 05/01/2012 13:05
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42324
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-129
460-00-4	4-Bromofluorobenzene (Surr)	98		66-117
2037-26-5	Toluene-d8 (Surr)	95		74-115
1868-53-7	Dibromofluoromethane (Surr)	94		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: TB-042712 Lab Sample ID: 240-10770-1

Matrix: Water Lab File ID: UXM5303.D

Analysis Method: 8260C Date Collected: 04/27/2012 00:00

Sample wt/vol: 5(mL) Date Analyzed: 05/01/2012 13:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42324 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 | Lab Sample ID: 240-10770-4

Matrix: Water | Lab File ID: 20508021.D

Analysis Method: 8270C | Date Collected: 04/27/2012 13:53

Extract. Method: 3520C | Date Extracted: 05/03/2012 09:57

Sample wt/vol: 1030(mL) | Date Analyzed: 05/08/2012 14:56

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43126 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.97	U	0.97	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	52		28-110
367-12-4	2-Fluorophenol (Surr)	54		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	80		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	53		27-111
4165-62-2	Phenol-d5 (Surr)	56		10-110
1718-51-0	Terphenyl-d14 (Surr)	67		37-119

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW7-042712
Lab Sample ID: 240-10770-2
Matrix: Water
Lab File ID: 20508019.D
Analysis Method: 8270C
Date Collected: 04/27/2012 10:14
Extract. Method: 3520C
Date Extracted: 05/03/2012 09:57
Sample wt/vol: 1050(mL)
Date Analyzed: 05/08/2012 14:20
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 43126
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.95	U	0.95	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	54		28-110
367-12-4	2-Fluorophenol (Surr)	59		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	71		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	62		27-111
4165-62-2	Phenol-d5 (Surr)	60		10-110
1718-51-0	Terphenyl-d14 (Surr)	71		37-119

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 | Lab Sample ID: 240-10770-3

Matrix: Water | Lab File ID: 20508020.D

Analysis Method: 8270C | Date Collected: 04/27/2012 12:03

Extract. Method: 3520C | Date Extracted: 05/03/2012 09:57

Sample wt/vol: 1020(mL) | Date Analyzed: 05/08/2012 14:38

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43126 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.98	U	0.98	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	50		28-110
367-12-4	2-Fluorophenol (Surr)	48		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	67		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	52		27-111
4165-62-2	Phenol-d5 (Surr)	51		10-110
1718-51-0	Terphenyl-d14 (Surr)	65		37-119

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW4-042712
Lab Sample ID: 240-10770-4
Matrix: Water
Lab File ID: YF004313.D
Analysis Method: 8015B
Date Collected: 04/27/2012 13:53
Sample wt/vol: 5(mL)
Date Analyzed: 04/30/2012 16:41
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42123
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	55	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	64		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW7-042712
Lab Sample ID: 240-10770-2
Matrix: Water
Lab File ID: YF004309.D
Analysis Method: 8015B
Date Collected: 04/27/2012 10:14
Sample wt/vol: 5(mL)
Date Analyzed: 04/30/2012 13:57
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42123
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	96	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	61		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW8-042712
Lab Sample ID: 240-10770-3
Matrix: Water
Lab File ID: YF004312.D
Analysis Method: 8015B
Date Collected: 04/27/2012 12:03
Sample wt/vol: 5(mL)
Date Analyzed: 04/30/2012 16:00
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42123
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	57	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	61		10-150

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW4-042712
Lab Sample ID: 240-10770-4
Matrix: Water
Lab File ID: P5B05051.D
Analysis Method: 8015B
Date Collected: 04/27/2012 13:53
Extraction Method: 3510C
Date Extracted: 05/03/2012 11:54
Sample wt/vol: 990(mL)
Date Analyzed: 05/04/2012 13:08
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: ID:
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 42755
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	330	J	510	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	70		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 | Lab Sample ID: 240-10770-2

Matrix: Water | Lab File ID: P5B05049.D

Analysis Method: 8015B | Date Collected: 04/27/2012 10:14

Extraction Method: 3510C | Date Extracted: 05/03/2012 11:54

Sample wt/vol: 1000(mL) | Date Analyzed: 05/04/2012 12:07

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 42755 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	500	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	63		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 Lab Sample ID: 240-10770-3

Matrix: Water Lab File ID: P5B05050.D

Analysis Method: 8015B Date Collected: 04/27/2012 12:03

Extraction Method: 3510C Date Extracted: 05/03/2012 11:54

Sample wt/vol: 1050(mL) Date Analyzed: 05/04/2012 12:37

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 42755 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	480	U	480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	73		10-110

Appendix C

Support Documentation

MARTIN STATE AIRPORT - GROUNDWATER
SDG 240-10770-1

SAMPLE IDENTIFICATION	GSP-MW7-042712
COMPOUND	TRICHLOROETHENE
COMPOUND AREA	987189
INTERNAL STANDARD AMOUNT (ng)	50
VOLUME WATER PURGED (ml)	5
DILUTION FACTOR	4
INTERNAL STANDARD AREA	1362003
AVERAGE RRF	0.2698
ml to µl	1000
ng to µg	1000
=	107.5 µg/L

987189 x 50 ng x 4 x 1000ml x 1µg /1362003 x 0.2698 x 5ml x 1L x 1000ng

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
29 3-Chloro-1-propene	76		3.484					
28 Methyl acetate	43		3.496					
30 Methylene Chloride	84	3.591	3.579	0.012	90	29855	0.1455	
31 2-Methyl-2-propanol	59		3.674					
32 Acrylonitrile	53		3.792					
33 trans-1,2-Dichloroethene	96		3.840					
34 Methyl tert-butyl ether	73		3.840					
35 Hexane	86		4.089					
36 1,1-Dichloroethane	63		4.208					
37 Vinyl acetate	86		4.243					
38 Isopropyl ether	87		4.279					
39 2-Chloro-1,3-butadiene	53		4.291					
40 Tert-butyl ethyl ether	59		4.587					
42 cis-1,2-Dichloroethene	96	4.717	4.706	0.011	64	15220	0.3619	
41 2-Butanone (MEK)	43		4.706					
43 2,2-Dichloropropane	77		4.717					
44 Propionitrile	54		4.753					
45 Ethyl acetate	43		4.765					
46 Methacrylonitrile	41		4.895					
47 Chlorobromomethane	128		4.919					
48 Tetrahydrofuran	42		4.966					
49 Chloroform	83		4.978					
50 1,1,1-Trichloroethane	97		5.156					
51 Cyclohexane	56		5.215					
52 1,1-Dichloropropene	75		5.299					
53 Carbon tetrachloride	117		5.310					
54 Isobutyl alcohol	41		5.346					
56 1,2-Dichloroethane	62		5.465					
55 Benzene	78		5.476					
57 Tert-amyl methyl ether	73		5.559					
61 Ethyl acrylate	55		5.605					
58 n-Heptane	100		5.702					
59 n-Butanol	56		5.903					
60 Trichloroethene	130	6.022	6.022	0.0	96	987189	26.9	
63 Methylcyclohexane	83		6.200					
62 1,2-Dichloropropane	63		6.212					
64 Methyl methacrylate	41		6.283					
65 Dibromomethane	93		6.306					
66 1,4-Dioxane	88		6.318					
67 Dichlorobromomethane	83		6.437					
68 2-Nitropropane	41		6.627					
69 2-Chloroethyl vinyl ether	63		6.686					
70 cis-1,3-Dichloropropene	75		6.828					
71 4-Methyl-2-pentanone (MIBK)	43		6.947					
72 Toluene	91		7.137					
73 trans-1,3-Dichloropropene	75		7.314					
74 Ethyl methacrylate	69		7.386					
75 1,1,2-Trichloroethane	97		7.480					
76 1,3-Dichloropropane	76		7.635					
77 Tetrachloroethene	164		7.646					
78 2-Hexanone	43		7.694					
81 1-Chlorohexane	91		7.788					

RRF = 0.2698

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
132 n-Butyl acetate	43		7.813					
79 Chlorodibromomethane	129		7.848					
80 Tetrahydrothiophene	60		7.860					
123 Ethylene Dibromide	107		7.967					
82 Chlorobenzene	112		8.429					
83 1,1,1,2-Tetrachloroethane	131		8.488					
84 Ethylbenzene	106		8.524					
10 m-Xylene & p-Xylene	106		8.631					
85 o-Xylene	106		9.010					
86 Styrene	104		9.010					
87 Bromoform	173		9.188					
88 Isopropylbenzene	105		9.354					
89 Cyclohexanone	55		9.437					
135 1,4-Dichlorobutane	55		9.437					
90 1,1,2,2-Tetrachloroethane	83		9.615					
91 Bromobenzene	156		9.662					
93 trans-1,4-Dichloro-2-butene	53		9.674					
92 1,2,3-Trichloropropane	110		9.674					
94 N-Propylbenzene	120		9.757					
95 2-Chlorotoluene	126		9.840					
96 1,3,5-Trimethylbenzene	105		9.923					
104 4-Chlorotoluene	126		9.947					
97 tert-Butylbenzene	119		10.244					
98 1,2,4-Trimethylbenzene	105		10.291					
99 sec-Butylbenzene	105		10.457					
100 1,3-Dichlorobenzene	146		10.576					
101 4-Isopropyltoluene	119		10.599					
102 1,4-Dichlorobenzene	146		10.659					
103 1,2,3-Trimethylbenzene	105		10.706					
105 n-Butylbenzene	91		11.002					
106 1,2-Dichlorobenzene	146		11.026					
107 1,2-Dibromo-3-Chloropropane	157		11.797					
108 1,3,5-Trichlorobenzene	180		12.022					
109 1,2,4-Trichlorobenzene	180		12.639					
110 Hexachlorobutadiene	225		12.817					
111 Naphthalene	128		12.888					
112 1,2,3-Trichlorobenzene	180		13.149					
113 2-Methylnaphthalene	142		14.240					
S 137 Trihalomethanes, Total	1		0.000					
S 11 1,2-Dichloroethene, Total	96				0		0.3619	
S 9 1,3-Dichloropropene, Total	75		6.760					
S 114 Xylenes, Total	106		16.530					

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A3UX16\20120501-9570.b\UXM5318.D		
Lims ID:	240-10770-B-2	Client ID:	GSP-MW7-042712
Inject. Date:	01-May-2012 18:51:30	Dil. Factor:	4.0000
Sample Type:	Client		
Sample ID:	240-0009570-021		
Misc. Info.:	M20501A,8260LLUX16,,1644		
Operator:	1644	Instrument ID:	A3UX16
Vol. Injected:	1.0000	ALS Bottle#:	20
Lims Batch ID:	42324	Lims Sample ID:	21
Detector:	MS SCAN		
Method:	\\Ncchrom\ChromData\A3UX16\20120501-9570.b\8260_16.m		
Last Update:	02-May-2012 10:55:43	Calib Date:	29-Apr-2012 19:50:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A3UX16\20120429-9509.b\UXM5250.D		
Limit Group:	MSV 8260DOD ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Process Host:	CORP-CTX-17		

First Level Reviewer: williamsla Date: 02-May-2012 11:07:24

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 141 1-Chlorooctane	1		0.000					
* 1 Fluorobenzene	96	5.702	5.702	0.0	98	1362003	10.0	
* 2 Chlorobenzene-d5	117	8.393	8.394	-0.001	90	922953	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.635	10.635	0.0	98	426990	10.0	
$ 142 2,5-Dibromotoluene	1		0.000					
$ 5 Dibromofluoromethane (Surr)	113	5.121	5.109	0.012	65	283913	8.72	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	5.405	5.405	0.0	0	468123	8.89	
$ 7 Toluene-d8 (Surr)	98	7.077	7.077	0.0	95	1283387	8.96	
$ 131 4-Bromofluorobenzene (Surr)	95	9.508	9.508	0.0	81	477229	9.34	
136 Hexachloroethane TIC	1		0.000					
133 Benzyl chloride	126		0.000					
134 Chlorodifluoromethane TIC	1		0.000					
138 Butyl Methacrylate TIC	1		0.000					
139 C6-C12	1		0.000					
140 C6-C10	1		0.000					
12 Dichlorodifluoromethane	85		1.658					
13 Chloromethane	50		1.824					
14 Vinyl chloride	62		1.954					
15 Bromomethane	94		2.298					
16 Chloroethane	64		2.405					
17 Dichlorofluoromethane	67		2.595					
18 Trichlorofluoromethane	101		2.666					
25 Methylal	45		2.856					
19 Ethyl ether	59		2.927					
20 Acrolein	56		3.034					
21 1,1-Dichloroethene	96		3.152					
23 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.176					
22 Acetone	43		3.176					
24 Iodomethane	142		3.294					
26 Carbon disulfide	76		3.366					
27 Acetonitrile	41		3.425					

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A2HP5R\20120504-9661.b\P5B05051.D		
Lims ID:	240-10770-K-4-A	Client ID:	GSP-MW4-042712
Inject. Date:	04-May-2012 13:08:07	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0009661-011		
Misc. Info.:			
Operator:	2398	Instrument ID:	A2HP5R
Vol. Injected:	1.0000	ALS Bottle#:	61
Lims Batch ID:	42755	Lims Sample ID:	11
Detector:	GC FID2B		

Method:	\\Ncchrom\ChromData\A2HP5R\20120504-9661.b\TPH5R.m		
Last Update:	07-May-2012 11:41:19	Calib Date:	30-Apr-2012 15:32:13
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A2HP5R\20120430-9518.b\P5B04314.D		
Limit Group:	GC TPH DIESEL ICAL		
Integrator:	Falcon		
Process Host:	CORP-CTX-18		

RT	EXP RT	DLT RT	Response	On-Col Amt ng/ul	Flags
$ 8 n-Nonane					
4.034	4.028	0.006	14443839	70.1	
A 15 Diesel					
9.356	5.058 - 13.654		8259365	48.3	
A 17 C10-C32					
10.045	5.058 - 15.033		11057698	64.6	

extraction - 990ml / 5ml

$\overline{CF}$ = 171121.938

$$\frac{11057698\ ng/\mu l}{171121.938} \times \frac{5ml}{990ml} \times \frac{1\ mg}{1000\ ng} \times \frac{1000\ 000\ \mu l}{1\ L}$$

= 326 mg/L

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location:
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact

Company Name: Tetra Tech Inc.	Client Project Manager: Tony Apanavage	Site Contact: Walt Payne	Lab Contact: Pat O'Meara	COC No:
Address: 20251 Century Blvd.	Telephone: 301 528-3021	Telephone: 301 991-3914	Telephone: 330-497-9396	1 of 1 COCs
City/State/Zip: Germantown MD 20874	Email:	Analysis Turnaround Time (In BUS days)		
Phone: 301 528-3021		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: MSA Ground water Sampling	Method of Shipment/Carrier: Fed Ex			
Project Number: 112IC04021-02	Shipping/Tracking No:			
PO#				

For lab use only: Walk-in client ☐ Lab pickup ☐ Lab sampling ☐ Job/SDG No.

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C/Grab=G	Analyses: VOCs	Total ppm	Diss ppm	1,4 Dioxane	DRO	GRO	Perchlorate				Sample Specific Notes / Special Instructions:
TB-042712	4-27-12	—		X						2					N	G	X										
GSP-MW7-042712	↓	1014		X					2	5			5		↓	↓	X	X	X	X	X	X	X				
GSP-MW8-042712		1203		X					2	5			5				X	X	X	X	X	X	X				
GSP-MW4-042712		1353		X					2	5			5				X	X	X	X	X	X	X				

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walt Payne	TT Inc.	4-27-12 / 1517	Paul Hayward	TestAmerica	4/27/12/1517
Paul Hayward	TestAmerica	4/27/12/1620			
			Received in Laboratory by: Mike Ha[illegible]	TA	4/28/12 1000

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

TAL-0018 (1008)

05/30/2012

CASE NARRATIVE

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Project: MSA Groundwater Sampling

Report Number: 240-10770-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The Perchlorate analysis was performed at the TestAmerica West Sacramento Laboratory.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 04/28/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.4 and 1.2 C.

VOLATILE ORGANIC COMPOUNDS (GC MS)

Samples TB-042712 (240-10770-1), GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for volatile organic compounds (GC MS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 05/01/2012.

1,2,3-Trichlorobenzene was detected in method blank MB 240-42324/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

2-Chloroethyl vinyl ether failed the recovery criteria low for the MS/MSD of sample GSP-MW7-042712MS/MSD (240-10770-2) in batch 240-42324.

Refer to the QC report for details.

Sample GSP-MW7-042712 (240-10770-2)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 05/03/2012 and analyzed on 05/08/2012.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 43632/8270.

No other difficulties were encountered during the SVOCs analyses. All quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 04/30/2012.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-42123/7 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 05/03/2012 and analyzed on 05/04/2012.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 42661.

No other difficulties were encountered during the DRO analyses. All quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

No difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

Several analytes were detected in method blank MB 240-42485/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/02/2012 and 05/03/2012 and analyzed on 05/03/2012 and 05/04/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/02/2012 and 05/03/2012 and analyzed on 05/03/2012 and 05/04/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10770-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-10770-1TB	TB-042712	Water	04/27/2012 0000	04/28/2012 1000
240-10770-2	GSP-MW7-042712	Water	04/27/2012 1014	04/28/2012 1000
240-10770-3	GSP-MW8-042712	Water	04/27/2012 1203	04/28/2012 1000
240-10770-4	GSP-MW4-042712	Water	04/27/2012 1353	04/28/2012 1000

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10770-1

Lab Section	Qualifier	Description
GC/MS VOA		
	J	Indicates an Estimated Value for TICs
	U	Indicates the analyte was analyzed for but not detected.
	F	MS or MSD exceeds the control limits
	T	Result is a tentatively identified compound (TIC) and an estimated value.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	N	This flag indicates the presumptive evidence of a compound.
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
GC VOA		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Metals		
	B	Compound was found in the blank and sample.
	^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-042712	240-10770-1	94	92	95	98
GSP-MW7-042712	240-10770-2	85	87	88	91
GSP-MW8-042712	240-10770-3	81	82	84	88
GSP-MW4-042712	240-10770-4	87	86	88	91
	MB 240-42324/5	87	88	90	94
	LCS 240-42324/4	87	82	87	95
GSP-MW7-042712 MS	240-10770-2 MS	89	85	91	95
GSP-MW7-042712 MSD	240-10770-2 MSD	86	84	91	95

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-115
BFB = 4-Bromofluorobenzene (Surr)	66-117

Column to be used to flag recovery values

FORM II 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: STD8260 240-42092/4 Date Analyzed: 04/29/2012 16:26

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM5241.D Heated Purge: (Y/N) N

Calibration ID: 8426

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1530000	5.70	1036987	8.39	499405	10.64
UPPER LIMIT		3060000	6.20	2073974	8.89	998810	11.14
LOWER LIMIT		765000	5.20	518494	7.89	249703	10.14
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-42092/14		1382789	5.70	929711	8.39	462842	10.64
CCVIS 240-42324/2		1685652	5.70	1127991	8.39	551448	10.64

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCVIS 240-42324/2 Date Analyzed: 05/01/2012 10:57

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM5299.D Heated Purge: (Y/N) N

Calibration ID: 8428

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1685652	5.70	1127991	8.39	551448	10.64
UPPER LIMIT		3371304	6.20	2255982	8.89	1102896	11.14
LOWER LIMIT		842826	5.20	563996	7.89	275724	10.14
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-42324/3		1584858	5.70	1039768	8.39	509719	10.64
LCS 240-42324/4		1635403	5.70	1080601	8.39	561237	10.64
MB 240-42324/5		1511836	5.70	1024126	8.39	489807	10.64
240-10770-1	TB-042712	1435323	5.70	969675	8.39	455010	10.64
240-10770-3	GSP-MW8-042712	1507618	5.70	1016861	8.39	471906	10.64
240-10770-4	GSP-MW4-042712	1457135	5.70	982988	8.39	456091	10.64
240-10770-2	GSP-MW7-042712	1362003	5.70	922953	8.39	426990	10.64
240-10770-2 MS	GSP-MW7-042712 MS	1398521	5.70	928051	8.39	457817	10.64
240-10770-2 MSD	GSP-MW7-042712 MSD	1446927	5.70	965602	8.39	481690	10.64

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: BFB2914.D BFB Injection Date: 04/29/2012

Instrument ID: A3UX16 BFB Injection Time: 15:11

Analysis Batch No.: 42092

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.4	
75	30.0 - 60.0 % of mass 95	55.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.3	(0.4)1
174	50.0 - 120.00 % of mass 95	67.2	
175	5.0 - 9.0 % of mass 174	4.9	(7.4)1
176	95.0 - 101.0 % of mass 174	65.5	(97.4)1
177	5.0 - 9.0 % of mass 176	4.1	(6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-42092/2	UXM5239.D	04/29/2012	15:41
	STD8260 240-42092/3	UXM5240.D	04/29/2012	16:03
	STD8260 240-42092/4	UXM5241.D	04/29/2012	16:26
	STD8260 240-42092/5	UXM5242.D	04/29/2012	16:49
	STD8260 240-42092/6	UXM5243.D	04/29/2012	17:12
	STD8260 240-42092/7	UXM5244.D	04/29/2012	17:34
	STD1 240-42092/8	UXM5245.D	04/29/2012	17:57
	STD2 240-42092/9	UXM5246.D	04/29/2012	18:20
	STD3 240-42092/10	UXM5247.D	04/29/2012	18:42
	STD4 240-42092/11	UXM5248.D	04/29/2012	19:05
	STD5 240-42092/12	UXM5249.D	04/29/2012	19:28
	STD6 240-42092/13	UXM5250.D	04/29/2012	19:50
	ICV 240-42092/14	UXM5251.D	04/29/2012	20:13

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-42092/7	UXM5244.D
Level 2	STD8260 240-42092/6	UXM5243.D
Level 3	STD8260 240-42092/5	UXM5242.D
Level 4	STD8260 240-42092/4	UXM5241.D
Level 5	STD8260 240-42092/3	UXM5240.D
Level 6	STD8260 240-42092/2	UXM5239.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2475 0.3038	0.2649	0.2905	0.2889	0.3016	Ave		0.2829			0.1000	7.8		15.0			
Chloromethane	0.4695 0.4320	0.4893	0.4830	0.4487	0.4452	Ave		0.4613			0.1000	4.9		15.0			
Vinyl chloride	0.4202 0.4041	0.4409	0.4365	0.4256	0.4202	Ave		0.4246			0.1000	3.1		15.0			
Bromomethane	0.1730 0.1493	0.1760	0.1733	0.1676	0.1710	Ave		0.1684			0.0500	5.8		15.0			
Chloroethane	0.2470 0.2229	0.2473	0.2344	0.2374	0.2336	Ave		0.2371				3.9		15.0			
Trichlorofluoromethane	0.2704 0.3132	0.3068	0.3031	0.3070	0.3204	Ave		0.3035			0.1000	5.7		15.0			
Acrolein	0.0469 0.0473	0.0483	0.0502	0.0508	0.0498	Ave		0.0489				3.3		15.0			
1,1-Dichloroethene	0.2340 0.2501	0.2402	0.2424	0.2499	0.2511	Ave		0.2446			0.1000	2.8		15.0			
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.1512 0.1622	0.1553	0.1500	0.1479	0.1608	Ave		0.1546			0.0500	3.8		15.0			
Acetone	0.2162 0.0864	0.1595	0.1181	0.1099	0.0970	Lin1	0.2842	0.0868			0.0500				0.9960		0.9950
Iodomethane	0.3345 0.3288	0.3415	0.3505	0.3469	0.3574	Ave		0.3433				3.1		15.0			
Carbon disulfide	0.6238 0.8183	0.6509	0.6976	0.7556	0.8104	Ave		0.7261			0.1000	11.0		15.0			
Acetonitrile	0.0391 0.0299	0.0368	0.0353	0.0335	0.0333	Ave		0.0346				9.2		15.0			
Methyl acetate	0.2451 0.2094	0.2377	0.2404	0.2374	0.2264	Ave		0.2327			0.1000	5.6		15.0			
Methylene Chloride	0.4532 0.2926	0.3791	0.3449	0.3188	0.3120	Lin1	0.1763	0.2950			0.1000				0.9990		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
tert-Butyl alcohol	0.0187 0.0171	0.0206	0.0189	0.0189	0.0192	Ave		0.0189				6.0		15.0			
Acrylonitrile	0.1145 0.1022	0.1105	0.1139	0.1170	0.1105	Ave		0.1114				4.6		15.0			
trans-1,2-Dichloroethene	0.2839 0.2770	0.2945	0.2944	0.2851	0.2889	Ave		0.2873			0.1000	2.4		15.0			
Methyl tert-butyl ether	0.8507 0.8216	0.8205	0.8460	0.8461	0.8566	Ave		0.8402			0.1000	1.8		15.0			
Hexane	0.0529 0.0560	0.0521	0.0488	0.0501	0.0574	Ave		0.0529				6.3		15.0			
1,1-Dichloroethane	0.5478 0.5504	0.5906	0.5789	0.5698	0.5773	Ave		0.5691			0.1000	3.0		15.0			
Vinyl acetate	0.0438 0.0547	0.0420	0.0492	0.0562	0.0568	Ave		0.0505				13.0		15.0			
2-Butanone	0.1431 0.1214	0.1392	0.1413	0.1375	0.1314	Ave		0.1356			0.0500	5.9		15.0			
cis-1,2-Dichloroethene	0.3153 0.3006	0.3006	0.3107	0.3096	0.3157	Ave		0.3087			0.1000	2.2		15.0			
2,2-Dichloropropane	0.2459 0.3076	0.2799	0.2938	0.3057	0.3261	Ave		0.2932				9.5		15.0			
Bromochloromethane	0.1255 0.1262	0.1225	0.1298	0.1329	0.1330	Ave		0.1283				3.3		15.0			
Tetrahydrofuran	0.0875 0.0744	0.0826	0.0830	0.0854	0.0842	Ave		0.0828				5.4		15.0			
Chloroform	0.5169 0.5153	0.5299	0.5388	0.5290	0.5477	Ave		0.5296				2.4		15.0			
1,1,1-Trichloroethane	0.3234 0.3831	0.3500	0.3674	0.3840	0.3986	Ave		0.3678			0.1000	7.4		15.0			
Cyclohexane	0.4217 0.4832	0.4863	0.4431	0.4476	0.4809	Ave		0.4605			0.1000	5.8		15.0			
1,1-Dichloropropene	0.4359 0.4194	0.4199	0.4223	0.4252	0.4356	Ave		0.4264				1.8		15.0			
Carbon tetrachloride	0.2456 0.3072	0.2543	0.2617	0.2867	0.3066	Ave		0.2770			0.1000	9.7		15.0			
1,2-Dichloroethane	0.4838 0.4518	0.4761	0.4673	0.4667	0.4711	Ave		0.4694			0.1000	2.3		15.0			
Benzene	1.2256 1.2453	1.2535	1.2750	1.2420	1.2666	Ave		1.2513			0.5000	1.4		15.0			
Trichloroethene	0.2714 0.2655	0.2671	0.2733	0.2695	0.2719	Ave		0.2698			0.2000	1.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methylcyclohexane	0.3056 0.3781	0.3553	0.3486	0.3331	0.3656	Ave		0.3477			0.1000	7.4		15.0			
1,2-Dichloropropane	0.2994 0.3048	0.3058	0.3148	0.3132	0.3116	Ave		0.3083			0.1000	1.9		15.0			
Dibromomethane	0.1675 0.1555	0.1521	0.1644	0.1597	0.1644	Ave		0.1606				3.7		15.0			
1,4-Dioxane	0.0023 0.0020	0.0024	0.0025	0.0025	0.0025	Ave		0.0024				8.2		15.0			
Bromodichloromethane	0.2586 0.3533	0.2732	0.3036	0.3210	0.3455	Ave		0.3092			0.1000	12.0		15.0			
2-Chloroethyl vinyl ether	0.1532 0.1582	0.1459	0.1670	0.1699	0.1653	Ave		0.1599				5.8		15.0			
cis-1,3-Dichloropropene	0.3061 0.4576	0.3249	0.3845	0.4238	0.4469	Lin1	-0.212	0.4568			0.1500				0.9990		0.9950
4-Methyl-2-pentanone	0.2451 0.2575	0.2540	0.2759	0.2780	0.2752	Ave		0.2643			0.0500	5.3		15.0			
Toluene	1.7728 1.9294	1.8880	1.8619	1.8474	1.9604	Ave		1.8766			0.4000	3.5		15.0			
trans-1,3-Dichloropropene	0.3835 0.6056	0.4211	0.4964	0.5287	0.6010	Lin1	-0.314	0.6041			0.1000				0.9980		0.9950
Ethyl methacrylate	0.4455 0.5778	0.5229	0.5765	0.5788	0.6242	Ave		0.5543				11.0		15.0			
1,1,2-Trichloroethane	0.3279 0.3212	0.3141	0.3421	0.3341	0.3447	Ave		0.3307			0.1000	3.6		15.0			
1,3-Dichloropropane	0.6891 0.6635	0.6944	0.7152	0.6928	0.7223	Ave		0.6962				3.0		15.0			
Tetrachloroethene	0.2452 0.2600	0.2630	0.2668	0.2612	0.2738	Ave		0.2617			0.2000	3.6		15.0			
2-Hexanone	0.2323 0.2576	0.2818	0.2796	0.2822	0.2852	Ave		0.2698			0.0500	7.8		15.0			
Dibromochloromethane	0.1872 0.3114	0.2160	0.2464	0.2709	0.3057	Lin1	-0.171	0.3097							0.9980		0.9950
1,2-Dibromoethane	0.2962 0.3220	0.3089	0.3344	0.3261	0.3462	Ave		0.3223				5.5		15.0			
Chlorobenzene	1.0759 1.0855	1.1279	1.1114	1.0941	1.1299	Ave		1.1041			0.3000	2.0		15.0			
1,1,1,2-Tetrachloroethane	0.2665 0.3469	0.2706	0.3066	0.3249	0.3538	Ave		0.3116				12.0		15.0			
Ethylbenzene	0.5227 0.5869	0.5825	0.6026	0.5858	0.6163	Ave		0.5828				5.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
m-Xylene & p-Xylene	0.6757 0.7551	0.7220	0.7191	0.7176	0.7638	Ave		0.7256				4.3		15.0			
o-Xylene	0.6806 0.7276	0.7176	0.7304	0.7130	0.7551	Ave		0.7207				3.4		15.0			
Styrene	1.0565 1.2902	1.1310	1.1966	1.1904	1.2870	Ave		1.1920			0.3000	7.6		15.0			
Bromoform	0.0815 0.1487	0.0938	0.1133	0.1171	0.1413	Lin1	-0.094	0.1455			0.1000				0.9950		0.9950
Isopropylbenzene	1.5492 1.8304	1.6861	1.6648	1.6944	1.8507	Ave		1.7126			0.1000	6.6		15.0			
1,1,2,2-Tetrachloroethane	0.8553 0.8338	0.9184	0.9469	0.9293	0.9310	Ave		0.9025			0.3000	5.1		15.0			
Bromobenzene	0.8074 0.7779	0.8287	0.8325	0.8084	0.8409	Ave		0.8159				2.8		15.0			
1,2,3-Trichloropropane	0.2880 0.2558	0.2803	0.2925	0.2919	0.2938	Ave		0.2837				5.1		15.0			
trans-1,4-Dichloro-2-butene	0.2181 0.2689	0.2471	0.2346	0.2535	0.2845	Ave		0.2511				9.5		15.0			
n-Propylbenzene	0.7292 0.8665	0.8823	0.8741	0.8947	0.9118	Ave		0.8598				7.7		15.0			
2-Chlorotoluene	0.8583 0.7918	0.8579	0.8258	0.8361	0.8474	Ave		0.8362				3.0		15.0			
1,3,5-Trimethylbenzene	2.5787 2.8481	2.7830	2.7962	2.7951	2.9477	Ave		2.7914				4.3		15.0			
4-Chlorotoluene	0.8421 0.8602	0.8907	0.8940	0.8564	0.9136	Ave		0.8762				3.1		15.0			
tert-Butylbenzene	2.2870 2.5025	2.5077	2.4568	2.4969	2.5752	Ave		2.4710				4.0		15.0			
1,2,4-Trimethylbenzene	2.7586 2.9544	2.8331	2.8754	2.9504	3.0668	Ave		2.9065				3.7		15.0			
sec-Butylbenzene	2.8024 3.1977	3.0238	2.9596	3.0216	3.2137	Ave		3.0365				5.1		15.0			
1,3-Dichlorobenzene	1.5037 1.4698	1.4901	1.5135	1.5069	1.5495	Ave		1.5056			0.6000	1.8		15.0			
p-Isopropyltoluene	2.2069 2.6255	2.4647	2.4703	2.4761	2.6715	Ave		2.4858				6.6		15.0			
1,4-Dichlorobenzene	1.6073 1.5308	1.6512	1.5577	1.5557	1.6211	Ave		1.5873			0.5000	2.9		15.0			
n-Butylbenzene	2.0896 2.4436	2.2004	2.2368	2.2659	2.4792	Ave		2.2859				6.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dichlorobenzene	1.4966 1.3945	1.5126	1.5119	1.4682	1.5239	Ave		1.4846			0.4000	3.2		15.0			
1,2-Dibromo-3-Chloropropane	0.0886 0.0950	0.0916	0.0904	0.0972	0.1086	Ave		0.0952			0.0500	7.6		15.0			
1,3,5-Trichlorobenzene	0.7904 0.7093	0.7633	0.7631	0.7837	0.8038	Ave		0.7690				4.3		15.0			
1,2,4-Trichlorobenzene	0.6476 0.5852	0.7228	0.7185	0.6951	0.7215	Ave		0.6818			0.2000	8.1		15.0			
Hexachlorobutadiene	0.2814 0.2092	0.2884	0.2495	0.2645	0.2531	Ave		0.2577				11.0		15.0			
Naphthalene	1.9527 1.6802	2.0647	2.2163	2.2497	2.2115	Ave		2.0625				11.0		15.0			
1,2,3-Trichlorobenzene	0.6221 0.4278	0.6296	0.6285	0.6505	0.5938	Ave		0.5920				14.0		15.0			
Dibromofluoromethane (Surr)	0.2331 0.2366	0.2278	0.2460	0.2403	0.2499	Ave		0.2389				3.4		15.0			
1,2-Dichloroethane-d4 (Surr)	0.4238 0.3659	0.3675	0.3946	0.3884	0.3801	Ave		0.3867				5.5		15.0			
Toluene-d8 (Surr)	1.5539 1.5702	1.4814	1.5599	1.5466	1.5977	Ave		1.5516				2.5		15.0			
4-Bromofluorobenzene (Surr)	0.5499 0.5492	0.5504	0.5556	0.5412	0.5764	Ave		0.5538				2.2		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 17:57 Calibration End Date: 04/29/2012 19:50 Calibration ID: 8428

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD6 240-42092/13	UXM5250.D
Level 2	STD5 240-42092/12	UXM5249.D
Level 3	STD4 240-42092/11	UXM5248.D
Level 4	STD3 240-42092/10	UXM5247.D
Level 5	STD2 240-42092/9	UXM5246.D
Level 6	STD1 240-42092/8	UXM5245.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorofluoromethane	0.4944 0.5457	0.5179	0.5366	0.5411	0.5388	Ave		0.5291				3.7		15.0			
Ethyl ether	0.2959 0.3118	0.3149	0.3299	0.3322	0.3247	Ave		0.3182				4.3		15.0			
3-Chloro-1-propene	0.1138 0.1626	0.1307	0.1332	0.1472	0.1572	Ave		0.1408				13.0		15.0			
Diisopropyl ether	0.2325 0.3039	0.2698	0.2820	0.2880	0.2888	Ave		0.2775				8.9		15.0			
2-Chloro-1,3-butadiene	0.4443 0.5618	0.4913	0.5190	0.5386	0.5385	Ave		0.5156				8.2		15.0			
Ethyl-t-butyl ether (ETBE)	0.7557 0.9819	0.8293	0.9029	0.9314	0.9383	Ave		0.8899				9.3		15.0			
Propionitrile	0.0349 0.0408	0.0346	0.0382	0.0420	0.0412	Ave		0.0386				8.5		15.0			
Ethyl acetate	0.2532 0.2900	0.2546	0.2741	0.2771	0.2824	Ave		0.2719				5.5		15.0			
Methacrylonitrile	0.1606 0.2023	0.1897	0.1949	0.2046	0.2003	Ave		0.1921				8.5		15.0			
Isobutyl alcohol	0.0077 0.0091	0.0077	0.0086	0.0094	0.0092	Ave		0.0086				8.8		15.0			
Tert-amyl-methyl ether (TAME)	0.5871 0.7972	0.6671	0.7241	0.7535	0.7651	Ave		0.7157				11.0		15.0			
n-Heptane	0.0338 0.0458	0.0359	0.0418	0.0425	0.0440	Ave		0.0406				12.0		15.0			
n-Butanol	0.0041 0.0069	0.0052	0.0059	0.0064	0.0070	Lin1	-0.068	0.0070							0.9990		0.9950
2-Nitropropane	0.0349 0.0534	0.0349	0.0424	0.0409	0.0453	Qua	0	0.0373	0.0002						1.0000		0.9900
Cyclohexanone	0.0676 0.1071	0.0696	0.0924	0.0940	0.1083	Lin1	-0.573	0.1077							0.9980		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 17:57 Calibration End Date: 04/29/2012 19:50 Calibration ID: 8428

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,3-Trimethylbenzene	2.3062 3.3384	2.8522	3.0020	3.1126	3.2823	Ave		2.9823				13.0		15.0			
2-Methylnaphthalene	0.5487 0.8482	0.7229	0.8158	0.9225	1.0313	Qua	-2.422	1.2182	-0.004						0.9970		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2829	0.2340	0.1000	8.27	10.0	-17.3	20.0
Chloromethane	Ave	0.4613	0.4720	0.1000	10.2	10.0	2.3	20.0
Vinyl chloride	Ave	0.4246	0.4443	0.1000	10.5	10.0	4.6	20.0
Bromomethane	Ave	0.1684	0.1539	0.0500	9.14	10.0	-8.6	20.0
Chloroethane	Ave	0.2371	0.2329	0.0500	9.82	10.0	-1.8	20.0
Trichlorofluoromethane	Ave	0.3035	0.3240	0.1000	10.7	10.0	6.8	20.0
Acrolein	Ave	0.0489	0.0264		16.2	30.0	-46.0*	20.0
1,1-Dichloroethene	Ave	0.2446	0.2652	0.1000	10.8	10.0	8.4	20.0
1,1,2-Trichloro-1,2,2-trichf luoroethane	Ave	0.1546	0.1709	0.0500	11.1	10.0	10.6	20.0
Acetone	Lin1		0.1057	0.0500	21.1	20.0	5.5	20.0
Iodomethane	Ave	0.3433	0.3416		9.95	10.0	-0.5	20.0
Carbon disulfide	Ave	0.7261	0.7042	0.1000	9.70	10.0	-3.0	20.0
Acetonitrile	Ave	0.0346	0.0393		34.0	30.0	13.4	20.0
Methyl acetate	Ave	0.2327	0.2751	0.1000	11.8	10.0	18.2	20.0
Methylene Chloride	Lin1		0.3299	0.1000	10.6	10.0	6.0	20.0
tert-Butyl alcohol	Ave	0.0189	0.0195		207	200	3.2	20.0
Acrylonitrile	Ave	0.1114	0.1186		31.9	30.0	6.5	20.0
Methyl tert-butyl ether	Ave	0.8402	0.8405	0.1000	10.0	10.0	0.0	20.0
trans-1,2-Dichloroethene	Ave	0.2873	0.2952	0.1000	10.3	10.0	2.7	20.0
Hexane	Ave	0.0529	0.0579		10.9	10.0	9.4	20.0
1,1-Dichloroethane	Ave	0.5691	0.6028	0.1000	10.6	10.0	5.9	20.0
Vinyl acetate	Ave	0.0505	0.0387		7.67	10.0	-23.3*	20.0
2-Butanone	Ave	0.1356	0.1389	0.0500	20.5	20.0	2.4	20.0
2,2-Dichloropropane	Ave	0.2932	0.2855		9.74	10.0	-2.6	20.0
cis-1,2-Dichloroethene	Ave	0.3087	0.3186	0.1000	10.3	10.0	3.2	20.0
Bromochloromethane	Ave	0.1283	0.1312		10.2	10.0	2.2	20.0
Tetrahydrofuran	Ave	0.0828	0.0852		10.3	10.0	2.9	20.0
Chloroform	Ave	0.5296	0.5462	0.2000	10.3	10.0	3.1	20.0
1,1,1-Trichloroethane	Ave	0.3678	0.3794	0.1000	10.3	10.0	3.2	20.0
Cyclohexane	Ave	0.4605	0.4767	0.1000	10.4	10.0	3.5	20.0
1,1-Dichloropropene	Ave	0.4264	0.4383		10.3	10.0	2.8	20.0
Carbon tetrachloride	Ave	0.2770	0.2912	0.1000	10.5	10.0	5.1	20.0
1,2-Dichloroethane	Ave	0.4694	0.4938	0.1000	10.5	10.0	5.2	20.0
Benzene	Ave	1.251	1.319	0.5000	10.5	10.0	5.4	20.0
Trichloroethene	Ave	0.2698	0.2968	0.2000	11.0	10.0	10.0	20.0
1,2-Dichloropropane	Ave	0.3083	0.3319	0.1000	10.8	10.0	7.7	20.0
Methylcyclohexane	Ave	0.3477	0.3665	0.1000	10.5	10.0	5.4	20.0
Dibromomethane	Ave	0.1606	0.1738		10.8	10.0	8.2	20.0
Bromodichloromethane	Ave	0.3092	0.3331	0.1000	10.8	10.0	7.7	20.0
2-Chloroethyl vinyl ether	Ave	0.1599	0.1722		10.8	10.0	7.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
cis-1,3-Dichloropropene	Lin1		0.4089	0.1500	9.41	10.0	-5.9	20.0
4-Methyl-2-pentanone	Ave	0.2643	0.2914	0.0500	22.1	20.0	10.3	20.0
Toluene	Ave	1.877	1.918	0.4000	10.2	10.0	2.2	20.0
trans-1,3-Dichloropropene	Lin1		0.5291	0.1000	9.28	10.0	-7.2	20.0
1,1,2-Trichloroethane	Ave	0.3307	0.3442	0.1000	10.4	10.0	4.1	20.0
1,3-Dichloropropane	Ave	0.6962	0.7105		10.2	10.0	2.0	20.0
Tetrachloroethene	Ave	0.2617	0.2644	0.2000	10.1	10.0	1.0	20.0
2-Hexanone	Ave	0.2698	0.2927	0.0500	21.7	20.0	8.5	20.0
Dibromochloromethane	Lin1		0.2623		9.02	10.0	-9.8	20.0
1,2-Dibromoethane	Ave	0.3223	0.3341		10.4	10.0	3.7	20.0
Chlorobenzene	Ave	1.104	1.136	0.3000	10.3	10.0	2.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3116	0.3283		10.5	10.0	5.4	20.0
Ethylbenzene	Ave	0.5828	0.6250		10.7	10.0	7.2	20.0
m-Xylene & p-Xylene	Ave	0.7256	0.7452		20.5	20.0	2.7	20.0
o-Xylene	Ave	0.7207	0.7518		10.4	10.0	4.3	20.0
Styrene	Ave	1.192	1.255	0.3000	10.5	10.0	5.3	20.0
Bromoform	Lin1		0.1220	0.1000	9.03	10.0	-9.7	20.0
Isopropylbenzene	Ave	1.713	1.779	0.1000	10.4	10.0	3.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9025	0.9195	0.3000	10.2	10.0	1.9	20.0
Bromobenzene	Ave	0.8159	0.8010		9.82	10.0	-1.8	20.0
1,2,3-Trichloropropane	Ave	0.2837	0.2982		10.5	10.0	5.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2511	0.2617		20.8	20.0	4.2	20.0
n-Propylbenzene	Ave	0.8598	0.9010		10.5	10.0	4.8	20.0
2-Chlorotoluene	Ave	0.8362	0.8214		9.82	10.0	-1.8	20.0
1,3,5-Trimethylbenzene	Ave	2.791	2.836		10.2	10.0	1.6	20.0
4-Chlorotoluene	Ave	0.8762	0.8813		10.1	10.0	0.6	20.0
tert-Butylbenzene	Ave	2.471	2.497		10.1	10.0	1.1	20.0
1,2,4-Trimethylbenzene	Ave	2.906	2.988		10.3	10.0	2.8	20.0
sec-Butylbenzene	Ave	3.036	3.064		10.1	10.0	0.9	20.0
1,3-Dichlorobenzene	Ave	1.506	1.484	0.6000	9.85	10.0	-1.5	20.0
p-Isopropyltoluene	Ave	2.486	2.579		10.4	10.0	3.8	20.0
1,4-Dichlorobenzene	Ave	1.587	1.584	0.5000	9.98	10.0	-0.2	20.0
n-Butylbenzene	Ave	2.286	2.295		10.0	10.0	0.4	20.0
1,2-Dichlorobenzene	Ave	1.485	1.504	0.4000	10.1	10.0	1.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0952	0.1049	0.0500	11.0	10.0	10.1	20.0
1,2,4-Trichlorobenzene	Ave	0.6818	0.6660	0.2000	9.77	10.0	-2.3	20.0
Hexachlorobutadiene	Ave	0.2577	0.2217		8.60	10.0	-14.0	20.0
Naphthalene	Ave	2.063	2.211		10.7	10.0	7.2	20.0
1,2,3-Trichlorobenzene	Ave	0.5920	0.6250		10.6	10.0	5.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2389	0.2274		9.72	10.2	-4.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3867	0.3583		9.46	10.2	-7.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Toluene-d8 (Surr)	Ave	1.552	1.491		9.81	10.2	-3.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5538	0.5469		10.1	10.2	-1.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 17:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 19:50

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.3182	0.3065		9.63	10.0	-3.7	20.0
Diisopropyl ether	Ave	0.2775	0.2745		9.89	10.0	-1.1	20.0
Isobutyl alcohol	Ave	0.0086	0.0091		527	500	5.4	20.0
Cyclohexanone	Lin1		0.0256		52.9	200	-73.6*	20.0
1,2,3-Trimethylbenzene	Ave	2.982	3.178		10.7	10.0	6.6	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: BFB2918.D BFB Injection Date: 05/01/2012

Instrument ID: A3UX16 BFB Injection Time: 10:27

Analysis Batch No.: 42324

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	22.3	
75	30.0 - 60.0 % of mass 95	55.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.1	
173	Less than 2.0 % of mass 174	0.4	(0.5)1
174	50.0 - 120.00 % of mass 95	65.4	
175	5.0 - 9.0 % of mass 174	4.4	(6.7)1
176	95.0 - 101.0 % of mass 174	62.9	(96.2)1
177	5.0 - 9.0 % of mass 176	4.0	(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-42324/2	UXM5299.D	05/01/2012	10:57
	CCV 240-42324/3	UXM5300.D	05/01/2012	11:20
	LCS 240-42324/4	UXM5301.D	05/01/2012	11:42
	MB 240-42324/5	UXM5302.D	05/01/2012	12:05
TB-042712	240-10770-1	UXM5303.D	05/01/2012	13:05
GSP-MW8-042712	240-10770-3	UXM5311.D	05/01/2012	16:12
GSP-MW4-042712	240-10770-4	UXM5312.D	05/01/2012	16:35
GSP-MW7-042712	240-10770-2	UXM5318.D	05/01/2012	18:51
GSP-MW7-042712 MS	240-10770-2 MS	UXM5319.D	05/01/2012	19:14
GSP-MW7-042712 MSD	240-10770-2 MSD	UXM5320.D	05/01/2012	19:37

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCVIS 240-42324/2 Calibration Date: 05/01/2012 10:57

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5299.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2829	0.2970	0.1000	10.5	10.0	5.0	20.0
Chloromethane	Ave	0.4613	0.4543	0.1000	9.85	10.0	-1.5	20.0
Vinyl chloride	Ave	0.4246	0.4174	0.1000	9.83	10.0	-1.7	20.0
Bromomethane	Ave	0.1684	0.1468	0.0500	8.72	10.0	-12.8	20.0
Chloroethane	Ave	0.2371	0.2172	0.0500	9.16	10.0	-8.4	20.0
Trichlorofluoromethane	Ave	0.3035	0.3345	0.1000	11.0	10.0	10.2	20.0
Acrolein	Ave	0.0489	0.0408		83.3	100	-16.7	20.0
1,1-Dichloroethene	Ave	0.2446	0.2333	0.1000	9.54	10.0	-4.6	20.0
1,1,2-Trichloro-1,2,2-trichf luoroethane	Ave	0.1546	0.1599	0.0500	10.3	10.0	3.5	20.0
Acetone	Lin1		0.0858	0.0500	16.5	20.0	-17.5	20.0
Iodomethane	Ave	0.3433	0.3386		9.86	10.0	-1.4	20.0
Carbon disulfide	Ave	0.7261	0.7276	0.1000	10.0	10.0	0.2	20.0
Acetonitrile	Ave	0.0346	0.0275		79.3	100	-20.7*	20.0
Methyl acetate	Ave	0.2327	0.1924	0.1000	16.5	20.0	-17.3	20.0
Methylene Chloride	Lin1		0.3022	0.1000	9.65	10.0	-3.5	20.0
tert-Butyl alcohol	Ave	0.0189	0.0167		176	200	-11.8	20.0
Acrylonitrile	Ave	0.1114	0.0928		16.7	20.0	-16.7	20.0
Methyl tert-butyl ether	Ave	0.8402	0.7564	0.1000	9.00	10.0	-10.0	20.0
trans-1,2-Dichloroethene	Ave	0.2873	0.2720	0.1000	9.47	10.0	-5.3	20.0
Hexane	Ave	0.0529	0.0545		10.3	10.0	3.0	20.0
1,1-Dichloroethane	Ave	0.5691	0.5175	0.1000	9.09	10.0	-9.1	20.0
Vinyl acetate	Ave	0.0505	0.0467		9.26	10.0	-7.4	20.0
2-Butanone	Ave	0.1356	0.1103	0.0500	16.3	20.0	-18.7	20.0
cis-1,2-Dichloroethene	Ave	0.3087	0.2874	0.1000	9.31	10.0	-6.9	20.0
2,2-Dichloropropane	Ave	0.2932	0.2845		9.70	10.0	-3.0	20.0
Bromochloromethane	Ave	0.1283	0.1235		9.62	10.0	-3.8	20.0
Tetrahydrofuran	Ave	0.0828	0.0679		8.20	10.0	-18.0	20.0
Chloroform	Ave	0.5296	0.4972	0.2000	9.39	10.0	-6.1	20.0
1,1,1-Trichloroethane	Ave	0.3678	0.3668	0.1000	9.97	10.0	-0.3	20.0
Cyclohexane	Ave	0.4605	0.4548	0.1000	9.88	10.0	-1.2	20.0
1,1-Dichloropropene	Ave	0.4264	0.3992		9.36	10.0	-6.4	20.0
Carbon tetrachloride	Ave	0.2770	0.2807	0.1000	10.1	10.0	1.3	20.0
1,2-Dichloroethane	Ave	0.4694	0.4211	0.1000	8.97	10.0	-10.3	20.0
Benzene	Ave	1.251	1.160	0.5000	9.27	10.0	-7.3	20.0
Trichloroethene	Ave	0.2698	0.2566	0.2000	9.51	10.0	-4.9	20.0
Methylcyclohexane	Ave	0.3477	0.3573	0.1000	10.3	10.0	2.7	20.0
1,2-Dichloropropane	Ave	0.3083	0.2800	0.1000	9.08	10.0	-9.2	20.0
Dibromomethane	Ave	0.1606	0.1466		9.13	10.0	-8.7	20.0
1,4-Dioxane	Ave	0.0024	0.0019		407	500	-18.6	20.0
Bromodichloromethane	Ave	0.3092	0.3093	0.1000	10.0	10.0	0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCVIS 240-42324/2 Calibration Date: 05/01/2012 10:57

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5299.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1599	0.1407		17.6	20.0	-12.0	20.0
cis-1,3-Dichloropropene	Lin1		0.3920	0.1500	9.05	10.0	-9.5	20.0
4-Methyl-2-pentanone	Ave	0.2643	0.2298	0.0500	17.4	20.0	-13.0	20.0
Toluene	Ave	1.877	1.757	0.4000	9.36	10.0	-6.4	20.0
trans-1,3-Dichloropropene	Lin1		0.4892	0.1000	8.62	10.0	-13.8	20.0
Ethyl methacrylate	Ave	0.5543	0.5192		9.37	10.0	-6.3	20.0
1,1,2-Trichloroethane	Ave	0.3307	0.3008	0.1000	9.10	10.0	-9.0	20.0
1,3-Dichloropropane	Ave	0.6962	0.6149		8.83	10.0	-11.7	20.0
Tetrachloroethene	Ave	0.2617	0.2658	0.2000	10.2	10.0	1.6	20.0
2-Hexanone	Ave	0.2698	0.2311	0.0500	17.1	20.0	-14.3	20.0
Dibromochloromethane	Lin1		0.2569		8.85	10.0	-11.5	20.0
1,2-Dibromoethane	Ave	0.3223	0.2904		9.01	10.0	-9.9	20.0
Chlorobenzene	Ave	1.104	1.009	0.3000	9.14	10.0	-8.6	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3116	0.3090		9.92	10.0	-0.8	20.0
Ethylbenzene	Ave	0.5828	0.5479		9.40	10.0	-6.0	20.0
m-Xylene & p-Xylene	Ave	0.7256	0.6861		18.9	20.0	-5.4	20.0
o-Xylene	Ave	0.7207	0.6592		9.15	10.0	-8.5	20.0
Styrene	Ave	1.192	1.127	0.3000	9.45	10.0	-5.5	20.0
Bromoform	Lin1		0.1151	0.1000	8.56	10.0	-14.4	20.0
Isopropylbenzene	Ave	1.713	1.644	0.1000	9.60	10.0	-4.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9025	0.7806	0.3000	8.65	10.0	-13.5	20.0
Bromobenzene	Ave	0.8159	0.7710		9.45	10.0	-5.5	20.0
1,2,3-Trichloropropane	Ave	0.2837	0.2458		8.66	10.0	-13.4	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2511	0.2026		8.07	10.0	-19.3	20.0
n-Propylbenzene	Ave	0.8598	0.8329		9.69	10.0	-3.1	20.0
2-Chlorotoluene	Ave	0.8362	0.7811		9.34	10.0	-6.6	20.0
1,3,5-Trimethylbenzene	Ave	2.791	2.681		9.60	10.0	-4.0	20.0
4-Chlorotoluene	Ave	0.8762	0.8220		9.38	10.0	-6.2	20.0
tert-Butylbenzene	Ave	2.471	2.351		9.51	10.0	-4.9	20.0
1,2,4-Trimethylbenzene	Ave	2.906	2.770		9.53	10.0	-4.7	20.0
sec-Butylbenzene	Ave	3.036	2.925		9.63	10.0	-3.7	20.0
1,3-Dichlorobenzene	Ave	1.506	1.424	0.6000	9.46	10.0	-5.4	20.0
p-Isopropyltoluene	Ave	2.486	2.368		9.52	10.0	-4.8	20.0
1,4-Dichlorobenzene	Ave	1.587	1.488	0.5000	9.38	10.0	-6.2	20.0
n-Butylbenzene	Ave	2.286	2.212		9.68	10.0	-3.2	20.0
1,2-Dichlorobenzene	Ave	1.485	1.376	0.4000	9.27	10.0	-7.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0952	0.0868	0.0500	9.12	10.0	-8.8	20.0
1,3,5-Trichlorobenzene	Ave	0.7690	0.7679		9.99	10.0	-0.1	20.0
1,2,4-Trichlorobenzene	Ave	0.6818	0.6628	0.2000	9.72	10.0	-2.8	20.0
Hexachlorobutadiene	Ave	0.2577	0.2465		9.56	10.0	-4.4	20.0
Naphthalene	Ave	2.063	1.789		8.67	10.0	-13.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCVIS 240-42324/2 Calibration Date: 05/01/2012 10:57

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5299.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Ave	0.5920	0.5701		9.63	10.0	-3.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2389	0.2122		9.07	10.2	-11.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3867	0.3050		8.05	10.2	-21.1*	20.0
Toluene-d8 (Surr)	Ave	1.552	1.334		8.78	10.2	-14.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5538	0.4954		9.13	10.2	-10.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42324/3 Calibration Date: 05/01/2012 11:20

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 17:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 19:50

Lab File ID: UXM5300.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.5291	0.5354		10.1	10.0	1.2	20.0
Ethyl ether	Ave	0.3182	0.2987		9.39	10.0	-6.1	20.0
3-Chloro-1-propene	Ave	0.1408	0.1459		10.4	10.0	3.6	20.0
Diisopropyl ether	Ave	0.2775	0.2701		48.7	50.0	-2.7	20.0
2-Chloro-1,3-butadiene	Ave	0.5156	0.5114		9.92	10.0	-0.8	20.0
Ethyl-t-butyl ether (ETBE)	Ave	0.8899	0.8626		9.69	10.0	-3.1	20.0
Propionitrile	Ave	0.0386	0.0370		19.1	20.0	-4.3	20.0
Ethyl acetate	Ave	0.2719	0.2520		18.5	20.0	-7.3	20.0
Methacrylonitrile	Ave	0.1921	0.1757		9.15	10.0	-8.5	20.0
Isobutyl alcohol	Ave	0.0086	0.0077		178	200	-11.0	20.0
Tert-amyl-methyl ether (TAME)	Ave	0.7157	0.7080		9.89	10.0	-1.1	20.0
n-Heptane	Ave	0.0406	0.0444		10.9	10.0	9.3	20.0
n-Butanol	Lin1		0.0054		163	200	-18.7	20.0
2-Nitropropane	Qua		0.0417		20.2	20.0	1.0	20.0
Cyclohexanone	Lin1		0.0639		64.6	100	-35.4*	20.0
1,2,3-Trimethylbenzene	Ave	2.982	2.860		9.59	10.0	-4.1	20.0
2-Methylnaphthalene	Qua		0.5682		11.8	20.0	-41.0*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42324/3 Calibration Date: 05/01/2012 11:20

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5300.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2389	0.2164		9.25	10.2	-9.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3867	0.3361		8.87	10.2	-13.1	20.0
Toluene-d8 (Surr)	Ave	1.552	1.436		9.45	10.2	-7.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5538	0.5323		9.81	10.2	-3.9	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: UXM5302.D Lab Sample ID: MB 240-42324/5

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 05/01/2012 12:05

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-42324/4	UXM5301.D	05/01/2012 11:42
TB-042712	240-10770-1	UXM5303.D	05/01/2012 13:05
GSP-MW8-042712	240-10770-3	UXM5311.D	05/01/2012 16:12
GSP-MW4-042712	240-10770-4	UXM5312.D	05/01/2012 16:35
GSP-MW7-042712	240-10770-2	UXM5318.D	05/01/2012 18:51
GSP-MW7-042712 MS	240-10770-2 MS	UXM5319.D	05/01/2012 19:14
GSP-MW7-042712 MSD	240-10770-2 MSD	UXM5320.D	05/01/2012 19:37

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-42324/5

Matrix: Water | Lab File ID: UXM5302.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 12:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.280	J	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-42324/5

Matrix: Water | Lab File ID: UXM5302.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 12:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-42324/5

Matrix: Water | Lab File ID: UXM5302.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 12:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-129
460-00-4	4-Bromofluorobenzene (Surr)	94		66-117
2037-26-5	Toluene-d8 (Surr)	90		74-115
1868-53-7	Dibromofluoromethane (Surr)	87		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42324/5
Matrix: Water
Lab File ID: UXM5302.D
Analysis Method: 8260C
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 05/01/2012 12:05
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42324
Units: ug/L
Number TICs Found: 0
TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5301.D

Lab ID: LCS 240-42324/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	9.45	95	72-116	
1,1,1-Trichloroethane	10.0	9.44	94	74-118	
1,1,2,2-Tetrachloroethane	10.0	8.83	88	68-118	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	9.91	99	74-151	
1,1-Dichloroethane	10.0	9.10	91	82-115	
1,1-Dichloroethene	10.0	9.77	98	78-131	
1,1-Dichloropropene	10.0	9.02	90	83-114	
1,2,3-Trichlorobenzene	10.0	9.28	93	54-126	
1,2,3-Trichloropropane	10.0	8.93	89	73-129	
1,2,3-Trimethylbenzene	10.0	9.10	91	70-130	
1,2,4-Trichlorobenzene	10.0	8.99	90	48-135	
1,2,4-Trimethylbenzene	10.0	8.94	89	76-120	
1,2-Dibromo-3-Chloropropane	10.0	9.30	93	42-136	
1,2-Dichlorobenzene	10.0	8.93	89	81-110	
1,2-Dichloroethane	10.0	9.17	92	71-127	
1,2-Dichloropropane	10.0	9.19	92	81-115	
1,3-Dichlorobenzene	10.0	8.91	89	80-110	
1,3-Dichloropropane	10.0	8.90	89	79-116	
1,4-Dichlorobenzene	10.0	8.70	87	82-110	
2,2-Dichloropropane	10.0	9.56	96	50-129	
2-Chloroethyl vinyl ether	10.0	9.03 J	90	52-131	
2-Chlorotoluene	10.0	8.56	86	76-116	
2-Hexanone	20.0	19.6	98	55-133	
Bromobenzene	10.0	8.72	87	76-115	
Bromochloromethane	10.0	9.54	95	77-120	
4-Chlorotoluene	10.0	8.66	87	77-115	
p-Isopropyltoluene	10.0	9.32	93	74-120	
Acetone	20.0	21.9	110	43-136	
Benzene	10.0	9.17	92	83-112	
Bromoform	10.0	8.47	85	40-131	
Bromomethane	10.0	7.98	80	11-185	
Carbon disulfide	10.0	8.80	88	62-142	
Carbon tetrachloride	10.0	9.85	99	66-128	
Chlorobenzene	10.0	9.08	91	85-110	
Chloroethane	10.0	8.25	83	25-153	
Chloroform	10.0	8.99	90	79-117	
Chloromethane	10.0	8.26	83	44-126	
cis-1,2-Dichloroethene	10.0	9.25	93	80-113	
cis-1,3-Dichloropropene	10.0	8.18	82	61-115	
Hexachlorobutadiene	10.0	8.21	82	36-134	
Dibromomethane	10.0	9.38	94	81-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5301.D

Lab ID: LCS 240-42324/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Bromodichloromethane	10.0	9.82	98	72-121	
Dichlorodifluoromethane	10.0	6.28	63	19-129	
Ethylbenzene	10.0	9.32	93	83-112	
1,2-Dibromoethane	10.0	9.45	95	79-113	
Diisopropyl ether	10.0	8.96 J	90	77-118	
Naphthalene	10.0	9.17	92	32-141	
m-Xylene & p-Xylene	20.0	18.5	93	83-113	
n-Butylbenzene	10.0	8.95	90	66-125	
Isopropylbenzene	10.0	9.38	94	75-114	
n-Propylbenzene	10.0	9.12	91	74-121	
2-Butanone	20.0	18.6	93	60-126	
4-Methyl-2-pentanone	20.0	18.8	94	63-128	
sec-Butylbenzene	10.0	8.81	88	70-117	
Methyl tert-butyl ether	10.0	8.97	90	52-144	
Methylene Chloride	10.0	9.15	92	66-131	
o-Xylene	10.0	9.45	95	83-113	
Styrene	10.0	9.49	95	79-114	
tert-Butylbenzene	10.0	8.75	88	71-115	
Tetrachloroethene	10.0	9.38	94	79-114	
Toluene	10.0	9.07	91	84-111	
trans-1,2-Dichloroethene	10.0	8.96	90	83-117	
trans-1,3-Dichloropropene	10.0	8.21	82	58-117	
Trichloroethene	10.0	9.28	93	76-117	
Trichlorofluoromethane	10.0	10.5	105	49-157	
Vinyl acetate	10.0	8.54	85	46-161	
Vinyl chloride	10.0	8.63	86	53-127	
tert-Butyl alcohol	200	195	98	70-130	
Xylenes, Total	30.0	28.0	93	83-112	
Dibromochloromethane	10.0	8.17	82	64-119	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5319.D

Lab ID: 240-10770-2 MS Client ID: GSP-MW7-042712 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	40.0	4.0 U	40.8	102	64-118	
1,1,1-Trichloroethane	40.0	4.0 U	38.3	96	68-121	
1,1,2,2-Tetrachloroethane	40.0	4.0 U	39.7	99	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	40.0	4.0 U	42.8	107	70-152	
1,1-Dichloroethane	40.0	4.0 U	39.4	98	79-116	
1,1-Dichloroethene	40.0	4.0 U	40.4	101	74-135	
1,1-Dichloropropene	40.0	4.0 U	38.5	96	80-114	
1,2,3-Trichlorobenzene	40.0	4.0 U	42.0	105	45-129	
1,2,3-Trichloropropane	40.0	4.0 U	39.8	100	67-132	
1,2,3-Trimethylbenzene	40.0	20 U	40.4	101	70-130	
1,2,4-Trichlorobenzene	40.0	4.0 U	38.7	97	38-138	
1,2,4-Trimethylbenzene	40.0	4.0 U	39.2	98	67-124	
1,2-Dibromo-3-Chloropropane	40.0	8.0 U	39.8	100	32-139	
1,2-Dichlorobenzene	40.0	4.0 U	39.6	99	75-111	
1,2-Dichloroethane	40.0	4.0 U	40.0	100	68-129	
1,2-Dichloropropane	40.0	4.0 U	39.6	99	78-115	
1,3-Dichlorobenzene	40.0	4.0 U	38.8	97	73-110	
1,3-Dichloropropane	40.0	4.0 U	39.4	99	74-118	
1,4-Dichlorobenzene	40.0	4.0 U	38.8	97	75-110	
2,2-Dichloropropane	40.0	4.0 U	36.1	90	38-127	
2-Chloroethyl vinyl ether	40.0	40 U	40 U	0	10-150	F
2-Chlorotoluene	40.0	4.0 U	37.7	94	69-117	
2-Hexanone	80.0	40 U	83.2	104	47-139	
Bromobenzene	40.0	4.0 U	38.6	97	71-116	
Bromochloromethane	40.0	4.0 U	39.0	98	73-121	
4-Chlorotoluene	40.0	4.0 U	37.9	95	71-116	
p-Isopropyltoluene	40.0	4.0 U	41.2	103	64-122	
Acetone	80.0	40 U	82.4	103	33-145	
Benzene	40.0	4.0 U	39.5	99	72-121	
Bromoform	40.0	4.0 U	32.5	81	32-128	
Bromomethane	40.0	4.0 U	30.2	76	10-186	
Carbon disulfide	40.0	4.0 U	34.8	87	57-147	
Carbon tetrachloride	40.0	4.0 U	38.9	97	59-129	
Chlorobenzene	40.0	4.0 U	39.2	98	80-110	
Chloroethane	40.0	4.0 U	35.6	89	21-165	
Chloroform	40.0	4.0 U	37.7	94	76-118	
Chloromethane	40.0	4.0 U	40.8	102	33-132	
cis-1,2-Dichloroethene	40.0	1.4 J	40.4	97	70-120	
cis-1,3-Dichloropropene	40.0	4.0 U	32.8	82	51-110	
Hexachlorobutadiene	40.0	4.0 U	34.7	87	27-132	
Dibromomethane	40.0	4.0 U	40.0	100	77-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5319.D

Lab ID: 240-10770-2 MS Client ID: GSP-MW7-042712 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Bromodichloromethane	40.0	4.0 U	39.3	98	67-120	
Dichlorodifluoromethane	40.0	4.0 U	26.6	66	17-128	
Ethylbenzene	40.0	4.0 U	38.8	97	75-116	
1,2-Dibromoethane	40.0	4.0 U	39.3	98	74-113	
Diisopropyl ether	40.0	40 U	35.6 J	89	73-118	
Naphthalene	40.0	4.0 U	40.8	102	15-158	
m-Xylene & p-Xylene	80.0	8.0 U	78.0	98	75-117	
n-Butylbenzene	40.0	4.0 U	39.2	98	56-127	
Isopropylbenzene	40.0	4.0 U	39.7	99	68-116	
n-Propylbenzene	40.0	4.0 U	40.4	101	64-124	
2-Butanone	80.0	40 U	80.0	100	54-129	
4-Methyl-2-pentanone	80.0	40 U	83.6	105	56-131	
sec-Butylbenzene	40.0	4.0 U	39.0	97	60-119	
Methyl tert-butyl ether	40.0	20 U	35.9	90	46-144	
Methylene Chloride	40.0	4.0 U	39.9	100	63-128	
o-Xylene	40.0	4.0 U	39.4	98	76-116	
Styrene	40.0	4.0 U	39.8	100	71-117	
tert-Butylbenzene	40.0	4.0 U	38.7	97	61-119	
Tetrachloroethene	40.0	4.0 U	40.4	101	70-117	
Toluene	40.0	4.0 U	39.0	98	78-114	
trans-1,2-Dichloroethene	40.0	4.0 U	39.0	98	80-119	
trans-1,3-Dichloropropene	40.0	4.0 U	32.7	82	46-116	
Trichloroethene	40.0	110	145	93	66-120	
Trichlorofluoromethane	40.0	4.0 U	41.2	103	46-157	
Vinyl acetate	40.0	8.0 U	37.0	93	43-157	
Vinyl chloride	40.0	4.0 U	38.8	97	49-130	
tert-Butyl alcohol	800	200 U	821	103	70-130	
Xylenes, Total	120	8.0 U	117	98	76-116	
Dibromochloromethane	40.0	4.0 U	34.9	87	56-118	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5320.D

Lab ID: 240-10770-2 MSD Client ID: GSP-MW7-042712 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	40.0	40.0	100	2	30	64-118	
1,1,1-Trichloroethane	40.0	38.7	97	1	30	68-121	
1,1,2,2-Tetrachloroethane	40.0	39.9	100	1	30	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	40.0	42.0	105	2	30	70-152	
1,1-Dichloroethane	40.0	39.1	98	1	30	79-116	
1,1-Dichloroethene	40.0	40.8	102	1	30	74-135	
1,1-Dichloropropene	40.0	38.3	96	1	30	80-114	
1,2,3-Trichlorobenzene	40.0	40.4	101	4	30	45-129	
1,2,3-Trichloropropane	40.0	38.3	96	4	30	67-132	
1,2,3-Trimethylbenzene	40.0	39.6	99	2	30	70-130	
1,2,4-Trichlorobenzene	40.0	37.4	94	3	30	38-138	
1,2,4-Trimethylbenzene	40.0	38.4	96	2	30	67-124	
1,2-Dibromo-3-Chloropropane	40.0	42.0	105	5	30	32-139	
1,2-Dichlorobenzene	40.0	38.4	96	3	30	75-111	
1,2-Dichloroethane	40.0	39.8	99	1	30	68-129	
1,2-Dichloropropane	40.0	39.4	99	1	30	78-115	
1,3-Dichlorobenzene	40.0	39.2	98	1	30	73-110	
1,3-Dichloropropane	40.0	39.8	99	1	30	74-118	
1,4-Dichlorobenzene	40.0	37.8	95	3	30	75-110	
2,2-Dichloropropane	40.0	35.1	88	3	30	38-127	
2-Chloroethyl vinyl ether	40.0	40 U	0	NC	30	10-150	F
2-Chlorotoluene	40.0	37.6	94	0	30	69-117	
2-Hexanone	80.0	84.4	106	1	30	47-139	
Bromobenzene	40.0	38.5	96	0	30	71-116	
Bromochloromethane	40.0	39.0	98	0	30	73-121	
4-Chlorotoluene	40.0	37.2	93	2	30	71-116	
p-Isopropyltoluene	40.0	39.0	98	5	30	64-122	
Acetone	80.0	73.2	92	12	30	33-145	
Benzene	40.0	39.5	99	0	30	72-121	
Bromoform	40.0	33.7	84	4	30	32-128	
Bromomethane	40.0	30.3	76	0	30	10-186	
Carbon disulfide	40.0	35.0	88	1	30	57-147	
Carbon tetrachloride	40.0	38.7	97	1	30	59-129	
Chlorobenzene	40.0	39.0	97	1	30	80-110	
Chloroethane	40.0	34.5	86	3	30	21-165	
Chloroform	40.0	37.6	94	0	30	76-118	
Chloromethane	40.0	38.2	96	6	30	33-132	
cis-1,2-Dichloroethene	40.0	39.8	96	1	30	70-120	
cis-1,3-Dichloropropene	40.0	33.3	83	1	30	51-110	
Hexachlorobutadiene	40.0	35.1	88	1	30	27-132	
Dibromomethane	40.0	40.4	101	1	30	77-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5320.D

Lab ID: 240-10770-2 MSD Client ID: GSP-MW7-042712 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Bromodichloromethane	40.0	40.4	101	3	30	67-120	
Dichlorodifluoromethane	40.0	26.5	66	0	30	17-128	
Ethylbenzene	40.0	39.1	98	1	30	75-116	
1,2-Dibromoethane	40.0	40.0	100	2	30	74-113	
Diisopropyl ether	40.0	36.8 J	92	3	30	73-118	
Naphthalene	40.0	39.7	99	3	30	15-158	
m-Xylene & p-Xylene	80.0	78.0	98	0	30	75-117	
n-Butylbenzene	40.0	37.6	94	4	30	56-127	
Isopropylbenzene	40.0	39.0	97	2	30	68-116	
n-Propylbenzene	40.0	38.5	96	5	30	64-124	
2-Butanone	80.0	79.2	99	1	30	54-129	
4-Methyl-2-pentanone	80.0	84.8	106	1	30	56-131	
sec-Butylbenzene	40.0	37.6	94	3	30	60-119	
Methyl tert-butyl ether	40.0	36.4	91	2	30	46-144	
Methylene Chloride	40.0	38.1	95	5	30	63-128	
o-Xylene	40.0	39.0	97	1	30	76-116	
Styrene	40.0	39.7	99	0	30	71-117	
tert-Butylbenzene	40.0	37.7	94	3	30	61-119	
Tetrachloroethene	40.0	40.4	101	0	30	70-117	
Toluene	40.0	39.0	98	0	30	78-114	
trans-1,2-Dichloroethene	40.0	37.5	94	4	30	80-119	
trans-1,3-Dichloropropene	40.0	33.8	85	3	30	46-116	
Trichloroethene	40.0	142	87	2	30	66-120	
Trichlorofluoromethane	40.0	41.2	103	0	30	46-157	
Vinyl acetate	40.0	36.6	92	1	30	43-157	
Vinyl chloride	40.0	38.9	97	0	30	49-130	
tert-Butyl alcohol	800	808	101	2	30	70-130	
Xylenes, Total	120	117	98	0	30	76-116	
Dibromochloromethane	40.0	35.1	88	1	30	56-118	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
GSP-MW7-042712	240-10770-2	59	60	62	54	71	71
GSP-MW8-042712	240-10770-3	48	51	52	50	67	65
GSP-MW4-042712	240-10770-4	54	56	53	52	80	67
	MB 240-42632/8-A	58	60	54	55	76	79
	LCS 240-42632/9-A	77	81	73	68	98	80

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	10-110
PHL = Phenol-d5 (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	27-111
FBP = 2-Fluorobiphenyl (Surr)	28-110
TBP = 2,4,6-Tribromophenol (Surr)	22-120
TPH = Terphenyl-d14 (Surr)	37-119

Column to be used to flag recovery values

FORM II 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: STD6 240-42463/10 Date Analyzed: 05/02/2012 12:54

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20502010.D Heated Purge: (Y/N) N

Calibration ID: 8490

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		203831	3.51	750748	4.40	449631	5.66
UPPER LIMIT		407662	4.01	1501496	4.90	899262	6.16
LOWER LIMIT		101916	3.01	375374	3.90	224816	5.16
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-42463/11		219450	3.51	793338	4.40	481824	5.66
CCV 240-43126/2 CCVIS		203268	3.39	807358	4.28	443644	5.54

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: STD6 240-42463/10 Date Analyzed: 05/02/2012 12:54

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20502010.D Heated Purge: (Y/N) N

Calibration ID: 8490

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		701859	6.74	609578	8.73	444154	10.12
UPPER LIMIT		1403718	7.24	1219156	9.23	888308	10.62
LOWER LIMIT		350930	6.24	304789	8.23	222077	9.62
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-42463/11		750463	6.74	697064	8.71	502891	10.10
CCV 240-43126/2 CCVIS		728055	6.61	667024	8.58	498151	9.89

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCV 240-43126/2 Date Analyzed: 05/08/2012 09:05

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20508002.D Heated Purge: (Y/N) N

Calibration ID: 8498

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		203268	3.39	807358	4.28	443644	5.54
UPPER LIMIT		406536	3.89	1614716	4.78	887288	6.04
LOWER LIMIT		101634	2.89	403679	3.78	221822	5.04
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-42632/8-A		211107	3.40	855069	4.28	486388	5.53
LCS 240-42632/9-A		184504	3.39	751512	4.28	442403	5.54
240-10770-2	GSP-MW7-042712	230198	3.39	895040	4.28	542958	5.53
240-10770-3	GSP-MW8-042712	221630	3.39	884395	4.28	518699	5.53
240-10770-4	GSP-MW4-042712	236232	3.39	906019	4.28	535464	5.53

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCV 240-43126/2 Date Analyzed: 05/08/2012 09:05

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20508002.D Heated Purge: (Y/N) N

Calibration ID: 8498

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		728055	6.61	667024	8.58	498151	9.89
UPPER LIMIT		1456110	7.11	1334048	9.08	996302	10.39
LOWER LIMIT		364028	6.11	333512	8.08	249076	9.39
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-42632/8-A		779010	6.61	700518	8.57	536668	9.87
LCS 240-42632/9-A		707870	6.61	666696	8.56	502242	9.85
240-10770-2	GSP-MW7-042712	851955	6.61	779875	8.59	600062	9.90
240-10770-3	GSP-MW8-042712	821335	6.61	760311	8.56	592310	9.87
240-10770-4	GSP-MW4-042712	867539	6.61	812616	8.58	631764	9.89

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: 20508007.D Lab Sample ID: MB 240-42632/8-A

Matrix: Water Date Extracted: 05/03/2012 09:57

Instrument ID: A4HP7 Date Analyzed: 05/08/2012 10:37

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-42632/9-A	20508008.D	05/08/2012 10:56
GSP-MW7-042712	240-10770-2	20508019.D	05/08/2012 14:20
GSP-MW8-042712	240-10770-3	20508020.D	05/08/2012 14:38
GSP-MW4-042712	240-10770-4	20508021.D	05/08/2012 14:56

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42632/8-A
Matrix: Water
Lab File ID: 20508007.D
Analysis Method: 8270C
Date Collected:
Extract. Method: 3520C
Date Extracted: 05/03/2012 09:57
Sample wt/vol: 1000(mL)
Date Analyzed: 05/08/2012 10:37
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 43126
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.0	U	1.0	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	55		28-110
367-12-4	2-Fluorophenol (Surr)	58		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	76		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	54		27-111
4165-62-2	Phenol-d5 (Surr)	60		10-110
1718-51-0	Terphenyl-d14 (Surr)	79		37-119

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20508008.D

Lab ID: LCS 240-42632/9-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	20.0	12.2	61	10-110	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: 20502001.D DFTPP Injection Date: 05/02/2012

Instrument ID: A4HP7 DFTPP Injection Time: 10:03

Analysis Batch No.: 42463

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	60.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	45.5	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	50.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.2	
365	Greater than 0.75% of mass 198	2.0	
441	Present, but less than mass 443	7.0	
442	40.0 - 110.0% of mass 198	44.8	
443	15.0 - 24.0% of mass 442	8.8	(19.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-42463/2	20502002.D	05/02/2012	10:23
	STD4 240-42463/3	20502003.D	05/02/2012	10:42
	STD3 240-42463/4	20502004.D	05/02/2012	11:01
	STD2 240-42463/5	20502005.D	05/02/2012	11:19
	STD1 240-42463/6	20502006.D	05/02/2012	11:38
	STD9 240-42463/7	20502007.D	05/02/2012	11:57
	STD8 240-42463/8	20502008.D	05/02/2012	12:16
	STD7 240-42463/9	20502009.D	05/02/2012	12:35
	STD6 240-42463/10	20502010.D	05/02/2012	12:54
	ICV 240-42463/11	20502011.D	05/02/2012	13:13

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42463

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2012 10:23 Calibration End Date: 05/02/2012 12:54 Calibration ID: 8490

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-42463/6	20502006.D
Level 2	STD2 240-42463/5	20502005.D
Level 3	STD3 240-42463/4	20502004.D
Level 4	STD4 240-42463/3	20502003.D
Level 5	STD5 240-42463/2	20502002.D
Level 6	STD6 240-42463/10	20502010.D
Level 7	STD7 240-42463/9	20502009.D
Level 8	STD8 240-42463/8	20502008.D
Level 9	STD9 240-42463/7	20502007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5797	0.7266 0.5728	0.4617 0.6094	0.5087 0.5684	0.4851	Ave		0.5640				15.0		15.0			
N-Nitrosodimethylamine	0.8841	0.7933 0.8811	0.7168 0.9316	0.7448 0.9112	0.7452	Ave		0.8260				10.0		15.0			
Pyridine	1.5075	1.3258 1.5146	1.1707 1.6776	1.1870 1.6034	1.1707	Ave		1.3947				15.0		15.0			
Ethyl methacrylate	1.1731	0.9728 1.1757	1.0484 1.2864	1.0037 1.2062	1.0290	Ave		1.1119				10.0		15.0			
Benzaldehyde	1.3735 0.7433	1.0441 +++++	1.0548 +++++	1.0867 +++++	0.9578	Ave		1.0434				20.0	*	15.0			
3-Chloropropionitrile	1.0012	0.9519 1.0222	0.9033 1.1093	0.8667 1.0492	0.8718	Ave		0.9719				9.1		15.0			
Malononitrile	1.5032	1.4102 1.2671	1.3756 1.2102	1.4463 1.0266	1.4564	Ave		1.3370				12.0		15.0			
Benzoic acid	0.2334	+++++ 0.2441	+++++ 0.2610	0.1647 0.2825	0.2322	Qua	0.0075	0.1951	0.0017						0.9990		0.9900
Phenol	1.7085	1.5885 1.7359	1.4815 1.9095	1.5782 1.8649	1.5731	Ave		1.6800				9.0		15.0			
Aniline	2.1278	1.9210 2.1146	1.8743 2.3821	2.0349 2.3349	1.9327	Ave		2.0903				9.0		15.0			
Bis(2-chloroethyl)ether	1.2927	1.2120 1.4453	1.3088 1.4464	1.1722 1.4211	1.1887	Ave		1.3109				8.8		15.0			
2-Chlorophenol	1.5020	1.3476 1.5269	1.3800 1.6760	1.4496 1.6251	1.4098	Ave		1.4896				7.8		15.0			
1,3-Dichlorobenzene	1.6350	1.3701 1.6113	1.5553 1.7820	1.5792 1.6988	1.5113	Ave		1.5929				7.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42463/11 Calibration Date: 05/02/2012 13:13

Instrument ID: A4HP7 Calib Start Date: 05/02/2012 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 05/02/2012 12:54

Lab File ID: 20502011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5640	0.5264		9.33	10.0	-6.7	50.0
N-Nitrosodimethylamine	Ave	0.8260	0.8251		9.99	10.0	-0.1	50.0
Pyridine	Ave	1.395	1.479		10.6	10.0	6.0	50.0
Ethyl methacrylate	Ave	1.112	1.109		9.97	10.0	-0.3	50.0
3-Chloropropionitrile	Ave	0.9719	0.9803		10.1	10.0	0.9	50.0
Malononitrile	Ave	1.337	1.496		11.2	10.0	11.9	50.0
Benzaldehyde	Ave	1.043	0.6145		5.89	10.0	-41.1	50.0
Phenol	Ave	1.680	1.722		10.2	10.0	2.5	20.0
Aniline	Ave	2.090	2.144		10.3	10.0	2.6	50.0
Bis(2-chloroethyl)ether	Ave	1.311	1.327		10.1	10.0	1.2	50.0
2-Chlorophenol	Ave	1.490	1.506		10.1	10.0	1.1	50.0
1,3-Dichlorobenzene	Ave	1.593	1.567		9.84	10.0	-1.6	50.0
1,4-Dichlorobenzene	Ave	1.646	1.623		9.86	10.0	-1.4	20.0
Benzyl alcohol	Ave	0.8859	0.8898		10.0	10.0	0.4	50.0
1,2-Dichlorobenzene	Ave	1.544	1.517		9.83	10.0	-1.7	50.0
2-Methylphenol	Ave	1.290	1.293		10.0	10.0	0.2	50.0
bis (2-chloroisopropyl) ether	Ave	1.740	1.616		9.29	10.0	-7.1	50.0
3 & 4 Methylphenol	Ave	1.324	1.366		10.3	10.0	3.2	50.0
N-Nitrosodi-n-propylamine	Ave	0.8988	0.8701	0.0500	9.68	10.0	-3.2	50.0
Acetophenone	Ave	1.873	1.869		9.98	10.0	-0.2	50.0
Hexachloroethane	Ave	0.5453	0.5299		9.72	10.0	-2.8	50.0
Nitrobenzene	Ave	0.3636	0.3573		9.83	10.0	-1.7	50.0
Isophorone	Ave	0.6461	0.6605		10.2	10.0	2.2	50.0
2,4-Dimethylphenol	Ave	0.3785	0.3876		10.2	10.0	2.4	50.0
2-Nitrophenol	Ave	0.2067	0.2181		10.5	10.0	5.5	20.0
1,3,5-Trichlorobenzene	Ave	0.3633	0.3733		10.3	10.0	2.8	50.0
Bis(2-chloroethoxy)methane	Ave	0.3739	0.3789		10.1	10.0	1.3	50.0
Benzoic acid	Qua		0.2340		20.3	20.0	1.5	50.0
2,4-Dichlorophenol	Ave	0.3173	0.3295		10.4	10.0	3.8	20.0
1,2,4-Trichlorobenzene	Ave	0.3480	0.3617		10.4	10.0	3.9	50.0
Naphthalene	Ave	1.144	1.159		10.1	10.0	1.3	50.0
4-Chloroaniline	Ave	0.4747	0.4591		9.67	10.0	-3.3	50.0
Hexachlorobutadiene	Ave	0.1832	0.1824		9.96	10.0	-0.4	20.0
1,2,3-Trichlorobenzene	Ave	0.3305	0.3260		9.86	10.0	-1.4	50.0
Caprolactam	Qua		0.1203		10.5	10.0	5.0	50.0
4-Chloro-3-methylphenol	Ave	0.3023	0.3207		10.6	10.0	6.1	20.0
2-Methylnaphthalene	Ave	0.7358	0.7408		10.1	10.0	0.7	50.0
1-Methylnaphthalene	Ave	0.7008	0.7068		10.1	10.0	0.8	50.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5580	0.5505		9.87	10.0	-1.3	50.0
Hexachlorocyclopentadiene	Ave	0.3259	0.3366	0.0500	10.3	10.0	3.3	50.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: 20508001.D DFTPP Injection Date: 05/08/2012

Instrument ID: A4HP7 DFTPP Injection Time: 08:46

Analysis Batch No.: 43126

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	61.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	58.2	
70	Less than 2.0% of mass 69	0.3	(0.5)1
127	25.0 - 75.0% of mass 198	61.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	26.3	
365	Greater than 0.75% of mass 198	2.9	
441	Present, but less than mass 443	11.9	
442	40.0 - 110.0% of mass 198	74.4	
443	15.0 - 24.0% of mass 442	14.6	(19.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-43126/2	20508002.D	05/08/2012	09:05
	MB 240-42632/8-A	20508007.D	05/08/2012	10:37
	LCS 240-42632/9-A	20508008.D	05/08/2012	10:56
GSP-MW7-042712	240-10770-2	20508019.D	05/08/2012	14:20
GSP-MW8-042712	240-10770-3	20508020.D	05/08/2012	14:38
GSP-MW4-042712	240-10770-4	20508021.D	05/08/2012	14:56

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-43126/2 Calibration Date: 05/08/2012 09:05

Instrument ID: A4HP7 Calib Start Date: 05/02/2012 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 05/02/2012 12:54

Lab File ID: 20508002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5640	0.5272		9.35	10.0	-6.5	50.0
N-Nitrosodimethylamine	Ave	0.8260	0.7907		9.57	10.0	-4.3	50.0
Pyridine	Ave	1.395	1.390		9.97	10.0	-0.3	50.0
Ethyl methacrylate	Ave	1.112	1.104		9.92	10.0	-0.8	50.0
3-Chloropropionitrile	Ave	0.9719	0.8004		8.24	10.0	-17.6	50.0
Malononitrile	Ave	1.337	1.340		10.0	10.0	0.2	50.0
Benzaldehyde	Ave	1.043	0.7144		6.85	10.0	-31.5	50.0
Phenol	Ave	1.680	1.721		10.2	10.0	2.4	20.0
Aniline	Ave	2.090	2.189		10.5	10.0	4.7	50.0
Bis(2-chloroethyl)ether	Ave	1.311	1.311		10.0	10.0	0.0	50.0
2-Chlorophenol	Ave	1.490	1.473		9.89	10.0	-1.1	50.0
1,3-Dichlorobenzene	Ave	1.593	1.599		10.0	10.0	0.4	50.0
1,4-Dichlorobenzene	Ave	1.646	1.662		10.1	10.0	1.0	50.0
Benzyl alcohol	Ave	0.8859	0.8606		9.71	10.0	-2.9	50.0
1,2-Dichlorobenzene	Ave	1.544	1.529		9.91	10.0	-0.9	50.0
2-Methylphenol	Ave	1.290	1.300		10.1	10.0	0.7	50.0
bis (2-chloroisopropyl) ether	Ave	1.740	1.634		9.39	10.0	-6.1	50.0
3 & 4 Methylphenol	Ave	1.324	1.360		10.3	10.0	2.7	50.0
N-Nitrosodi-n-propylamine	Ave	0.8988	0.9308	0.0500	10.4	10.0	3.6	50.0
Acetophenone	Ave	1.873	1.935		10.3	10.0	3.3	50.0
Hexachloroethane	Ave	0.5453	0.5619		10.3	10.0	3.0	50.0
Nitrobenzene	Ave	0.3636	0.3688		10.1	10.0	1.4	50.0
Isophorone	Ave	0.6461	0.6574		10.2	10.0	1.7	50.0
2-Nitrophenol	Ave	0.2067	0.2114		10.2	10.0	2.3	20.0
2,4-Dimethylphenol	Ave	0.3785	0.3801		10.0	10.0	0.4	50.0
1,3,5-Trichlorobenzene	Ave	0.3633	0.3290		9.06	10.0	-9.4	50.0
Bis(2-chloroethoxy)methane	Ave	0.3739	0.3772		10.1	10.0	0.9	50.0
Benzoic acid	Qua		0.1909		17.0	20.0	-15.0	50.0
2,4-Dichlorophenol	Ave	0.3173	0.2887		9.10	10.0	-9.0	20.0
1,2,4-Trichlorobenzene	Ave	0.3480	0.3214		9.23	10.0	-7.7	50.0
Naphthalene	Ave	1.144	1.081		9.45	10.0	-5.5	50.0
4-Chloroaniline	Ave	0.4747	0.4497		9.48	10.0	-5.2	50.0
Hexachlorobutadiene	Ave	0.1832	0.1595		8.71	10.0	-12.9	20.0
1,2,3-Trichlorobenzene	Ave	0.3305	0.2901		8.78	10.0	-12.2	50.0
Caprolactam	Qua		0.1216		10.6	10.0	6.0	50.0
4-Chloro-3-methylphenol	Ave	0.3023	0.3096		10.2	10.0	2.4	20.0
2-Methylnaphthalene	Ave	0.7358	0.7177		9.75	10.0	-2.5	50.0
1-Methylnaphthalene	Ave	0.7008	0.6679		9.53	10.0	-4.7	50.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5580	0.5324		9.54	10.0	-4.6	50.0
Hexachlorocyclopentadiene	Ave	0.3259	0.3328	0.0500	10.2	10.0	2.1	50.0

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1 #
GSP-MW7-042712	240-10770-2	61
GSP-MW8-042712	240-10770-3	61
GSP-MW4-042712	240-10770-4	64
	MB 240-42123/7	63
	LCS 240-42123/8	80
GSP-MW7-042712 MS	240-10770-2 MS	34
GSP-MW7-042712 MSD	240-10770-2 MSD	72

	QC LIMITS
TFT = Trifluorotoluene (Surr)	10-150

Column to be used to flag recovery values

FORM II 8015B

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: MB 240-42123/7

Matrix: Water Date Extracted: 04/30/2012 12:37

Lab File ID:(1) YF004307.D Lab File ID:(2)

Date Analyzed:(1) 04/30/2012 12:37 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-42123/8	04/30/2012 13:17	
GSP-MW7-042712	240-10770-2	04/30/2012 13:57	
GSP-MW7-042712 MS	240-10770-2 MS	04/30/2012 14:38	
GSP-MW7-042712 MSD	240-10770-2 MSD	04/30/2012 15:19	
GSP-MW8-042712	240-10770-3	04/30/2012 16:00	
GSP-MW4-042712	240-10770-4	04/30/2012 16:41	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42123/7
Matrix: Water
Lab File ID: YF004307.D
Analysis Method: 8015B
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 04/30/2012 12:37
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42123
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	29.2	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	63		10-150

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF004308.D

Lab ID: LCS 240-42123/8 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	920	115	72-140	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF004310.D

Lab ID: 240-10770-2 MS Client ID: GSP-MW7-042712 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	96 J	961	108	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF004311.D

Lab ID: 240-10770-2 MSD Client ID: GSP-MW7-042712 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	996	113	4	20	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCV 240-42123/6 Date Analyzed: 04/30/2012 11:58

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF004306.D Heated Purge: (Y/N) N

Calibration ID: 6924

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				9.75		
UPPER LIMIT				9.85		
LOWER LIMIT				9.65		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-42123/6 CCVRT		04/30/2012 11:58	YF004306.D	9.75		
MB 240-42123/7		04/30/2012 12:37	YF004307.D	9.75		
LCS 240-42123/8		04/30/2012 13:17	YF004308.D	9.75		
240-10770-2	GSP-MW7-042712	04/30/2012 13:57	YF004309.D	9.74		
240-10770-2 MS	GSP-MW7-042712 MS	04/30/2012 14:38	YF004310.D	9.75		
240-10770-2 MSD	GSP-MW7-042712 MSD	04/30/2012 15:19	YF004311.D	9.75		
240-10770-3	GSP-MW8-042712	04/30/2012 16:00	YF004312.D	9.75		
240-10770-4	GSP-MW4-042712	04/30/2012 16:41	YF004313.D	9.75		
CCV 240-42123/14		04/30/2012 17:22	YF004314.D	9.75		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: YPID Start Date: 02/10/2012 10:35

Analysis Batch Number: 33435 End Date: 02/10/2012 23:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		02/10/2012 10:35	1		RTX-VRX 0.45(mm)
STD1 240-33435/12 IC		02/10/2012 16:17	1	YF021012.D	RTX-VRX 0.45(mm)
STD2 240-33435/13 IC		02/10/2012 16:55	1	YF021013.D	RTX-VRX 0.45(mm)
STD3 240-33435/14 IC		02/10/2012 17:32	1	YF021014.D	RTX-VRX 0.45(mm)
STD4 240-33435/15 ICRT		02/10/2012 18:11	1	YF021015.D	RTX-VRX 0.45(mm)
STD5 240-33435/16 IC		02/10/2012 18:49	1	YF021016.D	RTX-VRX 0.45(mm)
STD6 240-33435/17 IC		02/10/2012 19:27	1	YF021017.D	RTX-VRX 0.45(mm)
ICV 240-33435/18		02/10/2012 20:05	1	YF021018.D	RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 20:43	1		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 21:21	1		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 21:59	10		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 22:37	10		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 23:15	10		RTX-VRX 0.45(mm)
CCV 240-33435/24		02/10/2012 23:53	1		RTX-VRX 0.45(mm)

8015B

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 33435

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/10/2012 16:17 Calibration End Date: 02/10/2012 19:27 Calibration ID: 6924

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-33435/12	YF021012.D
Level 2	STD2 240-33435/13	YF021013.D
Level 3	STD3 240-33435/14	YF021014.D
Level 4	STD4 240-33435/15	YF021015.D
Level 5	STD5 240-33435/16	YF021016.D
Level 6	STD6 240-33435/17	YF021017.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Total Petroleum Hydrocarbons (C6-C10)	11.810	11.810	11.810	11.810	11.810	11.810					4.817 - 18.802	11.810
C6-C12	13.469	13.469	13.469	13.469	13.469	13.469					4.917 - 22.022	13.469
Trifluorotoluene (Surr)	9.768	9.772	9.769	9.772	9.771	9.774					9.522 - 10.022	9.771

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 33435

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/10/2012 16:17 Calibration End Date: 02/10/2012 19:27 Calibration ID: 6924

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-33435/12	YF021012.D
Level 2	STD2 240-33435/13	YF021013.D
Level 3	STD3 240-33435/14	YF021014.D
Level 4	STD4 240-33435/15	YF021015.D
Level 5	STD5 240-33435/16	YF021016.D
Level 6	STD6 240-33435/17	YF021017.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Total Petroleum Hydrocarbons (C6-C10)	318103 289067	320460 294590	282575	294457	Ave		299875.299				5.2		20.0			
C6-C12	375472 318195	363940 323226	316555	324196	Ave		336930.834				7.7		20.0			
Trifluorotoluene (Surr)	384133 460736	375012 483108	395882	424093	Ave		420494.083				10.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-33435/18 Calibration Date: 02/10/2012 20:05

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF021018.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	333932		891	800	11.4	20.0
C6-C12	Ave	336931	375679		892	800	11.5	20.0
Trifluorotoluene (Surr)	Ave	420494	416828		9.91	10.0	-0.9	20.0

FORM VII 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: YPID Start Date: 04/30/2012 10:39

Analysis Batch Number: 42123 End Date: 04/30/2012 17:22

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/30/2012 10:39	1		RTX-VRX 0.45(mm)
CCV 240-42123/6 CCVRT		04/30/2012 11:58	1	YF004306.D	RTX-VRX 0.45(mm)
MB 240-42123/7		04/30/2012 12:37	1	YF004307.D	RTX-VRX 0.45(mm)
LCS 240-42123/8		04/30/2012 13:17	1	YF004308.D	RTX-VRX 0.45(mm)
240-10770-2	GSP-MW7-042712	04/30/2012 13:57	1	YF004309.D	RTX-VRX 0.45(mm)
240-10770-2 MS	GSP-MW7-042712 MS	04/30/2012 14:38	1	YF004310.D	RTX-VRX 0.45(mm)
240-10770-2 MSD	GSP-MW7-042712 MSD	04/30/2012 15:19	1	YF004311.D	RTX-VRX 0.45(mm)
240-10770-3	GSP-MW8-042712	04/30/2012 16:00	1	YF004312.D	RTX-VRX 0.45(mm)
240-10770-4	GSP-MW4-042712	04/30/2012 16:41	1	YF004313.D	RTX-VRX 0.45(mm)
CCV 240-42123/14		04/30/2012 17:22	1	YF004314.D	RTX-VRX 0.45(mm)

8015B

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42123/6 Calibration Date: 04/30/2012 11:58

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF004306.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	314543		839	800	4.9	15.0
C6-C12	Ave	336931	352216		836	800	4.5	15.0
Trifluorotoluene (Surr)	Ave	420494	322967		7.68	10.0	-23.2*	15.0

FORM VII 8015B

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42123/14 Calibration Date: 04/30/2012 17:22

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF004314.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	313365		836	800	4.5	15.0
C6-C12	Ave	336931	350568		832	800	4.0	15.0
Trifluorotoluene (Surr)	Ave	420494	304096		7.23	10.0	-27.7*	15.0

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): ID:

Client Sample ID	Lab Sample ID	C91 #
GSP-MW7-042712	240-10770-2	63
GSP-MW8-042712	240-10770-3	73
GSP-MW4-042712	240-10770-4	70
	MB 240-42661/8-A	60
	LCS 240-42661/9-A	80

C9 = n-Nonane

QC LIMITS
10-110

Column to be used to flag recovery values

FORM II 8015B

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: MB 240-42661/8-A

Matrix: Water Date Extracted: 05/03/2012 11:54

Lab File ID:(1) P5B05052.D Lab File ID:(2)

Date Analyzed:(1) 05/04/2012 13:38 Date Analyzed:(2)

Instrument ID:(1) A2HP5R Instrument ID:(2)

GC Column:(1) ID: GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-MW7-042712	240-10770-2	05/04/2012 12:07	
GSP-MW8-042712	240-10770-3	05/04/2012 12:37	
GSP-MW4-042712	240-10770-4	05/04/2012 13:08	
	LCS 240-42661/9-A	05/04/2012 14:08	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42661/8-A
Matrix: Water
Lab File ID: P5B05052.D
Analysis Method: 8015B
Date Collected:
Extraction Method: 3510C
Date Extracted: 05/03/2012 11:54
Sample wt/vol: 1000(mL)
Date Analyzed: 05/04/2012 13:38
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: ID:
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 42755
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	500	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	60		10-110

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P5B05053.D

Lab ID: LCS 240-42661/9-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2500	2330	93	36-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCVRT 240-42755/4 Date Analyzed: 05/04/2012 09:33

Instrument ID: A2HP5R GC Column: ID: ()

Lab File ID (Standard): P5B05044.D Heated Purge: (Y/N) N

Calibration ID: 8454

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				C9		
				RT #		
CONTINUING CALIBRATION SURROGATE				4.03		
UPPER LIMIT				4.13		
LOWER LIMIT				3.93		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-42755/4		05/04/2012 09:33	P5B05044.D	4.03		
240-10770-2	GSP-MW7-042712	05/04/2012 12:07	P5B05049.D	4.03		
240-10770-3	GSP-MW8-042712	05/04/2012 12:37	P5B05050.D	4.03		
240-10770-4	GSP-MW4-042712	05/04/2012 13:08	P5B05051.D	4.03		
MB 240-42661/8-A		05/04/2012 13:38	P5B05052.D	4.03		
LCS 240-42661/9-A		05/04/2012 14:08	P5B05053.D	4.03		
CCV 240-42755/14		05/04/2012 14:39	P5B05054.D	4.03		

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: A2HP5R Start Date: 04/30/2012 10:28

Analysis Batch Number: 42117 End Date: 04/30/2012 17:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-42117/4 IC		04/30/2012 10:28	1	P5B04304.D	
STD2 240-42117/5 IC		04/30/2012 10:58	1	P5B04305.D	
ICRT 240-42117/6		04/30/2012 11:29	1	P5B04306.D	
STD4 240-42117/7 IC		04/30/2012 11:59	1	P5B04307.D	
STD5 240-42117/8 IC		04/30/2012 12:29	1	P5B04308.D	
ICV 240-42117/9		04/30/2012 12:59	1	P5B04309.D	
STD1 240-42117/10 IC		04/30/2012 13:30	1		
STD2 240-42117/11 IC		04/30/2012 14:00	1		
STD3 240-42117/12 IC		04/30/2012 14:31	1		
STD4 240-42117/13 IC		04/30/2012 15:01	1		
STD5 240-42117/14 IC		04/30/2012 15:32	1		
ICV 240-42117/15		04/30/2012 16:02	1		
ZZZZZ		04/30/2012 16:33	1		
CCV 240-42117/18		04/30/2012 17:33	1		

8015B

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42117

SDG No.:

Instrument ID: A2HP5R GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2012 10:28 Calibration End Date: 04/30/2012 12:29 Calibration ID: 8454

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-42117/4	P5B04304.D
Level 2	STD2 240-42117/5	P5B04305.D
Level 3	ICRT 240-42117/6	P5B04306.D
Level 4	STD4 240-42117/7	P5B04307.D
Level 5	STD5 240-42117/8	P5B04308.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel	9.351	9.351	9.351	9.351	9.351						5.054 - 13.650	9.351
n-Nonane	4.024	4.020	4.025	4.026	4.023						3.954 - 4.094	4.024

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42117

SDG No.:

Instrument ID: A2HP5R GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2012 10:28 Calibration End Date: 04/30/2012 12:29 Calibration ID: 8454

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-42117/4	P5B04304.D
Level 2	STD2 240-42117/5	P5B04305.D
Level 3	ICRT 240-42117/6	P5B04306.D
Level 4	STD4 240-42117/7	P5B04307.D
Level 5	STD5 240-42117/8	P5B04308.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	202380 139479	154697	180905	178149	Ave		171121.938				14.0		20.0			
n-Nonane	238010 169073	182724	223067	217729	Ave		206120.531				14.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42117/9 Calibration Date: 04/30/2012 12:59

Instrument ID: A2HP5R Calib Start Date: 04/30/2012 10:28

GC Column: ID: Calib End Date: 04/30/2012 12:29

Lab File ID: P5B04309.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	171122	171949		502	500	0.5	20.0

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: A2HP5R Start Date: 05/04/2012 09:33

Analysis Batch Number: 42755 End Date: 05/04/2012 14:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-42755/4		05/04/2012 09:33	1	P5B05044.D	
ZZZZZ		05/04/2012 10:04	1		
ZZZZZ		05/04/2012 10:35	1		
ZZZZZ		05/04/2012 11:06	1		
ZZZZZ		05/04/2012 11:36	1		
240-10770-2	GSP-MW7-042712	05/04/2012 12:07	1	P5B05049.D	
240-10770-3	GSP-MW8-042712	05/04/2012 12:37	1	P5B05050.D	
240-10770-4	GSP-MW4-042712	05/04/2012 13:08	1	P5B05051.D	
MB 240-42661/8-A		05/04/2012 13:38	1	P5B05052.D	
LCS 240-42661/9-A		05/04/2012 14:08	1	P5B05053.D	
CCV 240-42755/14		05/04/2012 14:39	1	P5B05054.D	

8015B

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCVRT 240-42755/4 Calibration Date: 05/04/2012 09:33

Instrument ID: A2HP5R Calib Start Date: 04/30/2012 10:28

GC Column: ID: Calib End Date: 04/30/2012 12:29

Lab File ID: P5B05044.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	171122	146148		427	500	-14.6	15.0
n-Nonane	Ave	206121	181559		44.0	50.0	-11.9	15.0

FORM VII 8015B

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42755/14 Calibration Date: 05/04/2012 14:39

Instrument ID: A2HP5R Calib Start Date: 04/30/2012 10:28

GC Column: ID: Calib End Date: 04/30/2012 12:29

Lab File ID: P5B05054.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	171122	185943		543	500	8.7	15.0
n-Nonane	Ave	206121	228814		55.5	50.0	11.0	15.0

FORM VII 8015B

HOLDTIME

SDG 240-10770-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
HG	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
HG	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
M	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
M	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
M	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
HGF	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
HGF	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
HGF	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
MF	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
MF	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
MF	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
PCL	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/7/2012	5/15/2012	10	8	18
PCL	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/7/2012	5/15/2012	10	8	18
PCL	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/7/2012	5/15/2012	10	8	18

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OS	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/8/2012	6	5	11
OS	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/8/2012	6	5	11
OS	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/3/2012	5/8/2012	6	5	11
OV	UG/L	TB-042712	240-10770-1	NM	4/27/2012	5/1/2012	5/1/2012	4	0	4
OV	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/1/2012	5/1/2012	4	0	4
OV	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/1/2012	5/1/2012	4	0	4
OV	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/1/2012	5/1/2012	4	0	4
OV	UG/L	TB-042712	240-10770-1	TB	4/27/2012	5/1/2012	5/1/2012	4	0	4
DRO	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
DRO	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
DRO	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
GRO	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	4/30/2012	4/30/2012	3	0	3
GRO	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	4/30/2012	4/30/2012	3	0	3
GRO	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	4/30/2012	4/30/2012	3	0	3

Tetra Tech, Inc. **INTERNAL CORRESPONDENCE**

TO:	**A. APANAVAGE**	**DATE:**	**JUNE 27, 2012**
FROM:	**MICHELLE L. ALLEN**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC/1,4-DIOXANE/DRO/GRO**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
SDG 240-10770-1

SAMPLES: 4/Aqueous/VOC

GSP-MW4-042712 GSP-MW7-042712 GSP-MW8-042712
TB-042712

3/Aqueous/1,4-DIOXANE/DRO/GRO

GSP-MW4-042712 GSP-MW7-042712 GSP-MW8-042712

Overview

The sample set for LMC-MSA, SDG 240-10770-1 consisted of three (3) aqueous environmental samples and one (1) trip blank. All four (4) aqueous samples were analyzed for volatile organic compounds (VOC). The three (3) aqueous environmental samples were analyzed for the semi-volatile organic compound (SVOC), 1,4-dioxane, diesel range organics (DRO) and gasoline range organics (GRO). No field duplicate sample pair was included in this SDG.

The samples were collected by Tetra Tech, Inc. on April 27, 2012 and analyzed by Test America, Inc. All analyses were conducted in accordance with SW-846 Methods 8260C, 8270C, and 8015B analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, trip blank results, surrogate spike recoveries, blank spike results, matrix spike/matrix spike duplicate results, internal standard recoveries, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major

- The initial and continuing calibrations performed on instrument A3UX16 in the VOC fraction had Relative Response Factors (RRFs) for tert-butyl alcohol below the 0.050 minimum response criterion. In addition, the continuing calibration RRF for vinyl acetate was below 0.05. All samples were affected. The non-detected results reported for these compounds in the affected samples were qualified as rejected, (UR).

- The VOC compound, 2-chloroethyl vinyl ether was not recovered in the Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses of sample GSP-MW7-042712. The non-detected result reported for 2-chloroethyl vinyl ether was qualified as rejected, (UR), in the parent sample.

Minor

The following contaminants were detected in the laboratory method blanks at the following maximum concentrations:

Compound	Maximum Concentration (µg/L)	Action Level (µg/L)
1,2,3-Trichlorobenzene [1]	0.280	1.4
GRO (C6-C10) [2]	29.2	146

1 Maximum concentration detected in the laboratory method blank, MB 240-42324/5, affecting all samples.
2 Maximum concentration detected in the laboratory method blank, MB 240-42123/7, affecting all samples.

An action level of 5X the maximum concentration was used to evaluate for blank contamination. Sample aliquot and dilution factor, if applicable, were taken into consideration when evaluating for blank contamination. Positive results for GRO reported below the established action level were qualified as non-detected, (B). No action was necessary for 1,2,3-trichlorobenzene because no positive results were reported for this compound in the affected samples.

- Positive results reported below the Reporting Limit (RL) limit but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

Sample GSP-MW7-042712 was diluted 4X prior to analysis in the VOC fraction. The RLs of the non-detected results were elevated.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: Initial and/or continuing calibration RRFs for tert-butyl alcohol and vinyl acetate were below the quality control criterion resulting in the rejection of the non-detected results. Laboratory method blank contamination was noted in the VOC and GRO fractions.

Other Factors Affecting Data Quality: One sample required a dilution for the VOC fraction.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994) and SW-846 Methods 8260C, 8270C, and 8015B analytical and reporting protocols. The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech, Inc.
Michelle L. Allen
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Quality Assurance Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712			TB-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3			240-10770-1		
FRACTION: OV	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.92	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.88	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.72	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		1.1	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.6	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.76	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.52	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.68	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		1.7	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.024	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.6	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.48	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		2.7	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.96	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.88	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.72	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.56	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.64	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.52	U		0.13	U		0.13	U	
2-BUTANONE		0.57	U		2.3	U		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		4	UR	D	0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.44	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		1.6	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.72	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.48	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		1.3	U		0.32	U		0.32	U	
ACETONE		1.6	J	P	4.4	U		1.1	U		1.1	U	
BENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		1.2	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.6	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		2.6	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		1.6	U		0.41	U		0.41	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712			TB-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3			240-10770-1		
FRACTION: OV	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.52	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.52	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.6	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.72	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		1.2	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.64	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		1.2	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		1.7			1.4	J	P	0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.56	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		1.1	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		1.2	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		6	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.44	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.68	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		1.2	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.96	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.68	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		1.3	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.96	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.48	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.56	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.56	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
SILANOL, TRIMETHYL-					5.8	R	Z2	1.4	R	Z2			
STYRENE		0.11	U		0.44	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.27	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.52	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	16	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		1.2	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.52	U		0.13	U		0.13	U	
TOTAL XYLENES		0.28	U		1.1	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.76	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.76	U		0.19	U		0.19	U	
TRICHLOROETHENE		5.1			110			0.17	U		0.17	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712			TB-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3			240-10770-1		
FRACTION: OV	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.21	U		0.84	U		0.21	U		0.21	U	
VINYL ACETATE		0.19	UR	C	0.76	UR	C	0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		0.53	J	P	0.88	U		0.22	U		0.22	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3		
FRACTION: OS	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.48	U		0.47	U		0.48	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3		
FRACTION: PET	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		55	B	A	96	B	A	57	B	A
TPH (C10-C32)		330	J	P	240	U		230	U	

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 | Lab Sample ID: 240-10770-4

Matrix: Water | Lab File ID: UXM5312.D

Analysis Method: 8260C | Date Collected: 04/27/2012 13:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	1.6	J	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 | Lab Sample ID: 240-10770-4

Matrix: Water | Lab File ID: UXM5312.D

Analysis Method: 8260C | Date Collected: 04/27/2012 13:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.7		1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	5.1		1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.53	J	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 | Lab Sample ID: 240-10770-4

Matrix: Water | Lab File ID: UXM5312.D

Analysis Method: 8260C | Date Collected: 04/27/2012 13:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	86		63-129
460-00-4	4-Bromofluorobenzene (Surr)	91		66-117
2037-26-5	Toluene-d8 (Surr)	88		74-115
1868-53-7	Dibromofluoromethane (Surr)	87		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 Lab Sample ID: 240-10770-4

Matrix: Water Lab File ID: UXM5312.D

Analysis Method: 8260C Date Collected: 04/27/2012 13:53

Sample wt/vol: 5(mL) Date Analyzed: 05/01/2012 16:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42324 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 | Lab Sample ID: 240-10770-2

Matrix: Water | Lab File ID: UXM5318.D

Analysis Method: 8260C | Date Collected: 04/27/2012 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 18:51

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.0	U	4.0	0.92
71-55-6	1,1,1-Trichloroethane	4.0	U	4.0	0.88
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	4.0	0.72
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	4.0	U	4.0	1.1
75-34-3	1,1-Dichloroethane	4.0	U	4.0	0.60
75-35-4	1,1-Dichloroethene	4.0	U	4.0	0.76
563-58-6	1,1-Dichloropropene	4.0	U	4.0	0.52
87-61-6	1,2,3-Trichlorobenzene	4.0	U	4.0	0.68
96-18-4	1,2,3-Trichloropropane	4.0	U	4.0	1.7
526-73-8	1,2,3-Trimethylbenzene	20	U	20	0.024
120-82-1	1,2,4-Trichlorobenzene	4.0	U	4.0	0.60
95-63-6	1,2,4-Trimethylbenzene	4.0	U	4.0	0.48
96-12-8	1,2-Dibromo-3-Chloropropane	8.0	U	8.0	2.7
95-50-1	1,2-Dichlorobenzene	4.0	U	4.0	0.52
107-06-2	1,2-Dichloroethane	4.0	U	4.0	0.88
78-87-5	1,2-Dichloropropane	4.0	U	4.0	0.72
541-73-1	1,3-Dichlorobenzene	4.0	U	4.0	0.56
142-28-9	1,3-Dichloropropane	4.0	U	4.0	0.64
106-46-7	1,4-Dichlorobenzene	4.0	U	4.0	0.52
594-20-7	2,2-Dichloropropane	4.0	U	4.0	0.52
110-75-8	2-Chloroethyl vinyl ether	40	U	40	4.0
95-49-8	2-Chlorotoluene	4.0	U	4.0	0.44
591-78-6	2-Hexanone	40	U	40	1.6
108-86-1	Bromobenzene	4.0	U	4.0	0.52
74-97-5	Bromochloromethane	4.0	U	4.0	1.2
106-43-4	4-Chlorotoluene	4.0	U	4.0	0.72
99-87-6	p-Isopropyltoluene	4.0	U	4.0	0.48
67-64-1	Acetone	40	U	40	4.4
71-43-2	Benzene	4.0	U	4.0	0.52
75-25-2	Bromoform	4.0	U	4.0	2.6
74-83-9	Bromomethane	4.0	U	4.0	1.6
75-15-0	Carbon disulfide	4.0	U	4.0	0.52
56-23-5	Carbon tetrachloride	4.0	U	4.0	0.52
108-90-7	Chlorobenzene	4.0	U	4.0	0.60
75-00-3	Chloroethane	4.0	U	4.0	1.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 | Lab Sample ID: 240-10770-2

Matrix: Water | Lab File ID: UXM5318.D

Analysis Method: 8260C | Date Collected: 04/27/2012 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 18:51

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	4.0	U	4.0	0.64
74-87-3	Chloromethane	4.0	U	4.0	1.2
156-59-2	cis-1,2-Dichloroethene	1.4	J	4.0	0.68
10061-01-5	cis-1,3-Dichloropropene	4.0	U	4.0	0.56
87-68-3	Hexachlorobutadiene	4.0	U	4.0	1.2
74-95-3	Dibromomethane	4.0	U	4.0	1.1
75-27-4	Bromodichloromethane	4.0	U	4.0	0.60
75-71-8	Dichlorodifluoromethane	4.0	U	4.0	1.2
100-41-4	Ethylbenzene	4.0	U	4.0	0.68
106-93-4	1,2-Dibromoethane	4.0	U	4.0	0.96
108-20-3	Diisopropyl ether	40	U	40	6.0
91-20-3	Naphthalene	4.0	U	4.0	0.96
179601-23-1	m-Xylene & p-Xylene	8.0	U	8.0	0.96
104-51-8	n-Butylbenzene	4.0	U	4.0	0.48
98-82-8	Isopropylbenzene	4.0	U	4.0	0.52
103-65-1	n-Propylbenzene	4.0	U	4.0	0.56
78-93-3	2-Butanone	40	U	40	2.3
108-10-1	4-Methyl-2-pentanone	40	U	40	1.3
135-98-8	sec-Butylbenzene	4.0	U	4.0	0.52
1634-04-4	Methyl tert-butyl ether	20	U	20	0.68
994-05-8	Tert-amyl-methyl ether (TAME)	20	U	20	0.27
75-09-2	Methylene Chloride	4.0	U	4.0	1.3
95-47-6	o-Xylene	4.0	U	4.0	0.56
100-42-5	Styrene	4.0	U	4.0	0.44
637-92-3	Ethyl-t-butyl ether (ETBE)	20	U	20	0.44
98-06-6	tert-Butylbenzene	4.0	U	4.0	0.52
127-18-4	Tetrachloroethene	4.0	U	4.0	1.2
108-88-3	Toluene	4.0	U	4.0	0.52
156-60-5	trans-1,2-Dichloroethene	4.0	U	4.0	0.76
10061-02-6	trans-1,3-Dichloropropene	4.0	U	4.0	0.76
79-01-6	Trichloroethene	110		4.0	0.68
75-69-4	Trichlorofluoromethane	4.0	U	4.0	0.84
108-05-4	Vinyl acetate	8.0	U	8.0	0.76
75-01-4	Vinyl chloride	4.0	U	4.0	0.88
75-65-0	tert-Butyl alcohol	200	U	200	16
1330-20-7	Xylenes, Total	8.0	U	8.0	1.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 | Lab Sample ID: 240-10770-2

Matrix: Water | Lab File ID: UXM5318.D

Analysis Method: 8260C | Date Collected: 04/27/2012 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 18:51

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.0	U	4.0	0.72

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		63-129
460-00-4	4-Bromofluorobenzene (Surr)	91		66-117
2037-26-5	Toluene-d8 (Surr)	88		74-115
1868-53-7	Dibromofluoromethane (Surr)	85		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 Lab Sample ID: 240-10770-2

Matrix: Water Lab File ID: UXM5318.D

Analysis Method: 8260C Date Collected: 04/27/2012 10:14

Sample wt/vol: 5(mL) Date Analyzed: 05/01/2012 18:51

Soil Aliquot Vol: Dilution Factor: 4

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42324 Units: ug/L

Number TICs Found: 1 TIC Result Total: 5.8

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.61	5.8	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 | Lab Sample ID: 240-10770-3

Matrix: Water | Lab File ID: UXM5311.D

Analysis Method: 8260C | Date Collected: 04/27/2012 12:03

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 | Lab Sample ID: 240-10770-3

Matrix: Water | Lab File ID: UXM5311.D

Analysis Method: 8260C | Date Collected: 04/27/2012 12:03

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 | Lab Sample ID: 240-10770-3

Matrix: Water | Lab File ID: UXM5311.D

Analysis Method: 8260C | Date Collected: 04/27/2012 12:03

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 16:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		63-129
460-00-4	4-Bromofluorobenzene (Surr)	88		66-117
2037-26-5	Toluene-d8 (Surr)	84		74-115
1868-53-7	Dibromofluoromethane (Surr)	81		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 Lab Sample ID: 240-10770-3

Matrix: Water Lab File ID: UXM5311.D

Analysis Method: 8260C Date Collected: 04/27/2012 12:03

Sample wt/vol: 5(mL) Date Analyzed: 05/01/2012 16:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42324 Units: ug/L

Number TICs Found: 1 TIC Result Total: 1.4

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.61	1.4	T J N

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: TB-042712 | Lab Sample ID: 240-10770-1

Matrix: Water | Lab File ID: UXM5303.D

Analysis Method: 8260C | Date Collected: 04/27/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 13:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroet hane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: TB-042712 | Lab Sample ID: 240-10770-1

Matrix: Water | Lab File ID: UXM5303.D

Analysis Method: 8260C | Date Collected: 04/27/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 13:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: TB-042712
Lab Sample ID: 240-10770-1
Matrix: Water
Lab File ID: UXM5303.D
Analysis Method: 8260C
Date Collected: 04/27/2012 00:00
Sample wt/vol: 5(mL)
Date Analyzed: 05/01/2012 13:05
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42324
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-129
460-00-4	4-Bromofluorobenzene (Surr)	98		66-117
2037-26-5	Toluene-d8 (Surr)	95		74-115
1868-53-7	Dibromofluoromethane (Surr)	94		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: TB-042712 Lab Sample ID: 240-10770-1

Matrix: Water Lab File ID: UXM5303.D

Analysis Method: 8260C Date Collected: 04/27/2012 00:00

Sample wt/vol: 5(mL) Date Analyzed: 05/01/2012 13:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42324 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW4-042712 | Lab Sample ID: 240-10770-4

Matrix: Water | Lab File ID: 20508021.D

Analysis Method: 8270C | Date Collected: 04/27/2012 13:53

Extract. Method: 3520C | Date Extracted: 05/03/2012 09:57

Sample wt/vol: 1030(mL) | Date Analyzed: 05/08/2012 14:56

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43126 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.97	U	0.97	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	52		28-110
367-12-4	2-Fluorophenol (Surr)	54		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	80		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	53		27-111
4165-62-2	Phenol-d5 (Surr)	56		10-110
1718-51-0	Terphenyl-d14 (Surr)	67		37-119

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW7-042712
Lab Sample ID: 240-10770-2
Matrix: Water
Lab File ID: 20508019.D
Analysis Method: 8270C
Date Collected: 04/27/2012 10:14
Extract. Method: 3520C
Date Extracted: 05/03/2012 09:57
Sample wt/vol: 1050(mL)
Date Analyzed: 05/08/2012 14:20
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 43126
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.95	U	0.95	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	54		28-110
367-12-4	2-Fluorophenol (Surr)	59		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	71		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	62		27-111
4165-62-2	Phenol-d5 (Surr)	60		10-110
1718-51-0	Terphenyl-d14 (Surr)	71		37-119

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 | Lab Sample ID: 240-10770-3

Matrix: Water | Lab File ID: 20508020.D

Analysis Method: 8270C | Date Collected: 04/27/2012 12:03

Extract. Method: 3520C | Date Extracted: 05/03/2012 09:57

Sample wt/vol: 1020(mL) | Date Analyzed: 05/08/2012 14:38

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43126 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.98	U	0.98	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	50		28-110
367-12-4	2-Fluorophenol (Surr)	48		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	67		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	52		27-111
4165-62-2	Phenol-d5 (Surr)	51		10-110
1718-51-0	Terphenyl-d14 (Surr)	65		37-119

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW4-042712
Lab Sample ID: 240-10770-4
Matrix: Water
Lab File ID: YF004313.D
Analysis Method: 8015B
Date Collected: 04/27/2012 13:53
Sample wt/vol: 5(mL)
Date Analyzed: 04/30/2012 16:41
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42123
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	55	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	64		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW7-042712
Lab Sample ID: 240-10770-2
Matrix: Water
Lab File ID: YF004309.D
Analysis Method: 8015B
Date Collected: 04/27/2012 10:14
Sample wt/vol: 5(mL)
Date Analyzed: 04/30/2012 13:57
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42123
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	96	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	61		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW8-042712
Lab Sample ID: 240-10770-3
Matrix: Water
Lab File ID: YF004312.D
Analysis Method: 8015B
Date Collected: 04/27/2012 12:03
Sample wt/vol: 5(mL)
Date Analyzed: 04/30/2012 16:00
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42123
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	57	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	61		10-150

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID: GSP-MW4-042712
Lab Sample ID: 240-10770-4
Matrix: Water
Lab File ID: P5B05051.D
Analysis Method: 8015B
Date Collected: 04/27/2012 13:53
Extraction Method: 3510C
Date Extracted: 05/03/2012 11:54
Sample wt/vol: 990(mL)
Date Analyzed: 05/04/2012 13:08
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: ID:
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 42755
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	330	J	510	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	70		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW7-042712 | Lab Sample ID: 240-10770-2

Matrix: Water | Lab File ID: P5B05049.D

Analysis Method: 8015B | Date Collected: 04/27/2012 10:14

Extraction Method: 3510C | Date Extracted: 05/03/2012 11:54

Sample wt/vol: 1000(mL) | Date Analyzed: 05/04/2012 12:07

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 42755 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	500	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	63		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Client Sample ID: GSP-MW8-042712 Lab Sample ID: 240-10770-3

Matrix: Water Lab File ID: P5B05050.D

Analysis Method: 8015B Date Collected: 04/27/2012 12:03

Extraction Method: 3510C Date Extracted: 05/03/2012 11:54

Sample wt/vol: 1050(mL) Date Analyzed: 05/04/2012 12:37

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 42755 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	480	U	480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	73		10-110

Appendix C

Support Documentation

MARTIN STATE AIRPORT - GROUNDWATER
SDG 240-10770-1

SAMPLE IDENTIFICATION	GSP-MW7-042712
COMPOUND	TRICHLOROETHENE
COMPOUND AREA	987189
INTERNAL STANDARD AMOUNT (ng)	50
VOLUME WATER PURGED (ml)	5
DILUTION FACTOR	4
INTERNAL STANDARD AREA	1362003
AVERAGE RRF	0.2698
ml to µl	1000
ng to µg	1000
=	107.5 µg/L

987189 x 50 ng x 4 x 1000ml x 1µg /1362003 x 0.2698 x 5ml x 1L x 1000ng

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
29 3-Chloro-1-propene	76		3.484					
28 Methyl acetate	43		3.496					
30 Methylene Chloride	84	3.591	3.579	0.012	90	29855	0.1455	
31 2-Methyl-2-propanol	59		3.674					
32 Acrylonitrile	53		3.792					
33 trans-1,2-Dichloroethene	96		3.840					
34 Methyl tert-butyl ether	73		3.840					
35 Hexane	86		4.089					
36 1,1-Dichloroethane	63		4.208					
37 Vinyl acetate	86		4.243					
38 Isopropyl ether	87		4.279					
39 2-Chloro-1,3-butadiene	53		4.291					
40 Tert-butyl ethyl ether	59		4.587					
42 cis-1,2-Dichloroethene	96	4.717	4.706	0.011	64	15220	0.3619	
41 2-Butanone (MEK)	43		4.706					
43 2,2-Dichloropropane	77		4.717					
44 Propionitrile	54		4.753					
45 Ethyl acetate	43		4.765					
46 Methacrylonitrile	41		4.895					
47 Chlorobromomethane	128		4.919					
48 Tetrahydrofuran	42		4.966					
49 Chloroform	83		4.978					
50 1,1,1-Trichloroethane	97		5.156					
51 Cyclohexane	56		5.215					
52 1,1-Dichloropropene	75		5.299					
53 Carbon tetrachloride	117		5.310					
54 Isobutyl alcohol	41		5.346					
56 1,2-Dichloroethane	62		5.465					
55 Benzene	78		5.476					
57 Tert-amyl methyl ether	73		5.559					
61 Ethyl acrylate	55		5.605					
58 n-Heptane	100		5.702					
59 n-Butanol	56		5.903					
60 Trichloroethene	130	6.022	6.022	0.0	96	987189	26.9	
63 Methylcyclohexane	83		6.200					
62 1,2-Dichloropropane	63		6.212					
64 Methyl methacrylate	41		6.283					
65 Dibromomethane	93		6.306					
66 1,4-Dioxane	88		6.318					
67 Dichlorobromomethane	83		6.437					
68 2-Nitropropane	41		6.627					
69 2-Chloroethyl vinyl ether	63		6.686					
70 cis-1,3-Dichloropropene	75		6.828					
71 4-Methyl-2-pentanone (MIBK)	43		6.947					
72 Toluene	91		7.137					
73 trans-1,3-Dichloropropene	75		7.314					
74 Ethyl methacrylate	69		7.386					
75 1,1,2-Trichloroethane	97		7.480					
76 1,3-Dichloropropane	76		7.635					
77 Tetrachloroethene	164		7.646					
78 2-Hexanone	43		7.694					
81 1-Chlorohexane	91		7.788					

RRF = 0.2698

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
132 n-Butyl acetate	43		7.813					
79 Chlorodibromomethane	129		7.848					
80 Tetrahydrothiophene	60		7.860					
123 Ethylene Dibromide	107		7.967					
82 Chlorobenzene	112		8.429					
83 1,1,1,2-Tetrachloroethane	131		8.488					
84 Ethylbenzene	106		8.524					
10 m-Xylene & p-Xylene	106		8.631					
85 o-Xylene	106		9.010					
86 Styrene	104		9.010					
87 Bromoform	173		9.188					
88 Isopropylbenzene	105		9.354					
89 Cyclohexanone	55		9.437					
135 1,4-Dichlorobutane	55		9.437					
90 1,1,2,2-Tetrachloroethane	83		9.615					
91 Bromobenzene	156		9.662					
93 trans-1,4-Dichloro-2-butene	53		9.674					
92 1,2,3-Trichloropropane	110		9.674					
94 N-Propylbenzene	120		9.757					
95 2-Chlorotoluene	126		9.840					
96 1,3,5-Trimethylbenzene	105		9.923					
104 4-Chlorotoluene	126		9.947					
97 tert-Butylbenzene	119		10.244					
98 1,2,4-Trimethylbenzene	105		10.291					
99 sec-Butylbenzene	105		10.457					
100 1,3-Dichlorobenzene	146		10.576					
101 4-Isopropyltoluene	119		10.599					
102 1,4-Dichlorobenzene	146		10.659					
103 1,2,3-Trimethylbenzene	105		10.706					
105 n-Butylbenzene	91		11.002					
106 1,2-Dichlorobenzene	146		11.026					
107 1,2-Dibromo-3-Chloropropane	157		11.797					
108 1,3,5-Trichlorobenzene	180		12.022					
109 1,2,4-Trichlorobenzene	180		12.639					
110 Hexachlorobutadiene	225		12.817					
111 Naphthalene	128		12.888					
112 1,2,3-Trichlorobenzene	180		13.149					
113 2-Methylnaphthalene	142		14.240					
S 137 Trihalomethanes, Total	1		0.000					
S 11 1,2-Dichloroethene, Total	96				0		0.3619	
S 9 1,3-Dichloropropene, Total	75		6.760					
S 114 Xylenes, Total	106		16.530					

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A3UX16\20120501-9570.b\UXM5318.D		
Lims ID:	240-10770-B-2	Client ID:	GSP-MW7-042712
Inject. Date:	01-May-2012 18:51:30	Dil. Factor:	4.0000
Sample Type:	Client		
Sample ID:	240-0009570-021		
Misc. Info.:	M20501A,8260LLUX16,,1644		
Operator:	1644	Instrument ID:	A3UX16
Vol. Injected:	1.0000	ALS Bottle#:	20
Lims Batch ID:	42324	Lims Sample ID:	21
Detector:	MS SCAN		
Method:	\\Ncchrom\ChromData\A3UX16\20120501-9570.b\8260_16.m		
Last Update:	02-May-2012 10:55:43	Calib Date:	29-Apr-2012 19:50:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A3UX16\20120429-9509.b\UXM5250.D		
Limit Group:	MSV 8260DOD ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Process Host:	CORP-CTX-17		

First Level Reviewer: williamsla Date: 02-May-2012 11:07:24

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 141 1-Chlorooctane	1		0.000					
* 1 Fluorobenzene	96	5.702	5.702	0.0	98	1362003	10.0	
* 2 Chlorobenzene-d5	117	8.393	8.394	-0.001	90	922953	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.635	10.635	0.0	98	426990	10.0	
$ 142 2,5-Dibromotoluene	1		0.000					
$ 5 Dibromofluoromethane (Surr)	113	5.121	5.109	0.012	65	283913	8.72	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	5.405	5.405	0.0	0	468123	8.89	
$ 7 Toluene-d8 (Surr)	98	7.077	7.077	0.0	95	1283387	8.96	
$ 131 4-Bromofluorobenzene (Surr)	95	9.508	9.508	0.0	81	477229	9.34	
136 Hexachloroethane TIC	1		0.000					
133 Benzyl chloride	126		0.000					
134 Chlorodifluoromethane TIC	1		0.000					
138 Butyl Methacrylate TIC	1		0.000					
139 C6-C12	1		0.000					
140 C6-C10	1		0.000					
12 Dichlorodifluoromethane	85		1.658					
13 Chloromethane	50		1.824					
14 Vinyl chloride	62		1.954					
15 Bromomethane	94		2.298					
16 Chloroethane	64		2.405					
17 Dichlorofluoromethane	67		2.595					
18 Trichlorofluoromethane	101		2.666					
25 Methylal	45		2.856					
19 Ethyl ether	59		2.927					
20 Acrolein	56		3.034					
21 1,1-Dichloroethene	96		3.152					
23 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.176					
22 Acetone	43		3.176					
24 Iodomethane	142		3.294					
26 Carbon disulfide	76		3.366					
27 Acetonitrile	41		3.425					

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A2HP5R\20120504-9661.b\P5B05051.D		
Lims ID:	240-10770-K-4-A	Client ID:	GSP-MW4-042712
Inject. Date:	04-May-2012 13:08:07	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0009661-011		
Misc. Info.:			
Operator:	2398	Instrument ID:	A2HP5R
Vol. Injected:	1.0000	ALS Bottle#:	61
Lims Batch ID:	42755	Lims Sample ID:	11
Detector:	GC FID2B		

Method:	\\Ncchrom\ChromData\A2HP5R\20120504-9661.b\TPH5R.m		
Last Update:	07-May-2012 11:41:19	Calib Date:	30-Apr-2012 15:32:13
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A2HP5R\20120430-9518.b\P5B04314.D		
Limit Group:	GC TPH DIESEL ICAL		
Integrator:	Falcon		
Process Host:	CORP-CTX-18		

RT	EXP RT	DLT RT	Response	On-Col Amt ng/ul	Flags
$ 8 n-Nonane					
4.034	4.028	0.006	14443839	70.1	
A 15 Diesel					
9.356	5.058 - 13.654		8259365	48.3	
A 17 C10-C32					
10.045	5.058 - 15.033		11057698	64.6	

extraction - 990ml / 5ml

$\overline{CF}$ = 171121.938

$$\frac{11057698\ ng/\mu l}{171121.938} \times \frac{5ml}{990ml} \times \frac{1\ mg}{1000\ ng} \times \frac{1000\ 000\ \mu l}{1\ L}$$

= 326 mg/L

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location:
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact

Company Name: Tetra Tech Inc.	Client Project Manager: Tony Apanavage	Site Contact: Walt Payne	Lab Contact: Pat O'Meara	COC No:
Address: 20251 Century Blvd.	Telephone: 301 528-3021	Telephone: 301 991-3914	Telephone: 330-497-9396	1 of 1 COCs
City/State/Zip: Germantown MD 20874	Email:	Analysis Turnaround Time (In BUS days)		
Phone: 301 528-3021		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: MSA Ground water Sampling	Method of Shipment/Carrier: Fed Ex			
Project Number: 112IC04021-02	Shipping/Tracking No:			
PO#				

For lab use only: Walk-in client ☐ Lab pickup ☐ Lab sampling ☐ Job/SDG No.

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C/Grab=G	Analyses: VOCs	Total ppm	Diss ppm	1,4 Dioxane	DRO	GRO	Perchlorate				Sample Specific Notes / Special Instructions:
TB-042712	4-27-12	—		X						2					N	G	X										
GSP-MW7-042712	↓	1014		X					2	5			5		↓	↓	X	X	X	X	X	X	X				
GSP-MW8-042712		1203		X					2	5			5				X	X	X	X	X	X	X				
GSP-MW4-042712		1353		X					2	5			5				X	X	X	X	X	X	X				

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walt Payne	TT Inc.	4-27-12 / 1517	Paul Hayward	TestAmerica	4/27/12/1517
Paul Hayward	TestAmerica	4/27/12/1620			
			Received in Laboratory by: Mike Ha[illegible]	TA	4/28/12 1000

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

TAL-0018 (1008)

05/30/2012

CASE NARRATIVE

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Project: MSA Groundwater Sampling

Report Number: 240-10770-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The Perchlorate analysis was performed at the TestAmerica West Sacramento Laboratory.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 04/28/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.4 and 1.2 C.

VOLATILE ORGANIC COMPOUNDS (GC MS)

Samples TB-042712 (240-10770-1), GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for volatile organic compounds (GC MS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 05/01/2012.

1,2,3-Trichlorobenzene was detected in method blank MB 240-42324/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

2-Chloroethyl vinyl ether failed the recovery criteria low for the MS/MSD of sample GSP-MW7-042712MS/MSD (240-10770-2) in batch 240-42324.

Refer to the QC report for details.

Sample GSP-MW7-042712 (240-10770-2)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 05/03/2012 and analyzed on 05/08/2012.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 43632/8270.

No other difficulties were encountered during the SVOCs analyses. All quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 04/30/2012.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-42123/7 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 05/03/2012 and analyzed on 05/04/2012.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 42661.

No other difficulties were encountered during the DRO analyses. All quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

No difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

Several analytes were detected in method blank MB 240-42485/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/02/2012 and 05/03/2012 and analyzed on 05/03/2012 and 05/04/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY
Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/02/2012 and 05/03/2012 and analyzed on 05/03/2012 and 05/04/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10770-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-10770-1TB	TB-042712	Water	04/27/2012 0000	04/28/2012 1000
240-10770-2	GSP-MW7-042712	Water	04/27/2012 1014	04/28/2012 1000
240-10770-3	GSP-MW8-042712	Water	04/27/2012 1203	04/28/2012 1000
240-10770-4	GSP-MW4-042712	Water	04/27/2012 1353	04/28/2012 1000

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10770-1

Lab Section	Qualifier	Description
GC/MS VOA		
	J	Indicates an Estimated Value for TICs
	U	Indicates the analyte was analyzed for but not detected.
	F	MS or MSD exceeds the control limits
	T	Result is a tentatively identified compound (TIC) and an estimated value.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	N	This flag indicates the presumptive evidence of a compound.
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
GC VOA		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Metals		
	B	Compound was found in the blank and sample.
	^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-042712	240-10770-1	94	92	95	98
GSP-MW7-042712	240-10770-2	85	87	88	91
GSP-MW8-042712	240-10770-3	81	82	84	88
GSP-MW4-042712	240-10770-4	87	86	88	91
	MB 240-42324/5	87	88	90	94
	LCS 240-42324/4	87	82	87	95
GSP-MW7-042712 MS	240-10770-2 MS	89	85	91	95
GSP-MW7-042712 MSD	240-10770-2 MSD	86	84	91	95

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-115
BFB = 4-Bromofluorobenzene (Surr)	66-117

Column to be used to flag recovery values

FORM II 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: STD8260 240-42092/4 Date Analyzed: 04/29/2012 16:26

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM5241.D Heated Purge: (Y/N) N

Calibration ID: 8426

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1530000	5.70	1036987	8.39	499405	10.64
UPPER LIMIT		3060000	6.20	2073974	8.89	998810	11.14
LOWER LIMIT		765000	5.20	518494	7.89	249703	10.14
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-42092/14		1382789	5.70	929711	8.39	462842	10.64
CCVIS 240-42324/2		1685652	5.70	1127991	8.39	551448	10.64

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCVIS 240-42324/2 Date Analyzed: 05/01/2012 10:57

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM5299.D Heated Purge: (Y/N) N

Calibration ID: 8428

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1685652	5.70	1127991	8.39	551448	10.64
UPPER LIMIT		3371304	6.20	2255982	8.89	1102896	11.14
LOWER LIMIT		842826	5.20	563996	7.89	275724	10.14
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-42324/3		1584858	5.70	1039768	8.39	509719	10.64
LCS 240-42324/4		1635403	5.70	1080601	8.39	561237	10.64
MB 240-42324/5		1511836	5.70	1024126	8.39	489807	10.64
240-10770-1	TB-042712	1435323	5.70	969675	8.39	455010	10.64
240-10770-3	GSP-MW8-042712	1507618	5.70	1016861	8.39	471906	10.64
240-10770-4	GSP-MW4-042712	1457135	5.70	982988	8.39	456091	10.64
240-10770-2	GSP-MW7-042712	1362003	5.70	922953	8.39	426990	10.64
240-10770-2 MS	GSP-MW7-042712 MS	1398521	5.70	928051	8.39	457817	10.64
240-10770-2 MSD	GSP-MW7-042712 MSD	1446927	5.70	965602	8.39	481690	10.64

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: BFB2914.D BFB Injection Date: 04/29/2012

Instrument ID: A3UX16 BFB Injection Time: 15:11

Analysis Batch No.: 42092

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.4	
75	30.0 - 60.0 % of mass 95	55.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.3	(0.4)1
174	50.0 - 120.00 % of mass 95	67.2	
175	5.0 - 9.0 % of mass 174	4.9	(7.4)1
176	95.0 - 101.0 % of mass 174	65.5	(97.4)1
177	5.0 - 9.0 % of mass 176	4.1	(6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-42092/2	UXM5239.D	04/29/2012	15:41
	STD8260 240-42092/3	UXM5240.D	04/29/2012	16:03
	STD8260 240-42092/4	UXM5241.D	04/29/2012	16:26
	STD8260 240-42092/5	UXM5242.D	04/29/2012	16:49
	STD8260 240-42092/6	UXM5243.D	04/29/2012	17:12
	STD8260 240-42092/7	UXM5244.D	04/29/2012	17:34
	STD1 240-42092/8	UXM5245.D	04/29/2012	17:57
	STD2 240-42092/9	UXM5246.D	04/29/2012	18:20
	STD3 240-42092/10	UXM5247.D	04/29/2012	18:42
	STD4 240-42092/11	UXM5248.D	04/29/2012	19:05
	STD5 240-42092/12	UXM5249.D	04/29/2012	19:28
	STD6 240-42092/13	UXM5250.D	04/29/2012	19:50
	ICV 240-42092/14	UXM5251.D	04/29/2012	20:13

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-42092/7	UXM5244.D
Level 2	STD8260 240-42092/6	UXM5243.D
Level 3	STD8260 240-42092/5	UXM5242.D
Level 4	STD8260 240-42092/4	UXM5241.D
Level 5	STD8260 240-42092/3	UXM5240.D
Level 6	STD8260 240-42092/2	UXM5239.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2475 0.3038	0.2649	0.2905	0.2889	0.3016	Ave		0.2829			0.1000	7.8		15.0			
Chloromethane	0.4695 0.4320	0.4893	0.4830	0.4487	0.4452	Ave		0.4613			0.1000	4.9		15.0			
Vinyl chloride	0.4202 0.4041	0.4409	0.4365	0.4256	0.4202	Ave		0.4246			0.1000	3.1		15.0			
Bromomethane	0.1730 0.1493	0.1760	0.1733	0.1676	0.1710	Ave		0.1684			0.0500	5.8		15.0			
Chloroethane	0.2470 0.2229	0.2473	0.2344	0.2374	0.2336	Ave		0.2371				3.9		15.0			
Trichlorofluoromethane	0.2704 0.3132	0.3068	0.3031	0.3070	0.3204	Ave		0.3035			0.1000	5.7		15.0			
Acrolein	0.0469 0.0473	0.0483	0.0502	0.0508	0.0498	Ave		0.0489				3.3		15.0			
1,1-Dichloroethene	0.2340 0.2501	0.2402	0.2424	0.2499	0.2511	Ave		0.2446			0.1000	2.8		15.0			
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.1512 0.1622	0.1553	0.1500	0.1479	0.1608	Ave		0.1546			0.0500	3.8		15.0			
Acetone	0.2162 0.0864	0.1595	0.1181	0.1099	0.0970	Lin1	0.2842	0.0868			0.0500				0.9960		0.9950
Iodomethane	0.3345 0.3288	0.3415	0.3505	0.3469	0.3574	Ave		0.3433				3.1		15.0			
Carbon disulfide	0.6238 0.8183	0.6509	0.6976	0.7556	0.8104	Ave		0.7261			0.1000	11.0		15.0			
Acetonitrile	0.0391 0.0299	0.0368	0.0353	0.0335	0.0333	Ave		0.0346				9.2		15.0			
Methyl acetate	0.2451 0.2094	0.2377	0.2404	0.2374	0.2264	Ave		0.2327			0.1000	5.6		15.0			
Methylene Chloride	0.4532 0.2926	0.3791	0.3449	0.3188	0.3120	Lin1	0.1763	0.2950			0.1000				0.9990		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
tert-Butyl alcohol	0.0187 0.0171	0.0206	0.0189	0.0189	0.0192	Ave		0.0189				6.0		15.0			
Acrylonitrile	0.1145 0.1022	0.1105	0.1139	0.1170	0.1105	Ave		0.1114				4.6		15.0			
trans-1,2-Dichloroethene	0.2839 0.2770	0.2945	0.2944	0.2851	0.2889	Ave		0.2873			0.1000	2.4		15.0			
Methyl tert-butyl ether	0.8507 0.8216	0.8205	0.8460	0.8461	0.8566	Ave		0.8402			0.1000	1.8		15.0			
Hexane	0.0529 0.0560	0.0521	0.0488	0.0501	0.0574	Ave		0.0529				6.3		15.0			
1,1-Dichloroethane	0.5478 0.5504	0.5906	0.5789	0.5698	0.5773	Ave		0.5691			0.1000	3.0		15.0			
Vinyl acetate	0.0438 0.0547	0.0420	0.0492	0.0562	0.0568	Ave		0.0505				13.0		15.0			
2-Butanone	0.1431 0.1214	0.1392	0.1413	0.1375	0.1314	Ave		0.1356			0.0500	5.9		15.0			
cis-1,2-Dichloroethene	0.3153 0.3006	0.3006	0.3107	0.3096	0.3157	Ave		0.3087			0.1000	2.2		15.0			
2,2-Dichloropropane	0.2459 0.3076	0.2799	0.2938	0.3057	0.3261	Ave		0.2932				9.5		15.0			
Bromochloromethane	0.1255 0.1262	0.1225	0.1298	0.1329	0.1330	Ave		0.1283				3.3		15.0			
Tetrahydrofuran	0.0875 0.0744	0.0826	0.0830	0.0854	0.0842	Ave		0.0828				5.4		15.0			
Chloroform	0.5169 0.5153	0.5299	0.5388	0.5290	0.5477	Ave		0.5296				2.4		15.0			
1,1,1-Trichloroethane	0.3234 0.3831	0.3500	0.3674	0.3840	0.3986	Ave		0.3678			0.1000	7.4		15.0			
Cyclohexane	0.4217 0.4832	0.4863	0.4431	0.4476	0.4809	Ave		0.4605			0.1000	5.8		15.0			
1,1-Dichloropropene	0.4359 0.4194	0.4199	0.4223	0.4252	0.4356	Ave		0.4264				1.8		15.0			
Carbon tetrachloride	0.2456 0.3072	0.2543	0.2617	0.2867	0.3066	Ave		0.2770			0.1000	9.7		15.0			
1,2-Dichloroethane	0.4838 0.4518	0.4761	0.4673	0.4667	0.4711	Ave		0.4694			0.1000	2.3		15.0			
Benzene	1.2256 1.2453	1.2535	1.2750	1.2420	1.2666	Ave		1.2513			0.5000	1.4		15.0			
Trichloroethene	0.2714 0.2655	0.2671	0.2733	0.2695	0.2719	Ave		0.2698			0.2000	1.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methylcyclohexane	0.3056 0.3781	0.3553	0.3486	0.3331	0.3656	Ave		0.3477			0.1000	7.4		15.0			
1,2-Dichloropropane	0.2994 0.3048	0.3058	0.3148	0.3132	0.3116	Ave		0.3083			0.1000	1.9		15.0			
Dibromomethane	0.1675 0.1555	0.1521	0.1644	0.1597	0.1644	Ave		0.1606				3.7		15.0			
1,4-Dioxane	0.0023 0.0020	0.0024	0.0025	0.0025	0.0025	Ave		0.0024				8.2		15.0			
Bromodichloromethane	0.2586 0.3533	0.2732	0.3036	0.3210	0.3455	Ave		0.3092			0.1000	12.0		15.0			
2-Chloroethyl vinyl ether	0.1532 0.1582	0.1459	0.1670	0.1699	0.1653	Ave		0.1599				5.8		15.0			
cis-1,3-Dichloropropene	0.3061 0.4576	0.3249	0.3845	0.4238	0.4469	Lin1	-0.212	0.4568			0.1500				0.9990		0.9950
4-Methyl-2-pentanone	0.2451 0.2575	0.2540	0.2759	0.2780	0.2752	Ave		0.2643			0.0500	5.3		15.0			
Toluene	1.7728 1.9294	1.8880	1.8619	1.8474	1.9604	Ave		1.8766			0.4000	3.5		15.0			
trans-1,3-Dichloropropene	0.3835 0.6056	0.4211	0.4964	0.5287	0.6010	Lin1	-0.314	0.6041			0.1000				0.9980		0.9950
Ethyl methacrylate	0.4455 0.5778	0.5229	0.5765	0.5788	0.6242	Ave		0.5543				11.0		15.0			
1,1,2-Trichloroethane	0.3279 0.3212	0.3141	0.3421	0.3341	0.3447	Ave		0.3307			0.1000	3.6		15.0			
1,3-Dichloropropane	0.6891 0.6635	0.6944	0.7152	0.6928	0.7223	Ave		0.6962				3.0		15.0			
Tetrachloroethene	0.2452 0.2600	0.2630	0.2668	0.2612	0.2738	Ave		0.2617			0.2000	3.6		15.0			
2-Hexanone	0.2323 0.2576	0.2818	0.2796	0.2822	0.2852	Ave		0.2698			0.0500	7.8		15.0			
Dibromochloromethane	0.1872 0.3114	0.2160	0.2464	0.2709	0.3057	Lin1	-0.171	0.3097							0.9980		0.9950
1,2-Dibromoethane	0.2962 0.3220	0.3089	0.3344	0.3261	0.3462	Ave		0.3223				5.5		15.0			
Chlorobenzene	1.0759 1.0855	1.1279	1.1114	1.0941	1.1299	Ave		1.1041			0.3000	2.0		15.0			
1,1,1,2-Tetrachloroethane	0.2665 0.3469	0.2706	0.3066	0.3249	0.3538	Ave		0.3116				12.0		15.0			
Ethylbenzene	0.5227 0.5869	0.5825	0.6026	0.5858	0.6163	Ave		0.5828				5.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
m-Xylene & p-Xylene	0.6757 0.7551	0.7220	0.7191	0.7176	0.7638	Ave		0.7256				4.3		15.0			
o-Xylene	0.6806 0.7276	0.7176	0.7304	0.7130	0.7551	Ave		0.7207				3.4		15.0			
Styrene	1.0565 1.2902	1.1310	1.1966	1.1904	1.2870	Ave		1.1920			0.3000	7.6		15.0			
Bromoform	0.0815 0.1487	0.0938	0.1133	0.1171	0.1413	Lin1	-0.094	0.1455			0.1000				0.9950		0.9950
Isopropylbenzene	1.5492 1.8304	1.6861	1.6648	1.6944	1.8507	Ave		1.7126			0.1000	6.6		15.0			
1,1,2,2-Tetrachloroethane	0.8553 0.8338	0.9184	0.9469	0.9293	0.9310	Ave		0.9025			0.3000	5.1		15.0			
Bromobenzene	0.8074 0.7779	0.8287	0.8325	0.8084	0.8409	Ave		0.8159				2.8		15.0			
1,2,3-Trichloropropane	0.2880 0.2558	0.2803	0.2925	0.2919	0.2938	Ave		0.2837				5.1		15.0			
trans-1,4-Dichloro-2-butene	0.2181 0.2689	0.2471	0.2346	0.2535	0.2845	Ave		0.2511				9.5		15.0			
n-Propylbenzene	0.7292 0.8665	0.8823	0.8741	0.8947	0.9118	Ave		0.8598				7.7		15.0			
2-Chlorotoluene	0.8583 0.7918	0.8579	0.8258	0.8361	0.8474	Ave		0.8362				3.0		15.0			
1,3,5-Trimethylbenzene	2.5787 2.8481	2.7830	2.7962	2.7951	2.9477	Ave		2.7914				4.3		15.0			
4-Chlorotoluene	0.8421 0.8602	0.8907	0.8940	0.8564	0.9136	Ave		0.8762				3.1		15.0			
tert-Butylbenzene	2.2870 2.5025	2.5077	2.4568	2.4969	2.5752	Ave		2.4710				4.0		15.0			
1,2,4-Trimethylbenzene	2.7586 2.9544	2.8331	2.8754	2.9504	3.0668	Ave		2.9065				3.7		15.0			
sec-Butylbenzene	2.8024 3.1977	3.0238	2.9596	3.0216	3.2137	Ave		3.0365				5.1		15.0			
1,3-Dichlorobenzene	1.5037 1.4698	1.4901	1.5135	1.5069	1.5495	Ave		1.5056			0.6000	1.8		15.0			
p-Isopropyltoluene	2.2069 2.6255	2.4647	2.4703	2.4761	2.6715	Ave		2.4858				6.6		15.0			
1,4-Dichlorobenzene	1.6073 1.5308	1.6512	1.5577	1.5557	1.6211	Ave		1.5873			0.5000	2.9		15.0			
n-Butylbenzene	2.0896 2.4436	2.2004	2.2368	2.2659	2.4792	Ave		2.2859				6.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 15:41 Calibration End Date: 04/29/2012 17:34 Calibration ID: 8426

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dichlorobenzene	1.4966 1.3945	1.5126	1.5119	1.4682	1.5239	Ave		1.4846			0.4000	3.2		15.0			
1,2-Dibromo-3-Chloropropane	0.0886 0.0950	0.0916	0.0904	0.0972	0.1086	Ave		0.0952			0.0500	7.6		15.0			
1,3,5-Trichlorobenzene	0.7904 0.7093	0.7633	0.7631	0.7837	0.8038	Ave		0.7690				4.3		15.0			
1,2,4-Trichlorobenzene	0.6476 0.5852	0.7228	0.7185	0.6951	0.7215	Ave		0.6818			0.2000	8.1		15.0			
Hexachlorobutadiene	0.2814 0.2092	0.2884	0.2495	0.2645	0.2531	Ave		0.2577				11.0		15.0			
Naphthalene	1.9527 1.6802	2.0647	2.2163	2.2497	2.2115	Ave		2.0625				11.0		15.0			
1,2,3-Trichlorobenzene	0.6221 0.4278	0.6296	0.6285	0.6505	0.5938	Ave		0.5920				14.0		15.0			
Dibromofluoromethane (Surr)	0.2331 0.2366	0.2278	0.2460	0.2403	0.2499	Ave		0.2389				3.4		15.0			
1,2-Dichloroethane-d4 (Surr)	0.4238 0.3659	0.3675	0.3946	0.3884	0.3801	Ave		0.3867				5.5		15.0			
Toluene-d8 (Surr)	1.5539 1.5702	1.4814	1.5599	1.5466	1.5977	Ave		1.5516				2.5		15.0			
4-Bromofluorobenzene (Surr)	0.5499 0.5492	0.5504	0.5556	0.5412	0.5764	Ave		0.5538				2.2		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 17:57 Calibration End Date: 04/29/2012 19:50 Calibration ID: 8428

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD6 240-42092/13	UXM5250.D
Level 2	STD5 240-42092/12	UXM5249.D
Level 3	STD4 240-42092/11	UXM5248.D
Level 4	STD3 240-42092/10	UXM5247.D
Level 5	STD2 240-42092/9	UXM5246.D
Level 6	STD1 240-42092/8	UXM5245.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorofluoromethane	0.4944 0.5457	0.5179	0.5366	0.5411	0.5388	Ave		0.5291				3.7		15.0			
Ethyl ether	0.2959 0.3118	0.3149	0.3299	0.3322	0.3247	Ave		0.3182				4.3		15.0			
3-Chloro-1-propene	0.1138 0.1626	0.1307	0.1332	0.1472	0.1572	Ave		0.1408				13.0		15.0			
Diisopropyl ether	0.2325 0.3039	0.2698	0.2820	0.2880	0.2888	Ave		0.2775				8.9		15.0			
2-Chloro-1,3-butadiene	0.4443 0.5618	0.4913	0.5190	0.5386	0.5385	Ave		0.5156				8.2		15.0			
Ethyl-t-butyl ether (ETBE)	0.7557 0.9819	0.8293	0.9029	0.9314	0.9383	Ave		0.8899				9.3		15.0			
Propionitrile	0.0349 0.0408	0.0346	0.0382	0.0420	0.0412	Ave		0.0386				8.5		15.0			
Ethyl acetate	0.2532 0.2900	0.2546	0.2741	0.2771	0.2824	Ave		0.2719				5.5		15.0			
Methacrylonitrile	0.1606 0.2023	0.1897	0.1949	0.2046	0.2003	Ave		0.1921				8.5		15.0			
Isobutyl alcohol	0.0077 0.0091	0.0077	0.0086	0.0094	0.0092	Ave		0.0086				8.8		15.0			
Tert-amyl-methyl ether (TAME)	0.5871 0.7972	0.6671	0.7241	0.7535	0.7651	Ave		0.7157				11.0		15.0			
n-Heptane	0.0338 0.0458	0.0359	0.0418	0.0425	0.0440	Ave		0.0406				12.0		15.0			
n-Butanol	0.0041 0.0069	0.0052	0.0059	0.0064	0.0070	Lin1	-0.068	0.0070							0.9990		0.9950
2-Nitropropane	0.0349 0.0534	0.0349	0.0424	0.0409	0.0453	Qua	0	0.0373	0.0002						1.0000		0.9900
Cyclohexanone	0.0676 0.1071	0.0696	0.0924	0.0940	0.1083	Lin1	-0.573	0.1077							0.9980		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 17:57 Calibration End Date: 04/29/2012 19:50 Calibration ID: 8428

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,3-Trimethylbenzene	2.3062 3.3384	2.8522	3.0020	3.1126	3.2823	Ave		2.9823				13.0		15.0			
2-Methylnaphthalene	0.5487 0.8482	0.7229	0.8158	0.9225	1.0313	Qua	-2.422	1.2182	-0.004						0.9970		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2829	0.2340	0.1000	8.27	10.0	-17.3	20.0
Chloromethane	Ave	0.4613	0.4720	0.1000	10.2	10.0	2.3	20.0
Vinyl chloride	Ave	0.4246	0.4443	0.1000	10.5	10.0	4.6	20.0
Bromomethane	Ave	0.1684	0.1539	0.0500	9.14	10.0	-8.6	20.0
Chloroethane	Ave	0.2371	0.2329	0.0500	9.82	10.0	-1.8	20.0
Trichlorofluoromethane	Ave	0.3035	0.3240	0.1000	10.7	10.0	6.8	20.0
Acrolein	Ave	0.0489	0.0264		16.2	30.0	-46.0*	20.0
1,1-Dichloroethene	Ave	0.2446	0.2652	0.1000	10.8	10.0	8.4	20.0
1,1,2-Trichloro-1,2,2-trichf luoroethane	Ave	0.1546	0.1709	0.0500	11.1	10.0	10.6	20.0
Acetone	Lin1		0.1057	0.0500	21.1	20.0	5.5	20.0
Iodomethane	Ave	0.3433	0.3416		9.95	10.0	-0.5	20.0
Carbon disulfide	Ave	0.7261	0.7042	0.1000	9.70	10.0	-3.0	20.0
Acetonitrile	Ave	0.0346	0.0393		34.0	30.0	13.4	20.0
Methyl acetate	Ave	0.2327	0.2751	0.1000	11.8	10.0	18.2	20.0
Methylene Chloride	Lin1		0.3299	0.1000	10.6	10.0	6.0	20.0
tert-Butyl alcohol	Ave	0.0189	0.0195		207	200	3.2	20.0
Acrylonitrile	Ave	0.1114	0.1186		31.9	30.0	6.5	20.0
Methyl tert-butyl ether	Ave	0.8402	0.8405	0.1000	10.0	10.0	0.0	20.0
trans-1,2-Dichloroethene	Ave	0.2873	0.2952	0.1000	10.3	10.0	2.7	20.0
Hexane	Ave	0.0529	0.0579		10.9	10.0	9.4	20.0
1,1-Dichloroethane	Ave	0.5691	0.6028	0.1000	10.6	10.0	5.9	20.0
Vinyl acetate	Ave	0.0505	0.0387		7.67	10.0	-23.3*	20.0
2-Butanone	Ave	0.1356	0.1389	0.0500	20.5	20.0	2.4	20.0
2,2-Dichloropropane	Ave	0.2932	0.2855		9.74	10.0	-2.6	20.0
cis-1,2-Dichloroethene	Ave	0.3087	0.3186	0.1000	10.3	10.0	3.2	20.0
Bromochloromethane	Ave	0.1283	0.1312		10.2	10.0	2.2	20.0
Tetrahydrofuran	Ave	0.0828	0.0852		10.3	10.0	2.9	20.0
Chloroform	Ave	0.5296	0.5462	0.2000	10.3	10.0	3.1	20.0
1,1,1-Trichloroethane	Ave	0.3678	0.3794	0.1000	10.3	10.0	3.2	20.0
Cyclohexane	Ave	0.4605	0.4767	0.1000	10.4	10.0	3.5	20.0
1,1-Dichloropropene	Ave	0.4264	0.4383		10.3	10.0	2.8	20.0
Carbon tetrachloride	Ave	0.2770	0.2912	0.1000	10.5	10.0	5.1	20.0
1,2-Dichloroethane	Ave	0.4694	0.4938	0.1000	10.5	10.0	5.2	20.0
Benzene	Ave	1.251	1.319	0.5000	10.5	10.0	5.4	20.0
Trichloroethene	Ave	0.2698	0.2968	0.2000	11.0	10.0	10.0	20.0
1,2-Dichloropropane	Ave	0.3083	0.3319	0.1000	10.8	10.0	7.7	20.0
Methylcyclohexane	Ave	0.3477	0.3665	0.1000	10.5	10.0	5.4	20.0
Dibromomethane	Ave	0.1606	0.1738		10.8	10.0	8.2	20.0
Bromodichloromethane	Ave	0.3092	0.3331	0.1000	10.8	10.0	7.7	20.0
2-Chloroethyl vinyl ether	Ave	0.1599	0.1722		10.8	10.0	7.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
cis-1,3-Dichloropropene	Lin1		0.4089	0.1500	9.41	10.0	-5.9	20.0
4-Methyl-2-pentanone	Ave	0.2643	0.2914	0.0500	22.1	20.0	10.3	20.0
Toluene	Ave	1.877	1.918	0.4000	10.2	10.0	2.2	20.0
trans-1,3-Dichloropropene	Lin1		0.5291	0.1000	9.28	10.0	-7.2	20.0
1,1,2-Trichloroethane	Ave	0.3307	0.3442	0.1000	10.4	10.0	4.1	20.0
1,3-Dichloropropane	Ave	0.6962	0.7105		10.2	10.0	2.0	20.0
Tetrachloroethene	Ave	0.2617	0.2644	0.2000	10.1	10.0	1.0	20.0
2-Hexanone	Ave	0.2698	0.2927	0.0500	21.7	20.0	8.5	20.0
Dibromochloromethane	Lin1		0.2623		9.02	10.0	-9.8	20.0
1,2-Dibromoethane	Ave	0.3223	0.3341		10.4	10.0	3.7	20.0
Chlorobenzene	Ave	1.104	1.136	0.3000	10.3	10.0	2.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3116	0.3283		10.5	10.0	5.4	20.0
Ethylbenzene	Ave	0.5828	0.6250		10.7	10.0	7.2	20.0
m-Xylene & p-Xylene	Ave	0.7256	0.7452		20.5	20.0	2.7	20.0
o-Xylene	Ave	0.7207	0.7518		10.4	10.0	4.3	20.0
Styrene	Ave	1.192	1.255	0.3000	10.5	10.0	5.3	20.0
Bromoform	Lin1		0.1220	0.1000	9.03	10.0	-9.7	20.0
Isopropylbenzene	Ave	1.713	1.779	0.1000	10.4	10.0	3.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9025	0.9195	0.3000	10.2	10.0	1.9	20.0
Bromobenzene	Ave	0.8159	0.8010		9.82	10.0	-1.8	20.0
1,2,3-Trichloropropane	Ave	0.2837	0.2982		10.5	10.0	5.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2511	0.2617		20.8	20.0	4.2	20.0
n-Propylbenzene	Ave	0.8598	0.9010		10.5	10.0	4.8	20.0
2-Chlorotoluene	Ave	0.8362	0.8214		9.82	10.0	-1.8	20.0
1,3,5-Trimethylbenzene	Ave	2.791	2.836		10.2	10.0	1.6	20.0
4-Chlorotoluene	Ave	0.8762	0.8813		10.1	10.0	0.6	20.0
tert-Butylbenzene	Ave	2.471	2.497		10.1	10.0	1.1	20.0
1,2,4-Trimethylbenzene	Ave	2.906	2.988		10.3	10.0	2.8	20.0
sec-Butylbenzene	Ave	3.036	3.064		10.1	10.0	0.9	20.0
1,3-Dichlorobenzene	Ave	1.506	1.484	0.6000	9.85	10.0	-1.5	20.0
p-Isopropyltoluene	Ave	2.486	2.579		10.4	10.0	3.8	20.0
1,4-Dichlorobenzene	Ave	1.587	1.584	0.5000	9.98	10.0	-0.2	20.0
n-Butylbenzene	Ave	2.286	2.295		10.0	10.0	0.4	20.0
1,2-Dichlorobenzene	Ave	1.485	1.504	0.4000	10.1	10.0	1.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0952	0.1049	0.0500	11.0	10.0	10.1	20.0
1,2,4-Trichlorobenzene	Ave	0.6818	0.6660	0.2000	9.77	10.0	-2.3	20.0
Hexachlorobutadiene	Ave	0.2577	0.2217		8.60	10.0	-14.0	20.0
Naphthalene	Ave	2.063	2.211		10.7	10.0	7.2	20.0
1,2,3-Trichlorobenzene	Ave	0.5920	0.6250		10.6	10.0	5.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2389	0.2274		9.72	10.2	-4.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3867	0.3583		9.46	10.2	-7.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Toluene-d8 (Surr)	Ave	1.552	1.491		9.81	10.2	-3.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5538	0.5469		10.1	10.2	-1.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42092/14 Calibration Date: 04/29/2012 20:13

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 17:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 19:50

Lab File ID: UXM5251.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.3182	0.3065		9.63	10.0	-3.7	20.0
Diisopropyl ether	Ave	0.2775	0.2745		9.89	10.0	-1.1	20.0
Isobutyl alcohol	Ave	0.0086	0.0091		527	500	5.4	20.0
Cyclohexanone	Lin1		0.0256		52.9	200	-73.6*	20.0
1,2,3-Trimethylbenzene	Ave	2.982	3.178		10.7	10.0	6.6	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: BFB2918.D BFB Injection Date: 05/01/2012

Instrument ID: A3UX16 BFB Injection Time: 10:27

Analysis Batch No.: 42324

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	22.3	
75	30.0 - 60.0 % of mass 95	55.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.1	
173	Less than 2.0 % of mass 174	0.4	(0.5)1
174	50.0 - 120.00 % of mass 95	65.4	
175	5.0 - 9.0 % of mass 174	4.4	(6.7)1
176	95.0 - 101.0 % of mass 174	62.9	(96.2)1
177	5.0 - 9.0 % of mass 176	4.0	(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-42324/2	UXM5299.D	05/01/2012	10:57
	CCV 240-42324/3	UXM5300.D	05/01/2012	11:20
	LCS 240-42324/4	UXM5301.D	05/01/2012	11:42
	MB 240-42324/5	UXM5302.D	05/01/2012	12:05
TB-042712	240-10770-1	UXM5303.D	05/01/2012	13:05
GSP-MW8-042712	240-10770-3	UXM5311.D	05/01/2012	16:12
GSP-MW4-042712	240-10770-4	UXM5312.D	05/01/2012	16:35
GSP-MW7-042712	240-10770-2	UXM5318.D	05/01/2012	18:51
GSP-MW7-042712 MS	240-10770-2 MS	UXM5319.D	05/01/2012	19:14
GSP-MW7-042712 MSD	240-10770-2 MSD	UXM5320.D	05/01/2012	19:37

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCVIS 240-42324/2 Calibration Date: 05/01/2012 10:57

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5299.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2829	0.2970	0.1000	10.5	10.0	5.0	20.0
Chloromethane	Ave	0.4613	0.4543	0.1000	9.85	10.0	-1.5	20.0
Vinyl chloride	Ave	0.4246	0.4174	0.1000	9.83	10.0	-1.7	20.0
Bromomethane	Ave	0.1684	0.1468	0.0500	8.72	10.0	-12.8	20.0
Chloroethane	Ave	0.2371	0.2172	0.0500	9.16	10.0	-8.4	20.0
Trichlorofluoromethane	Ave	0.3035	0.3345	0.1000	11.0	10.0	10.2	20.0
Acrolein	Ave	0.0489	0.0408		83.3	100	-16.7	20.0
1,1-Dichloroethene	Ave	0.2446	0.2333	0.1000	9.54	10.0	-4.6	20.0
1,1,2-Trichloro-1,2,2-trichf luoroethane	Ave	0.1546	0.1599	0.0500	10.3	10.0	3.5	20.0
Acetone	Lin1		0.0858	0.0500	16.5	20.0	-17.5	20.0
Iodomethane	Ave	0.3433	0.3386		9.86	10.0	-1.4	20.0
Carbon disulfide	Ave	0.7261	0.7276	0.1000	10.0	10.0	0.2	20.0
Acetonitrile	Ave	0.0346	0.0275		79.3	100	-20.7*	20.0
Methyl acetate	Ave	0.2327	0.1924	0.1000	16.5	20.0	-17.3	20.0
Methylene Chloride	Lin1		0.3022	0.1000	9.65	10.0	-3.5	20.0
tert-Butyl alcohol	Ave	0.0189	0.0167		176	200	-11.8	20.0
Acrylonitrile	Ave	0.1114	0.0928		16.7	20.0	-16.7	20.0
Methyl tert-butyl ether	Ave	0.8402	0.7564	0.1000	9.00	10.0	-10.0	20.0
trans-1,2-Dichloroethene	Ave	0.2873	0.2720	0.1000	9.47	10.0	-5.3	20.0
Hexane	Ave	0.0529	0.0545		10.3	10.0	3.0	20.0
1,1-Dichloroethane	Ave	0.5691	0.5175	0.1000	9.09	10.0	-9.1	20.0
Vinyl acetate	Ave	0.0505	0.0467		9.26	10.0	-7.4	20.0
2-Butanone	Ave	0.1356	0.1103	0.0500	16.3	20.0	-18.7	20.0
cis-1,2-Dichloroethene	Ave	0.3087	0.2874	0.1000	9.31	10.0	-6.9	20.0
2,2-Dichloropropane	Ave	0.2932	0.2845		9.70	10.0	-3.0	20.0
Bromochloromethane	Ave	0.1283	0.1235		9.62	10.0	-3.8	20.0
Tetrahydrofuran	Ave	0.0828	0.0679		8.20	10.0	-18.0	20.0
Chloroform	Ave	0.5296	0.4972	0.2000	9.39	10.0	-6.1	20.0
1,1,1-Trichloroethane	Ave	0.3678	0.3668	0.1000	9.97	10.0	-0.3	20.0
Cyclohexane	Ave	0.4605	0.4548	0.1000	9.88	10.0	-1.2	20.0
1,1-Dichloropropene	Ave	0.4264	0.3992		9.36	10.0	-6.4	20.0
Carbon tetrachloride	Ave	0.2770	0.2807	0.1000	10.1	10.0	1.3	20.0
1,2-Dichloroethane	Ave	0.4694	0.4211	0.1000	8.97	10.0	-10.3	20.0
Benzene	Ave	1.251	1.160	0.5000	9.27	10.0	-7.3	20.0
Trichloroethene	Ave	0.2698	0.2566	0.2000	9.51	10.0	-4.9	20.0
Methylcyclohexane	Ave	0.3477	0.3573	0.1000	10.3	10.0	2.7	20.0
1,2-Dichloropropane	Ave	0.3083	0.2800	0.1000	9.08	10.0	-9.2	20.0
Dibromomethane	Ave	0.1606	0.1466		9.13	10.0	-8.7	20.0
1,4-Dioxane	Ave	0.0024	0.0019		407	500	-18.6	20.0
Bromodichloromethane	Ave	0.3092	0.3093	0.1000	10.0	10.0	0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCVIS 240-42324/2 Calibration Date: 05/01/2012 10:57

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5299.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1599	0.1407		17.6	20.0	-12.0	20.0
cis-1,3-Dichloropropene	Lin1		0.3920	0.1500	9.05	10.0	-9.5	20.0
4-Methyl-2-pentanone	Ave	0.2643	0.2298	0.0500	17.4	20.0	-13.0	20.0
Toluene	Ave	1.877	1.757	0.4000	9.36	10.0	-6.4	20.0
trans-1,3-Dichloropropene	Lin1		0.4892	0.1000	8.62	10.0	-13.8	20.0
Ethyl methacrylate	Ave	0.5543	0.5192		9.37	10.0	-6.3	20.0
1,1,2-Trichloroethane	Ave	0.3307	0.3008	0.1000	9.10	10.0	-9.0	20.0
1,3-Dichloropropane	Ave	0.6962	0.6149		8.83	10.0	-11.7	20.0
Tetrachloroethene	Ave	0.2617	0.2658	0.2000	10.2	10.0	1.6	20.0
2-Hexanone	Ave	0.2698	0.2311	0.0500	17.1	20.0	-14.3	20.0
Dibromochloromethane	Lin1		0.2569		8.85	10.0	-11.5	20.0
1,2-Dibromoethane	Ave	0.3223	0.2904		9.01	10.0	-9.9	20.0
Chlorobenzene	Ave	1.104	1.009	0.3000	9.14	10.0	-8.6	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3116	0.3090		9.92	10.0	-0.8	20.0
Ethylbenzene	Ave	0.5828	0.5479		9.40	10.0	-6.0	20.0
m-Xylene & p-Xylene	Ave	0.7256	0.6861		18.9	20.0	-5.4	20.0
o-Xylene	Ave	0.7207	0.6592		9.15	10.0	-8.5	20.0
Styrene	Ave	1.192	1.127	0.3000	9.45	10.0	-5.5	20.0
Bromoform	Lin1		0.1151	0.1000	8.56	10.0	-14.4	20.0
Isopropylbenzene	Ave	1.713	1.644	0.1000	9.60	10.0	-4.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9025	0.7806	0.3000	8.65	10.0	-13.5	20.0
Bromobenzene	Ave	0.8159	0.7710		9.45	10.0	-5.5	20.0
1,2,3-Trichloropropane	Ave	0.2837	0.2458		8.66	10.0	-13.4	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2511	0.2026		8.07	10.0	-19.3	20.0
n-Propylbenzene	Ave	0.8598	0.8329		9.69	10.0	-3.1	20.0
2-Chlorotoluene	Ave	0.8362	0.7811		9.34	10.0	-6.6	20.0
1,3,5-Trimethylbenzene	Ave	2.791	2.681		9.60	10.0	-4.0	20.0
4-Chlorotoluene	Ave	0.8762	0.8220		9.38	10.0	-6.2	20.0
tert-Butylbenzene	Ave	2.471	2.351		9.51	10.0	-4.9	20.0
1,2,4-Trimethylbenzene	Ave	2.906	2.770		9.53	10.0	-4.7	20.0
sec-Butylbenzene	Ave	3.036	2.925		9.63	10.0	-3.7	20.0
1,3-Dichlorobenzene	Ave	1.506	1.424	0.6000	9.46	10.0	-5.4	20.0
p-Isopropyltoluene	Ave	2.486	2.368		9.52	10.0	-4.8	20.0
1,4-Dichlorobenzene	Ave	1.587	1.488	0.5000	9.38	10.0	-6.2	20.0
n-Butylbenzene	Ave	2.286	2.212		9.68	10.0	-3.2	20.0
1,2-Dichlorobenzene	Ave	1.485	1.376	0.4000	9.27	10.0	-7.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0952	0.0868	0.0500	9.12	10.0	-8.8	20.0
1,3,5-Trichlorobenzene	Ave	0.7690	0.7679		9.99	10.0	-0.1	20.0
1,2,4-Trichlorobenzene	Ave	0.6818	0.6628	0.2000	9.72	10.0	-2.8	20.0
Hexachlorobutadiene	Ave	0.2577	0.2465		9.56	10.0	-4.4	20.0
Naphthalene	Ave	2.063	1.789		8.67	10.0	-13.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCVIS 240-42324/2 Calibration Date: 05/01/2012 10:57

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5299.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Ave	0.5920	0.5701		9.63	10.0	-3.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2389	0.2122		9.07	10.2	-11.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3867	0.3050		8.05	10.2	-21.1*	20.0
Toluene-d8 (Surr)	Ave	1.552	1.334		8.78	10.2	-14.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5538	0.4954		9.13	10.2	-10.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42324/3 Calibration Date: 05/01/2012 11:20

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 17:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 19:50

Lab File ID: UXM5300.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.5291	0.5354		10.1	10.0	1.2	20.0
Ethyl ether	Ave	0.3182	0.2987		9.39	10.0	-6.1	20.0
3-Chloro-1-propene	Ave	0.1408	0.1459		10.4	10.0	3.6	20.0
Diisopropyl ether	Ave	0.2775	0.2701		48.7	50.0	-2.7	20.0
2-Chloro-1,3-butadiene	Ave	0.5156	0.5114		9.92	10.0	-0.8	20.0
Ethyl-t-butyl ether (ETBE)	Ave	0.8899	0.8626		9.69	10.0	-3.1	20.0
Propionitrile	Ave	0.0386	0.0370		19.1	20.0	-4.3	20.0
Ethyl acetate	Ave	0.2719	0.2520		18.5	20.0	-7.3	20.0
Methacrylonitrile	Ave	0.1921	0.1757		9.15	10.0	-8.5	20.0
Isobutyl alcohol	Ave	0.0086	0.0077		178	200	-11.0	20.0
Tert-amyl-methyl ether (TAME)	Ave	0.7157	0.7080		9.89	10.0	-1.1	20.0
n-Heptane	Ave	0.0406	0.0444		10.9	10.0	9.3	20.0
n-Butanol	Lin1		0.0054		163	200	-18.7	20.0
2-Nitropropane	Qua		0.0417		20.2	20.0	1.0	20.0
Cyclohexanone	Lin1		0.0639		64.6	100	-35.4*	20.0
1,2,3-Trimethylbenzene	Ave	2.982	2.860		9.59	10.0	-4.1	20.0
2-Methylnaphthalene	Qua		0.5682		11.8	20.0	-41.0*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42324/3 Calibration Date: 05/01/2012 11:20

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 15:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 17:34

Lab File ID: UXM5300.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2389	0.2164		9.25	10.2	-9.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3867	0.3361		8.87	10.2	-13.1	20.0
Toluene-d8 (Surr)	Ave	1.552	1.436		9.45	10.2	-7.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5538	0.5323		9.81	10.2	-3.9	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: UXM5302.D Lab Sample ID: MB 240-42324/5

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 05/01/2012 12:05

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-42324/4	UXM5301.D	05/01/2012 11:42
TB-042712	240-10770-1	UXM5303.D	05/01/2012 13:05
GSP-MW8-042712	240-10770-3	UXM5311.D	05/01/2012 16:12
GSP-MW4-042712	240-10770-4	UXM5312.D	05/01/2012 16:35
GSP-MW7-042712	240-10770-2	UXM5318.D	05/01/2012 18:51
GSP-MW7-042712 MS	240-10770-2 MS	UXM5319.D	05/01/2012 19:14
GSP-MW7-042712 MSD	240-10770-2 MSD	UXM5320.D	05/01/2012 19:37

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-42324/5

Matrix: Water | Lab File ID: UXM5302.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 12:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.280	J	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-42324/5

Matrix: Water | Lab File ID: UXM5302.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 12:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10770-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-42324/5

Matrix: Water | Lab File ID: UXM5302.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/01/2012 12:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 42324 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-129
460-00-4	4-Bromofluorobenzene (Surr)	94		66-117
2037-26-5	Toluene-d8 (Surr)	90		74-115
1868-53-7	Dibromofluoromethane (Surr)	87		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42324/5
Matrix: Water
Lab File ID: UXM5302.D
Analysis Method: 8260C
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 05/01/2012 12:05
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42324
Units: ug/L
Number TICs Found: 0
TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5301.D

Lab ID: LCS 240-42324/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	9.45	95	72-116	
1,1,1-Trichloroethane	10.0	9.44	94	74-118	
1,1,2,2-Tetrachloroethane	10.0	8.83	88	68-118	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	9.91	99	74-151	
1,1-Dichloroethane	10.0	9.10	91	82-115	
1,1-Dichloroethene	10.0	9.77	98	78-131	
1,1-Dichloropropene	10.0	9.02	90	83-114	
1,2,3-Trichlorobenzene	10.0	9.28	93	54-126	
1,2,3-Trichloropropane	10.0	8.93	89	73-129	
1,2,3-Trimethylbenzene	10.0	9.10	91	70-130	
1,2,4-Trichlorobenzene	10.0	8.99	90	48-135	
1,2,4-Trimethylbenzene	10.0	8.94	89	76-120	
1,2-Dibromo-3-Chloropropane	10.0	9.30	93	42-136	
1,2-Dichlorobenzene	10.0	8.93	89	81-110	
1,2-Dichloroethane	10.0	9.17	92	71-127	
1,2-Dichloropropane	10.0	9.19	92	81-115	
1,3-Dichlorobenzene	10.0	8.91	89	80-110	
1,3-Dichloropropane	10.0	8.90	89	79-116	
1,4-Dichlorobenzene	10.0	8.70	87	82-110	
2,2-Dichloropropane	10.0	9.56	96	50-129	
2-Chloroethyl vinyl ether	10.0	9.03 J	90	52-131	
2-Chlorotoluene	10.0	8.56	86	76-116	
2-Hexanone	20.0	19.6	98	55-133	
Bromobenzene	10.0	8.72	87	76-115	
Bromochloromethane	10.0	9.54	95	77-120	
4-Chlorotoluene	10.0	8.66	87	77-115	
p-Isopropyltoluene	10.0	9.32	93	74-120	
Acetone	20.0	21.9	110	43-136	
Benzene	10.0	9.17	92	83-112	
Bromoform	10.0	8.47	85	40-131	
Bromomethane	10.0	7.98	80	11-185	
Carbon disulfide	10.0	8.80	88	62-142	
Carbon tetrachloride	10.0	9.85	99	66-128	
Chlorobenzene	10.0	9.08	91	85-110	
Chloroethane	10.0	8.25	83	25-153	
Chloroform	10.0	8.99	90	79-117	
Chloromethane	10.0	8.26	83	44-126	
cis-1,2-Dichloroethene	10.0	9.25	93	80-113	
cis-1,3-Dichloropropene	10.0	8.18	82	61-115	
Hexachlorobutadiene	10.0	8.21	82	36-134	
Dibromomethane	10.0	9.38	94	81-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5301.D

Lab ID: LCS 240-42324/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Bromodichloromethane	10.0	9.82	98	72-121	
Dichlorodifluoromethane	10.0	6.28	63	19-129	
Ethylbenzene	10.0	9.32	93	83-112	
1,2-Dibromoethane	10.0	9.45	95	79-113	
Diisopropyl ether	10.0	8.96 J	90	77-118	
Naphthalene	10.0	9.17	92	32-141	
m-Xylene & p-Xylene	20.0	18.5	93	83-113	
n-Butylbenzene	10.0	8.95	90	66-125	
Isopropylbenzene	10.0	9.38	94	75-114	
n-Propylbenzene	10.0	9.12	91	74-121	
2-Butanone	20.0	18.6	93	60-126	
4-Methyl-2-pentanone	20.0	18.8	94	63-128	
sec-Butylbenzene	10.0	8.81	88	70-117	
Methyl tert-butyl ether	10.0	8.97	90	52-144	
Methylene Chloride	10.0	9.15	92	66-131	
o-Xylene	10.0	9.45	95	83-113	
Styrene	10.0	9.49	95	79-114	
tert-Butylbenzene	10.0	8.75	88	71-115	
Tetrachloroethene	10.0	9.38	94	79-114	
Toluene	10.0	9.07	91	84-111	
trans-1,2-Dichloroethene	10.0	8.96	90	83-117	
trans-1,3-Dichloropropene	10.0	8.21	82	58-117	
Trichloroethene	10.0	9.28	93	76-117	
Trichlorofluoromethane	10.0	10.5	105	49-157	
Vinyl acetate	10.0	8.54	85	46-161	
Vinyl chloride	10.0	8.63	86	53-127	
tert-Butyl alcohol	200	195	98	70-130	
Xylenes, Total	30.0	28.0	93	83-112	
Dibromochloromethane	10.0	8.17	82	64-119	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5319.D

Lab ID: 240-10770-2 MS Client ID: GSP-MW7-042712 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	40.0	4.0 U	40.8	102	64-118	
1,1,1-Trichloroethane	40.0	4.0 U	38.3	96	68-121	
1,1,2,2-Tetrachloroethane	40.0	4.0 U	39.7	99	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	40.0	4.0 U	42.8	107	70-152	
1,1-Dichloroethane	40.0	4.0 U	39.4	98	79-116	
1,1-Dichloroethene	40.0	4.0 U	40.4	101	74-135	
1,1-Dichloropropene	40.0	4.0 U	38.5	96	80-114	
1,2,3-Trichlorobenzene	40.0	4.0 U	42.0	105	45-129	
1,2,3-Trichloropropane	40.0	4.0 U	39.8	100	67-132	
1,2,3-Trimethylbenzene	40.0	20 U	40.4	101	70-130	
1,2,4-Trichlorobenzene	40.0	4.0 U	38.7	97	38-138	
1,2,4-Trimethylbenzene	40.0	4.0 U	39.2	98	67-124	
1,2-Dibromo-3-Chloropropane	40.0	8.0 U	39.8	100	32-139	
1,2-Dichlorobenzene	40.0	4.0 U	39.6	99	75-111	
1,2-Dichloroethane	40.0	4.0 U	40.0	100	68-129	
1,2-Dichloropropane	40.0	4.0 U	39.6	99	78-115	
1,3-Dichlorobenzene	40.0	4.0 U	38.8	97	73-110	
1,3-Dichloropropane	40.0	4.0 U	39.4	99	74-118	
1,4-Dichlorobenzene	40.0	4.0 U	38.8	97	75-110	
2,2-Dichloropropane	40.0	4.0 U	36.1	90	38-127	
2-Chloroethyl vinyl ether	40.0	40 U	40 U	0	10-150	F
2-Chlorotoluene	40.0	4.0 U	37.7	94	69-117	
2-Hexanone	80.0	40 U	83.2	104	47-139	
Bromobenzene	40.0	4.0 U	38.6	97	71-116	
Bromochloromethane	40.0	4.0 U	39.0	98	73-121	
4-Chlorotoluene	40.0	4.0 U	37.9	95	71-116	
p-Isopropyltoluene	40.0	4.0 U	41.2	103	64-122	
Acetone	80.0	40 U	82.4	103	33-145	
Benzene	40.0	4.0 U	39.5	99	72-121	
Bromoform	40.0	4.0 U	32.5	81	32-128	
Bromomethane	40.0	4.0 U	30.2	76	10-186	
Carbon disulfide	40.0	4.0 U	34.8	87	57-147	
Carbon tetrachloride	40.0	4.0 U	38.9	97	59-129	
Chlorobenzene	40.0	4.0 U	39.2	98	80-110	
Chloroethane	40.0	4.0 U	35.6	89	21-165	
Chloroform	40.0	4.0 U	37.7	94	76-118	
Chloromethane	40.0	4.0 U	40.8	102	33-132	
cis-1,2-Dichloroethene	40.0	1.4 J	40.4	97	70-120	
cis-1,3-Dichloropropene	40.0	4.0 U	32.8	82	51-110	
Hexachlorobutadiene	40.0	4.0 U	34.7	87	27-132	
Dibromomethane	40.0	4.0 U	40.0	100	77-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5319.D

Lab ID: 240-10770-2 MS Client ID: GSP-MW7-042712 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Bromodichloromethane	40.0	4.0 U	39.3	98	67-120	
Dichlorodifluoromethane	40.0	4.0 U	26.6	66	17-128	
Ethylbenzene	40.0	4.0 U	38.8	97	75-116	
1,2-Dibromoethane	40.0	4.0 U	39.3	98	74-113	
Diisopropyl ether	40.0	40 U	35.6 J	89	73-118	
Naphthalene	40.0	4.0 U	40.8	102	15-158	
m-Xylene & p-Xylene	80.0	8.0 U	78.0	98	75-117	
n-Butylbenzene	40.0	4.0 U	39.2	98	56-127	
Isopropylbenzene	40.0	4.0 U	39.7	99	68-116	
n-Propylbenzene	40.0	4.0 U	40.4	101	64-124	
2-Butanone	80.0	40 U	80.0	100	54-129	
4-Methyl-2-pentanone	80.0	40 U	83.6	105	56-131	
sec-Butylbenzene	40.0	4.0 U	39.0	97	60-119	
Methyl tert-butyl ether	40.0	20 U	35.9	90	46-144	
Methylene Chloride	40.0	4.0 U	39.9	100	63-128	
o-Xylene	40.0	4.0 U	39.4	98	76-116	
Styrene	40.0	4.0 U	39.8	100	71-117	
tert-Butylbenzene	40.0	4.0 U	38.7	97	61-119	
Tetrachloroethene	40.0	4.0 U	40.4	101	70-117	
Toluene	40.0	4.0 U	39.0	98	78-114	
trans-1,2-Dichloroethene	40.0	4.0 U	39.0	98	80-119	
trans-1,3-Dichloropropene	40.0	4.0 U	32.7	82	46-116	
Trichloroethene	40.0	110	145	93	66-120	
Trichlorofluoromethane	40.0	4.0 U	41.2	103	46-157	
Vinyl acetate	40.0	8.0 U	37.0	93	43-157	
Vinyl chloride	40.0	4.0 U	38.8	97	49-130	
tert-Butyl alcohol	800	200 U	821	103	70-130	
Xylenes, Total	120	8.0 U	117	98	76-116	
Dibromochloromethane	40.0	4.0 U	34.9	87	56-118	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5320.D

Lab ID: 240-10770-2 MSD Client ID: GSP-MW7-042712 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	40.0	40.0	100	2	30	64-118	
1,1,1-Trichloroethane	40.0	38.7	97	1	30	68-121	
1,1,2,2-Tetrachloroethane	40.0	39.9	100	1	30	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	40.0	42.0	105	2	30	70-152	
1,1-Dichloroethane	40.0	39.1	98	1	30	79-116	
1,1-Dichloroethene	40.0	40.8	102	1	30	74-135	
1,1-Dichloropropene	40.0	38.3	96	1	30	80-114	
1,2,3-Trichlorobenzene	40.0	40.4	101	4	30	45-129	
1,2,3-Trichloropropane	40.0	38.3	96	4	30	67-132	
1,2,3-Trimethylbenzene	40.0	39.6	99	2	30	70-130	
1,2,4-Trichlorobenzene	40.0	37.4	94	3	30	38-138	
1,2,4-Trimethylbenzene	40.0	38.4	96	2	30	67-124	
1,2-Dibromo-3-Chloropropane	40.0	42.0	105	5	30	32-139	
1,2-Dichlorobenzene	40.0	38.4	96	3	30	75-111	
1,2-Dichloroethane	40.0	39.8	99	1	30	68-129	
1,2-Dichloropropane	40.0	39.4	99	1	30	78-115	
1,3-Dichlorobenzene	40.0	39.2	98	1	30	73-110	
1,3-Dichloropropane	40.0	39.8	99	1	30	74-118	
1,4-Dichlorobenzene	40.0	37.8	95	3	30	75-110	
2,2-Dichloropropane	40.0	35.1	88	3	30	38-127	
2-Chloroethyl vinyl ether	40.0	40 U	0	NC	30	10-150	F
2-Chlorotoluene	40.0	37.6	94	0	30	69-117	
2-Hexanone	80.0	84.4	106	1	30	47-139	
Bromobenzene	40.0	38.5	96	0	30	71-116	
Bromochloromethane	40.0	39.0	98	0	30	73-121	
4-Chlorotoluene	40.0	37.2	93	2	30	71-116	
p-Isopropyltoluene	40.0	39.0	98	5	30	64-122	
Acetone	80.0	73.2	92	12	30	33-145	
Benzene	40.0	39.5	99	0	30	72-121	
Bromoform	40.0	33.7	84	4	30	32-128	
Bromomethane	40.0	30.3	76	0	30	10-186	
Carbon disulfide	40.0	35.0	88	1	30	57-147	
Carbon tetrachloride	40.0	38.7	97	1	30	59-129	
Chlorobenzene	40.0	39.0	97	1	30	80-110	
Chloroethane	40.0	34.5	86	3	30	21-165	
Chloroform	40.0	37.6	94	0	30	76-118	
Chloromethane	40.0	38.2	96	6	30	33-132	
cis-1,2-Dichloroethene	40.0	39.8	96	1	30	70-120	
cis-1,3-Dichloropropene	40.0	33.3	83	1	30	51-110	
Hexachlorobutadiene	40.0	35.1	88	1	30	27-132	
Dibromomethane	40.0	40.4	101	1	30	77-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5320.D

Lab ID: 240-10770-2 MSD Client ID: GSP-MW7-042712 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Bromodichloromethane	40.0	40.4	101	3	30	67-120	
Dichlorodifluoromethane	40.0	26.5	66	0	30	17-128	
Ethylbenzene	40.0	39.1	98	1	30	75-116	
1,2-Dibromoethane	40.0	40.0	100	2	30	74-113	
Diisopropyl ether	40.0	36.8 J	92	3	30	73-118	
Naphthalene	40.0	39.7	99	3	30	15-158	
m-Xylene & p-Xylene	80.0	78.0	98	0	30	75-117	
n-Butylbenzene	40.0	37.6	94	4	30	56-127	
Isopropylbenzene	40.0	39.0	97	2	30	68-116	
n-Propylbenzene	40.0	38.5	96	5	30	64-124	
2-Butanone	80.0	79.2	99	1	30	54-129	
4-Methyl-2-pentanone	80.0	84.8	106	1	30	56-131	
sec-Butylbenzene	40.0	37.6	94	3	30	60-119	
Methyl tert-butyl ether	40.0	36.4	91	2	30	46-144	
Methylene Chloride	40.0	38.1	95	5	30	63-128	
o-Xylene	40.0	39.0	97	1	30	76-116	
Styrene	40.0	39.7	99	0	30	71-117	
tert-Butylbenzene	40.0	37.7	94	3	30	61-119	
Tetrachloroethene	40.0	40.4	101	0	30	70-117	
Toluene	40.0	39.0	98	0	30	78-114	
trans-1,2-Dichloroethene	40.0	37.5	94	4	30	80-119	
trans-1,3-Dichloropropene	40.0	33.8	85	3	30	46-116	
Trichloroethene	40.0	142	87	2	30	66-120	
Trichlorofluoromethane	40.0	41.2	103	0	30	46-157	
Vinyl acetate	40.0	36.6	92	1	30	43-157	
Vinyl chloride	40.0	38.9	97	0	30	49-130	
tert-Butyl alcohol	800	808	101	2	30	70-130	
Xylenes, Total	120	117	98	0	30	76-116	
Dibromochloromethane	40.0	35.1	88	1	30	56-118	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
GSP-MW7-042712	240-10770-2	59	60	62	54	71	71
GSP-MW8-042712	240-10770-3	48	51	52	50	67	65
GSP-MW4-042712	240-10770-4	54	56	53	52	80	67
	MB 240-42632/8-A	58	60	54	55	76	79
	LCS 240-42632/9-A	77	81	73	68	98	80

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	10-110
PHL = Phenol-d5 (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	27-111
FBP = 2-Fluorobiphenyl (Surr)	28-110
TBP = 2,4,6-Tribromophenol (Surr)	22-120
TPH = Terphenyl-d14 (Surr)	37-119

Column to be used to flag recovery values

FORM II 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: STD6 240-42463/10 Date Analyzed: 05/02/2012 12:54

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20502010.D Heated Purge: (Y/N) N

Calibration ID: 8490

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		203831	3.51	750748	4.40	449631	5.66
UPPER LIMIT		407662	4.01	1501496	4.90	899262	6.16
LOWER LIMIT		101916	3.01	375374	3.90	224816	5.16
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-42463/11		219450	3.51	793338	4.40	481824	5.66
CCV 240-43126/2 CCVIS		203268	3.39	807358	4.28	443644	5.54

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: STD6 240-42463/10 Date Analyzed: 05/02/2012 12:54

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20502010.D Heated Purge: (Y/N) N

Calibration ID: 8490

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		701859	6.74	609578	8.73	444154	10.12
UPPER LIMIT		1403718	7.24	1219156	9.23	888308	10.62
LOWER LIMIT		350930	6.24	304789	8.23	222077	9.62
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-42463/11		750463	6.74	697064	8.71	502891	10.10
CCV 240-43126/2 CCVIS		728055	6.61	667024	8.58	498151	9.89

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCV 240-43126/2 Date Analyzed: 05/08/2012 09:05

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20508002.D Heated Purge: (Y/N) N

Calibration ID: 8498

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		203268	3.39	807358	4.28	443644	5.54
UPPER LIMIT		406536	3.89	1614716	4.78	887288	6.04
LOWER LIMIT		101634	2.89	403679	3.78	221822	5.04
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-42632/8-A		211107	3.40	855069	4.28	486388	5.53
LCS 240-42632/9-A		184504	3.39	751512	4.28	442403	5.54
240-10770-2	GSP-MW7-042712	230198	3.39	895040	4.28	542958	5.53
240-10770-3	GSP-MW8-042712	221630	3.39	884395	4.28	518699	5.53
240-10770-4	GSP-MW4-042712	236232	3.39	906019	4.28	535464	5.53

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCV 240-43126/2 Date Analyzed: 05/08/2012 09:05

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20508002.D Heated Purge: (Y/N) N

Calibration ID: 8498

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		728055	6.61	667024	8.58	498151	9.89
UPPER LIMIT		1456110	7.11	1334048	9.08	996302	10.39
LOWER LIMIT		364028	6.11	333512	8.08	249076	9.39
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-42632/8-A		779010	6.61	700518	8.57	536668	9.87
LCS 240-42632/9-A		707870	6.61	666696	8.56	502242	9.85
240-10770-2	GSP-MW7-042712	851955	6.61	779875	8.59	600062	9.90
240-10770-3	GSP-MW8-042712	821335	6.61	760311	8.56	592310	9.87
240-10770-4	GSP-MW4-042712	867539	6.61	812616	8.58	631764	9.89

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: 20508007.D Lab Sample ID: MB 240-42632/8-A

Matrix: Water Date Extracted: 05/03/2012 09:57

Instrument ID: A4HP7 Date Analyzed: 05/08/2012 10:37

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-42632/9-A	20508008.D	05/08/2012 10:56
GSP-MW7-042712	240-10770-2	20508019.D	05/08/2012 14:20
GSP-MW8-042712	240-10770-3	20508020.D	05/08/2012 14:38
GSP-MW4-042712	240-10770-4	20508021.D	05/08/2012 14:56

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42632/8-A
Matrix: Water
Lab File ID: 20508007.D
Analysis Method: 8270C
Date Collected:
Extract. Method: 3520C
Date Extracted: 05/03/2012 09:57
Sample wt/vol: 1000(mL)
Date Analyzed: 05/08/2012 10:37
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 43126
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.0	U	1.0	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	55		28-110
367-12-4	2-Fluorophenol (Surr)	58		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	76		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	54		27-111
4165-62-2	Phenol-d5 (Surr)	60		10-110
1718-51-0	Terphenyl-d14 (Surr)	79		37-119

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20508008.D

Lab ID: LCS 240-42632/9-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	20.0	12.2	61	10-110	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: 20502001.D DFTPP Injection Date: 05/02/2012

Instrument ID: A4HP7 DFTPP Injection Time: 10:03

Analysis Batch No.: 42463

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	60.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	45.5	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	50.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.2	
365	Greater than 0.75% of mass 198	2.0	
441	Present, but less than mass 443	7.0	
442	40.0 - 110.0% of mass 198	44.8	
443	15.0 - 24.0% of mass 442	8.8	(19.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-42463/2	20502002.D	05/02/2012	10:23
	STD4 240-42463/3	20502003.D	05/02/2012	10:42
	STD3 240-42463/4	20502004.D	05/02/2012	11:01
	STD2 240-42463/5	20502005.D	05/02/2012	11:19
	STD1 240-42463/6	20502006.D	05/02/2012	11:38
	STD9 240-42463/7	20502007.D	05/02/2012	11:57
	STD8 240-42463/8	20502008.D	05/02/2012	12:16
	STD7 240-42463/9	20502009.D	05/02/2012	12:35
	STD6 240-42463/10	20502010.D	05/02/2012	12:54
	ICV 240-42463/11	20502011.D	05/02/2012	13:13

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42463

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2012 10:23 Calibration End Date: 05/02/2012 12:54 Calibration ID: 8490

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-42463/6	20502006.D
Level 2	STD2 240-42463/5	20502005.D
Level 3	STD3 240-42463/4	20502004.D
Level 4	STD4 240-42463/3	20502003.D
Level 5	STD5 240-42463/2	20502002.D
Level 6	STD6 240-42463/10	20502010.D
Level 7	STD7 240-42463/9	20502009.D
Level 8	STD8 240-42463/8	20502008.D
Level 9	STD9 240-42463/7	20502007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5797	0.7266 0.5728	0.4617 0.6094	0.5087 0.5684	0.4851	Ave		0.5640				15.0		15.0			
N-Nitrosodimethylamine	0.8841	0.7933 0.8811	0.7168 0.9316	0.7448 0.9112	0.7452	Ave		0.8260				10.0		15.0			
Pyridine	1.5075	1.3258 1.5146	1.1707 1.6776	1.1870 1.6034	1.1707	Ave		1.3947				15.0		15.0			
Ethyl methacrylate	1.1731	0.9728 1.1757	1.0484 1.2864	1.0037 1.2062	1.0290	Ave		1.1119				10.0		15.0			
Benzaldehyde	1.3735 0.7433	1.0441 +++++	1.0548 +++++	1.0867 +++++	0.9578	Ave		1.0434				20.0	*	15.0			
3-Chloropropionitrile	1.0012	0.9519 1.0222	0.9033 1.1093	0.8667 1.0492	0.8718	Ave		0.9719				9.1		15.0			
Malononitrile	1.5032	1.4102 1.2671	1.3756 1.2102	1.4463 1.0266	1.4564	Ave		1.3370				12.0		15.0			
Benzoic acid	0.2334	+++++ 0.2441	+++++ 0.2610	0.1647 0.2825	0.2322	Qua	0.0075	0.1951	0.0017						0.9990		0.9900
Phenol	1.7085	1.5885 1.7359	1.4815 1.9095	1.5782 1.8649	1.5731	Ave		1.6800				9.0		15.0			
Aniline	2.1278	1.9210 2.1146	1.8743 2.3821	2.0349 2.3349	1.9327	Ave		2.0903				9.0		15.0			
Bis(2-chloroethyl)ether	1.2927	1.2120 1.4453	1.3088 1.4464	1.1722 1.4211	1.1887	Ave		1.3109				8.8		15.0			
2-Chlorophenol	1.5020	1.3476 1.5269	1.3800 1.6760	1.4496 1.6251	1.4098	Ave		1.4896				7.8		15.0			
1,3-Dichlorobenzene	1.6350	1.3701 1.6113	1.5553 1.7820	1.5792 1.6988	1.5113	Ave		1.5929				7.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42463/11 Calibration Date: 05/02/2012 13:13

Instrument ID: A4HP7 Calib Start Date: 05/02/2012 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 05/02/2012 12:54

Lab File ID: 20502011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5640	0.5264		9.33	10.0	-6.7	50.0
N-Nitrosodimethylamine	Ave	0.8260	0.8251		9.99	10.0	-0.1	50.0
Pyridine	Ave	1.395	1.479		10.6	10.0	6.0	50.0
Ethyl methacrylate	Ave	1.112	1.109		9.97	10.0	-0.3	50.0
3-Chloropropionitrile	Ave	0.9719	0.9803		10.1	10.0	0.9	50.0
Malononitrile	Ave	1.337	1.496		11.2	10.0	11.9	50.0
Benzaldehyde	Ave	1.043	0.6145		5.89	10.0	-41.1	50.0
Phenol	Ave	1.680	1.722		10.2	10.0	2.5	20.0
Aniline	Ave	2.090	2.144		10.3	10.0	2.6	50.0
Bis(2-chloroethyl)ether	Ave	1.311	1.327		10.1	10.0	1.2	50.0
2-Chlorophenol	Ave	1.490	1.506		10.1	10.0	1.1	50.0
1,3-Dichlorobenzene	Ave	1.593	1.567		9.84	10.0	-1.6	50.0
1,4-Dichlorobenzene	Ave	1.646	1.623		9.86	10.0	-1.4	20.0
Benzyl alcohol	Ave	0.8859	0.8898		10.0	10.0	0.4	50.0
1,2-Dichlorobenzene	Ave	1.544	1.517		9.83	10.0	-1.7	50.0
2-Methylphenol	Ave	1.290	1.293		10.0	10.0	0.2	50.0
bis (2-chloroisopropyl) ether	Ave	1.740	1.616		9.29	10.0	-7.1	50.0
3 & 4 Methylphenol	Ave	1.324	1.366		10.3	10.0	3.2	50.0
N-Nitrosodi-n-propylamine	Ave	0.8988	0.8701	0.0500	9.68	10.0	-3.2	50.0
Acetophenone	Ave	1.873	1.869		9.98	10.0	-0.2	50.0
Hexachloroethane	Ave	0.5453	0.5299		9.72	10.0	-2.8	50.0
Nitrobenzene	Ave	0.3636	0.3573		9.83	10.0	-1.7	50.0
Isophorone	Ave	0.6461	0.6605		10.2	10.0	2.2	50.0
2,4-Dimethylphenol	Ave	0.3785	0.3876		10.2	10.0	2.4	50.0
2-Nitrophenol	Ave	0.2067	0.2181		10.5	10.0	5.5	20.0
1,3,5-Trichlorobenzene	Ave	0.3633	0.3733		10.3	10.0	2.8	50.0
Bis(2-chloroethoxy)methane	Ave	0.3739	0.3789		10.1	10.0	1.3	50.0
Benzoic acid	Qua		0.2340		20.3	20.0	1.5	50.0
2,4-Dichlorophenol	Ave	0.3173	0.3295		10.4	10.0	3.8	20.0
1,2,4-Trichlorobenzene	Ave	0.3480	0.3617		10.4	10.0	3.9	50.0
Naphthalene	Ave	1.144	1.159		10.1	10.0	1.3	50.0
4-Chloroaniline	Ave	0.4747	0.4591		9.67	10.0	-3.3	50.0
Hexachlorobutadiene	Ave	0.1832	0.1824		9.96	10.0	-0.4	20.0
1,2,3-Trichlorobenzene	Ave	0.3305	0.3260		9.86	10.0	-1.4	50.0
Caprolactam	Qua		0.1203		10.5	10.0	5.0	50.0
4-Chloro-3-methylphenol	Ave	0.3023	0.3207		10.6	10.0	6.1	20.0
2-Methylnaphthalene	Ave	0.7358	0.7408		10.1	10.0	0.7	50.0
1-Methylnaphthalene	Ave	0.7008	0.7068		10.1	10.0	0.8	50.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5580	0.5505		9.87	10.0	-1.3	50.0
Hexachlorocyclopentadiene	Ave	0.3259	0.3366	0.0500	10.3	10.0	3.3	50.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab File ID: 20508001.D DFTPP Injection Date: 05/08/2012

Instrument ID: A4HP7 DFTPP Injection Time: 08:46

Analysis Batch No.: 43126

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	61.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	58.2	
70	Less than 2.0% of mass 69	0.3	(0.5)1
127	25.0 - 75.0% of mass 198	61.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	26.3	
365	Greater than 0.75% of mass 198	2.9	
441	Present, but less than mass 443	11.9	
442	40.0 - 110.0% of mass 198	74.4	
443	15.0 - 24.0% of mass 442	14.6	(19.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-43126/2	20508002.D	05/08/2012	09:05
	MB 240-42632/8-A	20508007.D	05/08/2012	10:37
	LCS 240-42632/9-A	20508008.D	05/08/2012	10:56
GSP-MW7-042712	240-10770-2	20508019.D	05/08/2012	14:20
GSP-MW8-042712	240-10770-3	20508020.D	05/08/2012	14:38
GSP-MW4-042712	240-10770-4	20508021.D	05/08/2012	14:56

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-43126/2 Calibration Date: 05/08/2012 09:05

Instrument ID: A4HP7 Calib Start Date: 05/02/2012 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 05/02/2012 12:54

Lab File ID: 20508002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5640	0.5272		9.35	10.0	-6.5	50.0
N-Nitrosodimethylamine	Ave	0.8260	0.7907		9.57	10.0	-4.3	50.0
Pyridine	Ave	1.395	1.390		9.97	10.0	-0.3	50.0
Ethyl methacrylate	Ave	1.112	1.104		9.92	10.0	-0.8	50.0
3-Chloropropionitrile	Ave	0.9719	0.8004		8.24	10.0	-17.6	50.0
Malononitrile	Ave	1.337	1.340		10.0	10.0	0.2	50.0
Benzaldehyde	Ave	1.043	0.7144		6.85	10.0	-31.5	50.0
Phenol	Ave	1.680	1.721		10.2	10.0	2.4	20.0
Aniline	Ave	2.090	2.189		10.5	10.0	4.7	50.0
Bis(2-chloroethyl)ether	Ave	1.311	1.311		10.0	10.0	0.0	50.0
2-Chlorophenol	Ave	1.490	1.473		9.89	10.0	-1.1	50.0
1,3-Dichlorobenzene	Ave	1.593	1.599		10.0	10.0	0.4	50.0
1,4-Dichlorobenzene	Ave	1.646	1.662		10.1	10.0	1.0	50.0
Benzyl alcohol	Ave	0.8859	0.8606		9.71	10.0	-2.9	50.0
1,2-Dichlorobenzene	Ave	1.544	1.529		9.91	10.0	-0.9	50.0
2-Methylphenol	Ave	1.290	1.300		10.1	10.0	0.7	50.0
bis (2-chloroisopropyl) ether	Ave	1.740	1.634		9.39	10.0	-6.1	50.0
3 & 4 Methylphenol	Ave	1.324	1.360		10.3	10.0	2.7	50.0
N-Nitrosodi-n-propylamine	Ave	0.8988	0.9308	0.0500	10.4	10.0	3.6	50.0
Acetophenone	Ave	1.873	1.935		10.3	10.0	3.3	50.0
Hexachloroethane	Ave	0.5453	0.5619		10.3	10.0	3.0	50.0
Nitrobenzene	Ave	0.3636	0.3688		10.1	10.0	1.4	50.0
Isophorone	Ave	0.6461	0.6574		10.2	10.0	1.7	50.0
2-Nitrophenol	Ave	0.2067	0.2114		10.2	10.0	2.3	20.0
2,4-Dimethylphenol	Ave	0.3785	0.3801		10.0	10.0	0.4	50.0
1,3,5-Trichlorobenzene	Ave	0.3633	0.3290		9.06	10.0	-9.4	50.0
Bis(2-chloroethoxy)methane	Ave	0.3739	0.3772		10.1	10.0	0.9	50.0
Benzoic acid	Qua		0.1909		17.0	20.0	-15.0	50.0
2,4-Dichlorophenol	Ave	0.3173	0.2887		9.10	10.0	-9.0	20.0
1,2,4-Trichlorobenzene	Ave	0.3480	0.3214		9.23	10.0	-7.7	50.0
Naphthalene	Ave	1.144	1.081		9.45	10.0	-5.5	50.0
4-Chloroaniline	Ave	0.4747	0.4497		9.48	10.0	-5.2	50.0
Hexachlorobutadiene	Ave	0.1832	0.1595		8.71	10.0	-12.9	20.0
1,2,3-Trichlorobenzene	Ave	0.3305	0.2901		8.78	10.0	-12.2	50.0
Caprolactam	Qua		0.1216		10.6	10.0	6.0	50.0
4-Chloro-3-methylphenol	Ave	0.3023	0.3096		10.2	10.0	2.4	20.0
2-Methylnaphthalene	Ave	0.7358	0.7177		9.75	10.0	-2.5	50.0
1-Methylnaphthalene	Ave	0.7008	0.6679		9.53	10.0	-4.7	50.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5580	0.5324		9.54	10.0	-4.6	50.0
Hexachlorocyclopentadiene	Ave	0.3259	0.3328	0.0500	10.2	10.0	2.1	50.0

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1 #
GSP-MW7-042712	240-10770-2	61
GSP-MW8-042712	240-10770-3	61
GSP-MW4-042712	240-10770-4	64
	MB 240-42123/7	63
	LCS 240-42123/8	80
GSP-MW7-042712 MS	240-10770-2 MS	34
GSP-MW7-042712 MSD	240-10770-2 MSD	72

	QC LIMITS
TFT = Trifluorotoluene (Surr)	10-150

Column to be used to flag recovery values

FORM II 8015B

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: MB 240-42123/7

Matrix: Water Date Extracted: 04/30/2012 12:37

Lab File ID:(1) YF004307.D Lab File ID:(2)

Date Analyzed:(1) 04/30/2012 12:37 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-42123/8	04/30/2012 13:17	
GSP-MW7-042712	240-10770-2	04/30/2012 13:57	
GSP-MW7-042712 MS	240-10770-2 MS	04/30/2012 14:38	
GSP-MW7-042712 MSD	240-10770-2 MSD	04/30/2012 15:19	
GSP-MW8-042712	240-10770-3	04/30/2012 16:00	
GSP-MW4-042712	240-10770-4	04/30/2012 16:41	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42123/7
Matrix: Water
Lab File ID: YF004307.D
Analysis Method: 8015B
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 04/30/2012 12:37
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42123
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	29.2	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	63		10-150

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF004308.D

Lab ID: LCS 240-42123/8 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	920	115	72-140	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF004310.D

Lab ID: 240-10770-2 MS Client ID: GSP-MW7-042712 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	96 J	961	108	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF004311.D

Lab ID: 240-10770-2 MSD Client ID: GSP-MW7-042712 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	996	113	4	20	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCV 240-42123/6 Date Analyzed: 04/30/2012 11:58

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF004306.D Heated Purge: (Y/N) N

Calibration ID: 6924

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				9.75		
UPPER LIMIT				9.85		
LOWER LIMIT				9.65		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-42123/6 CCVRT		04/30/2012 11:58	YF004306.D	9.75		
MB 240-42123/7		04/30/2012 12:37	YF004307.D	9.75		
LCS 240-42123/8		04/30/2012 13:17	YF004308.D	9.75		
240-10770-2	GSP-MW7-042712	04/30/2012 13:57	YF004309.D	9.74		
240-10770-2 MS	GSP-MW7-042712 MS	04/30/2012 14:38	YF004310.D	9.75		
240-10770-2 MSD	GSP-MW7-042712 MSD	04/30/2012 15:19	YF004311.D	9.75		
240-10770-3	GSP-MW8-042712	04/30/2012 16:00	YF004312.D	9.75		
240-10770-4	GSP-MW4-042712	04/30/2012 16:41	YF004313.D	9.75		
CCV 240-42123/14		04/30/2012 17:22	YF004314.D	9.75		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: YPID Start Date: 02/10/2012 10:35

Analysis Batch Number: 33435 End Date: 02/10/2012 23:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		02/10/2012 10:35	1		RTX-VRX 0.45(mm)
STD1 240-33435/12 IC		02/10/2012 16:17	1	YF021012.D	RTX-VRX 0.45(mm)
STD2 240-33435/13 IC		02/10/2012 16:55	1	YF021013.D	RTX-VRX 0.45(mm)
STD3 240-33435/14 IC		02/10/2012 17:32	1	YF021014.D	RTX-VRX 0.45(mm)
STD4 240-33435/15 ICRT		02/10/2012 18:11	1	YF021015.D	RTX-VRX 0.45(mm)
STD5 240-33435/16 IC		02/10/2012 18:49	1	YF021016.D	RTX-VRX 0.45(mm)
STD6 240-33435/17 IC		02/10/2012 19:27	1	YF021017.D	RTX-VRX 0.45(mm)
ICV 240-33435/18		02/10/2012 20:05	1	YF021018.D	RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 20:43	1		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 21:21	1		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 21:59	10		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 22:37	10		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 23:15	10		RTX-VRX 0.45(mm)
CCV 240-33435/24		02/10/2012 23:53	1		RTX-VRX 0.45(mm)

8015B

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 33435

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/10/2012 16:17 Calibration End Date: 02/10/2012 19:27 Calibration ID: 6924

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-33435/12	YF021012.D
Level 2	STD2 240-33435/13	YF021013.D
Level 3	STD3 240-33435/14	YF021014.D
Level 4	STD4 240-33435/15	YF021015.D
Level 5	STD5 240-33435/16	YF021016.D
Level 6	STD6 240-33435/17	YF021017.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Total Petroleum Hydrocarbons (C6-C10)	11.810	11.810	11.810	11.810	11.810	11.810					4.817 - 18.802	11.810
C6-C12	13.469	13.469	13.469	13.469	13.469	13.469					4.917 - 22.022	13.469
Trifluorotoluene (Surr)	9.768	9.772	9.769	9.772	9.771	9.774					9.522 - 10.022	9.771

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 33435

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/10/2012 16:17 Calibration End Date: 02/10/2012 19:27 Calibration ID: 6924

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-33435/12	YF021012.D
Level 2	STD2 240-33435/13	YF021013.D
Level 3	STD3 240-33435/14	YF021014.D
Level 4	STD4 240-33435/15	YF021015.D
Level 5	STD5 240-33435/16	YF021016.D
Level 6	STD6 240-33435/17	YF021017.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Total Petroleum Hydrocarbons (C6-C10)	318103 289067	320460 294590	282575	294457	Ave		299875.299				5.2		20.0			
C6-C12	375472 318195	363940 323226	316555	324196	Ave		336930.834				7.7		20.0			
Trifluorotoluene (Surr)	384133 460736	375012 483108	395882	424093	Ave		420494.083				10.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-33435/18 Calibration Date: 02/10/2012 20:05

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF021018.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	333932		891	800	11.4	20.0
C6-C12	Ave	336931	375679		892	800	11.5	20.0
Trifluorotoluene (Surr)	Ave	420494	416828		9.91	10.0	-0.9	20.0

FORM VII 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: YPID Start Date: 04/30/2012 10:39

Analysis Batch Number: 42123 End Date: 04/30/2012 17:22

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/30/2012 10:39	1		RTX-VRX 0.45(mm)
CCV 240-42123/6 CCVRT		04/30/2012 11:58	1	YF004306.D	RTX-VRX 0.45(mm)
MB 240-42123/7		04/30/2012 12:37	1	YF004307.D	RTX-VRX 0.45(mm)
LCS 240-42123/8		04/30/2012 13:17	1	YF004308.D	RTX-VRX 0.45(mm)
240-10770-2	GSP-MW7-042712	04/30/2012 13:57	1	YF004309.D	RTX-VRX 0.45(mm)
240-10770-2 MS	GSP-MW7-042712 MS	04/30/2012 14:38	1	YF004310.D	RTX-VRX 0.45(mm)
240-10770-2 MSD	GSP-MW7-042712 MSD	04/30/2012 15:19	1	YF004311.D	RTX-VRX 0.45(mm)
240-10770-3	GSP-MW8-042712	04/30/2012 16:00	1	YF004312.D	RTX-VRX 0.45(mm)
240-10770-4	GSP-MW4-042712	04/30/2012 16:41	1	YF004313.D	RTX-VRX 0.45(mm)
CCV 240-42123/14		04/30/2012 17:22	1	YF004314.D	RTX-VRX 0.45(mm)

8015B

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42123/6 Calibration Date: 04/30/2012 11:58

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF004306.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	314543		839	800	4.9	15.0
C6-C12	Ave	336931	352216		836	800	4.5	15.0
Trifluorotoluene (Surr)	Ave	420494	322967		7.68	10.0	-23.2*	15.0

FORM VII 8015B

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42123/14 Calibration Date: 04/30/2012 17:22

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF004314.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	313365		836	800	4.5	15.0
C6-C12	Ave	336931	350568		832	800	4.0	15.0
Trifluorotoluene (Surr)	Ave	420494	304096		7.23	10.0	-27.7*	15.0

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): ID:

Client Sample ID	Lab Sample ID	C91 #
GSP-MW7-042712	240-10770-2	63
GSP-MW8-042712	240-10770-3	73
GSP-MW4-042712	240-10770-4	70
	MB 240-42661/8-A	60
	LCS 240-42661/9-A	80

C9 = n-Nonane

QC LIMITS
10-110

Column to be used to flag recovery values

FORM II 8015B

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: MB 240-42661/8-A

Matrix: Water Date Extracted: 05/03/2012 11:54

Lab File ID:(1) P5B05052.D Lab File ID:(2)

Date Analyzed:(1) 05/04/2012 13:38 Date Analyzed:(2)

Instrument ID:(1) A2HP5R Instrument ID:(2)

GC Column:(1) ID: GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-MW7-042712	240-10770-2	05/04/2012 12:07	
GSP-MW8-042712	240-10770-3	05/04/2012 12:37	
GSP-MW4-042712	240-10770-4	05/04/2012 13:08	
	LCS 240-42661/9-A	05/04/2012 14:08	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42661/8-A
Matrix: Water
Lab File ID: P5B05052.D
Analysis Method: 8015B
Date Collected:
Extraction Method: 3510C
Date Extracted: 05/03/2012 11:54
Sample wt/vol: 1000(mL)
Date Analyzed: 05/04/2012 13:38
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: ID:
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 42755
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	500	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	60		10-110

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P5B05053.D

Lab ID: LCS 240-42661/9-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2500	2330	93	36-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Sample No.: CCVRT 240-42755/4 Date Analyzed: 05/04/2012 09:33

Instrument ID: A2HP5R GC Column: ID: ()

Lab File ID (Standard): P5B05044.D Heated Purge: (Y/N) N

Calibration ID: 8454

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				C9		
				RT #		
CONTINUING CALIBRATION SURROGATE				4.03		
UPPER LIMIT				4.13		
LOWER LIMIT				3.93		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-42755/4		05/04/2012 09:33	P5B05044.D	4.03		
240-10770-2	GSP-MW7-042712	05/04/2012 12:07	P5B05049.D	4.03		
240-10770-3	GSP-MW8-042712	05/04/2012 12:37	P5B05050.D	4.03		
240-10770-4	GSP-MW4-042712	05/04/2012 13:08	P5B05051.D	4.03		
MB 240-42661/8-A		05/04/2012 13:38	P5B05052.D	4.03		
LCS 240-42661/9-A		05/04/2012 14:08	P5B05053.D	4.03		
CCV 240-42755/14		05/04/2012 14:39	P5B05054.D	4.03		

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: A2HP5R Start Date: 04/30/2012 10:28

Analysis Batch Number: 42117 End Date: 04/30/2012 17:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-42117/4 IC		04/30/2012 10:28	1	P5B04304.D	
STD2 240-42117/5 IC		04/30/2012 10:58	1	P5B04305.D	
ICRT 240-42117/6		04/30/2012 11:29	1	P5B04306.D	
STD4 240-42117/7 IC		04/30/2012 11:59	1	P5B04307.D	
STD5 240-42117/8 IC		04/30/2012 12:29	1	P5B04308.D	
ICV 240-42117/9		04/30/2012 12:59	1	P5B04309.D	
STD1 240-42117/10 IC		04/30/2012 13:30	1		
STD2 240-42117/11 IC		04/30/2012 14:00	1		
STD3 240-42117/12 IC		04/30/2012 14:31	1		
STD4 240-42117/13 IC		04/30/2012 15:01	1		
STD5 240-42117/14 IC		04/30/2012 15:32	1		
ICV 240-42117/15		04/30/2012 16:02	1		
ZZZZZ		04/30/2012 16:33	1		
CCV 240-42117/18		04/30/2012 17:33	1		

8015B

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42117

SDG No.:

Instrument ID: A2HP5R GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2012 10:28 Calibration End Date: 04/30/2012 12:29 Calibration ID: 8454

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-42117/4	P5B04304.D
Level 2	STD2 240-42117/5	P5B04305.D
Level 3	ICRT 240-42117/6	P5B04306.D
Level 4	STD4 240-42117/7	P5B04307.D
Level 5	STD5 240-42117/8	P5B04308.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel	9.351	9.351	9.351	9.351	9.351						5.054 - 13.650	9.351
n-Nonane	4.024	4.020	4.025	4.026	4.023						3.954 - 4.094	4.024

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10770-1 Analy Batch No.: 42117

SDG No.:

Instrument ID: A2HP5R GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/30/2012 10:28 Calibration End Date: 04/30/2012 12:29 Calibration ID: 8454

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-42117/4	P5B04304.D
Level 2	STD2 240-42117/5	P5B04305.D
Level 3	ICRT 240-42117/6	P5B04306.D
Level 4	STD4 240-42117/7	P5B04307.D
Level 5	STD5 240-42117/8	P5B04308.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	202380 139479	154697	180905	178149	Ave		171121.938				14.0		20.0			
n-Nonane	238010 169073	182724	223067	217729	Ave		206120.531				14.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICV 240-42117/9 Calibration Date: 04/30/2012 12:59

Instrument ID: A2HP5R Calib Start Date: 04/30/2012 10:28

GC Column: ID: Calib End Date: 04/30/2012 12:29

Lab File ID: P5B04309.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	171122	171949		502	500	0.5	20.0

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: A2HP5R Start Date: 05/04/2012 09:33

Analysis Batch Number: 42755 End Date: 05/04/2012 14:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-42755/4		05/04/2012 09:33	1	P5B05044.D	
ZZZZZ		05/04/2012 10:04	1		
ZZZZZ		05/04/2012 10:35	1		
ZZZZZ		05/04/2012 11:06	1		
ZZZZZ		05/04/2012 11:36	1		
240-10770-2	GSP-MW7-042712	05/04/2012 12:07	1	P5B05049.D	
240-10770-3	GSP-MW8-042712	05/04/2012 12:37	1	P5B05050.D	
240-10770-4	GSP-MW4-042712	05/04/2012 13:08	1	P5B05051.D	
MB 240-42661/8-A		05/04/2012 13:38	1	P5B05052.D	
LCS 240-42661/9-A		05/04/2012 14:08	1	P5B05053.D	
CCV 240-42755/14		05/04/2012 14:39	1	P5B05054.D	

8015B

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCVRT 240-42755/4 Calibration Date: 05/04/2012 09:33

Instrument ID: A2HP5R Calib Start Date: 04/30/2012 10:28

GC Column: ID: Calib End Date: 04/30/2012 12:29

Lab File ID: P5B05044.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	171122	146148		427	500	-14.6	15.0
n-Nonane	Ave	206121	181559		44.0	50.0	-11.9	15.0

FORM VII 8015B

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: CCV 240-42755/14 Calibration Date: 05/04/2012 14:39

Instrument ID: A2HP5R Calib Start Date: 04/30/2012 10:28

GC Column: ID: Calib End Date: 04/30/2012 12:29

Lab File ID: P5B05054.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	171122	185943		543	500	8.7	15.0
n-Nonane	Ave	206121	228814		55.5	50.0	11.0	15.0

FORM VII 8015B

HOLDTIME

SDG 240-10770-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
HG	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
HG	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
M	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
M	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
M	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
HGF	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
HGF	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
HGF	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
MF	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
MF	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
MF	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
PCL	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/7/2012	5/15/2012	10	8	18
PCL	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/7/2012	5/15/2012	10	8	18
PCL	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/7/2012	5/15/2012	10	8	18

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OS	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/8/2012	6	5	11
OS	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/8/2012	6	5	11
OS	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/3/2012	5/8/2012	6	5	11
OV	UG/L	TB-042712	240-10770-1	NM	4/27/2012	5/1/2012	5/1/2012	4	0	4
OV	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/1/2012	5/1/2012	4	0	4
OV	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/1/2012	5/1/2012	4	0	4
OV	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/1/2012	5/1/2012	4	0	4
OV	UG/L	TB-042712	240-10770-1	TB	4/27/2012	5/1/2012	5/1/2012	4	0	4
DRO	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
DRO	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
DRO	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
GRO	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	4/30/2012	4/30/2012	3	0	3
GRO	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	4/30/2012	4/30/2012	3	0	3
GRO	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	4/30/2012	4/30/2012	3	0	3

Tetra Tech **INTERNAL CORRESPONDENCE**

TO: **T. APANAVAGE** **DATE: JUNE 27, 2012**

FROM: **TERRI L. SOLOMON** **COPIES: DV FILE**

SUBJECT: **INORGANIC AND ORGANIC DATA VALIDATION – SELECT METALS, PERCHLORATE**
MARTIN STATE AIRPORT – GROUNDWATER
SAMPLE DELIVERY GROUP (SDG) – 240-10770-1

SAMPLES: 3/Aqueous/

GSP-MW4-042712 GSP-MW7-042712
GSP-MW8-042712

Overview

The sample set for Martin State Airport - Groundwater, SDG 240-10770-1, consists of three (3) aqueous environmental samples. No field duplicate pairs were included within this SDG.

All samples were analyzed for perchlorate and select total and dissolved metals including antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, tungsten, vanadium and zinc. The samples were collected by Tetra Tech on April 27, 2012 and analyzed by TestAmerica. Metals analyses were conducted using SW-846 method 6020. Mercury analyses were conducted using SW-846 method 7470A. Perchlorate analyses were conducted using SW-846 method 6850.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP interference results, laboratory control sample recoveries, matrix spike/matrix spike duplicate recoveries, ICP serial dilution results, internal standard recoveries, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems

None.

Minor Problems

- The contract required detection limit (CRDL) percent recoveries for copper and nickel were > 110% quality control limit affecting all samples. Positive results < 2X CRDL for copper and nickel were qualified as either biased high, "K" or estimated, "J", as a result of conflicting noncompliances.

- The following contaminants were detected in the laboratory method/preparation blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Antimony[1]	0.322 ug/L	1.61 ug/L
Cadmium[1]	0.172 ug/L	0.86 ug/L
Cobalt[1]	0.169 ug/L	0.845 ug/L
Lead[1]	0.191 ug/L	0.955 ug/L
Molybdenum[1]	0.854 ug/L	4.27 ug/L
Thallium[1]	0.686 ug/L	3.43 ug/L
Tungsten[1]	0.956 ug/L	4.78 ug/L
Barium[2]	0.541 ug/L	2.705 ug/L
Copper[2]	0.388 ug/L	1.94 ug/L
Zinc[2]	4.57 ug/L	22.85 ug/L

  [1] Maximum concentration present in a method blank affecting all samples.
  [2] Maximum concentration present in a preparation blank (240-42485) affecting all total and dissolved samples.

  An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The positive results less than the blank action level reported for antimony, cadmium, copper, lead, molybdenum and thallium were qualified "B" as a result of laboratory blank contamination.

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated, "J".

Notes

Nondetected results are reported to the method detection limits.

The contract required detection limit (CRDL) percent recoveries for barium, cadmium, cobalt, copper, lead, nickel, silver and thallium were > 110% quality control limit affecting all samples. However, no validation actions were required as all sample results were either > 2X CRDL, nondetects or were qualified as a result of blank contamination.

Executive Summary

Laboratory Performance: Several contaminants were present in the laboratory method / preparation blanks. The CRDL percent recoveries for copper and nickel were > 110% quality control limit affecting all samples.

Other Factors Affecting Data Quality: Positive results reported below the RL but above the MDL were qualified as estimated.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993 and the Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994).

The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Terri L. Solomon
Environmental Scientist

Tetra Tech
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3		
FRACTION: M	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.13	U		0.41	B	A	0.13	B	A
ARSENIC		6.5			1.4	J	P	0.85	J	P
BARIUM		27			44			48		
BERYLLIUM		0.2	U		0.22	J	P	0.35	J	P
CADMIUM		0.13	U		0.13	U		0.13	U	
CHROMIUM		0.71	U		0.71	U		0.71	U	
COBALT		11			6.4			11		
COPPER		0.59	B	A	1.9	B	A	3.4	K	C
LEAD		0.18	U		0.28	B	A	0.53	B	A
MERCURY		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.26	B	A	1.2	B	A	0.24	B	A
NICKEL		0.94	J	CP	7.1			15		
SELENIUM		0.57	U		0.83	J	P	4.4	J	P
SILVER		0.08	U		0.08	U		0.08	U	
THALLIUM		0.35	B	A	0.82	B	A	0.32	B	A
TUNGSTEN		0.37	U		1	B	A	0.37	U	
VANADIUM		0.44	U		0.92	J	P	0.44	U	
ZINC		2.3	U		730			77		

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3		
FRACTION: MF	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.13	U		0.28	B	A	0.13	U	
ARSENIC		6.4			1.4	J	P	0.58	J	P
BARIUM		27			45			49		
BERYLLIUM		0.2	U		0.2	U		0.36	J	P
CADMIUM		0.13	U		0.13	U		0.2	B	A
CHROMIUM		0.71	U		0.71	U		0.71	U	
COBALT		11			6.3			12		
COPPER		0.5	B	A	1.5	B	A	3.8	K	C
LEAD		0.18	U		0.18	U		0.48	B	A
MERCURY		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.14	B	A	0.76	B	A	0.15	B	A
NICKEL		1.1	J	CP	7.2			16		
SELENIUM		0.58	J	P	0.57	U		4.7	J	P
SILVER		0.08	U		0.08	U		0.08	U	
THALLIUM		0.26	B	A	0.47	B	A	0.23	B	A
TUNGSTEN		0.37	U		0.47	B	A	0.37	U	
VANADIUM		0.44	U		0.71	J	P	0.44	U	
ZINC		2.3	U		760			72		

PROJ_NO: 04021	NSAMPLE	GSP-MW4-042712			GSP-MW7-042712			GSP-MW8-042712		
SDG: 240-10770-1	LAB_ID	240-10770-4			240-10770-2			240-10770-3		
FRACTION: MISC	SAMP_DATE	4/27/2012			4/27/2012			4/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.082	U		0.082	U		0.45	J	P

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: GSP-MW4-042712 Lab Sample ID: 240-10770-4

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG ID.:

Matrix: Water Date Sampled: 04/27/2012 13:53

Reporting Basis: WET Date Received: 04/28/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	6.5	5.0	0.40	ug/L			1	6020
7440-39-3	Barium	27	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	11	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	0.59	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	0.26	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	0.94	2.0	0.20	ug/L	J	^	1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.35	2.0	0.14	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7440-62-2	Vanadium	20	20	0.44	ug/L	U		1	6020
7440-66-6	Zinc	20	20	2.3	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW4-042712

Lab Sample ID: 240-10770-4

Lab Name: TestAmerica Canton

Job No.: 240-10770-1

SDG ID.:

Matrix: Water

Date Sampled: 04/27/2012 13:53

Reporting Basis: WET

Date Received: 04/28/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: GSP-MW7-042712
Lab Sample ID: 240-10770-2
Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG ID.:
Matrix: Water
Date Sampled: 04/27/2012 10:14
Reporting Basis: WET
Date Received: 04/28/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.41	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	1.4	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	44	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	0.22	1.0	0.20	ug/L	J		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	6.4	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	1.9	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	0.28	1.0	0.18	ug/L	J		1	6020
7439-98-7	Molybdenum	1.2	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	7.1	2.0	0.20	ug/L		^	1	6020
7782-49-2	Selenium	0.83	5.0	0.57	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.82	2.0	0.14	ug/L	J	B	1	6020
7440-33-7	Tungsten	1.0	10	0.37	ug/L	J		1	6020
7440-62-2	Vanadium	0.92	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	730	20	2.3	ug/L		B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW7-042712

Lab Sample ID: 240-10770-2

Lab Name: TestAmerica Canton

Job No.: 240-10770-1

SDG ID.:

Matrix: Water

Date Sampled: 04/27/2012 10:14

Reporting Basis: WET

Date Received: 04/28/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: GSP-MW8-042712
Lab Sample ID: 240-10770-3
Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG ID.:
Matrix: Water
Date Sampled: 04/27/2012 12:03
Reporting Basis: WET
Date Received: 04/28/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.13	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	0.85	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	48	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	0.35	1.0	0.20	ug/L	J		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	11	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	3.4	2.0	0.29	ug/L		B	1	6020
7439-92-1	Lead	0.53	1.0	0.18	ug/L	J		1	6020
7439-98-7	Molybdenum	0.24	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	15	2.0	0.20	ug/L		^	1	6020
7782-49-2	Selenium	4.4	5.0	0.57	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.32	2.0	0.14	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7440-62-2	Vanadium	20	20	0.44	ug/L	U		1	6020
7440-66-6	Zinc	77	20	2.3	ug/L		B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW8-042712
Lab Sample ID: 240-10770-3
Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG ID.:
Matrix: Water
Date Sampled: 04/27/2012 12:03
Reporting Basis: WET
Date Received: 04/28/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW4-042712
Lab Sample ID: 240-10770-4
Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG ID.:
Matrix: Water
Date Sampled: 04/27/2012 13:53
Reporting Basis: WET
Date Received: 04/28/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	6.4	5.0	0.40	ug/L			1	6020
7440-39-3	Barium	27	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	11	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	0.50	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	0.14	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	1.1	2.0	0.20	ug/L	J	^	1	6020
7782-49-2	Selenium	0.58	5.0	0.57	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.26	2.0	0.14	ug/L	J	B	1	6020
7440-62-2	Vanadium	20	20	0.44	ug/L	U		1	6020
7440-66-6	Zinc	20	20	2.3	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW7-042712
Lab Sample ID: 240-10770-2
Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG ID.:
Matrix: Water
Date Sampled: 04/27/2012 10:14
Reporting Basis: WET
Date Received: 04/28/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.28	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	1.4	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	45	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	6.3	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	1.5	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	0.76	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	7.2	2.0	0.20	ug/L		^	1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.47	2.0	0.14	ug/L	J	B	1	6020
7440-62-2	Vanadium	0.71	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	760	20	2.3	ug/L		B	1	6020
7440-33-7	Tungsten	0.47	10	0.37	ug/L	J		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW8-042712
Lab Sample ID: 240-10770-3
Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG ID.:
Matrix: Water
Date Sampled: 04/27/2012 12:03
Reporting Basis: WET
Date Received: 04/28/2012 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	0.58	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	49	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	0.36	1.0	0.20	ug/L	J		1	6020
7440-43-9	Cadmium	0.20	1.0	0.13	ug/L	J		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	12	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	3.8	2.0	0.29	ug/L		B	1	6020
7439-92-1	Lead	0.48	1.0	0.18	ug/L	J		1	6020
7439-98-7	Molybdenum	0.15	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	16	2.0	0.20	ug/L		^	1	6020
7782-49-2	Selenium	4.7	5.0	0.57	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.23	2.0	0.14	ug/L	J	B	1	6020
7440-62-2	Vanadium	20	20	0.44	ug/L	U		1	6020
7440-66-6	Zinc	72	20	2.3	ug/L		B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

TestAmerica Canton

Client Sample ID: GSP-MW4-042712

Dissolved HPLC - Mass. Spec.

Lot-Sample #...:	G2E010422-003	**Work Order #...:**	MTAGG1AA	**Matrix.....:**	WATER
Date Sampled...:	04/27/12	**Date Received..:**	05/01/12		
Prep Date.....:	05/07/12	**Analysis Date..:**	05/15/12		
Prep Batch #...:	2128058				
Dilution Factor:	1	**Method.....:**	SW846 6850		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	ND	1.0	ug/L	0.082

TestAmerica Canton

Client Sample ID: GSP-MW7-042712

Dissolved HPLC - Mass. Spec.

Lot-Sample #...: G2E010422-001 Work Order #...: MTAGE1AA Matrix.....: WATER
Date Sampled...: 04/27/12 Date Received..: 05/01/12
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1 Method.....: SW846 6850

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	ND	1.0	ug/L	0.082

TestAmerica Canton

Client Sample ID: GSP-MW8-042712

Dissolved HPLC - Mass. Spec.

Lot-Sample #...: G2E010422-002 Work Order #...: MTAGF1AA Matrix.....: WATER
Date Sampled...: 04/27/12 Date Received..: 05/01/12
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1 Method.....: SW846 6850

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	0.45 J	1.0	ug/L	0.082

NOTE(S):

J Estimated result. Result is less than RL.

APPENDIX C
SUPPORT DOCUMENTATION

CASE NARRATIVE

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Project: MSA Groundwater Sampling

Report Number: 240-10770-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The Perchlorate analysis was performed at the TestAmerica West Sacramento Laboratory.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 04/28/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.4 and 1.2 C.

VOLATILE ORGANIC COMPOUNDS (GC MS)

Samples TB-042712 (240-10770-1), GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for volatile organic compounds (GC MS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 05/01/2012.

1,2,3-Trichlorobenzene was detected in method blank MB 240-42324/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

2-Chloroethyl vinyl ether failed the recovery criteria low for the MS/MSD of sample GSP-MW7-042712MS/MSD (240-10770-2) in batch 240-42324.

Refer to the QC report for details.

Sample GSP-MW7-042712 (240-10770-2)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 05/03/2012 and analyzed on 05/08/2012.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 43632/8270.

No other difficulties were encountered during the SVOCs analyses. All quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)

Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 04/30/2012.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-42123/7 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)

Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 05/03/2012 and analyzed on 05/04/2012.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 42661.

No other difficulties were encountered during the DRO analyses. All quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)

Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

No difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)

Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

Several analytes were detected in method blank MB 240-42485/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY

Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/02/2012 and 05/03/2012 and analyzed on 05/03/2012 and 05/04/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples GSP-MW7-042712 (240-10770-2), GSP-MW8-042712 (240-10770-3) and GSP-MW4-042712 (240-10770-4) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/02/2012 and 05/03/2012 and analyzed on 05/03/2012 and 05/04/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact			
Company Name: Tetra Tech Inc.	Client Project Manager: Tony Apanavage	Site Contact: Walt Payon	Lab Contact: Pat O'Meara
Address: 20251 Century Blvd.	Telephone: 301 528-3021	Telephone: 301 991-3914	Telephone: 330-497-9396
City/State/Zip: Germantown MD 20874	Email:	Analysis Turnaround Time (in BUS days)	COC No: 1 of 1 COCs
Phone: 301 528-3021		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	Analyses
Project Name: MSA Ground Water Sampling	Method of Shipment/Carrier: Fed Ex		For lab use only: Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Project Number: 112IC04021-02	Shipping/Tracking No:		Job/SDG No.:
PO #			

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (C)/Grab (G)	VOCs	Total PPM	Diss PPM	1,4 Dioxane	DRO	Gas	Perchlorate				Sample Specific Notes / Special Instructions:
TB-042712	4-27-12	—		X						2					N	G	X										
GSP-MW7-042712	↓	1014		X					2	5			5		↓	↓	X	X	X	X	X	X	X				
GSP-MW8-042712		1203		X					2	5			5				X	X	X	X	X	X	X				
GSP-MW4-042712		1353		X					2	5			5				X	X	X	X	X	X	X				

Page 852 of 855

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walt Payon	TT Inc.	4-27-12 / 1517	Paul Gaylord	TestAmerica	4/27/12/1517
Paul Gaylord	TestAmerica	4/27/12/1620			
			Received in Laboratory by: Mike Gafone	Company: TA	Date/Time: 4/28/12 1000

05/30/2012

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

TAL-0018 (1008)

HOLDTIME

SDG 240-10770-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
HG	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
HG	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
M	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
M	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
M	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
HGF	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
HGF	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/3/2012	5/4/2012	6	1	7
HGF	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
MF	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
MF	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
MF	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/2/2012	5/3/2012	5	1	6
PCL	UG/L	GSP-MW8-042712	240-10770-3	NM	4/27/2012	5/7/2012	5/15/2012	10	8	18
PCL	UG/L	GSP-MW7-042712	240-10770-2	NM	4/27/2012	5/7/2012	5/15/2012	10	8	18
PCL	UG/L	GSP-MW4-042712	240-10770-4	NM	4/27/2012	5/7/2012	5/15/2012	10	8	18

SAMPLE SUMMARY

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10770-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-10770-1TB	TB-042712	Water	04/27/2012 0000	04/28/2012 1000
240-10770-2	GSP-MW7-042712	Water	04/27/2012 1014	04/28/2012 1000
240-10770-3	GSP-MW8-042712	Water	04/27/2012 1203	04/28/2012 1000
240-10770-4	GSP-MW4-042712	Water	04/27/2012 1353	04/28/2012 1000

METHOD SUMMARY

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10770-1

Description	Lab Location	Method	Preparation Method
Matrix Water			
Volatile Organic Compounds by GC/MS	TAL NC	SW846 8260C	
Purge and Trap	TAL NC		SW846 5030C
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270C	
Liquid-Liquid Extraction (Continuous)	TAL NC		SW846 3520C
Gasoline Range Organics - (GC)	TAL NC	SW846 8015B	
Purge and Trap	TAL NC		SW846 5030B
Diesel Range Organics (DRO) (GC)	TAL NC	SW846 8015B	
Liquid-Liquid Extraction (Separatory Funnel)	TAL NC		SW846 3510C
Metals (ICP/MS)	TAL NC	SW846 6020	
Preparation, Total Recoverable or Dissolved Metals	TAL NC		SW846 3005A
Metals (ICP/MS)	TAL NC	SW846 6020	
Preparation, Total Recoverable or Dissolved Metals	TAL NC		SW846 3005A
Sample Filtration, Field			FIELD_FLTRD
Mercury (CVAA)	TAL NC	SW846 7470A	
Preparation, Mercury	TAL NC		SW846 7470A
Mercury (CVAA)	TAL NC	SW846 7470A	
Preparation, Mercury	TAL NC		SW846 7470A
Sample Filtration, Field			FIELD_FLTRD
General Sub Contract Method	TAL WSC	Subcontract	

Lab References:

TAL NC = TestAmerica Canton

TAL WSC = TestAmerica West Sacramento

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

ICV Source: MTMSICVW_00014 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00039

Analyte	ICV 240-42666/5 05/03/2012 06:17				CCV 240-42666/22 05/03/2012 07:54				CCV 240-42666/34 05/03/2012 09:03			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	82.2		80.0	103	98.3		100	98	96.3		100	96
Arsenic	80.9		80.0	101	98.9		100	99	98.8		100	99
Barium	80.9		80.0	101	97.7		100	98	97.5		100	98
Beryllium	81.5		80.0	102	97.5		100	97	97.4		100	97
Cadmium	80.4		80.0	101	99.6		100	100	98.7		100	99
Chromium	79.7		80.0	100	96.9		100	97	98.0		100	98
Cobalt	81.2		80.0	102	99.0		100	99	100		100	100
Copper	83.2		80.0	104	101		100	101	101		100	101
Lead	82.4		80.0	103	99.3		100	99	96.7		100	97
Molybdenum	83.6		80.0	105	103		100	103	101		100	101
Nickel	83.1		80.0	104	101		100	101	102		100	102
Selenium	80.7		80.0	101	101		100	101	99.9		100	100
Silver	82.7		80.0	103	101		100	101	98.9		100	99
Thallium	81.3		80.0	102	100		100	100	100		100	100
Tungsten	80.4		80.0	101	98.4		100	98	97.0		100	97
Vanadium	79.7		80.0	100	96.7		100	97	96.8		100	97
Zinc	81.5		80.0	102	99.8		100	100	99.5		100	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

ICV Source: MTMSICVW_00014 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00039

Analyte	CCV 240-42666/46 05/03/2012 10:08											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	96.7		100	97								
Arsenic	99.6		100	100								
Barium	97.3		100	97								
Beryllium	98.3		100	98								
Cadmium	97.6		100	98								
Chromium	98.7		100	99								
Cobalt	99.6		100	100								
Copper	102		100	102								
Lead	94.3		100	94								
Molybdenum	101		100	101								
Nickel	101		100	101								
Selenium	101		100	101								
Silver	99.1		100	99								
Thallium	101		100	101								
Tungsten	96.5		100	96								
Vanadium	98.7		100	99								
Zinc	101		100	101								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

ICV Source: MTHGICVW_00289 Concentration Units: ug/L

CCV Source: MTHGCALW_00189

Analyte	ICV 240-42622/7-A 05/03/2012 16:06				CCVL 240-42622/10-A 05/03/2012 16:12				CCV 240-42622/12-A 05/03/2012 17:26			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.35		2.50	94	5.11		5.00	102	5.27		5.00	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

ICV Source: MTHGICVW_00289 Concentration Units: ug/L

CCV Source: MTHGCALW_00189

Analyte	CCV 240-42622/12-A 05/03/2012 17:51				CCV 240-42622/12-A 05/03/2012 18:17				CCV 240-42622/12-A 05/03/2012 18:42			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.23		5.00	105	5.24		5.00	105	5.24		5.00	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

ICV Source: MTHGICVW_00289 Concentration Units: ug/L

CCV Source: MTHGCALW_00189

Analyte	ICV 240-42622/7-A 05/04/2012 10:43				CCVL 240-42622/10-A 05/04/2012 10:53				CCV 240-42622/12-A 05/04/2012 12:07			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.29		2.50	92	5.09		5.00	102	5.15		5.00	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

ICV Source: MTHGICVW_00289 Concentration Units: ug/L

CCV Source: MTHGCALW_00189

Analyte	CCV 240-42622/12-A 05/04/2012 12:34											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.12		5.00	102								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Method: 6020 Instrument ID: I8

Lab Sample ID: CRI 240-42666/8 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRIW_00016

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	1.96	J	98	50-150
Arsenic	2.00	2.19	J	110	50-150
Barium	1.00	1.33	J	133	50-150
Beryllium	1.00	1.08		108	50-150
Cadmium	0.500	0.658	J	132	50-150
Chromium	2.00	2.08		104	50-150
Cobalt	1.00	1.20		120	50-150
Copper	2.00	2.72		136	50-150
Lead	1.00	1.22		122	50-150
Molybdenum	10.0	9.90	J	99	50-150
Nickel	2.00	3.13	^	156	50-150
Selenium	2.00	2.16	J	108	50-150
Silver	0.500	0.603	J	121	50-150
Thallium	1.00	1.20	J	120	50-150
Vanadium	5.00	4.78	J	96	50-150
Tungsten	10.0	9.47	J	95	50-150
Zinc	10.0	10.6	J	106	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Method: 7470A Instrument ID: H4

Lab Sample ID: CRA 240-42622/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00189

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.191	J	95	50-150

Lab Sample ID: CRA 240-42622/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00189

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.186	J	93	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-42666/6 05/03/2012 06:22		CCB 240-42666/23 05/03/2012 08:00		CCB 240-42666/35 05/03/2012 09:08		CCB 240-42666/47 05/03/2012 10:13	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.149	J	0.322	J	0.131	J	0.138	J
Arsenic	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Barium	5.0	5.0	U	0.239	J	5.0	U	5.0	U
Beryllium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Cadmium	1.0	1.0	U	0.172	J	1.0	U	1.0	U
Chromium	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Cobalt	1.0	0.0800	J	0.169	J	0.0610	J	1.0	U
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	1.0	U	0.191	J	1.0	U	1.0	U
Molybdenum	10	0.858	J	0.854	J	0.632	J	0.678	J
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	2.0	0.496	J	0.686	J	0.554	J	0.489	J
Tungsten	10	1.07	J	0.956	J	0.868	J	0.833	J
Vanadium	20	20	U	20	U	20	U	20	U
Zinc	20	20	U	20	U	20	U	20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-42622/8-A 05/03/2012 16:08		CCB 240-42622/11-A 05/03/2012 17:28		CCB 240-42622/11-A 05/03/2012 17:52		CCB 240-42622/11-A 05/03/2012 18:18	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U	0.20	U	0.20	U	0.20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-42622/11-A 05/03/2012 18:44							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-42622/8-A 05/04/2012 10:45		CCB 240-42622/11-A 05/04/2012 12:09		CCB 240-42622/11-A 05/04/2012 12:35			
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U	0.20	U	0.20	U		

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-42485/1-A

Instrument Code: I8 Batch No.: 42666

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6020
7440-38-2	Arsenic	5.0	U		6020
7440-39-3	Barium	0.541	J		6020
7440-41-7	Beryllium	1.0	U		6020
7440-43-9	Cadmium	1.0	U		6020
7440-47-3	Chromium	2.0	U		6020
7440-48-4	Cobalt	1.0	U		6020
7440-50-8	Copper	0.388	J		6020
7439-92-1	Lead	1.0	U		6020
7439-98-7	Molybdenum	0.312	J		6020
7440-02-0	Nickel	2.0	U	^	6020
7782-49-2	Selenium	5.0	U		6020
7440-22-4	Silver	1.0	U		6020
7440-28-0	Thallium	0.332	J		6020
7440-62-2	Vanadium	20	U		6020
7440-33-7	Tungsten	10	U		6020
7440-66-6	Zinc	4.57	J		6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-42491/1-A

Instrument Code: H4 Batch No.: 42777

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.20	U		7470A

FORM III-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-42671/1-A

Instrument Code: H4 Batch No.: 42975

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.20	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICSA 240-42666/9 Instrument ID: I8

Lab File ID: I8050312A.csv ICS Source: MTMSICSAW_00014

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.163**	
Arsenic		**0.572**	
Barium		**0.131**	
Beryllium		**0.0050**	
Cadmium		**-0.414**	
Chromium		**0.479**	
Cobalt		**0.118**	
Copper		**0.523**	
Lead		**0.0560**	
Molybdenum	**1000**	**1018**	**102**
Nickel		**0.562**	
Selenium		**0.0360**	
Silver		**0.0380**	
Thallium		**0.111**	
Tungsten		**0.347**	
Vanadium		**0.0780**	
Zinc		**1.08**	
Aluminum	*50000*	*48650*	*97*
Boron		*0.397*	
Calcium	*50000*	*50780*	*102*
Iron	*50000*	*50610*	*101*
Magnesium	*50000*	*50890*	*102*
Manganese		*0.237*	
Potassium	*50000*	*50870*	*102*
Sodium	*50000*	*51340*	*103*
Strontium		*0.331*	
Tin		*0.0580*	
Titanium	*1000*	*1045*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Lab Sample ID: ICSAB 240-42666/10 Instrument ID: I8

Lab File ID: I8050312A.csv ICS Source: MTMSICSABW_00014

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**100**	**100**
Arsenic	**100**	**98.6**	**99**
Barium	**100**	**101**	**101**
Beryllium	**100**	**104**	**104**
Cadmium	**100**	**98.5**	**98**
Chromium	**100**	**105**	**105**
Cobalt	**100**	**100**	**100**
Copper	**100**	**101**	**101**
Lead	**100**	**106**	**106**
Molybdenum	**1100**	**1138**	**103**
Nickel	**100**	**107**	**107**
Selenium	**100**	**101**	**101**
Silver	**100**	**101**	**101**
Thallium	**100**	**104**	**104**
Tungsten	**100**	**99.6**	**100**
Vanadium	**100**	**99.2**	**99**
Zinc	**100**	**103**	**103**
Aluminum	*50000*	*48390*	*97*
Boron	*100*	*99.3*	*99*
Calcium	*50000*	*51380*	*103*
Iron	*50000*	*50960*	*102*
Magnesium	*50000*	*50690*	*101*
Manganese	*100*	*107*	*107*
Potassium	*50000*	*50370*	*101*
Sodium	*50000*	*51610*	*103*
Strontium	*100*	*95.2*	*95*
Tin	*100*	*98.8*	*99*
Titanium	*1100*	*1153*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: GSP-MW8-042712 MS

Lab ID: 240-10770-3 MS

Lab Name: TestAmerica Canton

Job No.: 240-10770-1

SDG No.:

Matrix: Water

Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.913		0.20	U	1.00	91	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Not in SDG

Client ID: _____ Lab ID: 240-10807-B-5-B MS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	95.7		0.42	J	100	95	44-153		6020
Arsenic	959		2.7	J	1000	96	82-123		6020
Barium	1360		370		1000	99	45-144		6020
Beryllium	980		1.0	U	1000	98	77-124		6020
Cadmium	933		0.14	J	1000	93	78-117		6020
Chromium	974		2.6		1000	97	72-110		6020
Cobalt	968		2.6		1000	97	67-114		6020
Copper	931		0.63	J	1000	93	60-123		6020
Lead	984		0.19	J	1000	98	73-115		6020
Molybdenum	104		0.87	J	100	103	80-110		6020
Nickel	962		10		1000	95	72-111	^	6020
Selenium	948		0.87	J	1000	95	72-148		6020
Silver	92.5		1.0	U	100	92	10-139		6020
Thallium	244		0.66	J	250	97	69-117		6020
Vanadium	978		20	U	1000	98	70-112		6020
Tungsten	96.9		2.2	J	100	95	43-133		6020
Zinc	921		3.7	J	1000	92	49-156		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

NOT IN SDG

Client ID:

Lab ID: 240-10725-K-8-B MS

Lab Name: TestAmerica Canton

Job No.: 240-10770-1

SDG No.:

Matrix: Water

Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.01		0.20	U	1.00	101	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Not in SDG

Client ID:

Lab ID: 240-10725-N-8-B MS

Lab Name: TestAmerica Canton

Job No.: 240-10770-1

SDG No.:

Matrix: Water

Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.04		0.20	U	1.00	104	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: GSP-MW8-042712 MSD
Lab ID: 240-10770-3 MSD
Lab Name: TestAmerica Canton
Job No.: 240-10770-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.918		1.00	92	69-134	1	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

NOT IN SDG

Client ID:

Lab ID: 240-10807-B-5-C MSD

Lab Name: TestAmerica Canton

Job No.: 240-10770-1

SDG No.:

Matrix: Water

Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	95.8		100	95	44-153	0	20		6020
Arsenic	958		1000	96	82-123	0	20		6020
Barium	1350		1000	98	45-144	1	20		6020
Beryllium	964		1000	96	77-124	2	20		6020
Cadmium	918		1000	92	78-117	2	20		6020
Chromium	973		1000	97	72-110	0	20		6020
Cobalt	963		1000	96	67-114	1	20		6020
Copper	932		1000	93	60-123	0	20		6020
Lead	981		1000	98	73-115	0	20		6020
Molybdenum	103		100	103	80-110	0	20		6020
Nickel	957		1000	95	72-111	1	20	^	6020
Selenium	947		1000	95	72-148	0	20		6020
Silver	92.4		100	92	10-139	0	20		6020
Thallium	247		250	98	69-117	1	20		6020
Vanadium	979		1000	98	70-112	0	20		6020
Tungsten	97.8		100	96	43-133	1	20		6020
Zinc	920		1000	92	49-156	0	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

NOT IN SDG

Client ID: _____ Lab ID: 240-10725-K-8-C MSD

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	1.04		1.00	104	69-134	3	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

NOT IN SDG

Client ID: _____ Lab ID: 240-10725-N-8-C MSD

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	1.04		1.00	104	69-134	0	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-42485/2-A

Lab Name: TestAmerica Canton Job No.: 240-10770-1

Sample Matrix: Water LCS Source: MTICPMSB_00008

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	92.0		92	80	120		6020
Arsenic	1000	918		92	80	120		6020
Barium	1000	918		92	80	120		6020
Beryllium	1000	905		91	80	120		6020
Cadmium	1000	934		93	80	120		6020
Chromium	1000	943		94	80	120		6020
Cobalt	1000	951		95	80	120		6020
Copper	1000	975		98	80	120		6020
Lead	1000	1010		101	80	120		6020
Molybdenum	100	92.2		92	80	120		6020
Nickel	1000	979		98	80	120	^	6020
Selenium	1000	939		94	80	120		6020
Silver	100	97.5		98	80	120		6020
Thallium	250	242		97	80	120		6020
Vanadium	1000	921		92	80	120		6020
Tungsten	100	88.0		88	80	120		6020
Zinc	1000	962		96	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-42491/2-A

Lab Name: TestAmerica Canton Job No.: 240-10770-1

Sample Matrix: Water LCS Source: MTHGICVW_00288

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.10		102	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-42671/2-A

Lab Name: TestAmerica Canton Job No.: 240-10770-1

Sample Matrix: Water LCS Source: MTHGICVW_00289

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.45		89	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-10807-B-5-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-10770-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.42	J	0.670	J	NC		6020
Arsenic	2.7	J	3.93	J	NC		6020
Barium	370		371		NC		6020
Beryllium	1.0	U	5.0	U	NC		6020
Cadmium	0.14	J	5.0	U	NC		6020
Chromium	2.6		10	U	NC		6020
Cobalt	2.6		2.89	J	NC		6020
Copper	0.63	J	10	U	NC		6020
Lead	0.19	J	5.0	U	NC		6020
Molybdenum	0.87	J	1.34	J	NC		6020
Nickel	10		11.6		NC	^	6020
Selenium	0.87	J	25	U	NC		6020
Silver	1.0	U	5.0	U	NC		6020
Thallium	0.66	J	1.64	J	NC		6020
Vanadium	20	U	100	U	NC		6020
Tungsten	2.2	J	3.01	J	NC		6020
Zinc	3.7	J	100	U	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-10770-1

SDG Number:

Matrix: Water Instrument ID: I8

Method: 6020 MDL Date: 02/09/2010 15:53

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.13
Arsenic	75.00	5	0.4
Barium	137.00	5	0.19
Beryllium	9.00	1	0.2
Cadmium	111.00	1	0.13
Chromium	52.00	2	0.71
Cobalt	59.00	1	0.058
Copper	65.00	2	0.29
Lead	208.00	1	0.18
Molybdenum	95.00	10	0.093
Nickel	60.00	2	0.2
Selenium	78.00	5	0.57
Silver	107.00	1	0.08
Thallium	205.00	2	0.14
Tungsten	182.00	10	0.37
Vanadium	51.00	20	0.44
Zinc	66.00	20	2.3

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-10770-1

SDG Number:

Matrix: Water Instrument ID: I8

Method: 6020 MDL Date: 02/09/2010 15:53

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.13
Arsenic	75.00	5	0.4
Barium	137.00	5	0.19
Beryllium	9.00	1	0.2
Cadmium	111.00	1	0.13
Chromium	52.00	2	0.71
Cobalt	59.00	1	0.058
Copper	65.00	2	0.29
Lead	208.00	1	0.18
Molybdenum	95.00	10	0.093
Nickel	60.00	2	0.2
Selenium	78.00	5	0.57
Silver	107.00	1	0.08
Thallium	205.00	2	0.14
Tungsten	182.00	10	0.37
Vanadium	51.00	20	0.44
Zinc	66.00	20	2.3

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-10770-1

SDG Number:

Matrix: Water Instrument ID: H4

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-10770-1

SDG Number:

Matrix: Water Instrument ID: H4

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-42485/1-A	05/02/2012 10:01	42485		50	50
LCS 240-42485/2-A	05/02/2012 10:01	42485		50	50
240-10807-B-5-B MS	05/02/2012 10:01	42485		50	50
240-10807-B-5-C MSD	05/02/2012 10:01	42485		50	50
240-10770-2	05/02/2012 10:01	42485		50	50
240-10770-2	05/02/2012 10:01	42485		50	50
240-10770-3	05/02/2012 10:01	42485		50	50
240-10770-3	05/02/2012 10:01	42485		50	50
240-10770-4	05/02/2012 10:01	42485		50	50
240-10770-4	05/02/2012 10:01	42485		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-42491/1-A	05/02/2012 13:55	42491		100	100
LCS 240-42491/2-A	05/02/2012 13:55	42491		100	100
240-10725-K-8-B MS	05/02/2012 13:55	42491		100	100
240-10725-K-8-C MSD	05/02/2012 13:55	42491		100	100
240-10725-N-8-B MS	05/02/2012 13:55	42491		100	100
240-10725-N-8-C MSD	05/02/2012 13:55	42491		100	100
240-10770-2	05/02/2012 13:55	42491		100	100
240-10770-2	05/02/2012 13:55	42491		100	100

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-42671/1-A	05/03/2012 15:55	42671		100	100
LCS 240-42671/2-A	05/03/2012 15:55	42671		100	100
240-10770-3	05/03/2012 15:55	42671		100	100
240-10770-3 MS	05/03/2012 15:55	42671		100	100
240-10770-3 MSD	05/03/2012 15:55	42671		100	100
240-10770-3	05/03/2012 15:55	42671		100	100
240-10770-4	05/03/2012 15:55	42671		100	100
240-10770-4	05/03/2012 15:55	42671		100	100

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

ICP-MS Instrument ID: I8 Start Date: 05/03/2012 End Date: 05/03/2012

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li	Q	Element Sc	Q	Element Sc	Q	Element Ge	Q	Element In	Q
STD2 240-42666/2 IC	06:00	95		94		97		94		95	
STD3 240-42666/3 IC	06:05	94		93		92		88		91	
STD4 240-42666/4 IC	06:12	102		112		104		106		104	
ICV 240-42666/5	06:17	98		102		99		97		97	
ICB 240-42666/6	06:22	104		113		105		103		103	
CRI 240-42666/8	06:33	104		112		103		102		102	
ICSA 240-42666/9	06:39	86		92		87		88		91	
ICSAB 240-42666/10	06:44	70		84		84		85		89	
CCV 240-42666/22	07:54	83		93		90		87		89	
CCB 240-42666/23	08:00	93		105		95		95		95	
MB 240-42485/1-A	08:05	95		106		98		96		95	
LCS 240-42485/2-A	08:11	92		101		94		92		94	
240-10807-B-5-A SD	08:23	89		102		93		90		90	
240-10807-B-5-B MS	08:28	75		82		77		73		76	
240-10807-B-5-C MSD	08:34	75		83		77		72		77	
240-10770-2	08:41	95		107		95		92		92	
240-10770-2	08:46	92		104		95		91		91	
240-10770-3	08:52	92		106		96		94		93	
240-10770-3	08:57	93		105		95		94		93	
CCV 240-42666/34	09:03	85		96		89		86		86	
CCB 240-42666/35	09:08	95		107		97		94		94	
240-10770-4	09:14	88		98		90		86		85	
240-10770-4	09:19	84		97		88		84		84	
CCV 240-42666/46	10:08	85		97		86		83		83	
CCB 240-42666/47	10:13	93		107		94		92		90	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

ICP-MS Instrument ID: I8 Start Date: 05/03/2012 End Date: 05/03/2012

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD2 240-42666/2 IC	06:00			98							
STD3 240-42666/3 IC	06:05			94							
STD4 240-42666/4 IC	06:12			103							
ICV 240-42666/5	06:17			99							
ICB 240-42666/6	06:22			101							
CRI 240-42666/8	06:33			102							
ICSA 240-42666/9	06:39			91							
ICSAB 240-42666/10	06:44			91							
CCV 240-42666/22	07:54			90							
CCB 240-42666/23	08:00			94							
MB 240-42485/1-A	08:05			95							
LCS 240-42485/2-A	08:11			95							
240-10807-B-5-A SD	08:23			91							
240-10807-B-5-B MS	08:28			80							
240-10807-B-5-C MSD	08:34			79							
240-10770-2	08:41			91							
240-10770-2	08:46			89							
240-10770-3	08:52			91							
240-10770-3	08:57			91							
CCV 240-42666/34	09:03			86							
CCB 240-42666/35	09:08			90							
240-10770-4	09:14			86							
240-10770-4	09:19			86							
CCV 240-42666/46	10:08			81							
CCB 240-42666/47	10:13			86							

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 05/03/2012 05:54 End Date: 05/03/2012 10:51

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn			
ICIS 240-42666/1			05:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD2 240-42666/2 IC	1		06:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD3 240-42666/3 IC	1		06:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD4 240-42666/4 IC	1		06:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICV 240-42666/5	1		06:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICB 240-42666/6	1		06:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CRI 240-42666/7			06:28																				
CRI 240-42666/8	1		06:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSA 240-42666/9	1		06:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSAB 240-42666/10	1		06:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-42666/11			06:50																				
CCB 240-42666/12			06:55																				
CCV 240-42666/13			07:04																				
CCB 240-42666/14			07:10																				
ZZZZZZ			07:15																				
ZZZZZZ			07:21																				
ZZZZZZ			07:26																				
ZZZZZZ			07:31																				
ZZZZZZ			07:37																				
ZZZZZZ			07:42																				
ZZZZZZ			07:49																				
CCV 240-42666/22	1		07:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42666/23	1		08:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
MB 240-42485/1-A	1	R	08:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
LCS 240-42485/2-A	1	R	08:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			08:17																				
240-10807-B-5-A SD ^5	5	R	08:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10807-B-5-B MS	1	R	08:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10807-B-5-C MSD	1	R	08:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10770-2	1	R	08:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10770-2	1	D	08:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10770-3	1	R	08:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10770-3	1	D	08:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-42666/34	1		09:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42666/35	1		09:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10770-4	1	R	09:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10770-4	1	D	09:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			09:24																				
ZZZZZZ			09:30																				
ZZZZZZ			09:35																				
ZZZZZZ			09:41																				
ZZZZZZ			09:46																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 05/03/2012 05:54 End Date: 05/03/2012 10:51

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn			
ZZZZZZ			09:52																				
ZZZZZZ			09:57																				
ZZZZZZ			10:02																				
CCV 240-42666/46	1		10:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42666/47	1		10:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			10:19																				
ZZZZZZ			10:24																				
ZZZZZZ			10:29																				
ZZZZZZ			10:35																				
ZZZZZZ			10:40																				
CCV 240-42666/53			10:45																				
CCB 240-42666/54			10:51																				

Prep Types

D = Dissolved

R = Total Recoverable

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/03/2012 15:54 End Date: 05/03/2012 19:41

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 240-42622/1-A			15:54	X																			
IC 240-42622/2-A			15:55	X																			
IC 240-42622/3-A			15:57	X																			
IC 240-42622/4-A			15:59	X																			
IC 240-42622/5-A			16:01	X																			
IC 240-42622/6-A			16:04	X																			
ICV 240-42622/7-A	1		16:06	X																			
ICB 240-42622/8-A	1		16:08	X																			
CRA 240-42622/9-A	1		16:09	X																			
CCVL 240-42622/10-A	1		16:12	X																			
CCB 240-42622/11-A			16:14																				
ZZZZZZ			16:16																				
ZZZZZZ			16:18																				
ZZZZZZ			16:20																				
ZZZZZZ			16:22																				
ZZZZZZ			16:24																				
ZZZZZZ			16:26																				
ZZZZZZ			16:28																				
ZZZZZZ			16:30																				
ZZZZZZ			16:32																				
ZZZZZZ			16:34																				
CCV 240-42622/12-A			16:36																				
CCB 240-42622/11-A			16:38																				
ZZZZZZ			16:40																				
ZZZZZZ			16:42																				
ZZZZZZ			16:44																				
ZZZZZZ			16:46																				
ZZZZZZ			16:48																				
ZZZZZZ			16:50																				
ZZZZZZ			16:52																				
ZZZZZZ			16:54																				
ZZZZZZ			16:56																				
ZZZZZZ			16:59																				
CCV 240-42622/12-A			17:01																				
CCB 240-42622/11-A			17:03																				
ZZZZZZ			17:06																				
ZZZZZZ			17:08																				
ZZZZZZ			17:10																				
ZZZZZZ			17:12																				
ZZZZZZ			17:14																				
ZZZZZZ			17:16																				
ZZZZZZ			17:18																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/03/2012 15:54 End Date: 05/03/2012 19:41

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			17:20																				
ZZZZZZ			17:22																				
ZZZZZZ			17:24																				
CCV 240-42622/12-A	1		17:26	X																			
CCB 240-42622/11-A	1		17:28	X																			
ZZZZZZ			17:30																				
ZZZZZZ			17:32																				
MB 240-42491/1-A	1	T	17:34	X																			
LCS 240-42491/2-A	1	T	17:36	X																			
ZZZZZZ			17:38																				
240-10725-K-8-B MS	1	T	17:40	X																			
240-10725-K-8-C MSD	1	T	17:42	X																			
ZZZZZZ			17:44																				
240-10725-N-8-B MS	1	D	17:46	X																			
240-10725-N-8-C MSD	1	D	17:49	X																			
CCV 240-42622/12-A	1		17:51	X																			
CCB 240-42622/11-A	1		17:52	X																			
ZZZZZZ			17:54																				
ZZZZZZ			17:56																				
ZZZZZZ			17:59																				
ZZZZZZ			18:01																				
ZZZZZZ			18:04																				
ZZZZZZ			18:06																				
ZZZZZZ			18:08																				
ZZZZZZ			18:10																				
ZZZZZZ			18:13																				
ZZZZZZ			18:15																				
CCV 240-42622/12-A	1		18:17	X																			
CCB 240-42622/11-A	1		18:18	X																			
ZZZZZZ			18:21																				
ZZZZZZ			18:23																				
ZZZZZZ			18:25																				
240-10770-2	1	T	18:28	X																			
240-10770-2	1	D	18:30	X																			
ZZZZZZ			18:32																				
ZZZZZZ			18:34																				
ZZZZZZ			18:36																				
ZZZZZZ			18:38																				
ZZZZZZ			18:40																				
CCV 240-42622/12-A	1		18:42	X																			
CCB 240-42622/11-A	1		18:44	X																			
ZZZZZZ			18:46																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/03/2012 15:54 End Date: 05/03/2012 19:41

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			18:48																				
ZZZZZZ			18:50																				
ZZZZZZ			18:52																				
ZZZZZZ			18:54																				
ZZZZZZ			18:56																				
ZZZZZZ			18:58																				
ZZZZZZ			19:00																				
ZZZZZZ			19:02																				
ZZZZZZ			19:04																				
CCV 240-42622/12-A			19:06																				
CCB 240-42622/11-A			19:08																				
ZZZZZZ			19:10																				
ZZZZZZ			19:12																				
ZZZZZZ			19:13																				
ZZZZZZ			19:16																				
ZZZZZZ			19:17																				
ZZZZZZ			19:19																				
ZZZZZZ			19:21																				
ZZZZZZ			19:23																				
ZZZZZZ			19:25																				
ZZZZZZ			19:28																				
CCV 240-42622/12-A			19:30																				
CCB 240-42622/11-A			19:32																				
ZZZZZZ			19:34																				
ZZZZZZ			19:37																				
CCV 240-42622/12-A			19:39																				
CCB 240-42622/11-A			19:41																				

Prep Types

D = Dissolved

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 240-42622/1-A			10:31	X																			
IC 240-42622/2-A			10:33	X																			
IC 240-42622/3-A			10:35	X																			
IC 240-42622/4-A			10:37	X																			
IC 240-42622/5-A			10:39	X																			
IC 240-42622/6-A			10:41	X																			
ICV 240-42622/7-A	1		10:43	X																			
ICB 240-42622/8-A	1		10:45	X																			
CRA 240-42622/9-A	1		10:48	X																			
CCVL 240-42622/10-A	1		10:53	X																			
CCB 240-42622/11-A			10:55																				
ZZZZZZ			10:56																				
ZZZZZZ			10:58																				
ZZZZZZ			11:00																				
ZZZZZZ			11:02																				
ZZZZZZ			11:04																				
ZZZZZZ			11:06																				
ZZZZZZ			11:09																				
ZZZZZZ			11:11																				
ZZZZZZ			11:13																				
ZZZZZZ			11:15																				
CCV 240-42622/12-A			11:17																				
CCB 240-42622/11-A			11:19																				
ZZZZZZ			11:21																				
ZZZZZZ			11:24																				
ZZZZZZ			11:26																				
ZZZZZZ			11:28																				
ZZZZZZ			11:30																				
ZZZZZZ			11:32																				
ZZZZZZ			11:34																				
ZZZZZZ			11:36																				
ZZZZZZ			11:38																				
ZZZZZZ			11:40																				
CCV 240-42622/12-A			11:42																				
CCB 240-42622/11-A			11:44																				
ZZZZZZ			11:46																				
ZZZZZZ			11:48																				
ZZZZZZ			11:50																				
ZZZZZZ			11:53																				
ZZZZZZ			11:55																				
ZZZZZZ			11:57																				
ZZZZZZ			11:59																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			12:00																				
ZZZZZZ			12:03																				
ZZZZZZ			12:05																				
CCV 240-42622/12-A	1		12:07	X																			
CCB 240-42622/11-A	1		12:09	X																			
MB 240-42671/1-A	1	T	12:12	X																			
LCS 240-42671/2-A	1	T	12:14	X																			
240-10770-3	1	T	12:16	X																			
240-10770-3 MS	1	T	12:18	X																			
240-10770-3 MSD	1	T	12:20	X																			
240-10770-3	1	D	12:22	X																			
240-10770-4	1	T	12:25	X																			
240-10770-4	1	D	12:27	X																			
ZZZZZZ			12:29																				
ZZZZZZ			12:31																				
CCV 240-42622/12-A	1		12:34	X																			
CCB 240-42622/11-A	1		12:35	X																			
ZZZZZZ			12:37																				
ZZZZZZ			12:39																				
ZZZZZZ			12:41																				
ZZZZZZ			12:43																				
ZZZZZZ			12:46																				
ZZZZZZ			12:47																				
ZZZZZZ			12:49																				
ZZZZZZ			12:51																				
ZZZZZZ			12:53																				
ZZZZZZ			12:55																				
CCV 240-42622/12-A			12:59																				
CCB 240-42622/11-A			13:00																				
ZZZZZZ			13:03																				
ZZZZZZ			13:06																				
CCV 240-42622/12-A			13:09																				
CCB 240-42622/11-A			13:11																				
CCV 240-42622/12-A			14:41																				
CCB 240-42622/11-A			14:43																				
ZZZZZZ			14:45																				
ZZZZZZ			14:47																				
ZZZZZZ			14:49																				
ZZZZZZ			14:51																				
ZZZZZZ			14:53																				
ZZZZZZ			14:55																				
ZZZZZZ			14:57																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			14:59																				
ZZZZZZ			15:01																				
ZZZZZZ			15:03																				
CCV 240-42622/12-A			15:05																				
CCB 240-42622/11-A			15:07																				
ZZZZZZ			15:09																				
ZZZZZZ			15:11																				
CCV 240-42622/12-A			15:13																				
CRA 240-42622/9-A			15:15																				
CCB 240-42622/11-A			15:18																				
ZZZZZZ			15:20																				
ZZZZZZ			15:22																				
ZZZZZZ			15:24																				
ZZZZZZ			15:26																				
ZZZZZZ			15:28																				
ZZZZZZ			15:30																				
ZZZZZZ			15:33																				
ZZZZZZ			15:34																				
ZZZZZZ			15:36																				
ZZZZZZ			15:39																				
CCV 240-42622/12-A			15:40																				
CCB 240-42622/11-A			15:42																				
ZZZZZZ			15:44																				
ZZZZZZ			15:46																				
ZZZZZZ			15:48																				
ZZZZZZ			15:50																				
ZZZZZZ			15:52																				
ZZZZZZ			15:54																				
ZZZZZZ			15:57																				
ZZZZZZ			15:58																				
ZZZZZZ			16:01																				
ZZZZZZ			16:04																				
CCV 240-42622/12-A			16:06																				
CCB 240-42622/11-A			16:08																				
ZZZZZZ			16:10																				
ZZZZZZ			16:12																				
ZZZZZZ			16:14																				
ZZZZZZ			16:16																				
ZZZZZZ			16:18																				
ZZZZZZ			16:19																				
ZZZZZZ			16:21																				
ZZZZZZ			16:23																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			16:25																				
ZZZZZZ			16:27																				
CCV 240-42622/12-A			16:29																				
CCB 240-42622/11-A			16:31																				
ZZZZZZ			16:33																				
ZZZZZZ			16:35																				
ZZZZZZ			16:37																				
ZZZZZZ			16:39																				
ZZZZZZ			16:41																				
ZZZZZZ			16:43																				
CCV 240-42622/12-A			16:46																				
CRA 240-42622/9-A			16:48																				
CCB 240-42622/11-A			16:50																				
ZZZZZZ			16:52																				
ZZZZZZ			16:54																				
ZZZZZZ			16:56																				
ZZZZZZ			16:58																				
ZZZZZZ			17:00																				
ZZZZZZ			17:02																				
ZZZZZZ			17:04																				
ZZZZZZ			17:07																				
ZZZZZZ			17:10																				
ZZZZZZ			17:12																				
CCV 240-42622/12-A			17:14																				
CCB 240-42622/11-A			17:17																				
ZZZZZZ			17:20																				
ZZZZZZ			17:22																				
ZZZZZZ			17:24																				
ZZZZZZ			17:25																				
ZZZZZZ			17:27																				
ZZZZZZ			17:29																				
ZZZZZZ			17:31																				
ZZZZZZ			17:33																				
ZZZZZZ			17:35																				
ZZZZZZ			17:38																				
CCV 240-42622/12-A			17:40																				
CCB 240-42622/11-A			17:42																				
ZZZZZZ			17:44																				
ZZZZZZ			17:46																				
ZZZZZZ			17:48																				
ZZZZZZ			17:49																				
ZZZZZZ			17:52																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10770-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			17:54																				
ZZZZZZ			17:56																				
ZZZZZZ			17:58																				
ZZZZZZ			18:00																				
ZZZZZZ			18:03																				
CCV 240-42622/12-A			18:05																				
CCB 240-42622/11-A			18:07																				
ZZZZZZ			18:09																				
ZZZZZZ			18:11																				
ZZZZZZ			18:13																				
ZZZZZZ			18:15																				
ZZZZZZ			18:17																				
ZZZZZZ			18:20																				
ZZZZZZ			18:21																				
ZZZZZZ			18:25																				
ZZZZZZ			18:27																				
ZZZZZZ			18:29																				
CCV 240-42622/12-A			18:31																				
CCB 240-42622/11-A			18:33																				
ZZZZZZ			18:35																				
ZZZZZZ			18:37																				
CCV 240-42622/12-A			18:39																				
CRA 240-42622/9-A			18:41																				
CCB 240-42622/11-A			18:44																				

Prep Types
D = Dissolved
T = Total/NA

Sample 65P-MW07-042712 total arsenic result 1.4ug/L

240-10770-h-2-a, 5/3/2012 08:41:26 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
x		95.138%	0.215	47.650
%RSD		4.706	2.012	5.747
Run	**Time**	**23Na**	**25Mg**	**27Al**
		ppb	ppb	ppb
x		T 35510.000	4923.000	309.100
%RSD		T 1.500	1.897	1.244
Run	**Time**	**35Cl**	**39K**	**43Ca**
		ppb	ppb	ppb
x		T 0.000	T 4861.000	14060.000
%RSD		T 0.000	T 1.151	0.244
Run	**Time**	**45Sc**	**45Sc**	**47Ti**
		ppb	ppb	ppb
x		T 107.140%	94.743%	1.506
%RSD		T 2.809	0.513	6.344
Run	**Time**	**51V**	**52Cr**	**53Cr O**
		ppb	ppb	ppb
x		0.924	0.469	0.666
%RSD		25.890	12.570	137.600
Run	**Time**	**55Mn**	**56Fe**	**59Co**
		ppb	ppb	ppb
x		T 200.700	258.000	6.361
%RSD		T 0.881	0.953	0.578
Run	**Time**	**60Ni**	**65Cu**	**66Zn**
		ppb	ppb	ppb
x		7.071	1.886	M 734.800
%RSD		6.517	2.103	M 0.752
Run	**Time**	**72Ge**	**75As**	**77As O**
		ppb	ppb	ppb
x		92.416%	1.350	0.375
%RSD		1.145	5.097	17.170
Run	**Time**	**78Se**	**88Sr**	**95Mo**
		ppb	ppb	ppb
x		0.829	71.490	1.248
%RSD		23.240	0.513	10.500
Run	**Time**	**105Pd**	**107Ag**	**108Mo O**
		ppb	ppb	ppb
x		0.000	0.009	0.502
%RSD		0.000	89.730	291.200
Run	**Time**	**111Cd**	**115In**	**118Sn**
		ppb	ppb	ppb
x		0.091	92.122%	0.156
%RSD		29.000	0.344	6.583
Run	**Time**	**121Sb**	**137Ba**	**159Tb**
		ppb	ppb	ppb
x		0.411	43.540	0.000
%RSD		3.510	0.448	0.000
Run	**Time**	**165Ho**	**182W**	**205Tl**
		ppb	ppb	ppb
x		90.659%	1.003	0.823
%RSD		0.560	12.910	6.298
Run	**Time**	**208Pb**	**209Bi**	
		ppb	ppb	
x		0.279	0.000	
%RSD		3.127	0.000	

Case Narrative

TestAmerica West Sacramento Project Number G2E010422

WATER, 6850, Perchlorate
Samples: 1, 2, 3
In accordance with the requirements of Method 6850, both a Laboratory Control Sample (LCS) and a Synthetic Matrix Check Sample (SMCS) were analyzed with the associated samples. Both are reported on the LCS data evaluation and recovery reports, and are differentiated from one another by their workorder number:

LCS: MTELA1AC
SMCS: MTELA1AD

There are no other anomalies associated with this project.

ANALYTICAL METHODS SUMMARY

G2E010422

PARAMETER	ANALYTICAL METHOD
Perchlorate by 6850	SW846 6850

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD BLANK REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010422 Work Order #...: MTELA1AA Matrix.....: WATER
MB Lot-Sample #: G2E070000-058

Prep Date.....: 05/07/12
Analysis Date..: 05/14/12 Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Perchlorate	ND	1.0	ug/L	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010422 Work Order #...: MTELA1AC Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Perchlorate	92	(80 - 120)	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010422 Work Order #...: MTELA1AC Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Perchlorate	5.00	4.62	ug/L	92	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010422 Work Order #...: MTELA1AD Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Perchlorate	97	(80 - 120)	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010422 Work Order #...: MTELA1AD Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Perchlorate	5.00	4.86	ug/L	97	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010422 Work Order #...: MTDHX1AC-MS Matrix.....: WATER
MS Lot-Sample #: G2E030450-004 MTDHX1AD-MSD
Date Sampled...: 05/01/12 Date Received..: 05/03/12
Prep Date.....: 05/07/12 Analysis Date..: 05/16/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Perchlorate	99	(80 - 120)			SW846 6850
	97	(80 - 120)	1.8	(0-15)	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E010422 Work Order #...: MTDHX1AC-MS Matrix.....: WATER
MS Lot-Sample #: G2E030450-004 MTDHX1AD-MSD
Date Sampled...: 05/01/12 Date Received..: 05/03/12
Prep Date.....: 05/07/12 Analysis Date..: 05/16/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Perchlorate	ND	5.00	4.95	ug/L	99		SW846 6850
	ND	5.00	4.86	ug/L	97	1.8	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Tetra Tech, Inc. **INTERNAL CORRESPONDENCE**

TO:	**A. APANAVAGE**	**DATE:**	**JUNE 21, 2012**
FROM:	**MICHELLE L. ALLEN**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC/1,4-DIOXANE/DRO/GRO**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
SDG 240-10808-1

SAMPLES: 4/Aqueous/VOC

GSP-MW5-043012 GSP-MW6-043012 MT-MW02S-043012
TB-043012

3/Aqueous/1,4-DIOXANE/DRO/GRO

GSP-MW5-043012 GSP-MW6-043012 MT-MW02S-043012

Overview

The sample set for LMC-MSA, SDG 240-10808-1 consisted of three (3) aqueous environmental samples and one (1) trip blank. All four (4) aqueous samples were analyzed for volatile organic compounds (VOC). The three (3) aqueous environmental samples were analyzed for the semi-volatile organic compound (SVOC), 1,4-dioxane, diesel range organics (DRO) and gasoline range organics (GRO). No field duplicate sample pair was included in this SDG.

The samples were collected by Tetra Tech, Inc. on April 30, 2012 and analyzed by Test America, Inc. All analyses were conducted in accordance with SW-846 Methods 8260C, 8270C, and 8015B analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, trip blank results, surrogate spike recoveries, blank spike results, matrix spike/matrix spike duplicate results, internal standard recoveries, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major

- The initial and continuing calibrations performed on instrument A3UX16 in the VOC fraction had Relative Response Factors (RRFs) for tert-butyl alcohol and vinyl acetate below the 0.050 minimum response criterion. All samples were affected. The non-detected results reported for these compounds in the affected samples were qualified as rejected, (UR).

- Tentatively identified compounds (TICs) identified as silanol compounds were qualified as rejected (R), because these are indicative of column bleed.

Minor

- The following contaminants were detected in the laboratory method blanks at the following

maximum concentrations:

Compound	Maximum Concentration (µg/L)	Action Level (µg/L)
1,2,3-Trichlorobenzene [1]	0.372	1.86
1,2,4-Trichlorobenzene [1]	0.247	1.24
Hexachlorobutadiene [1]	0.462	2.31
GRO (C6-C10) [2]	28	140

1 Maximum concentration detected in the laboratory method blank, MB 240-43549/5, affecting all samples.
2 Maximum concentration detected in the laboratory method blank, MB 240-42995/7, affecting all samples.

An action level of 5X the maximum concentration was used to evaluate for blank contamination. Sample aliquot and dilution factor, if applicable, were taken into consideration when evaluating for blank contamination. Positive results for GRO reported below the established action level were qualified as non-detected, (B). No action was necessary for the remaining compounds because no positive results were reported for these compounds in the affected samples.

- Positive results reported below the Reporting Limit (RL) limit but above the Method Detection Limit (MDL) were qualified as estimated, (J).
- Tentatively identified compounds (TICs) were qualified as estimated presumptively present, (NJ).

Notes

The VOC compounds, 2-chloroethyl vinyl ether and 2-butanone, were not recovered in the Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses. No action was taken because the sample for the MS/MSD analyses was not from this SDG and the blank spike sample had acceptable %Rs for these compounds.

Sample MT-MW02S-043012 was diluted 5X prior to analysis in the VOC fraction. The RLs of the non-detected results were elevated.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: Initial and continuing calibration RRFs for tert-butyl alcohol and vinyl acetate were below the quality control criterion resulting in the rejection of the non-detected results. Laboratory method blank contamination was noted in the VOC and GRO fractions.

Other Factors Affecting Data Quality: One sample required a dilution for the VOC fraction.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994) and SW-846 Methods 8260C, 8270C, and 8015B analytical and reporting protocols. The text of this report has been formulated to address only those problem areas affecting data quality.

for Tetra Tech, Inc.
Michelle L. Allen
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Quality Assurance Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 04021	NSAMPLE	GSP-MW5-043012			GSP-MW6-043012			MT-MW02S-043012			TB-043012		
SDG: 240-10808-1	LAB_ID	240-10808-2			240-10808-3			240-10808-4			240-10808-1		
FRACTION: OV	SAMP_DATE	4/30/2012			4/30/2012			4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		1.2	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		1.1	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.9	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		1.4	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.75	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.95	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.65	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.85	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		2.2	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		2.4	J	P	0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.75	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		9.2			0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		3.4	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		1.2	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.65	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		3.8	J	P	0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.9	U		0.18	U	
1,3,5-TRIMETHYLBENZENE								47					
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.7	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.8	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.65	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.65	U		0.13	U	
2,4-PENTANEDIONE, 3-METHYL-								7.8	NJ	Z1			
2-BUTANONE		0.57	U		0.57	U		2.9	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		5	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.55	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		2.1	U		0.41	U	
3-PENTANOL, 2,2-DIMETHYL-								6.5	NJ	Z1			
3-PENTANONE, 2,4-DIMETHYL-								12	NJ	Z1			
4-CHLOROTOLUENE		0.18	U		0.18	U		0.9	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		1.6	J	P	0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		2.5	J	P	0.32	U	
ACETONE		1.1	U		1.1	U		90			1.1	U	
BENZENE		0.13	U		0.13	U		87			0.13	U	
BENZENE, 1-ETHYL-2-METHYL-								7.3	NJ	Z1			

PROJ_NO: 04021	NSAMPLE	GSP-MW5-043012			GSP-MW6-043012			MT-MW02S-043012			TB-043012		
SDG: 240-10808-1	LAB_ID	240-10808-2			240-10808-3			240-10808-4			240-10808-1		
FRACTION: OV	SAMP_DATE	4/30/2012			4/30/2012			4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZENE, 1-ETHYL-3-METHYL-								10	NJ	Z1			
BROMOBENZENE		0.13	U		0.13	U		0.65	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		1.5	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.75	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		3.2	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		2.1	U		0.41	U	
CARBON DISULFIDE		0.13	J	P	0.13	U		0.65	U		0.13	U	
CARBON TETRACHLORIDE		1.9			0.13	U		0.65	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U		0.75	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.9	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		1.5	U		0.29	U	
CHLOROFORM		0.68	J	P	0.16	U		0.8	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		1.5	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		0.17	U		4.8	J	P	0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.7	U		0.14	U	
CYCLOBUTANE, METHYL-								9.8	NJ	Z1			
CYCLOHEXANE								45					
CYCLOPENTANE, METHYL-								19	NJ	Z1			
DIBROMOMETHANE		0.28	U		0.28	U		1.4	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		1.6	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		7.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.55	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		180			0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		1.5	U		0.3	U	
INDANE								8.1	NJ	Z1			
ISOPROPYLBENZENE		0.13	U		0.13	U		31			0.13	U	
M+P-XYLENES		0.24	U		0.24	U		50			0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.85	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		1.7	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		1.2	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.6	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		9.7			0.14	U	
O-XYLENE		0.14	U		0.14	U		22			0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.75	J	P	0.13	U	
SILANOL, TRIMETHYL-		3.5	R	Z2	1.2	R	Z2				2.1	R	Z2

PROJ_NO: 04021	NSAMPLE	GSP-MW5-043012			GSP-MW6-043012			MT-MW02S-043012			TB-043012		
SDG: 240-10808-1	LAB_ID	240-10808-2			240-10808-3			240-10808-4			240-10808-1		
FRACTION: OV	SAMP_DATE	4/30/2012			4/30/2012			4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
STYRENE		0.11	U		0.11	U		0.55	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.34	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.65	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C	20	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U		1.5	U		0.29	U	
TOLUENE		0.13	U		0.13	U		0.65	U		0.13	U	
TOTAL XYLENES		0.28	U		0.28	U		72			0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.95	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.95	U		0.19	U	
TRICHLOROETHENE		0.17	U		0.17	U		0.85	U		0.17	U	
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		1.1	U		0.21	U	
VINYL ACETATE		0.19	UR	C	0.19	UR	C	0.95	UR	C	0.19	UR	C
VINYL CHLORIDE		0.22	U		0.22	U		1.1	U		0.22	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW5-043012			GSP-MW6-043012			MT-MW02S-043012		
SDG: 240-10808-1	LAB_ID	240-10808-2			240-10808-3			240-10808-4		
FRACTION: OS	SAMP_DATE	4/30/2012			4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.47	U		0.47	U		0.49	U	

PROJ_NO: 04021	NSAMPLE	GSP-MW5-043012			GSP-MW6-043012			MT-MW02S-043012		
SDG: 240-10808-1	LAB_ID	240-10808-2			240-10808-3			240-10808-4		
FRACTION: PET	SAMP_DATE	4/30/2012			4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		37	B	A	41	B	A	1400		
TPH (C10-C32)		1200			490			3700		

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: GSP-MW5-043012 | Lab Sample ID: 240-10808-2

Matrix: Water | Lab File ID: UXM5697.D

Analysis Method: 8260C | Date Collected: 04/30/2012 10:30

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 12:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	J	1.0	0.13
56-23-5	Carbon tetrachloride	1.9		1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: GSP-MW5-043012 | Lab Sample ID: 240-10808-2

Matrix: Water | Lab File ID: UXM5697.D

Analysis Method: 8260C | Date Collected: 04/30/2012 10:30

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 12:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	0.68	J	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: GSP-MW5-043012
Lab Sample ID: 240-10808-2
Matrix: Water
Lab File ID: UXM5697.D
Analysis Method: 8260C
Date Collected: 04/30/2012 10:30
Sample wt/vol: 5(mL)
Date Analyzed: 05/10/2012 12:47
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 43549
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		63-129
460-00-4	4-Bromofluorobenzene (Surr)	98		66-117
2037-26-5	Toluene-d8 (Surr)	95		74-115
1868-53-7	Dibromofluoromethane (Surr)	102		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: GSP-MW5-043012 | Lab Sample ID: 240-10808-2

Matrix: Water | Lab File ID: UXM5697.D

Analysis Method: 8260C | Date Collected: 04/30/2012 10:30

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 12:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 3.5

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.60	3.5	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: GSP-MW6-043012 | Lab Sample ID: 240-10808-3

Matrix: Water | Lab File ID: UXM5698.D

Analysis Method: 8260C | Date Collected: 04/30/2012 11:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 13:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: GSP-MW6-043012 | Lab Sample ID: 240-10808-3

Matrix: Water | Lab File ID: UXM5698.D

Analysis Method: 8260C | Date Collected: 04/30/2012 11:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 13:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: GSP-MW6-043012 | Lab Sample ID: 240-10808-3

Matrix: Water | Lab File ID: UXM5698.D

Analysis Method: 8260C | Date Collected: 04/30/2012 11:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 13:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-129
460-00-4	4-Bromofluorobenzene (Surr)	100		66-117
2037-26-5	Toluene-d8 (Surr)	98		74-115
1868-53-7	Dibromofluoromethane (Surr)	95		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: GSP-MW6-043012 | Lab Sample ID: 240-10808-3

Matrix: Water | Lab File ID: UXM5698.D

Analysis Method: 8260C | Date Collected: 04/30/2012 11:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 13:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 1.2

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.60	1.2	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: MT-MW02S-043012 | Lab Sample ID: 240-10808-4

Matrix: Water | Lab File ID: UXM5699.D

Analysis Method: 8260C | Date Collected: 04/30/2012 13:05

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 13:33

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	1.2
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	1.1
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.90
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	5.0	U	5.0	1.4
75-34-3	1,1-Dichloroethane	5.0	U	5.0	0.75
75-35-4	1,1-Dichloroethene	5.0	U	5.0	0.95
563-58-6	1,1-Dichloropropene	5.0	U	5.0	0.65
87-61-6	1,2,3-Trichlorobenzene	5.0	U	5.0	0.85
96-18-4	1,2,3-Trichloropropane	5.0	U	5.0	2.2
526-73-8	1,2,3-Trimethylbenzene	2.4	J	25	0.030
120-82-1	1,2,4-Trichlorobenzene	5.0	U	5.0	0.75
95-63-6	1,2,4-Trimethylbenzene	9.2		5.0	0.60
96-12-8	1,2-Dibromo-3-Chloropropane	10	U	10	3.4
95-50-1	1,2-Dichlorobenzene	5.0	U	5.0	0.65
107-06-2	1,2-Dichloroethane	3.8	J	5.0	1.1
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.90
541-73-1	1,3-Dichlorobenzene	5.0	U	5.0	0.70
142-28-9	1,3-Dichloropropane	5.0	U	5.0	0.80
106-46-7	1,4-Dichlorobenzene	5.0	U	5.0	0.65
594-20-7	2,2-Dichloropropane	5.0	U	5.0	0.65
110-75-8	2-Chloroethyl vinyl ether	50	U	50	5.0
95-49-8	2-Chlorotoluene	5.0	U	5.0	0.55
591-78-6	2-Hexanone	50	U	50	2.1
108-86-1	Bromobenzene	5.0	U	5.0	0.65
74-97-5	Bromochloromethane	5.0	U	5.0	1.5
106-43-4	4-Chlorotoluene	5.0	U	5.0	0.90
99-87-6	p-Isopropyltoluene	1.6	J	5.0	0.60
67-64-1	Acetone	90		50	5.5
71-43-2	Benzene	87		5.0	0.65
75-25-2	Bromoform	5.0	U	5.0	3.2
74-83-9	Bromomethane	5.0	U	5.0	2.1
75-15-0	Carbon disulfide	5.0	U	5.0	0.65
56-23-5	Carbon tetrachloride	5.0	U	5.0	0.65
108-90-7	Chlorobenzene	5.0	U	5.0	0.75
75-00-3	Chloroethane	5.0	U	5.0	1.5

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: MT-MW02S-043012 | Lab Sample ID: 240-10808-4

Matrix: Water | Lab File ID: UXM5699.D

Analysis Method: 8260C | Date Collected: 04/30/2012 13:05

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 13:33

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	5.0	U	5.0	0.80
74-87-3	Chloromethane	5.0	U	5.0	1.5
156-59-2	cis-1,2-Dichloroethene	4.8	J	5.0	0.85
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.70
87-68-3	Hexachlorobutadiene	5.0	U	5.0	1.5
74-95-3	Dibromomethane	5.0	U	5.0	1.4
75-27-4	Bromodichloromethane	5.0	U	5.0	0.75
75-71-8	Dichlorodifluoromethane	5.0	U	5.0	1.6
100-41-4	Ethylbenzene	180		5.0	0.85
106-93-4	1,2-Dibromoethane	5.0	U	5.0	1.2
108-20-3	Diisopropyl ether	50	U	50	7.5
91-20-3	Naphthalene	5.0	U	5.0	1.2
179601-23-1	m-Xylene & p-Xylene	50		10	1.2
104-51-8	n-Butylbenzene	5.0	U	5.0	0.60
98-82-8	Isopropylbenzene	31		5.0	0.65
103-65-1	n-Propylbenzene	9.7		5.0	0.70
78-93-3	2-Butanone	50	U	50	2.9
108-10-1	4-Methyl-2-pentanone	2.5	J	50	1.6
135-98-8	sec-Butylbenzene	0.75	J	5.0	0.65
1634-04-4	Methyl tert-butyl ether	25	U	25	0.85
994-05-8	Tert-amyl-methyl ether (TAME)	25	U	25	0.34
75-09-2	Methylene Chloride	5.0	U	5.0	1.7
95-47-6	o-Xylene	22		5.0	0.70
100-42-5	Styrene	5.0	U	5.0	0.55
637-92-3	Ethyl-t-butyl ether (ETBE)	25	U	25	0.55
98-06-6	tert-Butylbenzene	5.0	U	5.0	0.65
127-18-4	Tetrachloroethene	5.0	U	5.0	1.5
108-88-3	Toluene	5.0	U	5.0	0.65
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.95
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.95
79-01-6	Trichloroethene	5.0	U	5.0	0.85
75-69-4	Trichlorofluoromethane	5.0	U	5.0	1.1
108-05-4	Vinyl acetate	10	U	10	0.95
75-01-4	Vinyl chloride	5.0	U	5.0	1.1
75-65-0	tert-Butyl alcohol	250	U	250	20
1330-20-7	Xylenes, Total	72		10	1.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: MT-MW02S-043012 | Lab Sample ID: 240-10808-4

Matrix: Water | Lab File ID: UXM5699.D

Analysis Method: 8260C | Date Collected: 04/30/2012 13:05

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 13:33

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	5.0	U	5.0	0.90

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-129
460-00-4	4-Bromofluorobenzene (Surr)	105		66-117
2037-26-5	Toluene-d8 (Surr)	95		74-115
1868-53-7	Dibromofluoromethane (Surr)	100		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: MT-MW02S-043012
Lab Sample ID: 240-10808-4
Matrix: Water
Lab File ID: UXM5699.D
Analysis Method: 8260C
Date Collected: 04/30/2012 13:05
Sample wt/vol: 5(mL)
Date Analyzed: 05/10/2012 13:33
Soil Aliquot Vol:
Dilution Factor: 5
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 43549
Units: ug/L
Number TICs Found: 10
TIC Result Total: 172.5

CAS NO.	COMPOUND NAME	RT	RESULT	Q
598-61-8	Cyclobutane, methyl-	3.67	9.8	T J N
96-37-7	Cyclopentane, methyl-	4.63	19	T J N
110-82-7	Cyclohexane	5.22	45	
565-80-0	3-Pentanone, 2,4-dimethyl-	7.67	12	T J N
3970-62-5	3-Pentanol, 2,2-dimethyl-	8.11	6.5	T J N
815-57-6	2,4-Pentanedione, 3-methyl-	8.23	7.8	T J N
620-14-4	Benzene, 1-ethyl-3-methyl-	9.84	10	T J N
108-67-8	1,3,5-Trimethylbenzene	9.92	47	
611-14-3	Benzene, 1-ethyl-2-methyl-	10.13	7.3	T J N
496-11-7	Indane	10.91	8.1	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: TB-043012 | Lab Sample ID: 240-10808-1

Matrix: Water | Lab File ID: UXM5696.D

Analysis Method: 8260C | Date Collected: 04/30/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 12:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: TB-043012 | Lab Sample ID: 240-10808-1

Matrix: Water | Lab File ID: UXM5696.D

Analysis Method: 8260C | Date Collected: 04/30/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 12:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: TB-043012 | Lab Sample ID: 240-10808-1

Matrix: Water | Lab File ID: UXM5696.D

Analysis Method: 8260C | Date Collected: 04/30/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 12:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-129
460-00-4	4-Bromofluorobenzene (Surr)	97		66-117
2037-26-5	Toluene-d8 (Surr)	96		74-115
1868-53-7	Dibromofluoromethane (Surr)	91		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: TB-043012 | Lab Sample ID: 240-10808-1

Matrix: Water | Lab File ID: UXM5696.D

Analysis Method: 8260C | Date Collected: 04/30/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 12:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 2.1

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.60	2.1	T J N

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: GSP-MW5-043012
Lab Sample ID: 240-10808-2
Matrix: Water
Lab File ID: 20508035.D
Analysis Method: 8270C
Date Collected: 04/30/2012 10:30
Extract. Method: 3520C
Date Extracted: 05/05/2012 09:23
Sample wt/vol: 1050(mL)
Date Analyzed: 05/08/2012 19:16
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 43126
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.95	U	0.95	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	57		28-110
367-12-4	2-Fluorophenol (Surr)	57		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	82		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	52		27-111
4165-62-2	Phenol-d5 (Surr)	60		10-110
1718-51-0	Terphenyl-d14 (Surr)	66		37-119

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: GSP-MW6-043012
Lab Sample ID: 240-10808-3
Matrix: Water
Lab File ID: 20508036.D
Analysis Method: 8270C
Date Collected: 04/30/2012 11:45
Extract. Method: 3520C
Date Extracted: 05/05/2012 09:23
Sample wt/vol: 1050(mL)
Date Analyzed: 05/08/2012 19:35
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 43126
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.95	U	0.95	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	56		28-110
367-12-4	2-Fluorophenol (Surr)	48		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	84		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	50		27-111
4165-62-2	Phenol-d5 (Surr)	60		10-110
1718-51-0	Terphenyl-d14 (Surr)	64		37-119

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: MT-MW02S-043012
Lab Sample ID: 240-10808-4
Matrix: Water
Lab File ID: 20508037.D
Analysis Method: 8270C
Date Collected: 04/30/2012 13:05
Extract. Method: 3520C
Date Extracted: 05/05/2012 09:23
Sample wt/vol: 1010(mL)
Date Analyzed: 05/08/2012 19:53
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 43126
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.99	U	0.99	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	51		28-110
367-12-4	2-Fluorophenol (Surr)	56		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	77		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	64		27-111
4165-62-2	Phenol-d5 (Surr)	64		10-110
1718-51-0	Terphenyl-d14 (Surr)	59		37-119

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: GSP-MW5-043012
Lab Sample ID: 240-10808-2
Matrix: Water
Lab File ID: YF050708.D
Analysis Method: 8015B
Date Collected: 04/30/2012 10:30
Sample wt/vol: 5(mL)
Date Analyzed: 05/07/2012 14:40
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42995
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	37	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	60		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: GSP-MW6-043012
Lab Sample ID: 240-10808-3
Matrix: Water
Lab File ID: YF050711.D
Analysis Method: 8015B
Date Collected: 04/30/2012 11:45
Sample wt/vol: 5(mL)
Date Analyzed: 05/07/2012 16:42
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42995
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	41	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	56		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: MT-MW02S-043012
Lab Sample ID: 240-10808-4
Matrix: Water
Lab File ID: YF050712.D
Analysis Method: 8015B
Date Collected: 04/30/2012 13:05
Sample wt/vol: 5(mL)
Date Analyzed: 05/07/2012 17:23
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 42995
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	1400	B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	94		10-150

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: GSP-MW5-043012
Lab Sample ID: 240-10808-2
Matrix: Water
Lab File ID: P5F05075.D
Analysis Method: 8015B
Date Collected: 04/30/2012 10:30
Extraction Method: 3510C
Date Extracted: 05/04/2012 12:16
Sample wt/vol: 1050(mL)
Date Analyzed: 05/07/2012 10:16
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: ID:
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 42964
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	1200		480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	69		10-110

FORM I

DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Client Sample ID: GSP-MW6-043012 Lab Sample ID: 240-10808-3

Matrix: Water Lab File ID: P5F05076.D

Analysis Method: 8015B Date Collected: 04/30/2012 11:45

Extraction Method: 3510C Date Extracted: 05/04/2012 12:16

Sample wt/vol: 1050(mL) Date Analyzed: 05/07/2012 10:46

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 42964 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	490		480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	67		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID: MT-MW02S-043012
Lab Sample ID: 240-10808-4
Matrix: Water
Lab File ID: P5F05077.D
Analysis Method: 8015B
Date Collected: 04/30/2012 13:05
Extraction Method: 3510C
Date Extracted: 05/04/2012 12:16
Sample wt/vol: 1050(mL)
Date Analyzed: 05/07/2012 11:16
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: ID:
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 42964
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	3700		480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	57		10-110

Appendix C

Support Documentation

MARTIN STATE AIRPORT - GROUNDWATER
SDG 240-10808-1

SAMPLE IDENTIFICATION	MT-MW02S-043012
COMPOUND	ETHYLBENZENE
COMPOUND AREA	2379121
INTERNAL STANDARD AMOUNT (ng)	50
VOLUME WATER PURGED (ml)	5
DILUTION FACTOR	5
INTERNAL STANDARD AREA	1154735
AVERAGE RRF	0.5579
ml to µl	1000
ng to µg	1000
=	184.6 µg/L

2379121 x 50 ng x 5 x 1000ml x 1µg /1154735 x 0.5579 x 5ml x 1L x 1000ng

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A3UX16\20120510-9837.b\UXM5699.D		
Lims ID:	240-10808-A-4	Client ID:	MT-MW02S-043012
Inject. Date:	10-May-2012 13:33:30	Dil. Factor:	5.0000
Sample Type:	Client		
Sample ID:	240-0009837-009		
Misc. Info.:	M20510A,8260LLUX16,,1644		
Operator:	1644	Instrument ID:	A3UX16
Vol. Injected:	1.0000	ALS Bottle#:	8
Lims Batch ID:	43549	Lims Sample ID:	9
Detector:	MS SCAN		
Method:	\\Ncchrom\ChromData\A3UX16\20120510-9837.b\8260_16.m		
Last Update:	11-May-2012 10:46:30	Calib Date:	09-May-2012 18:43:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A3UX16\20120509-9809.b\UXM5665.D		
Limit Group:	MSV 8260DOD ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Process Host:	CORP-CTX-15		

First Level Reviewer: williamsla Date: 10-May-2012 14:02:51

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 141 1-Chlorooctane	1		0.000					
* 1 Fluorobenzene	96	5.702	5.702	0.0	98	1490431	10.0	
* 2 Chlorobenzene-d5	117	8.393	8.393	0.0	89	1154735	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.635	10.635	0.0	96	657198	10.0	
$ 5 Dibromofluoromethane (Surr)	113	5.109	5.109	0.0	58	384323	10.2	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	5.405	5.405	0.0	0	477366	10.0	
$ 7 Toluene-d8 (Surr)	98	7.077	7.077	0.0	95	1502646	9.67	
$ 131 4-Bromofluorobenzene (Surr)	95	9.508	9.508	0.0	89	639651	10.7	
12 Dichlorodifluoromethane	85		1.670					
13 Chloromethane	50		1.824					
14 Vinyl chloride	62		1.942					
15 Bromomethane	94		2.286					
16 Chloroethane	64		2.393					
18 Trichlorofluoromethane	101		2.654					
21 1,1-Dichloroethene	96		3.140					
23 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.164					
22 Acetone	43	3.176	3.176	0.0	99	288453	17.9	
26 Carbon disulfide	76		3.354					
30 Methylene Chloride	84		3.579					
31 2-Methyl-2-propanol	59		3.674					
34 Methyl tert-butyl ether	73		3.840					
33 trans-1,2-Dichloroethene	96		3.840					
36 1,1-Dichloroethane	63		4.207					
37 Vinyl acetate	86		4.243					
38 Isopropyl ether	87	4.267	4.267	0.0	93	10018	0.2422	
40 Tert-butyl ethyl ether	59		4.587					
41 2-Butanone (MEK)	43		4.706					
42 cis-1,2-Dichloroethene	96	4.705	4.706	-0.001	69	49677	0.9550	
43 2,2-Dichloropropane	77		4.717					
47 Chlorobromomethane	128		4.907					
49 Chloroform	83		4.978					

Report Date: 11-May-2012 10:46:33 Chrom Revision: 2.0 08-Feb-2012 11:07:54
Data File: \\Ncchrom\ChromData\A3UX16\20120510-9837.b\UXM5699.D

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
50 1,1,1-Trichloroethane	97		5.156					
52 1,1-Dichloropropene	75		5.287					
53 Carbon tetrachloride	117		5.298					
56 1,2-Dichloroethane	62	5.476	5.464	0.012	29	48692	0.7646	
55 Benzene	78	5.476	5.476	0.0	97	3022378	17.4	
57 Tert-amyl methyl ether	73		5.559					
60 Trichloroethene	130		6.022					
62 1,2-Dichloropropane	63		6.212					
65 Dibromomethane	93		6.306					
67 Dichlorobromomethane	83		6.437					
69 2-Chloroethyl vinyl ether	63		6.686					
70 cis-1,3-Dichloropropene	75		6.828					
71 4-Methyl-2-pentanone (MIBK)	43	6.947	6.947	0.0	70	21915	0.5062	
72 Toluene	91		7.137					
73 trans-1,3-Dichloropropene	75		7.314					
76 1,3-Dichloropropane	76		7.635					
77 Tetrachloroethene	164		7.646					
78 2-Hexanone	43		7.694					
79 Chlorodibromomethane	129		7.848					
123 Ethylene Dibromide	107		7.967					
82 Chlorobenzene	112		8.429					
83 1,1,1,2-Tetrachloroethane	131		8.488					
RRF 84 Ethylbenzene	106	8.524	8.524	0.0	98	2379121	36.9	
10 m-Xylene & p-Xylene	106	8.631	8.631	0.0	97	804959	9.94	
= 0.5579 85 o-Xylene	106	9.010	9.010	0.0	98	350770	4.36	
86 Styrene	104		9.010					
87 Bromoform	173		9.188					
88 Isopropylbenzene	105	9.354	9.354	0.0	96	1180910	6.16	
90 1,1,2,2-Tetrachloroethane	83		9.615					
91 Bromobenzene	156		9.662					
92 1,2,3-Trichloropropane	110		9.674					
94 N-Propylbenzene	120	9.757	9.757	0.0	98	97182	1.94	
95 2-Chlorotoluene	126		9.840					
104 4-Chlorotoluene	126		9.947					
97 tert-Butylbenzene	119		10.243					
98 1,2,4-Trimethylbenzene	105	10.291	10.291	0.0	97	291669	1.83	
99 sec-Butylbenzene	105	10.457	10.457	0.0	60	25068	0.1499	
100 1,3-Dichlorobenzene	146		10.575					
101 4-Isopropyltoluene	119	10.599	10.599	0.0	86	44914	0.3130	
102 1,4-Dichlorobenzene	146		10.658					
103 1,2,3-Trimethylbenzene	105	10.706	10.706	0.0	87	95991	0.4898	
105 n-Butylbenzene	91		11.002					
106 1,2-Dichlorobenzene	146		11.026					
107 1,2-Dibromo-3-Chloropropane	157		11.797					
109 1,2,4-Trichlorobenzene	180		12.639					
110 Hexachlorobutadiene	225		12.817					
111 Naphthalene	128	12.888	12.888	0.0	62	19213	0.1981	
112 1,2,3-Trichlorobenzene	180		13.149					
S 114 Xylenes, Total	106				0		14.3	

TestAmerica Laboratories
Tentatively Identified Quantitation Report

Data File:	\\Ncchrom\ChromData\A3UX16\20120510-9837.b\UXM5699.D		
Lims ID:	240-10808-A-4	Client ID:	MT-MW02S-043012
Inject. Date:	10-May-2012 13:33:30	Dil. Factor:	5.0000
Sample Type:	Client		
Sample ID:	240-0009837-009		
Misc. Info.:	M20510A,8260LLUX16,,1644		
Operator:	1644	Instrument ID:	A3UX16
Vol. Injected:	1.0000	ALS Bottle#:	8
Lims Batch ID:	43549	Lims Sample ID:	9
Detector:	MS SCAN		
Method:	\\Ncchrom\ChromData\A3UX16\20120510-9837.b\8260_16.m		
Last Update:	11-May-2012 10:46:30	Calib Date:	09-May-2012 18:43:30
Tic RT Window:	1.600 -0.000	Response:	area
Quant By:	Nearest ISTD	Quant LOD:	10.00000
MS Library:	\\Ncchrom\ChromData\Database\NIST98.L		
Min. Match:	10		
Process Host:	CORP-CTX-15		

First Level Reviewer: williamsla Date: 10-May-2012 14:02:51

Calibrated Tentative Identified Compound Results

Compound	RT	Response	Amount ug/l	Flags
Cyclohexane	5.215	878136	9.07	
1,3,5-Trimethylbenzene	9.923	1420029	9.31	

Tentative Identified Compound Results

RT	Response	Amount ug/l	Quant Cpnd	Qual	Lib Entry	Flags
598-61-8 Cyclobutane, methyl-						
3.674	644408	1.96	1	87	3261	
96-37-7 Cyclopentane, methyl-						
4.634	1220604	3.71	1	91	111861	
565-80-0 3-Pentanone, 2,4-dimethyl-						
7.670	996824	2.48	2	86	109868	
3970-62-5 3-Pentanol, 2,2-dimethyl-						
8.109	521792	1.30	2	64	113266	
815-57-6 2,4-Pentanedione, 3-methyl-						
8.227	622105	1.55	2	59	109965	
620-14-4 Benzene, 1-ethyl-3-methyl-						
9.840	877628	2.08	3	87	119287	
611-14-3 Benzene, 1-ethyl-2-methyl-						
10.125	611361	1.45	3	91	119281	
496-11-7 Indane						
10.907	677947	1.61	3	87	120526	

Report Date: 11-May-2012 10:46:33 Chrom Revision: 2.0 08-Feb-2012 11:07:54
Data File: \\Ncchrom\ChromData\A3UX16\20120510-9837.b\UXM5699.D
Quantitation Compounds

Compound	RT	Response	Amount ug/l
* 1 Fluorobenzene	5.702	3288690	10.0
* 2 Chlorobenzene-d5	8.393	4011431	10.0
* 3 1,4-Dichlorobenzene-d4	10.635	4220751	10.0

QC Flag Legend

Processing Flags

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A2HP5F\20120507-9715.b\P5F05077.D		
Lims ID:	240-10808-J-4-A	Client ID:	MT-MW02S-043012
Inject. Date:	07-May-2012 11:16:05	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0009715-007		
Misc. Info.:			
Operator:	2398	Instrument ID:	A2HP5F
Vol. Injected:	1.0000	ALS Bottle#:	7
Lims Batch ID:	42964	Lims Sample ID:	7
Detector:	GC FID1A		

Method:	\\Ncchrom\ChromData\A2HP5F\20120507-9715.b\TPH5F.m		
Last Update:	08-May-2012 07:46:28	Calib Date:	13-Apr-2012 15:06:59
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A2HP5F\20120413-9029.b\P5F04144.D		
Limit Group:	GC TPH DIESEL ICAL		
Integrator:	Falcon		
Process Host:	CORP-CTX-18		

RT	EXP RT	DLT RT	Response	On-Col Amt ng/ul	Flags
$ 8 n-Nonane					
3.799	3.796	0.003	12262811	56.6	
A 15 Diesel					
9.247	4.909 -	13.585	139437375	740.6	
A 17 C10-C32					
9.946	4.909 -	14.983	144521858	767.6	

$\overline{CF}$ = 188272.909

extraction = 1050ml / 5ml

$$\frac{144521858\ ng/ul}{188272.909} \times \frac{5ml}{1050ml} \times \frac{1\ mg}{1000ng} \times \frac{1000000\ ul}{1L}$$

= 3655.3 mg/L

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact			
Company Name: Tetra Tech	Client Project Manager: Tony Apanavage	Site Contact: Stu Cameron	Lab Contact:
Address: 20251 Century Blvd Ste 200	Telephone: (301)528-5552	Telephone: (703)342-8389	Telephone:
City/State/Zip: Germantown MD, 20874	Email: Tony.Apanavage@tetratech.com	Analysis Turnaround Time (in BUS days)	
Phone: (301) 528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	
Project Name: MSA GW Sampling	Method of Shipment/Carrier:		
Project Number: 112IC04021	Shipping/Tracking No:		
PO#			

COC No: 006079
1 of 1 COCs

For lab use only
Walk-in client: ☐
Lab packing: ☐
Lab sampling: ☐
Job/SDG No.:

Analyses

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite/Grab (C/G)	VOCs	Total Metals	Dissolved Metals	Perchlorate	1,4-Dioxane	TPH-GRO	TPH-DRO				Sample Specific Notes / Special Instructions:
TB-043012	—	—		X						2							X										
GSP-MW5-043012	4/30/12	1030		X					2	5			5			G	X	X	X	X	X	X	X				
GSP-MW6-043012	↓	1145		X					2	5			5			G	X	X	X	X	X	X	X				
MT-MW02S-043012	↓	1305		X					2	5			5			G	X	X	X	X	X	X	X				

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Stu Cameron	Tetra Tech	4-30-12/1445	Paul Gaffrey	TestAmerica	4/30/12 1446
[illegible]	TestAmerica	4-30-2012/1530			
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			[illegible]	TAL	5-1-12 930

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

TAL 0018-1 (04/10)

CASE NARRATIVE

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Project: MSA Groundwater Sampling

Report Number: 240-10808-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 6850 Perchlorate analysis was performed at the TestAmerica West Sacramento Laboratory.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 05/01/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.9 and 3.2 C.

VOLATILE ORGANIC COMPOUNDS (GC MS)

Samples TB-043012 (240-10808-1), GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for volatile organic compounds (GC MS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 05/10/2012.

1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene and Hexachlorobutadiene were detected in method blank MB 240-43549/5 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

2-Butanone and 2-Chloroethyl vinyl ether failed the recovery criteria low for the MS/MSD of sample 240-10837-5 in batch 240-43549. Refer to the QC report for details.

Sample MT-MW02S-043012 (240-10808-4)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 05/05/2012 and analyzed on 05/08/2012.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

1,4-Dioxane failed the recovery criteria high for the MSD of sample 240-10837-5 in batch 240-43126.

1,4-Dioxane failed the recovery criteria low for the MSD of sample 240-10842-8 in batch 240-43665. 1,4-Dioxane exceeded the rpd limit.

Refer to the QC report for details.

No other difficulties were encountered during the SVOCs analyses. All other quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 05/07/2012.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-42995/6 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 05/04/2012 and analyzed on 05/07/2012.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

No difficulties were encountered during the DRO analyses. All quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

No difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

Several analytes were detected in method blank MB 240-42485/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/03/2012 and 05/07/2012 and analyzed on 05/04/2012 and 05/08/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/03/2012 and 05/07/2012 and analyzed on 05/04/2012 and 05/08/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10808-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-10808-1TB	TB-043012	Water	04/30/2012 0000	05/01/2012 0930
240-10808-2	GSP-MW5-043012	Water	04/30/2012 1030	05/01/2012 0930
240-10808-3	GSP-MW6-043012	Water	04/30/2012 1145	05/01/2012 0930
240-10808-4	MT-MW02S-043012	Water	04/30/2012 1305	05/01/2012 0930

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10808-1

Lab Section	Qualifier	Description
GC/MS VOA		
	J	Indicates an Estimated Value for TICs
	U	Indicates the analyte was analyzed for but not detected.
	F	MS or MSD exceeds the control limits
	E	Result exceeded calibration range.
	T	Result is a tentatively identified compound (TIC) and an estimated value.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	N	This flag indicates the presumptive evidence of a compound.
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	F	MS or MSD exceeds the control limits
	F	RPD of the MS and MSD exceeds the control limits
GC VOA		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-043012	240-10808-1	91	97	96	97
GSP-MW5-043012	240-10808-2	102	102	95	98
GSP-MW6-043012	240-10808-3	95	96	98	100
MT-MW02S-043012	240-10808-4	100	98	95	105
	MB 240-43549/5	91	98	97	97
	LCS 240-43549/4	92	95	101	102
	240-10837-D-5 MS	97	100	101	102
	240-10837-E-5 MSD	94	93	95	96

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-115
BFB = 4-Bromofluorobenzene (Surr)	66-117

Column to be used to flag recovery values

FORM II 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: STD8260 240-43409/4 Date Analyzed: 05/09/2012 17:35

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM5662.D Heated Purge: (Y/N) N

Calibration ID: 8614

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1744720	5.70	1311107	8.39	771411	10.64
UPPER LIMIT		3489440	6.20	2622214	8.89	1542822	11.14
LOWER LIMIT		872360	5.20	655554	7.89	385706	10.14
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-43409/8		1716805	5.70	1288543	8.39	755167	10.64
CCVIS 240-43549/2		1685929	5.70	1198706	8.39	696224	10.64

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: CCVIS 240-43549/2 Date Analyzed: 05/10/2012 10:53

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM5692.D Heated Purge: (Y/N) N

Calibration ID: 8614

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1685929	5.70	1198706	8.39	696224	10.64
UPPER LIMIT		3371858	6.20	2397412	8.89	1392448	11.14
LOWER LIMIT		842965	5.20	599353	7.89	348112	10.14
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-43549/3		1693016	5.70	1283426	8.39	677855	10.64
LCS 240-43549/4		1679901	5.70	1201426	8.39	713156	10.64
MB 240-43549/5		1644585	5.70	1222754	8.39	644299	10.64
240-10808-1	TB-043012	1646516	5.70	1246377	8.39	643038	10.64
240-10808-2	GSP-MW5-043012	1572318	5.70	1192812	8.39	652627	10.64
240-10808-3	GSP-MW6-043012	1587946	5.70	1173345	8.39	631759	10.64
240-10808-4	MT-MW02S-043012	1490431	5.70	1154735	8.39	657198	10.64
240-10837-D-5 MS		1587604	5.70	1149469	8.39	664336	10.64
240-10837-E-5 MSD		1579177	5.70	1228432	8.39	675357	10.64

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab File ID: BFB2914.D BFB Injection Date: 04/29/2012

Instrument ID: A3UX16 BFB Injection Time: 15:11

Analysis Batch No.: 42092

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.4	
75	30.0 - 60.0 % of mass 95	55.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.3	(0.4)1
174	50.0 - 120.00 % of mass 95	67.2	
175	5.0 - 9.0 % of mass 174	4.9	(7.4)1
176	95.0 - 101.0 % of mass 174	65.5	(97.4)1
177	5.0 - 9.0 % of mass 176	4.1	(6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD1 240-42092/8	UXM5245.D	04/29/2012	17:57
	STD2 240-42092/9	UXM5246.D	04/29/2012	18:20
	STD3 240-42092/10	UXM5247.D	04/29/2012	18:42
	STD4 240-42092/11	UXM5248.D	04/29/2012	19:05
	STD5 240-42092/12	UXM5249.D	04/29/2012	19:28
	STD6 240-42092/13	UXM5250.D	04/29/2012	19:50

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 17:57 Calibration End Date: 04/29/2012 19:50 Calibration ID: 8428

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD6 240-42092/13	UXM5250.D
Level 2	STD5 240-42092/12	UXM5249.D
Level 3	STD4 240-42092/11	UXM5248.D
Level 4	STD3 240-42092/10	UXM5247.D
Level 5	STD2 240-42092/9	UXM5246.D
Level 6	STD1 240-42092/8	UXM5245.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorofluoromethane	0.4944 0.5457	0.5179	0.5366	0.5411	0.5388	Ave		0.5291				3.7		15.0			
Ethyl ether	0.2959 0.3118	0.3149	0.3299	0.3322	0.3247	Ave		0.3182				4.3		15.0			
3-Chloro-1-propene	0.1138 0.1626	0.1307	0.1332	0.1472	0.1572	Ave		0.1408				13.0		15.0			
Diisopropyl ether	0.2325 0.3039	0.2698	0.2820	0.2880	0.2888	Ave		0.2775				8.9		15.0			
2-Chloro-1,3-butadiene	0.4443 0.5618	0.4913	0.5190	0.5386	0.5385	Ave		0.5156				8.2		15.0			
Ethyl-t-butyl ether (ETBE)	0.7557 0.9819	0.8293	0.9029	0.9314	0.9383	Ave		0.8899				9.3		15.0			
Propionitrile	0.0349 0.0408	0.0346	0.0382	0.0420	0.0412	Ave		0.0386				8.5		15.0			
Ethyl acetate	0.2532 0.2900	0.2546	0.2741	0.2771	0.2824	Ave		0.2719				5.5		15.0			
Methacrylonitrile	0.1606 0.2023	0.1897	0.1949	0.2046	0.2003	Ave		0.1921				8.5		15.0			
Isobutyl alcohol	0.0077 0.0091	0.0077	0.0086	0.0094	0.0092	Ave		0.0086				8.8		15.0			
Tert-amyl-methyl ether (TAME)	0.5871 0.7972	0.6671	0.7241	0.7535	0.7651	Ave		0.7157				11.0		15.0			
n-Heptane	0.0338 0.0458	0.0359	0.0418	0.0425	0.0440	Ave		0.0406				12.0		15.0			
n-Butanol	0.0041 0.0069	0.0052	0.0059	0.0064	0.0070	Lin1	-0.068	0.0070							0.9990		0.9950
2-Nitropropane	0.0349 0.0534	0.0349	0.0424	0.0409	0.0453	Qua	0	0.0373	0.0002						1.0000		0.9900
Cyclohexanone	0.0676 0.1071	0.0696	0.0924	0.0940	0.1083	Lin1	-0.573	0.1077							0.9980		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 42092

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/29/2012 17:57 Calibration End Date: 04/29/2012 19:50 Calibration ID: 8428

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,3-Trimethylbenzene	2.3062 3.3384	2.8522	3.0020	3.1126	3.2823	Ave		2.9823				13.0		15.0			
2-Methylnaphthalene	0.5487 0.8482	0.7229	0.8158	0.9225	1.0313	Qua	-2.422	1.2182	-0.004						0.9970		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab File ID: BFB2951.D BFB Injection Date: 05/09/2012

Instrument ID: A3UX16 BFB Injection Time: 16:26

Analysis Batch No.: 43409

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.5	
75	30.0 - 60.0 % of mass 95	47.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.2	(0.2)1
174	50.0 - 120.00 % of mass 95	79.3	
175	5.0 - 9.0 % of mass 174	5.7	(7.2)1
176	95.0 - 101.0 % of mass 174	78.8	(99.5)1
177	5.0 - 9.0 % of mass 176	4.7	(5.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-43409/2	UXM5660.D	05/09/2012	16:50
	STD8260 240-43409/3	UXM5661.D	05/09/2012	17:12
	STD8260 240-43409/4	UXM5662.D	05/09/2012	17:35
	STD8260 240-43409/5	UXM5663.D	05/09/2012	17:58
	STD8260 240-43409/6	UXM5664.D	05/09/2012	18:20
	STD8260 240-43409/7	UXM5665.D	05/09/2012	18:43
	ICV 240-43409/8	UXM5666.D	05/09/2012	19:06

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 43409

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/09/2012 16:50 Calibration End Date: 05/09/2012 18:43 Calibration ID: 8614

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-43409/7	UXM5665.D
Level 2	STD8260 240-43409/6	UXM5664.D
Level 3	STD8260 240-43409/5	UXM5663.D
Level 4	STD8260 240-43409/4	UXM5662.D
Level 5	STD8260 240-43409/3	UXM5661.D
Level 6	STD8260 240-43409/2	UXM5660.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3032 0.3143	0.2539	0.2973	0.2657	0.3062	Ave		0.2901			0.1000	8.4		15.0			
Chloromethane	0.6852 0.6205	0.6371	0.6849	0.6156	0.6587	Ave		0.6503			0.1000	4.7		15.0			
Vinyl chloride	0.4547 0.4560	0.4270	0.4657	0.4279	0.4758	Ave		0.4512			0.1000	4.4		15.0			
Bromomethane	0.2084 0.1529	0.1821	0.1851	0.1563	0.1804	Ave		0.1775			0.0500	12.0		15.0			
Chloroethane	0.2573 0.2377	0.2580	0.2693	0.2344	0.2581	Ave		0.2524				5.4		15.0			
Trichlorofluoromethane	0.3101 0.3295	0.3079	0.3225	0.2997	0.3473	Ave		0.3195			0.1000	5.4		15.0			
Acrolein	0.0620 0.0594	0.0566	0.0598	0.0605	0.0630	Ave		0.0602				3.7		15.0			
1,1-Dichloroethene	0.2593 0.2847	0.2457	0.2768	0.2781	0.2948	Ave		0.2733			0.1000	6.5		15.0			
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.1558 0.2077	0.1678	0.1758	0.1970	0.2009	Ave		0.1842			0.0500	11.0		15.0			
Acetone	0.1950 0.0973	0.1448	0.1189	0.1063	0.1066	Lin1	0.1992	0.0970			0.0500				0.9990		0.9950
Iodomethane	0.4877 0.4873	0.4523	0.4923	0.4807	0.4978	Ave		0.4830				3.3		15.0			
Carbon disulfide	0.8203 0.9849	0.8078	0.8789	0.8856	0.9660	Ave		0.8906			0.1000	8.2		15.0			
Acetonitrile	0.0521 0.0408	0.0448	0.0457	0.0427	0.0442	Ave		0.0451				8.6		15.0			
Methyl acetate	0.2743 0.2474	0.2522	0.2631	0.2590	0.2628	Ave		0.2598			0.1000	3.6		15.0			
Methylene Chloride	0.5939 0.3427	0.4564	0.4050	0.3631	0.3666	Lin1	0.2534	0.3421			0.1000				0.9990		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 43409

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/09/2012 16:50 Calibration End Date: 05/09/2012 18:43 Calibration ID: 8614

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
tert-Butyl alcohol	0.0181 0.0174	0.0168	0.0177	0.0177	0.0194	Ave		0.0178				4.7		15.0			
Acrylonitrile	0.1490 0.1387	0.1316	0.1465	0.1448	0.1465	Ave		0.1429				4.6		15.0			
Methyl tert-butyl ether	0.6991 0.7388	0.6445	0.7170	0.7045	0.7607	Ave		0.7108			0.1000	5.6		15.0			
trans-1,2-Dichloroethene	0.3247 0.3331	0.3115	0.3413	0.3269	0.3476	Ave		0.3309			0.1000	3.9		15.0			
Hexane	0.0397 0.0512	0.0343	0.0407	0.0432	0.0497	Ave		0.0431				15.0		15.0			
1,1-Dichloroethane	0.6254 0.6679	0.6197	0.6585	0.6494	0.6816	Ave		0.6504			0.1000	3.7		15.0			
Vinyl acetate	0.0327 0.0428	0.0332	0.0366	0.0381	0.0440	Ave		0.0379				12.0		15.0			
2-Butanone	0.1740 0.1347	0.1309	0.1420	0.1355	0.1436	Ave		0.1434			0.0500	11.0		15.0			
cis-1,2-Dichloroethene	0.3366 0.3461	0.3446	0.3556	0.3479	0.3633	Ave		0.3490			0.1000	2.7		15.0			
2,2-Dichloropropane	0.2222 0.2905	0.2280	0.2554	0.2602	0.2941	Ave		0.2584				12.0		15.0			
Bromochloromethane	0.1381 0.1470	0.1360	0.1474	0.1506	0.1535	Ave		0.1454				4.8		15.0			
Tetrahydrofuran	0.1117 0.0863	0.0970	0.0944	0.0842	0.0925	Ave		0.0944				10.0		15.0			
Chloroform	0.5276 0.5351	0.4911	0.5175	0.5152	0.5505	Ave		0.5228				3.9		15.0			
1,1,1-Trichloroethane	0.3487 0.4394	0.3554	0.3763	0.4020	0.4407	Ave		0.3937			0.1000	10.0		15.0			
Cyclohexane	0.5218 0.7519	0.5837	0.6294	0.6832	0.7258	Ave		0.6493			0.1000	14.0		15.0			
1,1-Dichloropropene	0.3364 0.3821	0.3547	0.3491	0.3627	0.3860	Ave		0.3618				5.3		15.0			
Carbon tetrachloride	0.2463 0.3514	0.2420	0.2831	0.3062	0.3407	Lin1	-0.167	0.3472			0.1000				0.9970		0.9950
1,2-Dichloroethane	0.4421 0.4298	0.4100	0.4186	0.4137	0.4494	Ave		0.4273			0.1000	3.7		15.0			
Benzene	1.1834 1.2032	1.1025	1.1381	1.1389	1.2065	Ave		1.1621			0.5000	3.6		15.0			
Trichloroethene	0.2725 0.2825	0.2714	0.2654	0.2626	0.2924	Ave		0.2745			0.2000	4.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 43409

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/09/2012 16:50 Calibration End Date: 05/09/2012 18:43 Calibration ID: 8614

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methylcyclohexane	0.2834 0.4163	0.2994	0.3340	0.3600	0.3897	Ave		0.3471			0.1000	15.0		15.0			
1,2-Dichloropropane	0.3163 0.3393	0.3026	0.3214	0.3206	0.3464	Ave		0.3244			0.1000	4.9		15.0			
Dibromomethane	0.1317 0.1397	0.1303	0.1368	0.1366	0.1460	Ave		0.1369				4.1		15.0			
1,4-Dioxane	0.0019 0.0018	0.0020	0.0021	0.0020	0.0021	Ave		0.0020				7.2		15.0			
Bromodichloromethane	0.2564 0.3265	0.2419	0.2713	0.2771	0.3245	Ave		0.2830			0.1000	12.0		15.0			
2-Chloroethyl vinyl ether	0.1506 0.1609	0.1383	0.1637	0.1582	0.1703	Ave		0.1570				7.1		15.0			
cis-1,3-Dichloropropene	0.2551 0.3710	0.2499	0.2985	0.3081	0.3650	Lin1	-0.188	0.3666			0.1500				0.9960		0.9950
4-Methyl-2-pentanone	0.2837 0.2990	0.2651	0.2929	0.2909	0.3111	Ave		0.2905			0.0500	5.3		15.0			
Toluene	1.6482 1.7043	1.5200	1.5382	1.5720	1.7039	Ave		1.6145			0.4000	5.1		15.0			
trans-1,3-Dichloropropene	0.2583 0.4170	0.2712	0.3095	0.3332	0.4003	Qua	-0.269	0.3783	0.0012		0.1000				0.9990		0.9900
Ethyl methacrylate	0.3360 0.4227	0.3466	0.3745	0.3996	0.4375	Ave		0.3861				11.0		15.0			
1,1,2-Trichloroethane	0.2835 0.2793	0.2694	0.2686	0.2750	0.2894	Ave		0.2775			0.1000	2.9		15.0			
1,3-Dichloropropane	0.5297 0.5095	0.5041	0.4977	0.5018	0.5376	Ave		0.5134				3.2		15.0			
Tetrachloroethene	0.2829 0.3018	0.2688	0.2694	0.2845	0.3065	Ave		0.2856			0.2000	5.5		15.0			
2-Hexanone	0.2570 0.2616	0.2458	0.2583	0.2602	0.2737	Ave		0.2594			0.0500	3.5		15.0			
Dibromochloromethane	0.1998 0.2905	0.1878	0.2173	0.2406	0.2828	Lin1	-0.158	0.2858							0.9950		0.9950
1,2-Dibromoethane	0.2771 0.2885	0.2414	0.2810	0.2689	0.2989	Ave		0.2760				7.2		15.0			
Chlorobenzene	1.0779 1.0958	1.0292	1.0419	1.0268	1.0997	Ave		1.0619			0.3000	3.1		15.0			
1,1,1,2-Tetrachloroethane	0.2890 0.3687	0.2701	0.3001	0.3244	0.3603	Ave		0.3188				12.0		15.0			
Ethylbenzene	0.5370 0.5872	0.5263	0.5398	0.5618	0.5955	Ave		0.5579				5.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 43409

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/09/2012 16:50 Calibration End Date: 05/09/2012 18:43 Calibration ID: 8614

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
m-Xylene & p-Xylene	0.6927 0.7473	0.6545	0.6868	0.6838	0.7439	Ave		0.7015				5.2		15.0			
o-Xylene	0.6585 0.7303	0.6697	0.6826	0.7022	0.7337	Ave		0.6962				4.5		15.0			
Styrene	1.0101 1.2393	1.0332	1.0826	1.1410	1.2330	Ave		1.1232			0.3000	8.8		15.0			
Bromoform	0.0997 0.1652	0.1002	0.1141	0.1314	0.1520	Qua	-0.092	0.1394	0.0007		0.1000				1.0000		0.9900
Isopropylbenzene	1.5686 1.8453	1.5081	1.5792	1.6843	1.7759	Ave		1.6603			0.1000	7.9		15.0			
1,1,2,2-Tetrachloroethane	0.6421 0.6392	0.5897	0.6508	0.6293	0.6884	Ave		0.6399			0.3000	5.0		15.0			
Bromobenzene	0.7124 0.8007	0.7229	0.7655	0.7154	0.8316	Ave		0.7581				6.6		15.0			
1,2,3-Trichloropropane	0.2331 0.2050	0.1899	0.2018	0.2064	0.2197	Ave		0.2093				7.2		15.0			
trans-1,4-Dichloro-2-butene	0.0972 0.1779	0.1139	0.1228	0.1331	0.1671	Qua	-0.117	0.1526	0.0007						0.9990		0.9900
n-Propylbenzene	0.7268 0.8204	0.6778	0.7587	0.7438	0.8378	Ave		0.7609				7.8		15.0			
2-Chlorotoluene	0.6703 0.7397	0.6758	0.6924	0.6931	0.7657	Ave		0.7061				5.4		15.0			
1,3,5-Trimethylbenzene	2.0828 2.5958	2.0405	2.3124	2.3306	2.5681	Ave		2.3217				10.0		15.0			
4-Chlorotoluene	0.7205 0.7747	0.6930	0.7396	0.7189	0.7965	Ave		0.7405				5.2		15.0			
tert-Butylbenzene	1.9330 2.3935	1.9972	1.9127	2.1455	2.3504	Ave		2.1221				9.9		15.0			
1,2,4-Trimethylbenzene	2.2784 2.6594	2.2133	2.3747	2.3863	2.6735	Ave		2.4310				8.0		15.0			
sec-Butylbenzene	2.3140 2.8409	2.3222	2.4938	2.5429	2.7579	Ave		2.5453				8.6		15.0			
1,3-Dichlorobenzene	1.3846 1.4804	1.3348	1.4061	1.3608	1.4933	Ave		1.4100			0.6000	4.6		15.0			
p-Isopropyltoluene	1.8496 2.5189	1.9566	2.1436	2.2002	2.4336	Ave		2.1837				12.0		15.0			
1,4-Dichlorobenzene	1.5343 1.5331	1.3976	1.4633	1.4252	1.5585	Ave		1.4853			0.5000	4.5		15.0			
n-Butylbenzene	1.5207 2.0613	1.5638	1.6967	1.7858	1.9861	Ave		1.7691				12.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 43409

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/09/2012 16:50 Calibration End Date: 05/09/2012 18:43 Calibration ID: 8614

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dichlorobenzene	1.3844 1.4205	1.3540	1.3870	1.3472	1.4582	Ave		1.3919			0.4000	3.0		15.0			
1,2-Dibromo-3-Chloropropane	0.0794 0.0870	0.0683	0.0814	0.0746	0.0883	Ave		0.0798			0.0500	9.5		15.0			
1,3,5-Trichlorobenzene	0.7539 0.8344	0.7656	0.7991	0.8104	0.8665	Ave		0.8050				5.2		15.0			
1,2,4-Trichlorobenzene	0.6479 0.6976	0.6519	0.6850	0.7123	0.7408	Ave		0.6892			0.2000	5.2		15.0			
Hexachlorobutadiene	0.2984 0.2880	0.3131	0.3156	0.3236	0.3074	Ave		0.3077				4.2		15.0			
Naphthalene	1.3167 1.5171	1.2964	1.5138	1.5269	1.6839	Ave		1.4758				9.9		15.0			
1,2,3-Trichlorobenzene	0.6093 0.5088	0.5775	0.5956	0.5994	0.6006	Ave		0.5819				6.4		15.0			
Dibromofluoromethane (Surr)	0.2449 0.2557	0.2414	0.2613	0.2511	0.2697	Ave		0.2540				4.1		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3352 0.3180	0.3022	0.3162	0.3092	0.3364	Ave		0.3195				4.3		15.0			
Toluene-d8 (Surr)	1.3399 1.4228	1.2843	1.2848	1.3063	1.4382	Ave		1.3460				5.1		15.0			
4-Bromofluorobenzene (Surr)	0.5239 0.5294	0.5089	0.5007	0.5033	0.5393	Ave		0.5176				3.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICV 240-43409/8 Calibration Date: 05/09/2012 19:06

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 17:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 19:50

Lab File ID: UXM5666.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.3182	0.3514		11.0	10.0	10.4	20.0
Diisopropyl ether	Ave	0.2775	0.2746		9.89	10.0	-1.1	20.0
Isobutyl alcohol	Ave	0.0086	0.0089		517	500	3.5	20.0
Cyclohexanone	Lin1		0.0196		41.7	200	-79.2*	20.0
1,2,3-Trimethylbenzene	Ave	2.982	2.571		8.62	10.0	-13.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICV 240-43409/8 Calibration Date: 05/09/2012 19:06

Instrument ID: A3UX16 Calib Start Date: 05/09/2012 16:50

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/09/2012 18:43

Lab File ID: UXM5666.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2901	0.2045	0.1000	7.05	10.0	-29.5*	20.0
Chloromethane	Ave	0.6503	0.5741	0.1000	8.83	10.0	-11.7	20.0
Vinyl chloride	Ave	0.4512	0.4382	0.1000	9.71	10.0	-2.9	20.0
Bromomethane	Ave	0.1775	0.1621	0.0500	9.13	10.0	-8.7	20.0
Chloroethane	Ave	0.2524	0.2375	0.0500	9.41	10.0	-5.9	20.0
Trichlorofluoromethane	Ave	0.3195	0.3224	0.1000	10.1	10.0	0.9	20.0
Acrolein	Ave	0.0602	0.0316		15.7	30.0	-47.6*	20.0
1,1-Dichloroethene	Ave	0.2733	0.2968	0.1000	10.9	10.0	8.6	20.0
1,1,2-Trichloro-1,2,2-trichf luoroethane	Ave	0.1842	0.2129	0.0500	11.6	10.0	15.6	20.0
Acetone	Lin1		0.1000	0.0500	18.6	20.0	-7.0	20.0
Iodomethane	Ave	0.4830	0.4930		10.2	10.0	2.1	20.0
Carbon disulfide	Ave	0.8906	0.9121	0.1000	10.2	10.0	2.4	20.0
Acetonitrile	Ave	0.0451	0.0442		29.4	30.0	-2.0	20.0
Methyl acetate	Ave	0.2598	0.2961	0.1000	11.4	10.0	14.0	20.0
Methylene Chloride	Lin1		0.3698	0.1000	10.1	10.0	1.0	20.0
tert-Butyl alcohol	Ave	0.0178	0.0177		198	200	-1.0	20.0
Acrylonitrile	Ave	0.1429	0.1377		28.9	30.0	-3.6	20.0
Methyl tert-butyl ether	Ave	0.7108	0.7047	0.1000	9.91	10.0	-0.9	20.0
trans-1,2-Dichloroethene	Ave	0.3309	0.3422	0.1000	10.3	10.0	3.4	20.0
Hexane	Ave	0.0431	0.0478		11.1	10.0	10.8	20.0
1,1-Dichloroethane	Ave	0.6504	0.6789	0.1000	10.4	10.0	4.4	20.0
Vinyl acetate	Ave	0.0379	0.0349		9.19	10.0	-8.1	20.0
2-Butanone	Ave	0.1434	0.1319	0.0500	18.4	20.0	-8.1	20.0
2,2-Dichloropropane	Ave	0.2584	0.2680		10.4	10.0	3.7	20.0
cis-1,2-Dichloroethene	Ave	0.3490	0.3544	0.1000	10.2	10.0	1.5	20.0
Bromochloromethane	Ave	0.1454	0.1487		10.2	10.0	2.2	20.0
Tetrahydrofuran	Ave	0.0944	0.0879		9.32	10.0	-6.8	20.0
Chloroform	Ave	0.5228	0.5335	0.2000	10.2	10.0	2.0	20.0
1,1,1-Trichloroethane	Ave	0.3937	0.4102	0.1000	10.4	10.0	4.2	20.0
Cyclohexane	Ave	0.6493	0.6633	0.1000	10.2	10.0	2.2	20.0
1,1-Dichloropropene	Ave	0.3618	0.3695		10.2	10.0	2.1	20.0
Carbon tetrachloride	Lin1		0.3100	0.1000	9.41	10.0	-5.9	20.0
1,2-Dichloroethane	Ave	0.4273	0.4347	0.1000	10.2	10.0	1.7	20.0
Benzene	Ave	1.162	1.177	0.5000	10.1	10.0	1.2	20.0
Trichloroethene	Ave	0.2745	0.2806	0.2000	10.2	10.0	2.2	20.0
1,2-Dichloropropane	Ave	0.3244	0.3251	0.1000	10.0	10.0	0.2	20.0
Methylcyclohexane	Ave	0.3471	0.3473	0.1000	10.0	10.0	0.0	20.0
Dibromomethane	Ave	0.1369	0.1442		10.5	10.0	5.4	20.0
Bromodichloromethane	Ave	0.2830	0.2938	0.1000	10.4	10.0	3.8	20.0
2-Chloroethyl vinyl ether	Ave	0.1570	0.1413		9.00	10.0	-10.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICV 240-43409/8 Calibration Date: 05/09/2012 19:06

Instrument ID: A3UX16 Calib Start Date: 05/09/2012 16:50

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/09/2012 18:43

Lab File ID: UXM5666.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
cis-1,3-Dichloropropene	Lin1		0.3014	0.1500	8.73	10.0	-12.7	20.0
4-Methyl-2-pentanone	Ave	0.2905	0.2896	0.0500	19.9	20.0	-0.3	20.0
Toluene	Ave	1.614	1.572	0.4000	9.74	10.0	-2.6	20.0
trans-1,3-Dichloropropene	Qua		0.3327	0.1000	9.24	10.0	-7.6	20.0
1,1,2-Trichloroethane	Ave	0.2775	0.2762	0.1000	9.95	10.0	-0.5	20.0
1,3-Dichloropropane	Ave	0.5134	0.4975		9.69	10.0	-3.1	20.0
Tetrachloroethene	Ave	0.2856	0.2813	0.2000	9.85	10.0	-1.5	20.0
2-Hexanone	Ave	0.2594	0.2452	0.0500	18.9	20.0	-5.5	20.0
Dibromochloromethane	Lin1		0.2350		8.77	10.0	-12.3	20.0
1,2-Dibromoethane	Ave	0.2760	0.2737		9.92	10.0	-0.8	20.0
Chlorobenzene	Ave	1.062	1.051	0.3000	9.90	10.0	-1.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3188	0.3286		10.3	10.0	3.1	20.0
Ethylbenzene	Ave	0.5579	0.5654		10.1	10.0	1.3	20.0
m-Xylene & p-Xylene	Ave	0.7015	0.6978		19.9	20.0	-0.5	20.0
o-Xylene	Ave	0.6962	0.7046		10.1	10.0	1.2	20.0
Styrene	Ave	1.123	1.167	0.3000	10.4	10.0	3.9	20.0
Bromoform	Qua		0.1291	0.1000	9.47	10.0	-5.3	20.0
Isopropylbenzene	Ave	1.660	1.692	0.1000	10.2	10.0	1.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6399	0.6196	0.3000	9.68	10.0	-3.2	20.0
Bromobenzene	Ave	0.7581	0.7479		9.87	10.0	-1.3	20.0
1,2,3-Trichloropropane	Ave	0.2093	0.1984		9.48	10.0	-5.2	20.0
trans-1,4-Dichloro-2-butene	Qua		0.1324		16.8	20.0	-16.0	20.0
n-Propylbenzene	Ave	0.7609	0.7738		10.2	10.0	1.7	20.0
2-Chlorotoluene	Ave	0.7061	0.7155		10.1	10.0	1.3	20.0
1,3,5-Trimethylbenzene	Ave	2.322	2.338		10.1	10.0	0.7	20.0
4-Chlorotoluene	Ave	0.7405	0.7420		10.0	10.0	0.2	20.0
tert-Butylbenzene	Ave	2.122	2.147		10.1	10.0	1.2	20.0
1,2,4-Trimethylbenzene	Ave	2.431	2.470		10.2	10.0	1.6	20.0
sec-Butylbenzene	Ave	2.545	2.467		9.69	10.0	-3.1	20.0
1,3-Dichlorobenzene	Ave	1.410	1.419	0.6000	10.1	10.0	0.6	20.0
p-Isopropyltoluene	Ave	2.184	2.305		10.6	10.0	5.5	20.0
1,4-Dichlorobenzene	Ave	1.485	1.439	0.5000	9.69	10.0	-3.1	20.0
n-Butylbenzene	Ave	1.769	1.800		10.2	10.0	1.7	20.0
1,2-Dichlorobenzene	Ave	1.392	1.345	0.4000	9.66	10.0	-3.4	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0798	0.0779	0.0500	9.76	10.0	-2.4	20.0
1,2,4-Trichlorobenzene	Ave	0.6892	0.6576	0.2000	9.54	10.0	-4.6	20.0
Hexachlorobutadiene	Ave	0.3077	0.2672		8.69	10.0	-13.1	20.0
Naphthalene	Ave	1.476	1.471		9.97	10.0	-0.3	20.0
1,2,3-Trichlorobenzene	Ave	0.5819	0.5595		9.61	10.0	-3.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2540	0.2365		9.50	10.2	-6.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3195	0.2929		9.36	10.2	-8.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICV 240-43409/8 Calibration Date: 05/09/2012 19:06

Instrument ID: A3UX16 Calib Start Date: 05/09/2012 16:50

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/09/2012 18:43

Lab File ID: UXM5666.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Toluene-d8 (Surr)	Ave	1.346	1.233		9.35	10.2	-8.4	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5176	0.4948		9.76	10.2	-4.4	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab File ID: BFB2952.D BFB Injection Date: 05/10/2012

Instrument ID: A3UX16 BFB Injection Time: 10:23

Analysis Batch No.: 43549

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	26.4	
75	30.0 - 60.0 % of mass 95	47.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.4	(0.5)1
174	50.0 - 120.00 % of mass 95	78.6	
175	5.0 - 9.0 % of mass 174	4.8	(6.1)1
176	95.0 - 101.0 % of mass 174	77.5	(98.6)1
177	5.0 - 9.0 % of mass 176	5.0	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-43549/2	UXM5692.D	05/10/2012	10:53
	CCV 240-43549/3	UXM5693.D	05/10/2012	11:16
	LCS 240-43549/4	UXM5694.D	05/10/2012	11:39
	MB 240-43549/5	UXM5695.D	05/10/2012	12:02
TB-043012	240-10808-1	UXM5696.D	05/10/2012	12:25
GSP-MW5-043012	240-10808-2	UXM5697.D	05/10/2012	12:47
GSP-MW6-043012	240-10808-3	UXM5698.D	05/10/2012	13:10
MT-MW02S-043012	240-10808-4	UXM5699.D	05/10/2012	13:33
	240-10837-D-5 MS	UXM5716.D	05/10/2012	19:58
	240-10837-E-5 MSD	UXM5717.D	05/10/2012	20:21

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCVIS 240-43549/2 Calibration Date: 05/10/2012 10:53

Instrument ID: A3UX16 Calib Start Date: 05/09/2012 16:50

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/09/2012 18:43

Lab File ID: UXM5692.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2901	0.2790	0.1000	9.62	10.0	-3.8	20.0
Chloromethane	Ave	0.6503	0.6113	0.1000	9.40	10.0	-6.0	20.0
Vinyl chloride	Ave	0.4512	0.4262	0.1000	9.45	10.0	-5.5	20.0
Bromomethane	Ave	0.1775	0.1770	0.0500	9.97	10.0	-0.3	20.0
Chloroethane	Ave	0.2524	0.2504	0.0500	9.92	10.0	-0.8	20.0
Trichlorofluoromethane	Ave	0.3195	0.3217	0.1000	10.1	10.0	0.7	20.0
Acrolein	Ave	0.0602	0.0539		89.5	100	-10.5	20.0
1,1-Dichloroethene	Ave	0.2733	0.2791	0.1000	10.2	10.0	2.1	20.0
1,1,2-Trichloro-1,2,2-trichf luoroethane	Ave	0.1842	0.2017	0.0500	11.0	10.0	9.5	20.0
Acetone	Lin1		0.0988	0.0500	18.3	20.0	-8.5	20.0
Iodomethane	Ave	0.4830	0.4722		9.78	10.0	-2.2	20.0
Carbon disulfide	Ave	0.8906	0.9826	0.1000	11.0	10.0	10.3	20.0
Acetonitrile	Ave	0.0451	0.0445		98.8	100	-1.2	20.0
Methyl acetate	Ave	0.2598	0.2519	0.1000	19.4	20.0	-3.0	20.0
Methylene Chloride	Lin1		0.3834	0.1000	10.5	10.0	5.0	20.0
tert-Butyl alcohol	Ave	0.0178	0.0166		186	200	-7.1	20.0
Acrylonitrile	Ave	0.1429	0.1377		19.3	20.0	-3.6	20.0
Methyl tert-butyl ether	Ave	0.7108	0.6763	0.1000	9.52	10.0	-4.8	20.0
trans-1,2-Dichloroethene	Ave	0.3309	0.3410	0.1000	10.3	10.0	3.1	20.0
Hexane	Ave	0.0431	0.0483	N.L.T.C.	11.2	10.0	12.1	20.0
1,1-Dichloroethane	Ave	0.6504	0.6517	0.1000	10.0	10.0	0.2	20.0
Vinyl acetate	Ave	0.0379	0.0403		10.6	10.0	6.2	20.0
2-Butanone	Ave	0.1434	0.1404	0.0500	19.6	20.0	-2.1	20.0
cis-1,2-Dichloroethene	Ave	0.3490	0.3372	0.1000	9.66	10.0	-3.4	20.0
2,2-Dichloropropane	Ave	0.2584	0.2768		10.7	10.0	7.1	20.0
Bromochloromethane	Ave	0.1454	0.1447		9.95	10.0	-0.5	20.0
Tetrahydrofuran	Ave	0.0944	0.0879		9.32	10.0	-6.8	20.0
Chloroform	Ave	0.5228	0.5315	0.2000	10.2	10.0	1.7	20.0
1,1,1-Trichloroethane	Ave	0.3937	0.4191	0.1000	10.6	10.0	6.4	20.0
Cyclohexane	Ave	0.6493	0.6985	0.1000	10.8	10.0	7.6	20.0
1,1-Dichloropropene	Ave	0.3618	0.3859		10.7	10.0	6.6	20.0
Carbon tetrachloride	Lin1		0.3255	0.1000	9.86	10.0	-1.4	20.0
1,2-Dichloroethane	Ave	0.4273	0.4578	0.1000	10.7	10.0	7.1	20.0
Benzene	Ave	1.162	1.187	0.5000	10.2	10.0	2.2	20.0
Trichloroethene	Ave	0.2745	0.2912	0.2000	10.6	10.0	6.1	20.0
Methylcyclohexane	Ave	0.3471	0.3832	0.1000	11.0	10.0	10.4	20.0
1,2-Dichloropropane	Ave	0.3244	0.3319	0.1000	10.2	10.0	2.3	20.0
Dibromomethane	Ave	0.1369	0.1455		10.6	10.0	6.3	20.0
1,4-Dioxane	Ave	0.0020	0.0018		457	500	-8.7	20.0
Bromodichloromethane	Ave	0.2830	0.3185	0.1000	11.3	10.0	12.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCVIS 240-43549/2 Calibration Date: 05/10/2012 10:53

Instrument ID: A3UX16 Calib Start Date: 05/09/2012 16:50

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/09/2012 18:43

Lab File ID: UXM5692.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1570	0.1558		19.9	20.0	-0.7	20.0
cis-1,3-Dichloropropene	Lin1		0.3284	0.1500	9.47	10.0	-5.3	20.0
4-Methyl-2-pentanone	Ave	0.2905	0.2951	0.0500	20.3	20.0	1.6	20.0
Toluene	Ave	1.614	1.737	0.4000	10.8	10.0	7.6	20.0
trans-1,3-Dichloropropene	Qua		0.3546	0.1000	9.79	10.0	-2.1	20.0
Ethyl methacrylate	Ave	0.3861	0.4404		11.4	10.0	14.1	20.0
1,1,2-Trichloroethane	Ave	0.2775	0.2924	0.1000	10.5	10.0	5.3	20.0
1,3-Dichloropropane	Ave	0.5134	0.5380		10.5	10.0	4.8	20.0
Tetrachloroethene	Ave	0.2856	0.3170	0.2000	11.1	10.0	11.0	20.0
2-Hexanone	Ave	0.2594	0.2762	0.0500	21.3	20.0	6.5	20.0
Dibromochloromethane	Lin1		0.2723		10.1	10.0	1.0	20.0
1,2-Dibromoethane	Ave	0.2760	0.2994		10.9	10.0	8.5	20.0
Chlorobenzene	Ave	1.062	1.117	0.3000	10.5	10.0	5.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3188	0.3682		11.5	10.0	15.5	20.0
Ethylbenzene	Ave	0.5579	0.6165		11.0	10.0	10.5	20.0
m-Xylene & p-Xylene	Ave	0.7015	0.7510		21.4	20.0	7.1	20.0
o-Xylene	Ave	0.6962	0.7534		10.8	10.0	8.2	20.0
Styrene	Ave	1.123	1.258	0.3000	11.2	10.0	12.0	20.0
Bromoform	Qua		0.1388	0.1000	10.1	10.0	1.0	20.0
Isopropylbenzene	Ave	1.660	1.794	0.1000	10.8	10.0	8.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6399	0.6643	0.3000	10.4	10.0	3.8	20.0
Bromobenzene	Ave	0.7581	0.7834		10.3	10.0	3.3	20.0
1,2,3-Trichloropropane	Ave	0.2093	0.2152		10.3	10.0	2.8	20.0
trans-1,4-Dichloro-2-butene	Qua		0.0543		4.24	10.0	-57.6*	20.0
n-Propylbenzene	Ave	0.7609	0.8162		10.7	10.0	7.3	20.0
2-Chlorotoluene	Ave	0.7061	0.7430		10.5	10.0	5.2	20.0
1,3,5-Trimethylbenzene	Ave	2.322	2.504		10.8	10.0	7.9	20.0
4-Chlorotoluene	Ave	0.7405	0.8068		10.9	10.0	8.9	20.0
tert-Butylbenzene	Ave	2.122	2.300		10.8	10.0	8.4	20.0
1,2,4-Trimethylbenzene	Ave	2.431	2.614		10.8	10.0	7.5	20.0
sec-Butylbenzene	Ave	2.545	2.730		10.7	10.0	7.3	20.0
1,3-Dichlorobenzene	Ave	1.410	1.472	0.6000	10.4	10.0	4.4	20.0
p-Isopropyltoluene	Ave	2.184	2.381		10.9	10.0	9.0	20.0
1,4-Dichlorobenzene	Ave	1.485	1.576	0.5000	10.6	10.0	6.1	20.0
n-Butylbenzene	Ave	1.769	1.900		10.7	10.0	7.4	20.0
1,2-Dichlorobenzene	Ave	1.392	1.409	0.4000	10.1	10.0	1.2	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0798	0.0780	0.0500	9.77	10.0	-2.3	20.0
1,3,5-Trichlorobenzene	Ave	0.8050	0.8184		10.2	10.0	1.7	20.0
1,2,4-Trichlorobenzene	Ave	0.6892	0.6691	0.2000	9.71	10.0	-2.9	20.0
Hexachlorobutadiene	Ave	0.3077	0.3034		9.86	10.0	-1.4	20.0
Naphthalene	Ave	1.476	1.368		9.27	10.0	-7.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCVIS 240-43549/2 Calibration Date: 05/10/2012 10:53

Instrument ID: A3UX16 Calib Start Date: 05/09/2012 16:50

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/09/2012 18:43

Lab File ID: UXM5692.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Ave	0.5819	0.5411		9.30	10.0	-7.0	20.0
Dibromofluoromethane (Surr)	Ave	0.2540	0.2445		9.83	10.2	-3.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3195	0.3043		9.72	10.2	-4.8	20.0
Toluene-d8 (Surr)	Ave	1.346	1.370		10.4	10.2	1.8	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5176	0.5247		10.3	10.2	1.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCV 240-43549/3 Calibration Date: 05/10/2012 11:16

Instrument ID: A3UX16 Calib Start Date: 04/29/2012 17:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/29/2012 19:50

Lab File ID: UXM5693.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.5291	0.4896		9.25	10.0	-7.5	20.0
Ethyl ether	Ave	0.3182	0.3276		10.3	10.0	2.9	20.0
3-Chloro-1-propene	Ave	0.1408	0.1484		10.5	10.0	5.4	20.0
Diisopropyl ether	Ave	0.2775	0.2850		51.4	50.0	2.7	20.0
2-Chloro-1,3-butadiene	Ave	0.5156	0.6754		13.1	10.0	31.0*	20.0
Ethyl-t-butyl ether (ETBE)	Ave	0.8899	1.041		11.7	10.0	16.9	20.0
Propionitrile	Ave	0.0386	0.0464		24.0	20.0	20.1*	20.0
Ethyl acetate	Ave	0.2719	0.2669		19.6	20.0	-1.8	20.0
Methacrylonitrile	Ave	0.1921	0.1929		10.0	10.0	0.4	20.0
Isobutyl alcohol	Ave	0.0086	0.0091		210	200	5.0	20.0
Tert-amyl-methyl ether (TAME)	Ave	0.7157	0.6111		8.54	10.0	-14.6	20.0
n-Heptane	Ave	0.0406	0.0423		10.4	10.0	4.1	20.0
n-Butanol	Lin1		0.0066		197	200	-1.7	20.0
2-Nitropropane	Qua		0.0411		19.9	20.0	-0.5	20.0
Cyclohexanone	Lin1		0.0552		56.6	100	-43.4*	20.0
1,2,3-Trimethylbenzene	Ave	2.982	2.606		8.74	10.0	-12.6	20.0
2-Methylnaphthalene	Qua		0.3582		8.10	20.0	-59.5*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCV 240-43549/3 Calibration Date: 05/10/2012 11:16

Instrument ID: A3UX16 Calib Start Date: 05/09/2012 16:50

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/09/2012 18:43

Lab File ID: UXM5693.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2540	0.2276		9.15	10.2	-10.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3195	0.2873		9.18	10.2	-10.1	20.0
Toluene-d8 (Surr)	Ave	1.346	1.243		9.43	10.2	-7.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5176	0.4929		9.72	10.2	-4.8	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab File ID: UXM5695.D Lab Sample ID: MB 240-43549/5

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 05/10/2012 12:02

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-43549/4	UXM5694.D	05/10/2012 11:39
TB-043012	240-10808-1	UXM5696.D	05/10/2012 12:25
GSP-MW5-043012	240-10808-2	UXM5697.D	05/10/2012 12:47
GSP-MW6-043012	240-10808-3	UXM5698.D	05/10/2012 13:10
MT-MW02S-043012	240-10808-4	UXM5699.D	05/10/2012 13:33
	240-10837-D-5 MS	UXM5716.D	05/10/2012 19:58
	240-10837-E-5 MSD	UXM5717.D	05/10/2012 20:21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-43549/5

Matrix: Water | Lab File ID: UXM5695.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 12:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.372	J	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.247	J	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-43549/5
Matrix: Water
Lab File ID: UXM5695.D
Analysis Method: 8260C
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 05/10/2012 12:02
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 43549
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	0.462	J	1.0	0.30
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-10808-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-43549/5

Matrix: Water | Lab File ID: UXM5695.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2012 12:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 43549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-129
460-00-4	4-Bromofluorobenzene (Surr)	97		66-117
2037-26-5	Toluene-d8 (Surr)	97		74-115
1868-53-7	Dibromofluoromethane (Surr)	91		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-43549/5

Matrix: Water Lab File ID: UXM5695.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/10/2012 12:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 43549 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5694.D

Lab ID: LCS 240-43549/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	10.8	108	72-116	
1,1,1-Trichloroethane	10.0	10.1	101	74-118	
1,1,2,2-Tetrachloroethane	10.0	9.44	94	68-118	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	11.7	117	74-151	
1,1-Dichloroethane	10.0	10.1	101	82-115	
1,1-Dichloroethene	10.0	10.8	108	78-131	
1,1-Dichloropropene	10.0	10.1	101	83-114	
1,2,3-Trichlorobenzene	10.0	8.98	90	54-126	
1,2,3-Trichloropropane	10.0	9.86	99	73-129	
1,2,3-Trimethylbenzene	10.0	8.55	86	70-130	
1,2,4-Trichlorobenzene	10.0	9.37	94	48-135	
1,2,4-Trimethylbenzene	10.0	10.2	102	76-120	
1,2-Dibromo-3-Chloropropane	10.0	9.58	96	42-136	
1,2-Dichlorobenzene	10.0	9.69	97	81-110	
1,2-Dichloroethane	10.0	10.4	104	71-127	
1,2-Dichloropropane	10.0	10.4	104	81-115	
1,3-Dichlorobenzene	10.0	9.93	99	80-110	
1,3-Dichloropropane	10.0	10.2	102	79-116	
1,4-Dichlorobenzene	10.0	9.91	99	82-110	
2,2-Dichloropropane	10.0	10.7	107	50-129	
2-Chloroethyl vinyl ether	10.0	9.48 J	95	52-131	
2-Chlorotoluene	10.0	9.87	99	76-116	
2-Hexanone	20.0	21.0	105	55-133	
Bromobenzene	10.0	10.1	101	76-115	
Bromochloromethane	10.0	9.77	98	77-120	
4-Chlorotoluene	10.0	10.1	101	77-115	
p-Isopropyltoluene	10.0	10.6	106	74-120	
Acetone	20.0	17.1	86	43-136	
Benzene	10.0	10.1	101	83-112	
Bromoform	10.0	8.83	88	40-131	
Bromomethane	10.0	8.94	89	11-185	
Carbon disulfide	10.0	10.4	104	62-142	
Carbon tetrachloride	10.0	9.42	94	66-128	
Chlorobenzene	10.0	10.1	101	85-110	
Chloroethane	10.0	8.97	90	25-153	
Chloroform	10.0	9.45	95	79-117	
Chloromethane	10.0	7.85	79	44-126	
cis-1,2-Dichloroethene	10.0	9.56	96	80-113	
cis-1,3-Dichloropropene	10.0	8.48	85	61-115	
Hexachlorobutadiene	10.0	9.10	91	36-134	
Dibromomethane	10.0	11.0	110	81-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5694.D

Lab ID: LCS 240-43549/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Bromodichloromethane	10.0	10.9	109	72-121	
Dichlorodifluoromethane	10.0	6.12	61	19-129	
Ethylbenzene	10.0	10.5	105	83-112	
1,2-Dibromoethane	10.0	10.0	100	79-113	
Diisopropyl ether	10.0	9.77 J	98	77-118	
Naphthalene	10.0	9.33	93	32-141	
m-Xylene & p-Xylene	20.0	20.7	104	83-113	
n-Butylbenzene	10.0	10.4	104	66-125	
Isopropylbenzene	10.0	10.6	106	75-114	
n-Propylbenzene	10.0	10.3	103	74-121	
2-Butanone	20.0	18.8	94	60-126	
4-Methyl-2-pentanone	20.0	20.3	102	63-128	
sec-Butylbenzene	10.0	10.2	102	70-117	
Methyl tert-butyl ether	10.0	9.74	97	52-144	
Methylene Chloride	10.0	10.0	100	66-131	
o-Xylene	10.0	10.6	106	83-113	
Styrene	10.0	10.7	107	79-114	
tert-Butylbenzene	10.0	10.3	103	71-115	
Tetrachloroethene	10.0	10.6	106	79-114	
Toluene	10.0	10.4	104	84-111	
trans-1,2-Dichloroethene	10.0	9.89	99	83-117	
trans-1,3-Dichloropropene	10.0	9.26	93	58-117	
Trichloroethene	10.0	10.5	105	76-117	
Trichlorofluoromethane	10.0	10.5	105	49-157	
Vinyl acetate	10.0	9.55	96	46-161	
Vinyl chloride	10.0	8.64	86	53-127	
tert-Butyl alcohol	200	192	96	70-130	
Xylenes, Total	30.0	31.3	104	83-112	
Dibromochloromethane	10.0	9.32	93	64-119	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5716.D

Lab ID: 240-10837-D-5 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	400	40 U	416	104	64-118	
1,1,1-Trichloroethane	400	40 U	399	100	68-121	
1,1,2,2-Tetrachloroethane	400	40 U	394	99	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	400	40 U	412	103	70-152	
1,1-Dichloroethane	400	40 U	412	103	79-116	
1,1-Dichloroethene	400	16 J	428	103	74-135	
1,1-Dichloropropene	400	40 U	412	103	80-114	
1,2,3-Trichlorobenzene	400	40 U	363	91	45-129	
1,2,3-Trichloropropane	400	40 U	397	99	67-132	
1,2,3-Trimethylbenzene	400	200 U	333	83	70-130	
1,2,4-Trichlorobenzene	400	40 U	354	89	38-138	
1,2,4-Trimethylbenzene	400	40 U	388	97	67-124	
1,2-Dibromo-3-Chloropropane	400	80 U	381	95	32-139	
1,2-Dichlorobenzene	400	40 U	380	95	75-111	
1,2-Dichloroethane	400	40 U	432	108	68-129	
1,2-Dichloropropane	400	40 U	404	101	78-115	
1,3-Dichlorobenzene	400	40 U	387	97	73-110	
1,3-Dichloropropane	400	40 U	400	100	74-118	
1,4-Dichlorobenzene	400	40 U	379	95	75-110	
2,2-Dichloropropane	400	40 U	368	92	38-127	
2-Chloroethyl vinyl ether	400	400 U	400 U	0	10-150	F
2-Chlorotoluene	400	40 U	386	97	69-117	
2-Hexanone	800	400 U	828	104	47-139	
Bromobenzene	400	40 U	397	99	71-116	
Bromochloromethane	400	40 U	395	99	73-121	
4-Chlorotoluene	400	40 U	393	98	71-116	
p-Isopropyltoluene	400	40 U	393	98	64-122	
Acetone	800	400 U	756	95	33-145	
Benzene	400	12 J	416	101	72-121	
Bromoform	400	40 U	368	92	32-128	
Bromomethane	400	40 U	334	83	10-186	
Carbon disulfide	400	40 U	391	98	57-147	
Carbon tetrachloride	400	40 U	366	91	59-129	
Chlorobenzene	400	240	648	103	80-110	
Chloroethane	400	40 U	345	86	21-165	
Chloroform	400	40 U	397	99	76-118	
Chloromethane	400	40 U	306	77	33-132	
cis-1,2-Dichloroethene	400	1400	1820	108	70-120	E
cis-1,3-Dichloropropene	400	40 U	320	80	51-110	
Hexachlorobutadiene	400	40 U	311	78	27-132	
Dibromomethane	400	40 U	432	108	77-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5716.D

Lab ID: 240-10837-D-5 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Bromodichloromethane	400	40 U	424	106	67-120	
Dichlorodifluoromethane	400	40 U	219	55	17-128	
Ethylbenzene	400	40 U	388	97	75-116	
1,2-Dibromoethane	400	40 U	399	100	74-113	
Diisopropyl ether	400	400 U	385 J	96	73-118	
Naphthalene	400	40 U	369	92	15-158	
m-Xylene & p-Xylene	800	80 U	788	99	75-117	
n-Butylbenzene	400	40 U	374	94	56-127	
Isopropylbenzene	400	40 U	384	96	68-116	
n-Propylbenzene	400	40 U	393	98	64-124	
2-Butanone	800	400 U	400 U	0	54-129	F
4-Methyl-2-pentanone	800	400 U	820	103	56-131	
sec-Butylbenzene	400	40 U	368	92	60-119	
Methyl tert-butyl ether	400	200 U	375	94	46-144	
Methylene Chloride	400	40 U	386	97	63-128	
o-Xylene	400	40 U	398	100	76-116	
Styrene	400	40 U	408	102	71-117	
tert-Butylbenzene	400	40 U	382	95	61-119	
Tetrachloroethene	400	40 U	389	97	70-117	
Toluene	400	6.0 J	404	100	78-114	
trans-1,2-Dichloroethene	400	14 J	404	98	80-119	
trans-1,3-Dichloropropene	400	40 U	355	89	46-116	
Trichloroethene	400	50	460	103	66-120	
Trichlorofluoromethane	400	40 U	384	96	46-157	
Vinyl acetate	400	80 U	376	94	43-157	
Vinyl chloride	400	910	1240	83	49-130	
tert-Butyl alcohol	8000	2000 U	7820	98	70-130	
Xylenes, Total	1200	80 U	1190	99	76-116	
Dibromochloromethane	400	40 U	359	90	56-118	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5717.D

Lab ID: 240-10837-E-5 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	400	391	98	6	30	64-118	
1,1,1-Trichloroethane	400	412	103	3	30	68-121	
1,1,2,2-Tetrachloroethane	400	408	102	3	30	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	400	424	106	3	30	70-152	
1,1-Dichloroethane	400	420	105	2	30	79-116	
1,1-Dichloroethene	400	440	106	3	30	74-135	
1,1-Dichloropropene	400	404	101	2	30	80-114	
1,2,3-Trichlorobenzene	400	386	97	6	30	45-129	
1,2,3-Trichloropropane	400	412	103	4	30	67-132	
1,2,3-Trimethylbenzene	400	345	86	4	30	70-130	
1,2,4-Trichlorobenzene	400	368	92	4	30	38-138	
1,2,4-Trimethylbenzene	400	408	102	5	30	67-124	
1,2-Dibromo-3-Chloropropane	400	362	91	5	30	32-139	
1,2-Dichlorobenzene	400	391	98	3	30	75-111	
1,2-Dichloroethane	400	424	106	2	30	68-129	
1,2-Dichloropropane	400	416	104	3	30	78-115	
1,3-Dichlorobenzene	400	392	98	1	30	73-110	
1,3-Dichloropropane	400	408	102	2	30	74-118	
1,4-Dichlorobenzene	400	389	97	3	30	75-110	
2,2-Dichloropropane	400	390	98	6	30	38-127	
2-Chloroethyl vinyl ether	400	400 U	0	NC	30	10-150	F
2-Chlorotoluene	400	400	100	4	30	69-117	
2-Hexanone	800	804	101	3	30	47-139	
Bromobenzene	400	408	102	3	30	71-116	
Bromochloromethane	400	412	103	4	30	73-121	
4-Chlorotoluene	400	404	101	3	30	71-116	
p-Isopropyltoluene	400	408	102	4	30	64-122	
Acetone	800	780	98	3	30	33-145	
Benzene	400	416	101	0	30	72-121	
Bromoform	400	363	91	1	30	32-128	
Bromomethane	400	350	88	5	30	10-186	
Carbon disulfide	400	398	100	2	30	57-147	
Carbon tetrachloride	400	378	95	3	30	59-129	
Chlorobenzene	400	640	101	1	30	80-110	
Chloroethane	400	364	91	5	30	21-165	
Chloroform	400	404	101	2	30	76-118	
Chloromethane	400	315	79	3	30	33-132	
cis-1,2-Dichloroethene	400	1790	102	1	30	70-120	E
cis-1,3-Dichloropropene	400	350	88	9	30	51-110	
Hexachlorobutadiene	400	338	85	8	30	27-132	
Dibromomethane	400	432	108	0	30	77-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5717.D

Lab ID: 240-10837-E-5 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Bromodichloromethane	400	420	105	1	30	67-120	
Dichlorodifluoromethane	400	214	54	2	30	17-128	
Ethylbenzene	400	400	100	3	30	75-116	
1,2-Dibromoethane	400	397	99	1	30	74-113	
Diisopropyl ether	400	395 J	99	2	30	73-118	
Naphthalene	400	392	98	6	30	15-158	
m-Xylene & p-Xylene	800	784	98	1	30	75-117	
n-Butylbenzene	400	388	97	4	30	56-127	
Isopropylbenzene	400	383	96	0	30	68-116	
n-Propylbenzene	400	408	102	4	30	64-124	
2-Butanone	800	400 U	0	NC	30	54-129	F
4-Methyl-2-pentanone	800	856	107	4	30	56-131	
sec-Butylbenzene	400	384	96	4	30	60-119	
Methyl tert-butyl ether	400	395	99	5	30	46-144	
Methylene Chloride	400	393	98	2	30	63-128	
o-Xylene	400	396	99	1	30	76-116	
Styrene	400	400	100	2	30	71-117	
tert-Butylbenzene	400	398	100	4	30	61-119	
Tetrachloroethene	400	381	95	2	30	70-117	
Toluene	400	397	98	2	30	78-114	
trans-1,2-Dichloroethene	400	416	101	3	30	80-119	
trans-1,3-Dichloropropene	400	363	91	2	30	46-116	
Trichloroethene	400	460	103	0	30	66-120	
Trichlorofluoromethane	400	400	100	4	30	46-157	
Vinyl acetate	400	390	98	4	30	43-157	
Vinyl chloride	400	1240	82	0	30	49-130	
tert-Butyl alcohol	8000	8060	101	3	30	70-130	
Xylenes, Total	1200	1180	98	1	30	76-116	
Dibromochloromethane	400	362	91	1	30	56-118	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
GSP-MW5-043012	240-10808-2	57	60	52	57	82	66
GSP-MW6-043012	240-10808-3	48	60	50	56	84	64
MT-MW02S-043012	240-10808-4	56	64	64	51	77	59
	MB 240-42901/22-A	66	67	62	59	76	79
	LCS 240-42901/23-A	69	71	65	67	95	78
	240-10842-O-8-A MS	62	66	58	56	83	64
	240-10837-Q-5-A MSD	69	71	65	66	95	77
	240-10842-R-8-A MSD	56	67	53	51	63	70

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	10-110
PHL = Phenol-d5 (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	27-111
FBP = 2-Fluorobiphenyl (Surr)	28-110
TBP = 2,4,6-Tribromophenol (Surr)	22-120
TPH = Terphenyl-d14 (Surr)	37-119

Column to be used to flag recovery values

FORM II 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: STD6 240-42463/10 Date Analyzed: 05/02/2012 12:54

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20502010.D Heated Purge: (Y/N) N

Calibration ID: 8490

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		203831	3.51	750748	4.40	449631	5.66
UPPER LIMIT		407662	4.01	1501496	4.90	899262	6.16
LOWER LIMIT		101916	3.01	375374	3.90	224816	5.16
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-42463/11		219450	3.51	793338	4.40	481824	5.66
CCV 240-43126/2 CCVIS		203268	3.39	807358	4.28	443644	5.54

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: STD6 240-42463/10 Date Analyzed: 05/02/2012 12:54

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20502010.D Heated Purge: (Y/N) N

Calibration ID: 8490

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		701859	6.74	609578	8.73	444154	10.12
UPPER LIMIT		1403718	7.24	1219156	9.23	888308	10.62
LOWER LIMIT		350930	6.24	304789	8.23	222077	9.62
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-42463/11		750463	6.74	697064	8.71	502891	10.10
CCV 240-43126/2 CCVIS		728055	6.61	667024	8.58	498151	9.89

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: CCV 240-43126/2 Date Analyzed: 05/08/2012 09:05

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20508002.D Heated Purge: (Y/N) N

Calibration ID: 8498

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		203268	3.39	807358	4.28	443644	5.54
UPPER LIMIT		406536	3.89	1614716	4.78	887288	6.04
LOWER LIMIT		101634	2.89	403679	3.78	221822	5.04
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-42901/22-A		215470	3.39	837951	4.28	473321	5.53
LCS 240-42901/23-A		211516	3.39	825101	4.28	475505	5.54
240-10837-Q-5-A MSD		209412	3.40	839319	4.28	485920	5.54
240-10808-2	GSP-MW5-043012	222949	3.39	924223	4.28	533114	5.54
240-10808-3	GSP-MW6-043012	219954	3.39	911722	4.28	536229	5.54
240-10808-4	MT-MW02S-043012	206091	3.39	873183	4.28	565534	5.55
240-10842-O-8-A MS		209225	3.40	835519	4.28	543280	5.54

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: CCV 240-43126/2 Date Analyzed: 05/08/2012 09:05

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20508002.D Heated Purge: (Y/N) N

Calibration ID: 8498

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		728055	6.61	667024	8.58	498151	9.89
UPPER LIMIT		1456110	7.11	1334048	9.08	996302	10.39
LOWER LIMIT		364028	6.11	333512	8.08	249076	9.39
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-42901/22-A		751385	6.61	713440	8.57	527924	9.87
LCS 240-42901/23-A		771734	6.61	721036	8.57	536929	9.87
240-10837-Q-5-A MSD		752567	6.61	706606	8.57	555213	9.87
240-10808-2	GSP-MW5-043012	853317	6.61	820134	8.57	633850	9.87
240-10808-3	GSP-MW6-043012	850410	6.61	804885	8.57	627018	9.87
240-10808-4	MT-MW02S-043012	805307	6.61	785402	8.57	599972	9.87
240-10842-O-8-A MS		811563	6.62	773792	8.57	591505	9.88

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: STD6 240-43665/10 Date Analyzed: 05/11/2012 11:47

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20511010.D Heated Purge: (Y/N) N

Calibration ID: 8680

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		437336	3.45	1550128	4.35	857737	5.61
UPPER LIMIT		874672	3.95	3100256	4.85	1715474	6.11
LOWER LIMIT		218668	2.95	775064	3.85	428869	5.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-43665/11		440902	3.45	1545336	4.35	858847	5.61
240-10842-R-8-A MSD		295486	3.45	1133322	4.35	755877	5.61

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: STD6 240-43665/10 Date Analyzed: 05/11/2012 11:47

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20511010.D Heated Purge: (Y/N) N

Calibration ID: 8680

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1328211	6.69	1262099	8.67	1119020	10.02
UPPER LIMIT		2656422	7.19	2524198	9.17	2238040	10.52
LOWER LIMIT		664106	6.19	631050	8.17	559510	9.52
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-43665/11		1301262	6.69	1208547	8.67	1044058	10.03
240-10842-R-8-A MSD		1034466	6.69	952330	8.66	891660	10.02

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab File ID: 20508011.D Lab Sample ID: MB 240-42901/22-A

Matrix: Water Date Extracted: 05/05/2012 09:23

Instrument ID: A4HP7 Date Analyzed: 05/08/2012 11:52

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-42901/23-A	20508012.D	05/08/2012 12:11
	240-10837-Q-5-A MSD	20508028.D	05/08/2012 17:06
GSP-MW5-043012	240-10808-2	20508035.D	05/08/2012 19:16
GSP-MW6-043012	240-10808-3	20508036.D	05/08/2012 19:35
MT-MW02S-043012	240-10808-4	20508037.D	05/08/2012 19:53
	240-10842-O-8-A MS	20508039.D	05/08/2012 20:30
	240-10842-R-8-A MSD	20511021.D	05/11/2012 15:14

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42901/22-A
Matrix: Water
Lab File ID: 20508011.D
Analysis Method: 8270C
Date Collected:
Extract. Method: 3520C
Date Extracted: 05/05/2012 09:23
Sample wt/vol: 1000(mL)
Date Analyzed: 05/08/2012 11:52
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 43126
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.0	U	1.0	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	59		28-110
367-12-4	2-Fluorophenol (Surr)	66		10-110
118-79-6	2,4,6-Tribromophenol (Surr)	76		22-120
4165-60-0	Nitrobenzene-d5 (Surr)	62		27-111
4165-62-2	Phenol-d5 (Surr)	67		10-110
1718-51-0	Terphenyl-d14 (Surr)	79		37-119

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20508012.D

Lab ID: LCS 240-42901/23-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	20.0	11.1	56	10-110	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20508039.D

Lab ID: 240-10842-O-8-A MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	19.0	14	22.9	44	10-110	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20508028.D

Lab ID: 240-10837-Q-5-A MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	19.0	82.3	112	7	30	10-110	F

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20511021.D

Lab ID: 240-10842-R-8-A MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	19.0	15.0	3	41	30	10-110	F

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab File ID: 20502001.D DFTPP Injection Date: 05/02/2012

Instrument ID: A4HP7 DFTPP Injection Time: 10:03

Analysis Batch No.: 42463

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	60.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	45.5	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	50.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.2	
365	Greater than 0.75% of mass 198	2.0	
441	Present, but less than mass 443	7.0	
442	40.0 - 110.0% of mass 198	44.8	
443	15.0 - 24.0% of mass 442	8.8	(19.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-42463/2	20502002.D	05/02/2012	10:23
	STD4 240-42463/3	20502003.D	05/02/2012	10:42
	STD3 240-42463/4	20502004.D	05/02/2012	11:01
	STD2 240-42463/5	20502005.D	05/02/2012	11:19
	STD1 240-42463/6	20502006.D	05/02/2012	11:38
	STD9 240-42463/7	20502007.D	05/02/2012	11:57
	STD8 240-42463/8	20502008.D	05/02/2012	12:16
	STD7 240-42463/9	20502009.D	05/02/2012	12:35
	STD6 240-42463/10	20502010.D	05/02/2012	12:54
	ICV 240-42463/11	20502011.D	05/02/2012	13:13

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 42463

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2012 10:23 Calibration End Date: 05/02/2012 12:54 Calibration ID: 8490

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-42463/6	20502006.D
Level 2	STD2 240-42463/5	20502005.D
Level 3	STD3 240-42463/4	20502004.D
Level 4	STD4 240-42463/3	20502003.D
Level 5	STD5 240-42463/2	20502002.D
Level 6	STD6 240-42463/10	20502010.D
Level 7	STD7 240-42463/9	20502009.D
Level 8	STD8 240-42463/8	20502008.D
Level 9	STD9 240-42463/7	20502007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5797	0.7266 0.5728	0.4617 0.6094	0.5087 0.5684	0.4851	Ave		0.5640				15.0		15.0			
N-Nitrosodimethylamine	0.8841	0.7933 0.8811	0.7168 0.9316	0.7448 0.9112	0.7452	Ave		0.8260				10.0		15.0			
Pyridine	1.5075	1.3258 1.5146	1.1707 1.6776	1.1870 1.6034	1.1707	Ave		1.3947				15.0		15.0			
Ethyl methacrylate	1.1731	0.9728 1.1757	1.0484 1.2864	1.0037 1.2062	1.0290	Ave		1.1119				10.0		15.0			
Benzaldehyde	1.3735 0.7433	1.0441 +++++	1.0548 +++++	1.0867 +++++	0.9578	Ave		1.0434				20.0	*	15.0			
3-Chloropropionitrile	1.0012	0.9519 1.0222	0.9033 1.1093	0.8667 1.0492	0.8718	Ave		0.9719				9.1		15.0			
Malononitrile	1.5032	1.4102 1.2671	1.3756 1.2102	1.4463 1.0266	1.4564	Ave		1.3370				12.0		15.0			
Benzoic acid	0.2334	+++++ 0.2441	+++++ 0.2610	0.1647 0.2825	0.2322	Qua	0.0075	0.1951	0.0017						0.9990		0.9900
Phenol	1.7085	1.5885 1.7359	1.4815 1.9095	1.5782 1.8649	1.5731	Ave		1.6800				9.0		15.0			
Aniline	2.1278	1.9210 2.1146	1.8743 2.3821	2.0349 2.3349	1.9327	Ave		2.0903				9.0		15.0			
Bis(2-chloroethyl)ether	1.2927	1.2120 1.4453	1.3088 1.4464	1.1722 1.4211	1.1887	Ave		1.3109				8.8		15.0			
2-Chlorophenol	1.5020	1.3476 1.5269	1.3800 1.6760	1.4496 1.6251	1.4098	Ave		1.4896				7.8		15.0			
1,3-Dichlorobenzene	1.6350	1.3701 1.6113	1.5553 1.7820	1.5792 1.6988	1.5113	Ave		1.5929				7.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICV 240-42463/11 Calibration Date: 05/02/2012 13:13

Instrument ID: A4HP7 Calib Start Date: 05/02/2012 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 05/02/2012 12:54

Lab File ID: 20502011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5640	0.5264		9.33	10.0	-6.7	50.0
N-Nitrosodimethylamine	Ave	0.8260	0.8251		9.99	10.0	-0.1	50.0
Pyridine	Ave	1.395	1.479		10.6	10.0	6.0	50.0
Ethyl methacrylate	Ave	1.112	1.109		9.97	10.0	-0.3	50.0
3-Chloropropionitrile	Ave	0.9719	0.9803		10.1	10.0	0.9	50.0
Malononitrile	Ave	1.337	1.496		11.2	10.0	11.9	50.0
Benzaldehyde	Ave	1.043	0.6145		5.89	10.0	-41.1	50.0
Phenol	Ave	1.680	1.722		10.2	10.0	2.5	20.0
Aniline	Ave	2.090	2.144		10.3	10.0	2.6	50.0
Bis(2-chloroethyl)ether	Ave	1.311	1.327		10.1	10.0	1.2	50.0
2-Chlorophenol	Ave	1.490	1.506		10.1	10.0	1.1	50.0
1,3-Dichlorobenzene	Ave	1.593	1.567		9.84	10.0	-1.6	50.0
1,4-Dichlorobenzene	Ave	1.646	1.623		9.86	10.0	-1.4	20.0
Benzyl alcohol	Ave	0.8859	0.8898		10.0	10.0	0.4	50.0
1,2-Dichlorobenzene	Ave	1.544	1.517		9.83	10.0	-1.7	50.0
2-Methylphenol	Ave	1.290	1.293		10.0	10.0	0.2	50.0
bis (2-chloroisopropyl) ether	Ave	1.740	1.616		9.29	10.0	-7.1	50.0
3 & 4 Methylphenol	Ave	1.324	1.366		10.3	10.0	3.2	50.0
N-Nitrosodi-n-propylamine	Ave	0.8988	0.8701	0.0500	9.68	10.0	-3.2	50.0
Acetophenone	Ave	1.873	1.869		9.98	10.0	-0.2	50.0
Hexachloroethane	Ave	0.5453	0.5299		9.72	10.0	-2.8	50.0
Nitrobenzene	Ave	0.3636	0.3573		9.83	10.0	-1.7	50.0
Isophorone	Ave	0.6461	0.6605		10.2	10.0	2.2	50.0
2,4-Dimethylphenol	Ave	0.3785	0.3876		10.2	10.0	2.4	50.0
2-Nitrophenol	Ave	0.2067	0.2181		10.5	10.0	5.5	20.0
1,3,5-Trichlorobenzene	Ave	0.3633	0.3733		10.3	10.0	2.8	50.0
Bis(2-chloroethoxy)methane	Ave	0.3739	0.3789		10.1	10.0	1.3	50.0
Benzoic acid	Qua		0.2340		20.3	20.0	1.5	50.0
2,4-Dichlorophenol	Ave	0.3173	0.3295		10.4	10.0	3.8	20.0
1,2,4-Trichlorobenzene	Ave	0.3480	0.3617		10.4	10.0	3.9	50.0
Naphthalene	Ave	1.144	1.159		10.1	10.0	1.3	50.0
4-Chloroaniline	Ave	0.4747	0.4591		9.67	10.0	-3.3	50.0
Hexachlorobutadiene	Ave	0.1832	0.1824		9.96	10.0	-0.4	20.0
1,2,3-Trichlorobenzene	Ave	0.3305	0.3260		9.86	10.0	-1.4	50.0
Caprolactam	Qua		0.1203		10.5	10.0	5.0	50.0
4-Chloro-3-methylphenol	Ave	0.3023	0.3207		10.6	10.0	6.1	20.0
2-Methylnaphthalene	Ave	0.7358	0.7408		10.1	10.0	0.7	50.0
1-Methylnaphthalene	Ave	0.7008	0.7068		10.1	10.0	0.8	50.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5580	0.5505		9.87	10.0	-1.3	50.0
Hexachlorocyclopentadiene	Ave	0.3259	0.3366	0.0500	10.3	10.0	3.3	50.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab File ID: 20508001.D DFTPP Injection Date: 05/08/2012

Instrument ID: A4HP7 DFTPP Injection Time: 08:46

Analysis Batch No.: 43126

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	61.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	58.2	
70	Less than 2.0% of mass 69	0.3	(0.5)1
127	25.0 - 75.0% of mass 198	61.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	26.3	
365	Greater than 0.75% of mass 198	2.9	
441	Present, but less than mass 443	11.9	
442	40.0 - 110.0% of mass 198	74.4	
443	15.0 - 24.0% of mass 442	14.6	(19.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-43126/2	20508002.D	05/08/2012	09:05
	MB 240-42901/22-A	20508011.D	05/08/2012	11:52
	LCS 240-42901/23-A	20508012.D	05/08/2012	12:11
	240-10837-Q-5-A MSD	20508028.D	05/08/2012	17:06
GSP-MW5-043012	240-10808-2	20508035.D	05/08/2012	19:16
GSP-MW6-043012	240-10808-3	20508036.D	05/08/2012	19:35
MT-MW02S-043012	240-10808-4	20508037.D	05/08/2012	19:53
	240-10842-O-8-A MS	20508039.D	05/08/2012	20:30

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCV 240-43126/2 Calibration Date: 05/08/2012 09:05

Instrument ID: A4HP7 Calib Start Date: 05/02/2012 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 05/02/2012 12:54

Lab File ID: 20508002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5640	0.5272		9.35	10.0	-6.5	50.0
N-Nitrosodimethylamine	Ave	0.8260	0.7907		9.57	10.0	-4.3	50.0
Pyridine	Ave	1.395	1.390		9.97	10.0	-0.3	50.0
Ethyl methacrylate	Ave	1.112	1.104		9.92	10.0	-0.8	50.0
3-Chloropropionitrile	Ave	0.9719	0.8004		8.24	10.0	-17.6	50.0
Malononitrile	Ave	1.337	1.340		10.0	10.0	0.2	50.0
Benzaldehyde	Ave	1.043	0.7144		6.85	10.0	-31.5	50.0
Phenol	Ave	1.680	1.721		10.2	10.0	2.4	20.0
Aniline	Ave	2.090	2.189		10.5	10.0	4.7	50.0
Bis(2-chloroethyl)ether	Ave	1.311	1.311		10.0	10.0	0.0	50.0
2-Chlorophenol	Ave	1.490	1.473		9.89	10.0	-1.1	50.0
1,3-Dichlorobenzene	Ave	1.593	1.599		10.0	10.0	0.4	50.0
1,4-Dichlorobenzene	Ave	1.646	1.662		10.1	10.0	1.0	50.0
Benzyl alcohol	Ave	0.8859	0.8606		9.71	10.0	-2.9	50.0
1,2-Dichlorobenzene	Ave	1.544	1.529		9.91	10.0	-0.9	50.0
2-Methylphenol	Ave	1.290	1.300		10.1	10.0	0.7	50.0
bis (2-chloroisopropyl) ether	Ave	1.740	1.634		9.39	10.0	-6.1	50.0
3 & 4 Methylphenol	Ave	1.324	1.360		10.3	10.0	2.7	50.0
N-Nitrosodi-n-propylamine	Ave	0.8988	0.9308	0.0500	10.4	10.0	3.6	50.0
Acetophenone	Ave	1.873	1.935		10.3	10.0	3.3	50.0
Hexachloroethane	Ave	0.5453	0.5619		10.3	10.0	3.0	50.0
Nitrobenzene	Ave	0.3636	0.3688		10.1	10.0	1.4	50.0
Isophorone	Ave	0.6461	0.6574		10.2	10.0	1.7	50.0
2-Nitrophenol	Ave	0.2067	0.2114		10.2	10.0	2.3	20.0
2,4-Dimethylphenol	Ave	0.3785	0.3801		10.0	10.0	0.4	50.0
1,3,5-Trichlorobenzene	Ave	0.3633	0.3290		9.06	10.0	-9.4	50.0
Bis(2-chloroethoxy)methane	Ave	0.3739	0.3772		10.1	10.0	0.9	50.0
Benzoic acid	Qua		0.1909		17.0	20.0	-15.0	50.0
2,4-Dichlorophenol	Ave	0.3173	0.2887		9.10	10.0	-9.0	20.0
1,2,4-Trichlorobenzene	Ave	0.3480	0.3214		9.23	10.0	-7.7	50.0
Naphthalene	Ave	1.144	1.081		9.45	10.0	-5.5	50.0
4-Chloroaniline	Ave	0.4747	0.4497		9.48	10.0	-5.2	50.0
Hexachlorobutadiene	Ave	0.1832	0.1595		8.71	10.0	-12.9	20.0
1,2,3-Trichlorobenzene	Ave	0.3305	0.2901		8.78	10.0	-12.2	50.0
Caprolactam	Qua		0.1216		10.6	10.0	6.0	50.0
4-Chloro-3-methylphenol	Ave	0.3023	0.3096		10.2	10.0	2.4	20.0
2-Methylnaphthalene	Ave	0.7358	0.7177		9.75	10.0	-2.5	50.0
1-Methylnaphthalene	Ave	0.7008	0.6679		9.53	10.0	-4.7	50.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5580	0.5324		9.54	10.0	-4.6	50.0
Hexachlorocyclopentadiene	Ave	0.3259	0.3328	0.0500	10.2	10.0	2.1	50.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab File ID: 20511001.D DFTPP Injection Date: 05/11/2012

Instrument ID: A4HP7 DFTPP Injection Time: 08:59

Analysis Batch No.: 43665

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	47.8	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	36.2	
70	Less than 2.0% of mass 69	0.1	(0.4)1
127	25.0 - 75.0% of mass 198	47.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	24.5	
365	Greater than 0.75% of mass 198	2.9	
441	Present, but less than mass 443	6.8	
442	40.0 - 110.0% of mass 198	85.6	
443	15.0 - 24.0% of mass 442	16.2	(18.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-43665/2	20511002.D	05/11/2012	09:17
	STD4 240-43665/3	20511003.D	05/11/2012	09:36
	STD3 240-43665/4	20511004.D	05/11/2012	09:54
	STD2 240-43665/5	20511005.D	05/11/2012	10:13
	STD1 240-43665/6	20511006.D	05/11/2012	10:32
	STD9 240-43665/7	20511007.D	05/11/2012	10:50
	STD8 240-43665/8	20511008.D	05/11/2012	11:09
	STD7 240-43665/9	20511009.D	05/11/2012	11:28
	STD6 240-43665/10	20511010.D	05/11/2012	11:47
	ICV 240-43665/11	20511011.D	05/11/2012	12:06
	240-10842-R-8-A MSD	20511021.D	05/11/2012	15:14

no samples

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 43665

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/11/2012 09:17 Calibration End Date: 05/11/2012 11:47 Calibration ID: 8680

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-43665/6	20511006.D
Level 2	STD2 240-43665/5	20511005.D
Level 3	STD3 240-43665/4	20511004.D
Level 4	STD4 240-43665/3	20511003.D
Level 5	STD5 240-43665/2	20511002.D
Level 6	STD6 240-43665/10	20511010.D
Level 7	STD7 240-43665/9	20511009.D
Level 8	STD8 240-43665/8	20511008.D
Level 9	STD9 240-43665/7	20511007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane		0.7424	0.8429	0.7470	0.6817	Ave		0.7827				7.1		15.0			
	0.8214	0.8345	0.7791	0.8123													
N-Nitrosodimethylamine		1.1966	1.1696	1.2470	1.0985	Ave		1.2544				7.6		15.0			
	1.3517	1.3430	1.3633	1.2652													
Pyridine		1.9328	1.9078	1.9502	1.8306	Ave		2.1214				11.0		15.0			
	2.2974	2.3707	2.3286	2.3534													
Ethyl methacrylate		1.3892	1.4486	1.5423	1.3388	Ave		1.5483				9.1		15.0			
	1.6866	1.6940	1.6548	1.6320													
Benzaldehyde	1.5333	1.2294	1.1836	1.2281	1.1826	Ave		1.2052				17.0	*	15.0			
	0.8741	+++++	+++++	+++++													
3-Chloropropionitrile		1.2595	1.3006	1.3044	1.2124	Ave		1.3636				8.0		15.0			
	1.4897	1.4622	1.4937	1.3859													
Malononitrile		1.9935	2.0845	2.1475	2.0596	Qua	-0.921	2.8087	-0.057						0.9970		0.9900
	2.2448	1.8577	1.6532	1.3326													
Phenol		1.8281	1.6617	1.8052	1.7580	Ave		1.8257				4.7		15.0			
	1.8841	1.8717	1.9458	1.8512													
Aniline		2.2639	2.0794	2.3016	2.2573	Ave		2.3556				7.4		15.0			
	2.4151	2.3911	2.6720	2.4648													
Bis(2-chloroethyl)ether		1.5295	1.6300	1.5935	1.4387	Ave		1.5829				4.7		15.0			
	1.6894	1.6002	1.6117	1.5697													
2-Chlorophenol		1.4241	1.3577	1.4941	1.4438	Ave		1.4641				3.8		15.0			
	1.5079	1.4922	1.5327	1.4601													
1,3-Dichlorobenzene		1.5840	1.5347	1.5653	1.4890	Ave		1.5417				2.0		15.0			
	1.5599	1.5209	1.5599	1.5199													
1,4-Dichlorobenzene		1.5357	1.5652	1.5720	1.5055	Ave		1.5648				2.2		15.0			
	1.5862	1.5490	1.6083	1.5963													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

ICV

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICV 240-43665/11 Calibration Date: 05/11/2012 12:06

Instrument ID: A4HP7 Calib Start Date: 05/11/2012 09:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 05/11/2012 11:47

Lab File ID: 20511011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7827	1.792		22.9	10.0	128.9*	50.0
N-Nitrosodimethylamine	Ave	1.254	1.385		11.0	10.0	10.4	50.0
Pyridine	Ave	2.121	2.312		10.9	10.0	9.0	50.0
Ethyl methacrylate	Ave	1.548	1.663		10.7	10.0	7.4	50.0
3-Chloropropionitrile	Ave	1.364	1.513		11.1	10.0	11.0	50.0
Malononitrile	Qua		2.271		10.8	10.0	8.0	50.0
Benzaldehyde	Ave	1.205	0.7368		6.11	10.0	-38.9	50.0
Phenol	Ave	1.826	1.912		10.5	10.0	4.7	20.0
Aniline	Ave	2.356	2.457		10.4	10.0	4.3	50.0
Bis(2-chloroethyl)ether	Ave	1.583	1.667		10.5	10.0	5.3	50.0
2-Chlorophenol	Ave	1.464	1.525		10.4	10.0	4.2	50.0
1,3-Dichlorobenzene	Ave	1.542	1.553		10.1	10.0	0.7	50.0
1,4-Dichlorobenzene	Ave	1.565	1.585		10.1	10.0	1.3	20.0
Benzyl alcohol	Ave	0.9081	0.9464		10.4	10.0	4.2	50.0
1,2-Dichlorobenzene	Ave	1.430	1.443		10.1	10.0	0.9	50.0
2-Methylphenol	Ave	1.285	1.318		10.3	10.0	2.6	50.0
bis (2-chloroisopropyl) ether	Ave	2.393	2.451		10.2	10.0	2.4	50.0
3 & 4 Methylphenol	Ave	1.345	1.375		10.2	10.0	2.3	50.0
N-Nitrosodi-n-propylamine	Ave	0.9738	1.018	0.0500	10.5	10.0	4.6	50.0
Acetophenone	Ave	1.885	1.946		10.3	10.0	3.2	50.0
Hexachloroethane	Ave	0.5545	0.5753		10.4	10.0	3.7	50.0
Nitrobenzene	Ave	0.4062	0.4273		10.5	10.0	5.2	50.0
Isophorone	Ave	0.7209	0.7540		10.5	10.0	4.6	50.0
2,4-Dimethylphenol	Ave	0.3697	0.3794		10.3	10.0	2.6	50.0
2-Nitrophenol	Ave	0.1894	0.1968		10.4	10.0	3.9	20.0
1,3,5-Trichlorobenzene	Ave	0.3433	0.3404		9.92	10.0	-0.8	50.0
Bis(2-chloroethoxy)methane	Ave	0.4323	0.4458		10.3	10.0	3.1	50.0
Benzoic acid	Qua		0.2483		21.0	20.0	5.0	50.0
2,4-Dichlorophenol	Ave	0.3052	0.3155		10.3	10.0	3.4	20.0
1,2,4-Trichlorobenzene	Ave	0.3316	0.3285		9.91	10.0	-0.9	50.0
Naphthalene	Ave	1.108	1.114		10.1	10.0	0.5	50.0
4-Chloroaniline	Ave	0.4507	0.4746		10.5	10.0	5.3	50.0
Hexachlorobutadiene	Ave	0.1695	0.1692		9.98	10.0	-0.2	20.0
1,2,3-Trichlorobenzene	Ave	0.3021	0.3048		10.1	10.0	0.9	50.0
Caprolactam	Ave	0.1145	0.1256		11.0	10.0	9.6	50.0
4-Chloro-3-methylphenol	Ave	0.2919	0.3026		10.4	10.0	3.7	20.0
2-Methylnaphthalene	Ave	0.6841	0.6838		10.0	10.0	-0.0	50.0
1-Methylnaphthalene	Ave	0.6531	0.6428		9.84	10.0	-1.6	50.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5500	0.5470		9.94	10.0	-0.6	50.0
Hexachlorocyclopentadiene	Ave	0.3241	0.3370	0.0500	10.4	10.0	4.0	50.0

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1 #
GSP-MW5-043012	240-10808-2	60
GSP-MW6-043012	240-10808-3	56
MT-MW02S-043012	240-10808-4	94
	MB 240-42995/6	58
	LCS 240-42995/7	70
GSP-MW5-043012 MS	240-10808-2 MS	73
GSP-MW5-043012 MSD	240-10808-2 MSD	71

	QC LIMITS
TFT = Trifluorotoluene (Surr)	10-150

Column to be used to flag recovery values

FORM II 8015B

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: MB 240-42995/6

Matrix: Water Date Extracted: 05/07/2012 13:20

Lab File ID:(1) YF050706.D Lab File ID:(2)

Date Analyzed:(1) 05/07/2012 13:20 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-42995/7	05/07/2012 14:00	
GSP-MW5-043012	240-10808-2	05/07/2012 14:40	
GSP-MW5-043012 MS	240-10808-2 MS	05/07/2012 15:20	
GSP-MW5-043012 MSD	240-10808-2 MSD	05/07/2012 16:00	
GSP-MW6-043012	240-10808-3	05/07/2012 16:42	
MT-MW02S-043012	240-10808-4	05/07/2012 17:23	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-42995/6

Matrix: Water Lab File ID: YF050706.D

Analysis Method: 8015B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/07/2012 13:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 42995 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	28.0	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	58		10-150

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF050707.D

Lab ID: LCS 240-42995/7 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	942	118	72-140	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF050709.D

Lab ID: 240-10808-2 MS Client ID: GSP-MW5-043012 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	37 J	962	116	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF050710.D

Lab ID: 240-10808-2 MSD Client ID: GSP-MW5-043012 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	953	115	1	20	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: CCV 240-42995/5 Date Analyzed: 05/07/2012 12:40

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF050705.D Heated Purge: (Y/N) N

Calibration ID: 6924

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				9.76		
UPPER LIMIT				9.86		
LOWER LIMIT				9.66		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-42995/5 CCVRT		05/07/2012 12:40	YF050705.D	9.76		
MB 240-42995/6		05/07/2012 13:20	YF050706.D	9.75		
LCS 240-42995/7		05/07/2012 14:00	YF050707.D	9.75		
240-10808-2	GSP-MW5-043012	05/07/2012 14:40	YF050708.D	9.76		
240-10808-2 MS	GSP-MW5-043012 MS	05/07/2012 15:20	YF050709.D	9.76		
240-10808-2 MSD	GSP-MW5-043012 MSD	05/07/2012 16:00	YF050710.D	9.76		
240-10808-3	GSP-MW6-043012	05/07/2012 16:42	YF050711.D	9.75		
240-10808-4	MT-MW02S-043012	05/07/2012 17:23	YF050712.D	9.76		
CCV 240-42995/16		05/07/2012 20:05	YF050716.D	9.76		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: YPID Start Date: 02/10/2012 10:35

Analysis Batch Number: 33435 End Date: 02/10/2012 23:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		02/10/2012 10:35	1		RTX-VRX 0.45(mm)
STD1 240-33435/12 IC		02/10/2012 16:17	1	YF021012.D	RTX-VRX 0.45(mm)
STD2 240-33435/13 IC		02/10/2012 16:55	1	YF021013.D	RTX-VRX 0.45(mm)
STD3 240-33435/14 IC		02/10/2012 17:32	1	YF021014.D	RTX-VRX 0.45(mm)
STD4 240-33435/15 ICRT		02/10/2012 18:11	1	YF021015.D	RTX-VRX 0.45(mm)
STD5 240-33435/16 IC		02/10/2012 18:49	1	YF021016.D	RTX-VRX 0.45(mm)
STD6 240-33435/17 IC		02/10/2012 19:27	1	YF021017.D	RTX-VRX 0.45(mm)
ICV 240-33435/18		02/10/2012 20:05	1	YF021018.D	RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 20:43	1		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 21:21	1		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 21:59	10		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 22:37	10		RTX-VRX 0.45(mm)
ZZZZZ		02/10/2012 23:15	10		RTX-VRX 0.45(mm)
CCV 240-33435/24		02/10/2012 23:53	1		RTX-VRX 0.45(mm)

8015B

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 33435

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/10/2012 16:17 Calibration End Date: 02/10/2012 19:27 Calibration ID: 6924

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-33435/12	YF021012.D
Level 2	STD2 240-33435/13	YF021013.D
Level 3	STD3 240-33435/14	YF021014.D
Level 4	STD4 240-33435/15	YF021015.D
Level 5	STD5 240-33435/16	YF021016.D
Level 6	STD6 240-33435/17	YF021017.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Total Petroleum Hydrocarbons (C6-C10)	11.810	11.810	11.810	11.810	11.810	11.810					4.817 - 18.802	11.810
C6-C12	13.469	13.469	13.469	13.469	13.469	13.469					4.917 - 22.022	13.469
Trifluorotoluene (Surr)	9.768	9.772	9.769	9.772	9.771	9.774					9.522 - 10.022	9.771

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 33435

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/10/2012 16:17 Calibration End Date: 02/10/2012 19:27 Calibration ID: 6924

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-33435/12	YF021012.D
Level 2	STD2 240-33435/13	YF021013.D
Level 3	STD3 240-33435/14	YF021014.D
Level 4	STD4 240-33435/15	YF021015.D
Level 5	STD5 240-33435/16	YF021016.D
Level 6	STD6 240-33435/17	YF021017.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Total Petroleum Hydrocarbons (C6-C10)	318103 289067	320460 294590	282575	294457	Ave		299875.299				5.2		20.0			
C6-C12	375472 318195	363940 323226	316555	324196	Ave		336930.834				7.7		20.0			
Trifluorotoluene (Surr)	384133 460736	375012 483108	395882	424093	Ave		420494.083				10.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICV 240-33435/18 Calibration Date: 02/10/2012 20:05

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF021018.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	333932		891	800	11.4	20.0
C6-C12	Ave	336931	375679		892	800	11.5	20.0
Trifluorotoluene (Surr)	Ave	420494	416828		9.91	10.0	-0.9	20.0

FORM VII 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: YPID Start Date: 05/07/2012 11:20

Analysis Batch Number: 42995 End Date: 05/07/2012 21:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		05/07/2012 11:20	1		RTX-VRX 0.45(mm)
CCV 240-42995/5 CCVRT		05/07/2012 12:40	1	YF050705.D	RTX-VRX 0.45(mm)
MB 240-42995/6		05/07/2012 13:20	1	YF050706.D	RTX-VRX 0.45(mm)
LCS 240-42995/7		05/07/2012 14:00	1	YF050707.D	RTX-VRX 0.45(mm)
240-10808-2	GSP-MW5-043012	05/07/2012 14:40	1	YF050708.D	RTX-VRX 0.45(mm)
240-10808-2 MS	GSP-MW5-043012 MS	05/07/2012 15:20	1	YF050709.D	RTX-VRX 0.45(mm)
240-10808-2 MSD	GSP-MW5-043012 MSD	05/07/2012 16:00	1	YF050710.D	RTX-VRX 0.45(mm)
240-10808-3	GSP-MW6-043012	05/07/2012 16:42	1	YF050711.D	RTX-VRX 0.45(mm)
240-10808-4	MT-MW02S-043012	05/07/2012 17:23	1	YF050712.D	RTX-VRX 0.45(mm)
ZZZZZ		05/07/2012 18:04	1		RTX-VRX 0.45(mm)
ZZZZZ		05/07/2012 18:45	1		RTX-VRX 0.45(mm)
ZZZZZ		05/07/2012 19:26	1		RTX-VRX 0.45(mm)
CCV 240-42995/16		05/07/2012 20:05	1	YF050716.D	RTX-VRX 0.45(mm)
ZZZZZ		05/07/2012 20:45	1		RTX-VRX 0.45(mm)
CCV 240-42995/18		05/07/2012 21:23	1		RTX-VRX 0.45(mm)

8015B

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCV 240-42995/5 Calibration Date: 05/07/2012 12:40

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF050705.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	319991		854	800	6.7	15.0
C6-C12	Ave	336931	352680		837	800	4.7	15.0
Trifluorotoluene (Surr)	Ave	420494	308604		7.34	10.0	-26.6*	15.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCV 240-42995/16 Calibration Date: 05/07/2012 20:05

Instrument ID: YPID Calib Start Date: 02/10/2012 16:17

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 02/10/2012 19:27

Lab File ID: YF050716.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	299875	325536		869	800	8.6	15.0
C6-C12	Ave	336931	359447		854	800	6.7	15.0
Trifluorotoluene (Surr)	Ave	420494	291877		6.94	10.0	-30.6*	15.0

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): ID:

Client Sample ID	Lab Sample ID	C91 #
GSP-MW5-043012	240-10808-2	69
GSP-MW6-043012	240-10808-3	67
MT-MW02S-043012	240-10808-4	57
	MB 240-42831/9-A	64
	LCS 240-42831/10-A	74

C9 = n-Nonane

QC LIMITS
10-110

Column to be used to flag recovery values

FORM II 8015B

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: MB 240-42831/9-A

Matrix: Water Date Extracted: 05/04/2012 12:16

Lab File ID:(1) P5F05083.D Lab File ID:(2)

Date Analyzed:(1) 05/07/2012 14:15 Date Analyzed:(2)

Instrument ID:(1) A2HP5F Instrument ID:(2)

GC Column:(1) ID: GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-MW5-043012	240-10808-2	05/07/2012 10:16	
GSP-MW6-043012	240-10808-3	05/07/2012 10:46	
MT-MW02S-043012	240-10808-4	05/07/2012 11:16	
	LCS 240-42831/10-A	05/07/2012 14:45	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-42831/9-A
Matrix: Water
Lab File ID: P5F05083.D
Analysis Method: 8015B
Date Collected:
Extraction Method: 3510C
Date Extracted: 05/04/2012 12:16
Sample wt/vol: 1000(mL)
Date Analyzed: 05/07/2012 14:15
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: ID:
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 42964
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	500	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	64		10-110

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P5F05084.D

Lab ID: LCS 240-42831/10-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2500	2230	89	36-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Sample No.: CCVRT 240-42964/4 Date Analyzed: 05/07/2012 09:46

Instrument ID: A2HP5F GC Column: ID: ()

Lab File ID (Standard): P5F05074.D Heated Purge: (Y/N) N

Calibration ID: 8059

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				C9		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.80		
UPPER LIMIT				3.90		
LOWER LIMIT				3.70		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-42964/4		05/07/2012 09:46	P5F05074.D	3.80		
240-10808-2	GSP-MW5-043012	05/07/2012 10:16	P5F05075.D	3.80		
240-10808-3	GSP-MW6-043012	05/07/2012 10:46	P5F05076.D	3.80		
240-10808-4	MT-MW02S-043012	05/07/2012 11:16	P5F05077.D	3.80		
MB 240-42831/9-A		05/07/2012 14:15	P5F05083.D	3.80		
LCS 240-42831/10-A		05/07/2012 14:45	P5F05084.D	3.80		
CCV 240-42964/15		05/07/2012 15:15	P5F05085.D	3.80		

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: A2HP5F Start Date: 04/13/2012 10:08

Analysis Batch Number: 40180 End Date: 04/13/2012 15:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-40180/4 IC		04/13/2012 10:08	1	P5F04134.D	
STD2 240-40180/5 IC		04/13/2012 10:38	1	P5F04135.D	
STD3 240-40180/6 IC		04/13/2012 11:08	1	P5F04136.D	
STD4 240-40180/7 IC		04/13/2012 11:38	1	P5F04137.D	
STD5 240-40180/8 IC		04/13/2012 12:08	1	P5F04138.D	
ICV 240-40180/9		04/13/2012 12:38	1	P5F04139.D	
STD1 240-40180/10 IC		04/13/2012 13:08	1		
STD2 240-40180/11 IC		04/13/2012 13:38	1		
STD3 240-40180/12 IC		04/13/2012 14:08	1		
STD4 240-40180/13 IC		04/13/2012 14:37	1		
STD5 240-40180/14 IC		04/13/2012 15:06	1		
ICV 240-40180/15		04/13/2012 15:36	1		

8015B

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 40180

SDG No.:

Instrument ID: A2HP5F GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/13/2012 10:08 Calibration End Date: 04/13/2012 12:08 Calibration ID: 8059

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-40180/4	P5F04134.D
Level 2	STD2 240-40180/5	P5F04135.D
Level 3	STD3 240-40180/6	P5F04136.D
Level 4	STD4 240-40180/7	P5F04137.D
Level 5	STD5 240-40180/8	P5F04138.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel	9.179	9.179	9.179	9.179	9.179						4.893 - 13.468	9.179
n-Nonane	3.798	3.796	3.795	3.799	3.802						3.728 - 3.868	3.798

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-10808-1 Analy Batch No.: 40180

SDG No.:

Instrument ID: A2HP5F GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/13/2012 10:08 Calibration End Date: 04/13/2012 12:08 Calibration ID: 8059

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-40180/4	P5F04134.D
Level 2	STD2 240-40180/5	P5F04135.D
Level 3	STD3 240-40180/6	P5F04136.D
Level 4	STD4 240-40180/7	P5F04137.D
Level 5	STD5 240-40180/8	P5F04138.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	197527 183497	194334	179644	186362	Ave		188272.909				4.0		20.0			
n-Nonane	222434 217668	222225	205767	214296	Ave		216478.041				3.2		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICV 240-40180/9 Calibration Date: 04/13/2012 12:38

Instrument ID: A2HP5F Calib Start Date: 04/13/2012 10:08

GC Column: ID: Calib End Date: 04/13/2012 12:08

Lab File ID: P5F04139.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	188273	191992		510	500	2.0	20.0

FORM VII 8015B

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: A2HP5F Start Date: 05/07/2012 09:46

Analysis Batch Number: 42964 End Date: 05/07/2012 15:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-42964/4		05/07/2012 09:46	1	P5F05074.D	
240-10808-2	GSP-MW5-043012	05/07/2012 10:16	1	P5F05075.D	
240-10808-3	GSP-MW6-043012	05/07/2012 10:46	1	P5F05076.D	
240-10808-4	MT-MW02S-043012	05/07/2012 11:16	1	P5F05077.D	
ZZZZZ		05/07/2012 11:45	1		
ZZZZZ		05/07/2012 12:15	1		
ZZZZZ		05/07/2012 12:45	1		
ZZZZZ		05/07/2012 13:15	1		
ZZZZZ		05/07/2012 13:45	1		
MB 240-42831/9-A		05/07/2012 14:15	1	P5F05083.D	
LCS 240-42831/10-A		05/07/2012 14:45	1	P5F05084.D	
CCV 240-42964/15		05/07/2012 15:15	1	P5F05085.D	

8015B

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCVRT 240-42964/4 Calibration Date: 05/07/2012 09:46

Instrument ID: A2HP5F Calib Start Date: 04/13/2012 10:08

GC Column: ID: Calib End Date: 04/13/2012 12:08

Lab File ID: P5F05074.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	188273	195069		518	500	3.6	15.0
n-Nonane	Ave	216478	235449		54.4	50.0	8.8	15.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: CCV 240-42964/15 Calibration Date: 05/07/2012 15:15

Instrument ID: A2HP5F Calib Start Date: 04/13/2012 10:08

GC Column: ID: Calib End Date: 04/13/2012 12:08

Lab File ID: P5F05085.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	188273	207212		550	500	10.1	15.0
n-Nonane	Ave	216478	240161		55.5	50.0	10.9	15.0

HOLDTIME

SDG 240-10808-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/3/2012	5/4/2012	3	1	4
HG	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/7/2012	5/8/2012	7	1	8
HG	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/7/2012	5/8/2012	7	1	8
M	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
M	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
M	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
HGF	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/7/2012	5/8/2012	7	1	8
HGF	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/3/2012	5/4/2012	3	1	4
HGF	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/7/2012	5/8/2012	7	1	8
MF	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
MF	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
MF	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
PCL	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/7/2012	5/15/2012	7	8	15
PCL	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/7/2012	5/15/2012	7	8	15
PCL	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/7/2012	5/15/2012	7	8	15

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OS	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/5/2012	5/8/2012	5	3	8
OS	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/5/2012	5/8/2012	5	3	8
OS	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/5/2012	5/8/2012	5	3	8
OV	UG/L	TB-043012	240-10808-1	NM	4/30/2012	5/10/2012	5/10/2012	10	0	10
OV	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/10/2012	5/10/2012	10	0	10
OV	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/10/2012	5/10/2012	10	0	10
OV	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/10/2012	5/10/2012	10	0	10
OV	UG/L	TB-043012	240-10808-1	TB	4/30/2012	5/10/2012	5/10/2012	10	0	10
DRO	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/4/2012	5/7/2012	4	3	7
DRO	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/4/2012	5/7/2012	4	3	7
DRO	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/4/2012	5/7/2012	4	3	7
GRO	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/7/2012	5/7/2012	7	0	7
GRO	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/7/2012	5/7/2012	7	0	7
GRO	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/7/2012	5/7/2012	7	0	7

Tetra Tech **INTERNAL CORRESPONDENCE**

TO: **T. APANAVAGE** **DATE: JUNE 29, 2012**

FROM: **TERRI L. SOLOMON** **COPIES: DV FILE**

SUBJECT: **ORGANIC / INORGANIC DATA VALIDATION – SELECT METALS, PERCHLORATE**
MARTIN STATE AIRPORT – GROUNDWATER
SAMPLE DELIVERY GROUP (SDG) – 240-10808-1

SAMPLES: 3/Aqueous/

GSP-MW5-043012 GSP-MW6-043012
MT-MW02S-043012

Overview

The sample set for Martin State Airport - Groundwater, SDG 240-10808-1, consists of three (3) aqueous environmental samples. No field duplicate pairs were included within this SDG.

All samples were analyzed for perchlorate and select total and dissolved metals including antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, tungsten, vanadium and zinc. The samples were collected by Tetra Tech on April 30, 2012 and analyzed by TestAmerica. Metals analyses were conducted using SW-846 method 6020. Mercury analyses were conducted using SW-846 method 7470A. Perchlorate analyses were conducted using SW-846 method 6850.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP interference results, laboratory control sample recoveries, matrix spike/matrix spike duplicate recoveries, ICP serial dilution results, internal standard recoveries, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems

None.

Minor Problems

- The contract required detection limit (CRDL) percent recoveries for cadmium, cobalt, lead and nickel were > 110% quality control limit affecting all samples. Positive results < 2X CRDL for cadmium, cobalt, lead and nickel were qualified as either biased high, "K" or estimated, "J", as a result of conflicting noncompliances.

- The following contaminants were detected in the laboratory method/preparation blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Antimony[1]	0.138 ug/L	0.69 ug/L
Cobalt[1]	0.0610 ug/L	0.305 ug/L
Molybdenum[1]	0.678 ug/L	3.39 ug/L
Thallium[1]	0.554 ug/L	2.77 ug/L
Tungsten[1]	0.868 ug/L	4.34 ug/L
Barium[2]	0.541 ug/L	2.705 ug/L
Copper[2]	0.388 ug/L	1.94 ug/L
Zinc[2]	4.57 ug/L	22.85 ug/L

[1] Maximum concentration present in a method blank affecting all samples.
[2] Maximum concentration present in a preparation blank affecting all samples.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The positive results less than the blank action level reported for copper, molybdenum and thallium were qualified "B" as a result of laboratory blank contamination.

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated, "J".

Notes

Nondetected results are reported to the method detection limits.

The contract required detection limit (CRDL) percent recoveries for barium, copper, silver and thallium were > 110% quality control limit affecting all samples. However, no validation actions were required as all sample results were either > 2X CRDL, nondetects or were qualified as a result of blank contamination.

Executive Summary

Laboratory Performance: Several contaminants were present in the laboratory method / preparation blanks. The CRDL percent recovery for several analytes was > 110% quality control limit affecting all samples.

Other Factors Affecting Data Quality: Positive results reported below the RL but above the MDL were qualified as estimated.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993 and the Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994).

The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Terri L. Solomon
Environmental Scientist

Tetra Tech
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 04021	NSAMPLE	GSP-MW5-043012			GSP-MW6-043012			MT-MW02S-043012		
SDG: 240-10808-1	LAB_ID	240-10808-2			240-10808-3			240-10808-4		
FRACTION: M	SAMP_DATE	4/30/2012			4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.13	U		0.92	J	P	0.13	U	
ARSENIC		3.4	J	P	4	J	P	2.3	J	P
BARIUM		21			42			120		
BERYLLIUM		1.3			0.2	U		0.74	J	P
CADMIUM		0.32	J	CP	0.13	U		0.13	U	
CHROMIUM		2.2			0.71	U		0.71	U	
COBALT		26			0.56	J	CP	30		
COPPER		4.9			5			1.4	B	A
LEAD		0.39	J	CP	0.18	U		1.3	K	C
MERCURY		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.34	B	A	2.7	B	A	0.093	U	
NICKEL		17			1.3	J	CP	48		
SELENIUM		2.2	J	P	14			0.57	U	
SILVER		0.08	U		0.08	U		0.08	U	
THALLIUM		0.14	U		0.25	B	A	0.15	B	A
TUNGSTEN		0.37	U		0.37	U		0.37	U	
VANADIUM		4.4	J	P	8.5	J	P	0.44	U	
ZINC		28			530			100		

PROJ_NO: 04021	NSAMPLE	GSP-MW5-043012			GSP-MW6-043012			MT-MW02S-043012		
SDG: 240-10808-1	LAB_ID	240-10808-2			240-10808-3			240-10808-4		
FRACTION: MF	SAMP_DATE	4/30/2012			4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.13	U		0.76	J	P	0.13	U	
ARSENIC		3.5	J	P	2.1	J	P	1.7	J	P
BARIUM		21			40			110		
BERYLLIUM		1.4			0.2	U		0.68	J	P
CADMIUM		0.31	J	CP	0.13	U		0.13	U	
CHROMIUM		0.78	J	P	0.71	U		0.71	U	
COBALT		29			0.45	J	CP	23		
COPPER		0.34	B	A	4.1			0.62	B	A
LEAD		0.18	U		0.18	U		1	K	C
MERCURY		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.35	B	A	2.2	B	A	0.093	U	
NICKEL		19			1.2	J	CP	39		
SELENIUM		2.7	J	P	13			0.57	U	
SILVER		0.08	U		0.08	U		0.08	U	
THALLIUM		0.26	B	A	0.2	B	A	0.14	U	
TUNGSTEN		0.37	U		0.37	U		0.37	U	
VANADIUM		1.8	J	P	6.5	J	P	0.44	U	
ZINC		25			460			57		

PROJ_NO: 04021	NSAMPLE	GSP-MW5-043012			GSP-MW6-043012			MT-MW02S-043012		
SDG: 240-10808-1	LAB_ID	240-10808-2			240-10808-3			240-10808-4		
FRACTION: MISC	SAMP_DATE	4/30/2012			4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.16	J	P	0.082	U		0.082	U	

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: GSP-MW5-043012

Lab Sample ID: 240-10808-2

Lab Name: TestAmerica Canton

Job No.: 240-10808-1

SDG ID.:

Matrix: Water

Date Sampled: 04/30/2012 10:30

Reporting Basis: WET

Date Received: 05/01/2012 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	3.4	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	21	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.3	1.0	0.20	ug/L			1	6020
7440-43-9	Cadmium	0.32	1.0	0.13	ug/L	J		1	6020
7440-47-3	Chromium	2.2	2.0	0.71	ug/L			1	6020
7440-48-4	Cobalt	26	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	4.9	2.0	0.29	ug/L		B	1	6020
7439-92-1	Lead	0.39	1.0	0.18	ug/L	J		1	6020
7439-98-7	Molybdenum	0.34	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	17	2.0	0.20	ug/L		^	1	6020
7782-49-2	Selenium	2.2	5.0	0.57	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7440-62-2	Vanadium	4.4	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	28	20	2.3	ug/L		B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW5-043012

Lab Sample ID: 240-10808-2

Lab Name: TestAmerica Canton

Job No.: 240-10808-1

SDG ID.:

Matrix: Water

Date Sampled: 04/30/2012 10:30

Reporting Basis: WET

Date Received: 05/01/2012 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: GSP-MW6-043012 Lab Sample ID: 240-10808-3

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG ID.:

Matrix: Water Date Sampled: 04/30/2012 11:45

Reporting Basis: WET Date Received: 05/01/2012 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.92	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	4.0	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	42	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.56	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	5.0	2.0	0.29	ug/L		B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	2.7	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	1.3	2.0	0.20	ug/L	J	^	1	6020
7782-49-2	Selenium	14	5.0	0.57	ug/L			1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.25	2.0	0.14	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7440-62-2	Vanadium	8.5	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	530	20	2.3	ug/L		B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW6-043012

Lab Sample ID: 240-10808-3

Lab Name: TestAmerica Canton

Job No.: 240-10808-1

SDG ID.:

Matrix: Water

Date Sampled: 04/30/2012 11:45

Reporting Basis: WET

Date Received: 05/01/2012 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MT-MW02S-043012
Lab Sample ID: 240-10808-4
Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG ID.:
Matrix: Water
Date Sampled: 04/30/2012 13:05
Reporting Basis: WET
Date Received: 05/01/2012 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	2.3	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	120	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	0.74	1.0	0.20	ug/L	J		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	30	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	1.4	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.3	1.0	0.18	ug/L			1	6020
7439-98-7	Molybdenum	10	10	0.093	ug/L	U		1	6020
7440-02-0	Nickel	48	2.0	0.20	ug/L		^	1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.15	2.0	0.14	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7440-62-2	Vanadium	20	20	0.44	ug/L	U		1	6020
7440-66-6	Zinc	100	20	2.3	ug/L		B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MT-MW02S-043012

Lab Sample ID: 240-10808-4

Lab Name: TestAmerica Canton

Job No.: 240-10808-1

SDG ID.:

Matrix: Water

Date Sampled: 04/30/2012 13:05

Reporting Basis: WET

Date Received: 05/01/2012 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW5-043012
Lab Sample ID: 240-10808-2
Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG ID.:
Matrix: Water
Date Sampled: 04/30/2012 10:30
Reporting Basis: WET
Date Received: 05/01/2012 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	3.5	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	21	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.4	1.0	0.20	ug/L			1	6020
7440-43-9	Cadmium	0.31	1.0	0.13	ug/L	J		1	6020
7440-47-3	Chromium	0.78	2.0	0.71	ug/L	J		1	6020
7440-48-4	Cobalt	29	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	0.34	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	0.35	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	19	2.0	0.20	ug/L		^	1	6020
7782-49-2	Selenium	2.7	5.0	0.57	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.26	2.0	0.14	ug/L	J	B	1	6020
7440-62-2	Vanadium	1.8	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	25	20	2.3	ug/L		B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW6-043012
Lab Sample ID: 240-10808-3
Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG ID.:
Matrix: Water
Date Sampled: 04/30/2012 11:45
Reporting Basis: WET
Date Received: 05/01/2012 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.76	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.1	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	40	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.45	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	4.1	2.0	0.29	ug/L		B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	2.2	10	0.093	ug/L	J	B	1	6020
7440-02-0	Nickel	1.2	2.0	0.20	ug/L	J	^	1	6020
7782-49-2	Selenium	13	5.0	0.57	ug/L			1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.20	2.0	0.14	ug/L	J	B	1	6020
7440-62-2	Vanadium	6.5	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	460	20	2.3	ug/L		B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MT-MW02S-043012
Lab Sample ID: 240-10808-4
Lab Name: TestAmerica Canton
Job No.: 240-10808-1
SDG ID.:
Matrix: Water
Date Sampled: 04/30/2012 13:05
Reporting Basis: WET
Date Received: 05/01/2012 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.13	ug/L	U		1	6020
7440-38-2	Arsenic	1.7	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	110	5.0	0.19	ug/L		B	1	6020
7440-41-7	Beryllium	0.68	1.0	0.20	ug/L	J		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	23	1.0	0.058	ug/L			1	6020
7440-50-8	Copper	0.62	2.0	0.29	ug/L	J	B	1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L			1	6020
7439-98-7	Molybdenum	10	10	0.093	ug/L	U		1	6020
7440-02-0	Nickel	39	2.0	0.20	ug/L		^	1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	20	20	0.44	ug/L	U		1	6020
7440-66-6	Zinc	57	20	2.3	ug/L		B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

TestAmerica Canton

Client Sample ID: GSP-MW5-043012

Dissolved HPLC - Mass. Spec.

Lot-Sample #...: G2E030413-001 Work Order #...: MTC2Q1AA Matrix.....: WATER
Date Sampled...: 04/30/12 Date Received..: 05/02/12
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1 Method.....: SW846 6850

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	0.16 J	1.0	ug/L	0.082

NOTE(S):

J Estimated result. Result is less than RL.

TestAmerica Canton

Client Sample ID: GSP-MW6-043012

Dissolved HPLC - Mass. Spec.

Lot-Sample #...:	G2E030413-002	Work Order #...:	MTC2R1AA	Matrix.....:	WATER
Date Sampled...:	04/30/12	Date Received..:	05/02/12		
Prep Date.....:	05/07/12	Analysis Date..:	05/15/12		
Prep Batch #...:	2128058				
Dilution Factor:	1	Method.....:	SW846 6850		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	ND	1.0	ug/L	0.082

TestAmerica Canton

Client Sample ID: MT-MW02S-043012

Dissolved HPLC - Mass. Spec.

Lot-Sample #...:	G2E030413-003	Work Order #...:	MTC2T1AA	Matrix.....:	WATER
Date Sampled...:	04/30/12	Date Received..:	05/02/12		
Prep Date.....:	05/07/12	Analysis Date..:	05/15/12		
Prep Batch #...:	2128058				
Dilution Factor:	1	Method.....:	SW846 6850		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perchlorate	ND	1.0	ug/L	0.082

APPENDIX C
SUPPORT DOCUMENTATION

CASE NARRATIVE

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Project: MSA Groundwater Sampling

Report Number: 240-10808-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 6850 Perchlorate analysis was performed at the TestAmerica West Sacramento Laboratory.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 05/01/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.9 and 3.2 C.

VOLATILE ORGANIC COMPOUNDS (GC MS)

Samples TB-043012 (240-10808-1), GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for volatile organic compounds (GC MS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 05/10/2012.

1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene and Hexachlorobutadiene were detected in method blank MB 240-43549/5 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

2-Butanone and 2-Chloroethyl vinyl ether failed the recovery criteria low for the MS/MSD of sample 240-10837-5 in batch 240-43549. Refer to the QC report for details.

Sample MT-MW02S-043012 (240-10808-4)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 05/05/2012 and analyzed on 05/08/2012.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

1,4-Dioxane failed the recovery criteria high for the MSD of sample 240-10837-5 in batch 240-43126.

1,4-Dioxane failed the recovery criteria low for the MSD of sample 240-10842-8 in batch 240-43665. 1,4-Dioxane exceeded the rpd limit.

Refer to the QC report for details.

No other difficulties were encountered during the SVOCs analyses. All other quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 05/07/2012.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-42995/6 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 05/04/2012 and analyzed on 05/07/2012.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

No difficulties were encountered during the DRO analyses. All quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

No difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/02/2012 and analyzed on 05/03/2012.

Several analytes were detected in method blank MB 240-42485/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/03/2012 and 05/07/2012 and analyzed on 05/04/2012 and 05/08/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY
Samples GSP-MW5-043012 (240-10808-2), GSP-MW6-043012 (240-10808-3) and MT-MW02S-043012 (240-10808-4) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/03/2012 and 05/07/2012 and analyzed on 05/04/2012 and 05/08/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact			
Company Name: Tetra Tech	Client Project Manager: Tony Apanavage	Site Contact: Stu Cameron	Lab Contact:
Address: 20251 Century Blvd Ste 200	Telephone: (301)528-5552	Telephone: (703)342-8389	Telephone:
City/State/Zip: Germantown MD, 20874	Email: Tony.Apanavage@tetratech.com	Analysis Turnaround Time (in BUS days)	
Phone: (301) 528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	
Project Name: MSA GW Sampling	Method of Shipment/Carrier:		
Project Number: 112IC04021	Shipping/Tracking No:		
PO#			

COC No: 006079
1 of 1 COCs

For lab use only
Walk-in client
Lab pickup
Lab sampling
JOA/SDG No.

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (C)/Grab (G)	VOCs	Total Metals	Dissolved Metals	Perchlorate	1,4-Dioxane	TPH-GRO	TPH-DRO				Sample Specific Notes / Special Instructions:
TB-043012	—	—		X						2							X										
GSP-MW5-043012	4/30/12	1030		X					2	5			5			G	X	X	X	X	X	X	X				
GSP-MW6-043012	↓	1145		X					2	5			5			G	X	X	X	X	X	X	X				
MT-MW02S-043012	↓	1305		X					2	5			5			G	X	X	X	X	X	X	X				

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Stuart Cameron	Tetra Tech	4-30-12/1445	Paul Gaylord	TestAmerica	4/30/12 1446
[illegible]	TestAmerica	4-30-2012/1530			
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			[illegible]	TAL	5-1-12 930

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

TAL 0018- 1 (04/10)

HOLDTIME

SDG 240-10808-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/3/2012	5/4/2012	3	1	4
HG	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/7/2012	5/8/2012	7	1	8
HG	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/7/2012	5/8/2012	7	1	8
M	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
M	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
M	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
HGF	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/7/2012	5/8/2012	7	1	8
HGF	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/3/2012	5/4/2012	3	1	4
HGF	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/7/2012	5/8/2012	7	1	8
MF	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
MF	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
MF	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/2/2012	5/3/2012	2	1	3
PCL	UG/L	MT-MW02S-043012	240-10808-4	NM	4/30/2012	5/7/2012	5/15/2012	7	8	15
PCL	UG/L	GSP-MW6-043012	240-10808-3	NM	4/30/2012	5/7/2012	5/15/2012	7	8	15
PCL	UG/L	GSP-MW5-043012	240-10808-2	NM	4/30/2012	5/7/2012	5/15/2012	7	8	15

SAMPLE SUMMARY

Client: Tetra Tech, Inc formerly Tetra Tech NUS

Job Number: 240-10808-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-10808-1TB	TB-043012	Water	04/30/2012 0000	05/01/2012 0930
240-10808-2	GSP-MW5-043012	Water	04/30/2012 1030	05/01/2012 0930
240-10808-3	GSP-MW6-043012	Water	04/30/2012 1145	05/01/2012 0930
240-10808-4	MT-MW02S-043012	Water	04/30/2012 1305	05/01/2012 0930

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

ICV Source: MTMSICVW_00014 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00039

Analyte	ICV 240-42666/5 05/03/2012 06:17				CCV 240-42666/22 05/03/2012 07:54				CCV 240-42666/34 05/03/2012 09:03			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	82.2		80.0	103	98.3		100	98	96.3		100	96
Arsenic	80.9		80.0	101	98.9		100	99	98.8		100	99
Barium	80.9		80.0	101	97.7		100	98	97.5		100	98
Beryllium	81.5		80.0	102	97.5		100	97	97.4		100	97
Cadmium	80.4		80.0	101	99.6		100	100	98.7		100	99
Chromium	79.7		80.0	100	96.9		100	97	98.0		100	98
Cobalt	81.2		80.0	102	99.0		100	99	100		100	100
Copper	83.2		80.0	104	101		100	101	101		100	101
Lead	82.4		80.0	103	99.3		100	99	96.7		100	97
Molybdenum	83.6		80.0	105	103		100	103	101		100	101
Nickel	83.1		80.0	104	101		100	101	102		100	102
Selenium	80.7		80.0	101	101		100	101	99.9		100	100
Silver	82.7		80.0	103	101		100	101	98.9		100	99
Thallium	81.3		80.0	102	100		100	100	100		100	100
Tungsten	80.4		80.0	101	98.4		100	98	97.0		100	97
Vanadium	79.7		80.0	100	96.7		100	97	96.8		100	97
Zinc	81.5		80.0	102	99.8		100	100	99.5		100	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

ICV Source: MTMSICVW_00014 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00039

Analyte	CCV 240-42666/46 05/03/2012 10:08				CCV 240-42666/53 05/03/2012 10:45							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	96.7		100	97	95.8		100	96				
Arsenic	99.6		100	100	99.1		100	99				
Barium	97.3		100	97	97.5		100	97				
Beryllium	98.3		100	98	96.9		100	97				
Cadmium	97.6		100	98	96.9		100	97				
Chromium	98.7		100	99	96.9		100	97				
Cobalt	99.6		100	100	100		100	100				
Copper	102		100	102	101		100	101				
Lead	94.3		100	94	94.2		100	94				
Molybdenum	101		100	101	99.5		100	100				
Nickel	101		100	101	101		100	101				
Selenium	101		100	101	101		100	101				
Silver	99.1		100	99	98.9		100	99				
Thallium	101		100	101	101		100	101				
Tungsten	96.5		100	96	96.7		100	97				
Vanadium	98.7		100	99	97.5		100	98				
Zinc	101		100	101	101		100	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

ICV Source: MTHGICVW_00289 Concentration Units: ug/L

CCV Source: MTHGCALW_00189

Analyte	ICV 240-42622/7-A 05/04/2012 10:43				CCVL 240-42622/10-A 05/04/2012 10:53				CCV 240-42622/12-A 05/04/2012 12:07			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.29		2.50	92	5.09		5.00	102	5.15		5.00	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

ICV Source: MTHGICVW_00289 Concentration Units: ug/L

CCV Source: MTHGCALW_00189

Analyte	CCV 240-42622/12-A 05/04/2012 12:34											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.12		5.00	102								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

ICV Source: MTHGICVW_00292 Concentration Units: ug/L

CCV Source: MTHGCALW_00190

Analyte	ICV 240-43145/7-A 05/08/2012 14:43				CCVL 240-43145/10-A 05/08/2012 14:49				CCV 240-43145/12-A 05/08/2012 15:39			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.43		2.50	97	5.20		5.00	104	5.32		5.00	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

ICV Source: MTHGICVW_00292 Concentration Units: ug/L

CCV Source: MTHGCALW_00190

Analyte	CCV 240-43145/12-A 05/08/2012 16:04				CCV 240-43145/12-A 05/08/2012 16:29				CCV 240-43145/12-A 05/08/2012 16:55			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.31		5.00	106	5.11		5.00	102	5.12		5.00	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Method: 6020 Instrument ID: I8

Lab Sample ID: CRI 240-42666/8 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRIW_00016

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	1.96	J	98	50-150
Arsenic	2.00	2.19	J	110	50-150
Barium	1.00	1.33	J	133	50-150
Beryllium	1.00	1.08		108	50-150
Cadmium	0.500	0.658	J	132	50-150
Chromium	2.00	2.08		104	50-150
Cobalt	1.00	1.20		120	50-150
Copper	2.00	2.72		136	50-150
Lead	1.00	1.22		122	50-150
Molybdenum	10.0	9.90	J	99	50-150
Nickel	2.00	3.13	^	156	50-150
Selenium	2.00	2.16	J	108	50-150
Silver	0.500	0.603	J	121	50-150
Thallium	1.00	1.20	J	120	50-150
Vanadium	5.00	4.78	J	96	50-150
Tungsten	10.0	9.47	J	95	50-150
Zinc	10.0	10.6	J	106	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Method: 7470A Instrument ID: H4

Lab Sample ID: CRA 240-42622/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00189

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.186	J	93	50-150

Lab Sample ID: CRA 240-43145/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00190

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.224		112	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-42666/6 05/03/2012 06:22		CCB 240-42666/23 05/03/2012 08:00		CCB 240-42666/35 05/03/2012 09:08		CCB 240-42666/47 05/03/2012 10:13	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.149	J	0.322	J	0.131	J	0.138	J
Arsenic	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Barium	5.0	5.0	U	0.239	J	5.0	U	5.0	U
Beryllium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Cadmium	1.0	1.0	U	0.172	J	1.0	U	1.0	U
Chromium	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Cobalt	1.0	0.0800	J	0.169	J	0.0610	J	1.0	U
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	1.0	U	0.191	J	1.0	U	1.0	U
Molybdenum	10	0.858	J	0.854	J	0.632	J	0.678	J
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	2.0	0.496	J	0.686	J	0.554	J	0.489	J
Tungsten	10	1.07	J	0.956	J	0.868	J	0.833	J
Vanadium	20	20	U	20	U	20	U	20	U
Zinc	20	20	U	20	U	20	U	20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-42666/54 05/03/2012 10:51							
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.133	J						
Arsenic	5.0	5.0	U						
Barium	5.0	5.0	U						
Beryllium	1.0	1.0	U						
Cadmium	1.0	1.0	U						
Chromium	2.0	2.0	U						
Cobalt	1.0	1.0	U						
Copper	2.0	2.0	U						
Lead	1.0	1.0	U						
Molybdenum	10	0.662	J						
Nickel	2.0	2.0	U						
Selenium	5.0	5.0	U						
Silver	1.0	1.0	U						
Thallium	2.0	0.476	J						
Tungsten	10	0.810	J						
Vanadium	20	20	U						
Zinc	20	20	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-42622/8-A 05/04/2012 10:45		CCB 240-42622/11-A 05/04/2012 12:09		CCB 240-42622/11-A 05/04/2012 12:35			
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U	0.20	U	0.20	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-43145/8-A 05/08/2012 14:45		CCB 240-43145/11-A 05/08/2012 15:40		CCB 240-43145/11-A 05/08/2012 16:06		CCB 240-43145/11-A 05/08/2012 16:31	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U	0.20	U	0.20	U	0.20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-43145/11-A 05/08/2012 16:57							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-42485/1-A

Instrument Code: I8 Batch No.: 42666

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6020
7440-38-2	Arsenic	5.0	U		6020
7440-39-3	Barium	0.541	J		6020
7440-41-7	Beryllium	1.0	U		6020
7440-43-9	Cadmium	1.0	U		6020
7440-47-3	Chromium	2.0	U		6020
7440-48-4	Cobalt	1.0	U		6020
7440-50-8	Copper	0.388	J		6020
7439-92-1	Lead	1.0	U		6020
7439-98-7	Molybdenum	0.312	J		6020
7440-02-0	Nickel	2.0	U	^	6020
7782-49-2	Selenium	5.0	U		6020
7440-22-4	Silver	1.0	U		6020
7440-28-0	Thallium	0.332	J		6020
7440-62-2	Vanadium	20	U		6020
7440-33-7	Tungsten	10	U		6020
7440-66-6	Zinc	4.57	J		6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-42671/1-A

Instrument Code: H4 Batch No.: 42975

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.20	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-43054/1-A

Instrument Code: H4 Batch No.: 43362

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.20	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICSA 240-42666/9 Instrument ID: I8

Lab File ID: I8050312A.csv ICS Source: MTMSICSAW_00014

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.163**	
Arsenic		**0.572**	
Barium		**0.131**	
Beryllium		**0.0050**	
Cadmium		**-0.414**	
Chromium		**0.479**	
Cobalt		**0.118**	
Copper		**0.523**	
Lead		**0.0560**	
Molybdenum	**1000**	**1018**	**102**
Nickel		**0.562**	
Selenium		**0.0360**	
Silver		**0.0380**	
Thallium		**0.111**	
Tungsten		**0.347**	
Vanadium		**0.0780**	
Zinc		**1.08**	
Aluminum	*50000*	*48650*	*97*
Boron		*0.397*	
Calcium	*50000*	*50780*	*102*
Iron	*50000*	*50610*	*101*
Magnesium	*50000*	*50890*	*102*
Manganese		*0.237*	
Potassium	*50000*	*50870*	*102*
Sodium	*50000*	*51340*	*103*
Strontium		*0.331*	
Tin		*0.0580*	
Titanium	*1000*	*1045*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Lab Sample ID: ICSAB 240-42666/10 Instrument ID: I8

Lab File ID: I8050312A.csv ICS Source: MTMSICSABW_00014

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**100**	**100**
Arsenic	**100**	**98.6**	**99**
Barium	**100**	**101**	**101**
Beryllium	**100**	**104**	**104**
Cadmium	**100**	**98.5**	**98**
Chromium	**100**	**105**	**105**
Cobalt	**100**	**100**	**100**
Copper	**100**	**101**	**101**
Lead	**100**	**106**	**106**
Molybdenum	**1100**	**1138**	**103**
Nickel	**100**	**107**	**107**
Selenium	**100**	**101**	**101**
Silver	**100**	**101**	**101**
Thallium	**100**	**104**	**104**
Tungsten	**100**	**99.6**	**100**
Vanadium	**100**	**99.2**	**99**
Zinc	**100**	**103**	**103**
Aluminum	*50000*	*48390*	*97*
Boron	*100*	*99.3*	*99*
Calcium	*50000*	*51380*	*103*
Iron	*50000*	*50960*	*102*
Magnesium	*50000*	*50690*	*101*
Manganese	*100*	*107*	*107*
Potassium	*50000*	*50370*	*101*
Sodium	*50000*	*51610*	*103*
Strontium	*100*	*95.2*	*95*
Tin	*100*	*98.8*	*99*
Titanium	*1100*	*1153*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

NOT IN SDG

Client ID: _____ Lab ID: 240-10807-B-5-B MS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	95.7		0.42	J	100	95	44-153		6020
Arsenic	959		2.7	J	1000	96	82-123		6020
Barium	1360		370		1000	99	45-144		6020
Beryllium	980		1.0	U	1000	98	77-124		6020
Cadmium	933		0.14	J	1000	93	78-117		6020
Chromium	974		2.6		1000	97	72-110		6020
Cobalt	968		2.6		1000	97	67-114		6020
Copper	931		0.63	J	1000	93	60-123		6020
Lead	984		0.19	J	1000	98	73-115		6020
Molybdenum	104		0.87	J	100	103	80-110		6020
Nickel	962		10		1000	95	72-111	^	6020
Selenium	948		0.87	J	1000	95	72-148		6020
Silver	92.5		1.0	U	100	92	10-139		6020
Thallium	244		0.66	J	250	97	69-117		6020
Vanadium	978		20	U	1000	98	70-112		6020
Tungsten	96.9		2.2	J	100	95	43-133		6020
Zinc	921		3.7	J	1000	92	49-156		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

NOT IN SDG

Client ID:

Lab ID: 240-10770-H-3-C MS

Lab Name: TestAmerica Canton

Job No.: 240-10808-1

SDG No.:

Matrix: Water

Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.913		0.20	U	1.00	91	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

NOT IN SDG

Client ID: _____ Lab ID: 240-10837-N-5-C MS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR C		Sample Result (SR) C		Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.04		0.20	U	1.00	104	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

NOT IN SDG

Client ID:

Lab ID: 240-10837-M-5-C MS

Lab Name: TestAmerica Canton

Job No.: 240-10808-1

SDG No.:

Matrix: Water

Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.921		0.12	J	1.00	92	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

NOT IN SDG

Client ID:

Lab ID: 240-10807-B-5-C MSD

Lab Name: TestAmerica Canton

Job No.: 240-10808-1

SDG No.:

Matrix: Water

Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	95.8		100	95	44-153	0	20		6020
Arsenic	958		1000	96	82-123	0	20		6020
Barium	1350		1000	98	45-144	1	20		6020
Beryllium	964		1000	96	77-124	2	20		6020
Cadmium	918		1000	92	78-117	2	20		6020
Chromium	973		1000	97	72-110	0	20		6020
Cobalt	963		1000	96	67-114	1	20		6020
Copper	932		1000	93	60-123	0	20		6020
Lead	981		1000	98	73-115	0	20		6020
Molybdenum	103		100	103	80-110	0	20		6020
Nickel	957		1000	95	72-111	1	20	^	6020
Selenium	947		1000	95	72-148	0	20		6020
Silver	92.4		100	92	10-139	0	20		6020
Thallium	247		250	98	69-117	1	20		6020
Vanadium	979		1000	98	70-112	0	20		6020
Tungsten	97.8		100	96	43-133	1	20		6020
Zinc	920		1000	92	49-156	0	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

NOT IN SDG

Client ID: _____ Lab ID: 240-10770-H-3-D MSD

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.918		1.00	92	69-134	1	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

NOT IN SDG

6-IN
DUPLICATES
METALS

Client ID:

Lab ID: 240-10837-N-5-B DU

Lab Name: TestAmerica Canton

Job No.: 240-10808-1

SDG No.:

% Solids for Sample:

% Solids for Duplicate:

Matrix: Water

Concentration Units: ug/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Mercury	0.20	0.20	U	0.20	U	NC		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATES
METALS - DISSOLVED

NOT IP SOG

Client ID:

Lab ID: 240-10837-M-5-B DU

Lab Name: TestAmerica Canton

Job No.: 240-10808-1

SDG No.:

% Solids for Sample:

% Solids for Duplicate:

Matrix: Water

Concentration Units: ug/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Mercury	0.20	0.12	J	0.20	U	NC		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-42485/2-A

Lab Name: TestAmerica Canton Job No.: 240-10808-1

Sample Matrix: Water LCS Source: MTICPMSB_00008

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	92.0		92	80	120		6020
Arsenic	1000	918		92	80	120		6020
Barium	1000	918		92	80	120		6020
Beryllium	1000	905		91	80	120		6020
Cadmium	1000	934		93	80	120		6020
Chromium	1000	943		94	80	120		6020
Cobalt	1000	951		95	80	120		6020
Copper	1000	975		98	80	120		6020
Lead	1000	1010		101	80	120		6020
Molybdenum	100	92.2		92	80	120		6020
Nickel	1000	979		98	80	120	^	6020
Selenium	1000	939		94	80	120		6020
Silver	100	97.5		98	80	120		6020
Thallium	250	242		97	80	120		6020
Vanadium	1000	921		92	80	120		6020
Tungsten	100	88.0		88	80	120		6020
Zinc	1000	962		96	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-42671/2-A

Lab Name: TestAmerica Canton Job No.: 240-10808-1

Sample Matrix: Water LCS Source: MTHGICVW_00289

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.45		89	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-43054/2-A

Lab Name: TestAmerica Canton Job No.: 240-10808-1

Sample Matrix: Water LCS Source: MTHGICVW_00291

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.81		96	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

POT IN SDG

Lab ID: 240-10807-B-5-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-10808-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.42	J	0.670	J	NC		6020
Arsenic	2.7	J	3.93	J	NC		6020
Barium	370		371		NC		6020
Beryllium	1.0	U	5.0	U	NC		6020
Cadmium	0.14	J	5.0	U	NC		6020
Chromium	2.6		10	U	NC		6020
Cobalt	2.6		2.89	J	NC		6020
Copper	0.63	J	10	U	NC		6020
Lead	0.19	J	5.0	U	NC		6020
Molybdenum	0.87	J	1.34	J	NC		6020
Nickel	10		11.6		NC	^	6020
Selenium	0.87	J	25	U	NC		6020
Silver	1.0	U	5.0	U	NC		6020
Thallium	0.66	J	1.64	J	NC		6020
Vanadium	20	U	100	U	NC		6020
Tungsten	2.2	J	3.01	J	NC		6020
Zinc	3.7	J	100	U	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-10808-1

SDG Number:

Matrix: Water Instrument ID: I8

Method: 6020 MDL Date: 02/09/2010 15:53

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.13
Arsenic	75.00	5	0.4
Barium	137.00	5	0.19
Beryllium	9.00	1	0.2
Cadmium	111.00	1	0.13
Chromium	52.00	2	0.71
Cobalt	59.00	1	0.058
Copper	65.00	2	0.29
Lead	208.00	1	0.18
Molybdenum	95.00	10	0.093
Nickel	60.00	2	0.2
Selenium	78.00	5	0.57
Silver	107.00	1	0.08
Thallium	205.00	2	0.14
Tungsten	182.00	10	0.37
Vanadium	51.00	20	0.44
Zinc	66.00	20	2.3

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-10808-1

SDG Number:

Matrix: Water Instrument ID: I8

Method: 6020 MDL Date: 02/09/2010 15:53

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.13
Arsenic	75.00	5	0.4
Barium	137.00	5	0.19
Beryllium	9.00	1	0.2
Cadmium	111.00	1	0.13
Chromium	52.00	2	0.71
Cobalt	59.00	1	0.058
Copper	65.00	2	0.29
Lead	208.00	1	0.18
Molybdenum	95.00	10	0.093
Nickel	60.00	2	0.2
Selenium	78.00	5	0.57
Silver	107.00	1	0.08
Thallium	205.00	2	0.14
Tungsten	182.00	10	0.37
Vanadium	51.00	20	0.44
Zinc	66.00	20	2.3

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-10808-1

SDG Number:

Matrix: Water Instrument ID: H4

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-10808-1

SDG Number:

Matrix: Water Instrument ID: H4

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

FORM IX - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-42485/1-A	05/02/2012 10:01	42485		50	50
LCS 240-42485/2-A	05/02/2012 10:01	42485		50	50
240-10807-B-5-B MS	05/02/2012 10:01	42485		50	50
240-10807-B-5-C MSD	05/02/2012 10:01	42485		50	50
240-10808-2	05/02/2012 10:01	42485		50	50
240-10808-2	05/02/2012 10:01	42485		50	50
240-10808-3	05/02/2012 10:01	42485		50	50
240-10808-3	05/02/2012 10:01	42485		50	50
240-10808-4	05/02/2012 10:01	42485		50	50
240-10808-4	05/02/2012 10:01	42485		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-42671/1-A	05/03/2012 15:55	42671		100	100
LCS 240-42671/2-A	05/03/2012 15:55	42671		100	100
240-10770-H-3-C MS	05/03/2012 15:55	42671		100	100
240-10770-H-3-D MSD	05/03/2012 15:55	42671		100	100
240-10808-2	05/03/2012 15:55	42671		100	100
240-10808-2	05/03/2012 15:55	42671		100	100

FORM XII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-43054/1-A	05/07/2012 14:15	43054		100	100
LCS 240-43054/2-A	05/07/2012 14:15	43054		100	100
240-10837-N-5-B DU	05/07/2012 14:15	43054		100	100
240-10837-N-5-C MS	05/07/2012 14:15	43054		100	100
240-10837-M-5-B DU	05/07/2012 14:15	43054		100	100
240-10837-M-5-C MS	05/07/2012 14:15	43054		100	100
240-10808-3	05/07/2012 14:15	43054		100	100
240-10808-4	05/07/2012 14:15	43054		100	100
240-10808-3	05/07/2012 14:15	43054		100	100
240-10808-4	05/07/2012 14:15	43054		100	100

FORM XII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

ICP-MS Instrument ID: I8 Start Date: 05/03/2012 End Date: 05/03/2012

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li	Q	Element Sc	Q	Element Sc	Q	Element Ge	Q	Element In	Q
STD2 240-42666/2 IC	06:00	95		94		97		94		95	
STD3 240-42666/3 IC	06:05	94		93		92		88		91	
STD4 240-42666/4 IC	06:12	102		112		104		106		104	
ICV 240-42666/5	06:17	98		102		99		97		97	
ICB 240-42666/6	06:22	104		113		105		103		103	
CRI 240-42666/8	06:33	104		112		103		102		102	
ICSA 240-42666/9	06:39	86		92		87		88		91	
ICSAB 240-42666/10	06:44	70		84		84		85		89	
CCV 240-42666/22	07:54	83		93		90		87		89	
CCB 240-42666/23	08:00	93		105		95		95		95	
MB 240-42485/1-A	08:05	95		106		98		96		95	
LCS 240-42485/2-A	08:11	92		101		94		92		94	
240-10807-B-5-A SD	08:23	89		102		93		90		90	
240-10807-B-5-B MS	08:28	75		82		77		73		76	
240-10807-B-5-C MSD	08:34	75		83		77		72		77	
CCV 240-42666/34	09:03	85		96		89		86		86	
CCB 240-42666/35	09:08	95		107		97		94		94	
240-10808-2	10:02	89		103		92		89		88	
CCV 240-42666/46	10:08	85		97		86		83		83	
CCB 240-42666/47	10:13	93		107		94		92		90	
240-10808-2	10:19	91		103		92		88		86	
240-10808-3	10:24	87		98		86		82		82	
240-10808-3	10:29	85		96		85		81		81	
240-10808-4	10:35	87		100		91		89		88	
240-10808-4	10:40	85		99		90		88		88	
CCV 240-42666/53	10:45	80		92		85		80		80	
CCB 240-42666/54	10:51	89		101		90		89		87	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

ICP-MS Instrument ID: I8 Start Date: 05/03/2012 End Date: 05/03/2012

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD2 240-42666/2 IC	06:00			98							
STD3 240-42666/3 IC	06:05			94							
STD4 240-42666/4 IC	06:12			103							
ICV 240-42666/5	06:17			99							
ICB 240-42666/6	06:22			101							
CRI 240-42666/8	06:33			102							
ICSA 240-42666/9	06:39			91							
ICSAB 240-42666/10	06:44			91							
CCV 240-42666/22	07:54			90							
CCB 240-42666/23	08:00			94							
MB 240-42485/1-A	08:05			95							
LCS 240-42485/2-A	08:11			95							
240-10807-B-5-A SD	08:23			91							
240-10807-B-5-B MS	08:28			80							
240-10807-B-5-C MSD	08:34			79							
CCV 240-42666/34	09:03			86							
CCB 240-42666/35	09:08			90							
240-10808-2	10:02			91							
CCV 240-42666/46	10:08			81							
CCB 240-42666/47	10:13			86							
240-10808-2	10:19			91							
240-10808-3	10:24			82							
240-10808-3	10:29			80							
240-10808-4	10:35			86							
240-10808-4	10:40			86							
CCV 240-42666/53	10:45			80							
CCB 240-42666/54	10:51			83							

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 05/03/2012 05:54 End Date: 05/03/2012 10:51

Lab Sample ID	D/F	Type	Time	Analytes																		
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn			
ICIS 240-42666/1			05:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD2 240-42666/2 IC	1		06:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD3 240-42666/3 IC	1		06:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD4 240-42666/4 IC	1		06:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICV 240-42666/5	1		06:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICB 240-42666/6	1		06:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CRI 240-42666/7			06:28																				
CRI 240-42666/8	1		06:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSA 240-42666/9	1		06:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSAB 240-42666/10	1		06:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-42666/11			06:50																				
CCB 240-42666/12			06:55																				
CCV 240-42666/13			07:04																				
CCB 240-42666/14			07:10																				
ZZZZZZ			07:15																				
ZZZZZZ			07:21																				
ZZZZZZ			07:26																				
ZZZZZZ			07:31																				
ZZZZZZ			07:37																				
ZZZZZZ			07:42																				
ZZZZZZ			07:49																				
CCV 240-42666/22	1		07:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42666/23	1		08:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
MB 240-42485/1-A	1	R	08:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
LCS 240-42485/2-A	1	R	08:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			08:17																				
240-10807-B-5-A SD ^5	5	R	08:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10807-B-5-B MS	1	R	08:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10807-B-5-C MSD	1	R	08:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			08:41																				
ZZZZZZ			08:46																				
ZZZZZZ			08:52																				
ZZZZZZ			08:57																				
CCV 240-42666/34	1		09:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42666/35	1		09:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			09:14																				
ZZZZZZ			09:19																				
ZZZZZZ			09:24																				
ZZZZZZ			09:30																				
ZZZZZZ			09:35																				
ZZZZZZ			09:41																				
ZZZZZZ			09:46																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 05/03/2012 05:54 End Date: 05/03/2012 10:51

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn			
ZZZZZZ			09:52																				
ZZZZZZ			09:57																				
240-10808-2	1	R	10:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-42666/46	1		10:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42666/47	1		10:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10808-2	1	D	10:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10808-3	1	R	10:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10808-3	1	D	10:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10808-4	1	R	10:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-10808-4	1	D	10:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-42666/53	1		10:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-42666/54	1		10:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			

Prep Types

D = Dissolved

R = Total Recoverable

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 240-42622/1-A			10:31	X																			
IC 240-42622/2-A			10:33	X																			
IC 240-42622/3-A			10:35	X																			
IC 240-42622/4-A			10:37	X																			
IC 240-42622/5-A			10:39	X																			
IC 240-42622/6-A			10:41	X																			
ICV 240-42622/7-A	1		10:43	X																			
ICB 240-42622/8-A	1		10:45	X																			
CRA 240-42622/9-A	1		10:48	X																			
CCVL 240-42622/10-A	1		10:53	X																			
CCB 240-42622/11-A			10:55																				
ZZZZZZ			10:56																				
ZZZZZZ			10:58																				
ZZZZZZ			11:00																				
ZZZZZZ			11:02																				
ZZZZZZ			11:04																				
ZZZZZZ			11:06																				
ZZZZZZ			11:09																				
ZZZZZZ			11:11																				
ZZZZZZ			11:13																				
ZZZZZZ			11:15																				
CCV 240-42622/12-A			11:17																				
CCB 240-42622/11-A			11:19																				
ZZZZZZ			11:21																				
ZZZZZZ			11:24																				
ZZZZZZ			11:26																				
ZZZZZZ			11:28																				
ZZZZZZ			11:30																				
ZZZZZZ			11:32																				
ZZZZZZ			11:34																				
ZZZZZZ			11:36																				
ZZZZZZ			11:38																				
ZZZZZZ			11:40																				
CCV 240-42622/12-A			11:42																				
CCB 240-42622/11-A			11:44																				
ZZZZZZ			11:46																				
ZZZZZZ			11:48																				
ZZZZZZ			11:50																				
ZZZZZZ			11:53																				
ZZZZZZ			11:55																				
ZZZZZZ			11:57																				
ZZZZZZ			11:59																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			12:00																				
ZZZZZZ			12:03																				
ZZZZZZ			12:05																				
CCV 240-42622/12-A	1		12:07	X																			
CCB 240-42622/11-A	1		12:09	X																			
MB 240-42671/1-A	1	T	12:12	X																			
LCS 240-42671/2-A	1	T	12:14	X																			
ZZZZZZ			12:16																				
240-10770-H-3-C MS	1	T	12:18	X																			
240-10770-H-3-D MSD	1	T	12:20	X																			
ZZZZZZ			12:22																				
ZZZZZZ			12:25																				
ZZZZZZ			12:27																				
240-10808-2	1	T	12:29	X																			
240-10808-2	1	D	12:31	X																			
CCV 240-42622/12-A	1		12:34	X																			
CCB 240-42622/11-A	1		12:35	X																			
ZZZZZZ			12:37																				
ZZZZZZ			12:39																				
ZZZZZZ			12:41																				
ZZZZZZ			12:43																				
ZZZZZZ			12:46																				
ZZZZZZ			12:47																				
ZZZZZZ			12:49																				
ZZZZZZ			12:51																				
ZZZZZZ			12:53																				
ZZZZZZ			12:55																				
CCV 240-42622/12-A			12:59																				
CCB 240-42622/11-A			13:00																				
ZZZZZZ			13:03																				
ZZZZZZ			13:06																				
CCV 240-42622/12-A			13:09																				
CCB 240-42622/11-A			13:11																				
CCV 240-42622/12-A			14:41																				
CCB 240-42622/11-A			14:43																				
ZZZZZZ			14:45																				
ZZZZZZ			14:47																				
ZZZZZZ			14:49																				
ZZZZZZ			14:51																				
ZZZZZZ			14:53																				
ZZZZZZ			14:55																				
ZZZZZZ			14:57																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			14:59																				
ZZZZZZ			15:01																				
ZZZZZZ			15:03																				
CCV 240-42622/12-A			15:05																				
CCB 240-42622/11-A			15:07																				
ZZZZZZ			15:09																				
ZZZZZZ			15:11																				
CCV 240-42622/12-A			15:13																				
CRA 240-42622/9-A			15:15																				
CCB 240-42622/11-A			15:18																				
ZZZZZZ			15:20																				
ZZZZZZ			15:22																				
ZZZZZZ			15:24																				
ZZZZZZ			15:26																				
ZZZZZZ			15:28																				
ZZZZZZ			15:30																				
ZZZZZZ			15:33																				
ZZZZZZ			15:34																				
ZZZZZZ			15:36																				
ZZZZZZ			15:39																				
CCV 240-42622/12-A			15:40																				
CCB 240-42622/11-A			15:42																				
ZZZZZZ			15:44																				
ZZZZZZ			15:46																				
ZZZZZZ			15:48																				
ZZZZZZ			15:50																				
ZZZZZZ			15:52																				
ZZZZZZ			15:54																				
ZZZZZZ			15:57																				
ZZZZZZ			15:58																				
ZZZZZZ			16:01																				
ZZZZZZ			16:04																				
CCV 240-42622/12-A			16:06																				
CCB 240-42622/11-A			16:08																				
ZZZZZZ			16:10																				
ZZZZZZ			16:12																				
ZZZZZZ			16:14																				
ZZZZZZ			16:16																				
ZZZZZZ			16:18																				
ZZZZZZ			16:19																				
ZZZZZZ			16:21																				
ZZZZZZ			16:23																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			16:25																				
ZZZZZZ			16:27																				
CCV 240-42622/12-A			16:29																				
CCB 240-42622/11-A			16:31																				
ZZZZZZ			16:33																				
ZZZZZZ			16:35																				
ZZZZZZ			16:37																				
ZZZZZZ			16:39																				
ZZZZZZ			16:41																				
ZZZZZZ			16:43																				
CCV 240-42622/12-A			16:46																				
CRA 240-42622/9-A			16:48																				
CCB 240-42622/11-A			16:50																				
ZZZZZZ			16:52																				
ZZZZZZ			16:54																				
ZZZZZZ			16:56																				
ZZZZZZ			16:58																				
ZZZZZZ			17:00																				
ZZZZZZ			17:02																				
ZZZZZZ			17:04																				
ZZZZZZ			17:07																				
ZZZZZZ			17:10																				
ZZZZZZ			17:12																				
CCV 240-42622/12-A			17:14																				
CCB 240-42622/11-A			17:17																				
ZZZZZZ			17:20																				
ZZZZZZ			17:22																				
ZZZZZZ			17:24																				
ZZZZZZ			17:25																				
ZZZZZZ			17:27																				
ZZZZZZ			17:29																				
ZZZZZZ			17:31																				
ZZZZZZ			17:33																				
ZZZZZZ			17:35																				
ZZZZZZ			17:38																				
CCV 240-42622/12-A			17:40																				
CCB 240-42622/11-A			17:42																				
ZZZZZZ			17:44																				
ZZZZZZ			17:46																				
ZZZZZZ			17:48																				
ZZZZZZ			17:49																				
ZZZZZZ			17:52																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/04/2012 10:31 End Date: 05/04/2012 18:44

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			17:54																				
ZZZZZZ			17:56																				
ZZZZZZ			17:58																				
ZZZZZZ			18:00																				
ZZZZZZ			18:03																				
CCV 240-42622/12-A			18:05																				
CCB 240-42622/11-A			18:07																				
ZZZZZZ			18:09																				
ZZZZZZ			18:11																				
ZZZZZZ			18:13																				
ZZZZZZ			18:15																				
ZZZZZZ			18:17																				
ZZZZZZ			18:20																				
ZZZZZZ			18:21																				
ZZZZZZ			18:25																				
ZZZZZZ			18:27																				
ZZZZZZ			18:29																				
CCV 240-42622/12-A			18:31																				
CCB 240-42622/11-A			18:33																				
ZZZZZZ			18:35																				
ZZZZZZ			18:37																				
CCV 240-42622/12-A			18:39																				
CRA 240-42622/9-A			18:41																				
CCB 240-42622/11-A			18:44																				

Prep Types
D = Dissolved
T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/08/2012 14:30 End Date: 05/08/2012 17:03

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 240-43145/1-A			14:30	X																			
IC 240-43145/2-A			14:33	X																			
IC 240-43145/3-A			14:35	X																			
IC 240-43145/4-A			14:37	X																			
IC 240-43145/5-A			14:39	X																			
IC 240-43145/6-A			14:41	X																			
ICV 240-43145/7-A	1		14:43	X																			
ICB 240-43145/8-A	1		14:45	X																			
CRA 240-43145/9-A	1		14:47	X																			
CCVL 240-43145/10-A	1		14:49	X																			
CCB 240-43145/11-A			14:51																				
ZZZZZZ			14:53																				
ZZZZZZ			14:55																				
ZZZZZZ			14:57																				
ZZZZZZ			15:00																				
ZZZZZZ			15:01																				
ZZZZZZ			15:04																				
ZZZZZZ			15:06																				
ZZZZZZ			15:08																				
ZZZZZZ			15:09																				
ZZZZZZ			15:12																				
CCV 240-43145/12-A			15:13																				
CCB 240-43145/11-A			15:15																				
ZZZZZZ			15:18																				
ZZZZZZ			15:20																				
ZZZZZZ			15:22																				
ZZZZZZ			15:23																				
ZZZZZZ			15:25																				
ZZZZZZ			15:28																				
ZZZZZZ			15:30																				
ZZZZZZ			15:32																				
ZZZZZZ			15:34																				
ZZZZZZ			15:36																				
CCV 240-43145/12-A	1		15:39	X																			
CCB 240-43145/11-A	1		15:40	X																			
ZZZZZZ			15:42																				
ZZZZZZ			15:45																				
ZZZZZZ			15:47																				
ZZZZZZ			15:49																				
MB 240-43054/1-A	1	T	15:51	X																			
LCS 240-43054/2-A	1	T	15:54	X																			
ZZZZZZ			15:56																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-10808-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 05/08/2012 14:30 End Date: 05/08/2012 17:03

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
240-10837-N-5-B DU	1	T	15:58	X																			
240-10837-N-5-C MS	1	T	16:00	X																			
ZZZZZZ			16:02																				
CCV 240-43145/12-A	1		16:04	X																			
CCB 240-43145/11-A	1		16:06	X																			
240-10837-M-5-B DU	1	D	16:08	X																			
240-10837-M-5-C MS	1	D	16:10	X																			
240-10808-3	1	T	16:13	X																			
240-10808-4	1	T	16:15	X																			
ZZZZZZ			16:16																				
ZZZZZZ			16:19																				
ZZZZZZ			16:21																				
ZZZZZZ			16:23																				
ZZZZZZ			16:25																				
ZZZZZZ			16:27																				
CCV 240-43145/12-A	1		16:29	X																			
CCB 240-43145/11-A	1		16:31	X																			
ZZZZZZ			16:33																				
240-10808-3	1	D	16:35	X																			
240-10808-4	1	D	16:37	X																			
ZZZZZZ			16:39																				
ZZZZZZ			16:41																				
ZZZZZZ			16:43																				
ZZZZZZ			16:45																				
ZZZZZZ			16:48																				
ZZZZZZ			16:50																				
ZZZZZZ			16:52																				
CCV 240-43145/12-A	1		16:55	X																			
CCB 240-43145/11-A	1		16:57	X																			
CRA 240-43145/9-A			16:59																				
CCV 240-43145/12-A			17:01																				
CCB 240-43145/11-A			17:03																				

Prep Types

D = Dissolved

T = Total/NA

Sample 65P-MW05-043012

Arsenic rep result 3.4 ug/L

240-10808-h-2-a, 5/3/2012 10:02:46 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
x		88.899%	1.291	145.100
%RSD		3.358	3.521	4.185
Run	**Time**	**23Na**	**25Mg**	**27Al**
		ppb	ppb	ppb
x		T 22910.000	29720.000	M 1882.000
%RSD		T 0.610	1.116	M 1.593
Run	**Time**	**35Cl**	**39K**	**43Ca**
		ppb	ppb	ppb
x		T 0.000	T 7130.000	39970.000
%RSD		T 0.000	T 1.338	0.963
Run	**Time**	**45Sc**	**45Sc**	**47Ti**
		ppb	ppb	ppb
x		T 102.927%	91.766%	9.978
%RSD		T 3.285	0.615	87.350
Run	**Time**	**51V**	**52Cr**	**53Cr O**
		ppb	ppb	ppb
x		4.422	2.158	-1.078
%RSD		2.924	1.423	63.520
Run	**Time**	**55Mn**	**56Fe**	**59Co**
		ppb	ppb	ppb
x		T 724.000	3085.000	26.260
%RSD		T 0.118	0.626	0.579
Run	**Time**	**60Ni**	**65Cu**	**66Zn**
		ppb	ppb	ppb
x		17.070	4.879	27.900
%RSD		3.691	2.414	1.032
Run	**Time**	**72Ge**	**75As**	**77Ar Cl**
		ppb	ppb	ppb
x		89.055%	3.427	0.410
%RSD		0.656	5.055	8.212
Run	**Time**	**78Se**	**88Sr**	**95Mo**
		ppb	ppb	ppb
x		2.237	180.500	0.337
%RSD		12.880	0.921	25.110
Run	**Time**	**105Pd**	**107Ag**	**108Mo O**
		ppb	ppb	ppb
x		0.000	0.011	-25.870
%RSD		0.000	28.770	14.450
Run	**Time**	**111Cd**	**115In**	**118Sn**
		ppb	ppb	ppb
x		0.323	87.649%	0.103
%RSD		20.830	0.703	21.390
Run	**Time**	**121Sb**	**137Ba**	**159Tb**
		ppb	ppb	ppb
x		0.090	20.820	0.000
%RSD		19.370	0.871	0.000
Run	**Time**	**165Ho**	**182W**	**205Tl**
		ppb	ppb	ppb
x		91.414%	0.027	0.114
%RSD		1.992	10.410	13.610
Run	**Time**	**208Pb**	**209Bi**	
		ppb	ppb	
x		0.388	0.000	
%RSD		11.960	0.000	

Case Narrative

TestAmerica West Sacramento Project Number G2E030413

WATER, 6850, Perchlorate
Samples: 1, 2, 3
In accordance with the requirements of Method 6850, both a Laboratory Control Sample (LCS) and a Synthetic Matrix Check Sample (SMCS) were analyzed with the associated samples. Both are reported on the LCS data evaluation and recovery reports, and are differentiated from one another by their workorder number:

LCS: MTELA1AC
SMCS: MTELA1AD

There are no other anomalies associated with this project.

ANALYTICAL METHODS SUMMARY

G2E030413

PARAMETER	ANALYTICAL METHOD
Perchlorate by 6850	SW846 6850

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD BLANK REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E030413 Work Order #...: MTELA1AA Matrix.....: WATER
MB Lot-Sample #: G2E070000-058

Prep Date.....: 05/07/12
Analysis Date..: 05/14/12 Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Perchlorate	ND	1.0	ug/L	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E030413 Work Order #...: MTELA1AC Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Perchlorate	92	(80 - 120)	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E030413 Work Order #...: MTELA1AC Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Perchlorate	5.00	4.62	ug/L	92	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E030413 Work Order #...: MTELA1AD Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Perchlorate	97	(80 - 120)	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E030413 Work Order #...: MTELA1AD Matrix.....: WATER
LCS Lot-Sample#: G2E070000-058
Prep Date.....: 05/07/12 Analysis Date..: 05/15/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Perchlorate	5.00	4.86	ug/L	97	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E030413 Work Order #...: MTDHX1AC-MS Matrix.....: WATER
MS Lot-Sample #: G2E030450-004 MTDHX1AD-MSD
Date Sampled...: 05/01/12 Date Received..: 05/03/12
Prep Date.....: 05/07/12 Analysis Date..: 05/16/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Perchlorate	99	(80 - 120)			SW846 6850
	97	(80 - 120)	1.8	(0-15)	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

HPLC - Mass. Spec.

Client Lot #...: G2E030413 Work Order #...: MTDHX1AC-MS Matrix.....: WATER
MS Lot-Sample #: G2E030450-004 MTDHX1AD-MSD
Date Sampled...: 05/01/12 Date Received..: 05/03/12
Prep Date.....: 05/07/12 Analysis Date..: 05/16/12
Prep Batch #...: 2128058
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Perchlorate	ND	5.00	4.95	ug/L	99		SW846 6850
	ND	5.00	4.86	ug/L	97	1.8	SW846 6850

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Tetra Tech **INTERNAL CORRESPONDENCE**

TO:	**A. APANAVAGE**	**DATE:**	**MAY 21, 2012**
FROM:	**TERRI L. SOLOMON**	**COPIES:**	**DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – HEXAVALENT CHROMIUM**
MARTIN STATE AIRPORT – GROUNDWATER
SAMPLE DELIVERY GROUP (SDG) – R1202652

SAMPLES: 3/Aqueous/

GSP-MW1-042612 GSP-MW2-042612
GSP-MW3-042612

Overview

The sample set for Martin State Airport – Groundwater, SDG R1202652, consists of three (3) aqueous environmental samples. No field duplicate pairs were included in this SDG.

All samples were analyzed for hexavalent chromium. The samples were collected by Tetra Tech on April 26, 2012 and analyzed by Columbia Analytical Services, Inc. Hexavalent chromium analyses were conducted using EPA method 218.6.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, continuing calibration recoveries, laboratory method / preparation blank results, laboratory control sample recoveries, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems – None.

Minor Problems - None.

Notes

All samples were filtered in the laboratory and preserved by the laboratory to a pH of 9.3-9.7.

Nondetected results are reported to the method reporting limit.

Executive Summary

Laboratory Performance: None.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993.

The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Terri L. Solomon
Environmental Scientist

Tetra Tech
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 04021	NSAMPLE	GSP-MW1-042612			GSP-MW2-042612			GSP-MW3-042612		
SDG: R1202652	LAB_ID	R1202652-002			R1202652-001			R1202652-003		
FRACTION: MISC	SAMP_DATE	4/26/2012			4/26/2012			4/26/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.02	U		0.02	U		0.02	U	

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202652
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/26/12 1325
Sample Matrix:	Water	**Date Received:**	4/27/12
Sample Name:	GSP-MW1-042612		
Lab Code:	R1202652-002	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.004	1	NA	4/27/12 10:31	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202652
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/26/12 1320
Sample Matrix:	Water	**Date Received:**	4/27/12
Sample Name:	GSP-MW2-042612		
Lab Code:	R1202652-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.004	1	NA	4/27/12 10:48	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202652
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/26/12 1440
Sample Matrix:	Water	**Date Received:**	4/27/12
Sample Name:	GSP-MW3-042612		
Lab Code:	R1202652-003	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.004	1	NA	4/27/12 11:05	

APPENDIX C
SUPPORT DOCUMENTATION

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group

Client:	Tetra Tech NUS, Inc.	**Service Request No.:**	R1202652
Project:	MSA Groundwater	**Project Number:**	112IC04021 - 02
Sample Matrix:	Water	**Date Received:**	4/27/12

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 4/26/12 and received at CAS in good condition at a cooler temperature of 0.9 °C as noted on the cooler receipt and preservation check form. The samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the CAS CLP Batching sheets for a cross-reference between Client ID and CAS Job # and analyses requested.

Hexavalent Chromium Analysis – 218.6

Three water samples were analyzed for CR+6 by EPA method 218.6, low level. Values detected between the MDL and PQL have been flagged with a "J" as estimated.

All samples were analyzed within 24 hours of sampling.

All the initial and continuing calibration criteria were met.

The Blank Spike (LCS) recovery was within QC limits.

The Laboratory Blank associated with these samples was free of contamination.

No other analytical or QC problems were encountered.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Columbia Analytical Services

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1565 Jefferson Rd., Bldg. 300, Suite 360, Rochester, NY 14623 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE 1 OF 1

Project Name: MSA Ground water Sampling
Project Number: M2IC040021-02
Project Manager: Tony Apuzzage
Report CC:
Company/Address: Tetra Tech Inc.
20251 Century Blvd STE 200
Germantown MD 20874
Phone #: 301 528-3021
E-mail:
Sampler's Signature: Walt Ryon
Sampler's Printed Name: Walt Ryon

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☐ 8260 ☐ 624 ☐ CLP	GC/MS SVOA's ☐ 8270 ☐ 625	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES ☐ 8081 ☐ 608	PCB's ☐ 8082 ☐ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Hex Chrom							REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE													0							
GSP-MW2-042612		4-26-12	1320	Water	1								X							
GSP-MW1-042612		↓	1325	↓	1								X							
GSP-MW3-042612		↓	1440	↓	1								X							

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals 24 TAT

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED:

TURNAROUND REQUIREMENTS
X RUSH (SURCHARGES APPLY)
X 1 day ___ 2 day ___ 3 day
___ 4 day ___ 5 day
___ Standard
REQUESTED REPORT DATE

REPORT REQUIREMENTS
___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
Edata ___ Yes ___ No

INVOICE INFORMATION
PO #:
BILL TO:

R1202652 5
Tetra Tech NUS,Inc.
MSA Groundwater

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY
Signature: Walt Ryon	Signature: Amy Hentschke	Signature	Signature	Signature
Printed Name: Walt Ryon	Printed Name: Amy Hentschke	Printed Name	Printed Name	Printed Name
Firm: TT Inc.	Firm: AQ	Firm	Firm	Firm
Date/Time: 4-26-12 / 1700	Date/Time: 4/27/12 0925	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return To Originator

SCOC Rev. 7/2011

HOLDTIME

SDG R1202557

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
CR6	UG/L	MT-MW06S-042412	R1202581-002	NM	4/24/2012	4/26/2012	4/26/2012	2	0	2
CR6	UG/L	MT-MW05S-042512	R1202604-003	NM	4/25/2012	4/26/2012	4/26/2012	1	0	1
CR6	UG/L	MT-MW04S-042412	R1202581-001	NM	4/24/2012	4/26/2012	4/26/2012	2	0	2
CR6	UG/L	MT-MW03S-042512	R1202604-002	NM	4/25/2012	4/26/2012	4/26/2012	1	0	1
CR6	UG/L	MT-MW01S-042512	R1202604-001	NM	4/25/2012	4/26/2012	4/26/2012	1	0	1
CR6	UG/L	MSA-MW35S-042312	R1202557-006	NM	4/23/2012	4/24/2012	4/24/2012	1	0	1
CR6	UG/L	MSA-MW20S-042312	R1202557-001	NM	4/23/2012	4/24/2012	4/24/2012	1	0	1
CR6	UG/L	MSA-MW20I-042312	R1202557-002	NM	4/23/2012	4/24/2012	4/24/2012	1	0	1
CR6	UG/L	MSA-MW20D-042312	R1202557-003	NM	4/23/2012	4/24/2012	4/24/2012	1	0	1
CR6	UG/L	MSA-MW17S-042312	R1202557-004	NM	4/23/2012	4/24/2012	4/24/2012	1	0	1
CR6	UG/L	MSA-MW17I-042312	R1202557-005	NM	4/23/2012	4/24/2012	4/24/2012	1	0	1
CR6	UG/L	GSP-MW3-042612	R1202652-003	NM	4/26/2012	4/27/2012	4/27/2012	1	0	1
CR6	UG/L	GSP-MW2-042612	R1202652-001	NM	4/26/2012	4/27/2012	4/27/2012	1	0	1
CR6	UG/L	GSP-MW1-042612	R1202652-002	NM	4/26/2012	4/27/2012	4/27/2012	1	0	1

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
4/26/12 1000	R1202604 -003	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	4/25/12 1530	Yes No Field	R1SA54620K Millex HV	—	4.51	9.36	CMW 4/26/12 1133	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC1032785
—	Filter Blank for 4/26/12	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	4/25/12 —	Yes No Field	↓	—	8.40	9.39	CMW 4/26/12 1135	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC1032785
4/26/12 1000	R1202582 -010	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	4/25/12 1600	Yes No Field	—	—	5.51	9.46	CMW 4/26/12 1455	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC1032785
↓	R1202582 -012	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	4/25/12 1605	Yes No Field	—	—	5.63	9.39	CMW 4/26/12 1458	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC1032785
4/27/12 0925	Filter Blank For 4/27/12	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	—	Yes No Field	Millex HV R1SA54620K	—	7.65	9.33	CMW 4/27/12 1004	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
↓	MW1 R1202652-002	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	4/26/12 1325	Yes No Field	↓	—	6.60	9.38	CMW 4/27/12 1005	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
↓	MW2 R1202652 -001	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	4/26/12 1320	Yes No Field	↓	—	5.31	9.63	CMW 4/27/12 1007	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
↓	MW3 R1202652 -003	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	4/26/12 1440	Yes No Field	↓	—	6.01	9.67	CMW 4/27/12 1008	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optionnl
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

H:\SMODOCS\Forms\cr+6SMO log

Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 289262 **Method/Testcode:** 218.6/Cr6 D

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1204287-04	Chromium, Hexavalent, Dissolved	CCV		Water	0.52 µg/L	10 mL	0.523 µg/L	1					4/27/12 08:57:00	N	IV
RQ1204287-06	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.004	0.020			4/27/12 09:12:00	N	IV
RQ1204287-07	Chromium, Hexavalent, Dissolved	MB		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.004	0.020			4/27/12 09:12:00	N	IV
RQ1204287-08	Chromium, Hexavalent, Dissolved	LCS		Water	0.21 µg/L	10 mL	0.207 µg/L	1	0.004	0.020	103		4/27/12 09:27:00	N	IV
R1202652-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.004	0.020			4/27/12 10:31:00	N	IV
R1202652-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.004	0.020			4/27/12 10:48:00	N	IV
R1202652-003	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.004	0.020			4/27/12 11:05:00	N	IV
RQ1204287-01	Chromium, Hexavalent, Dissolved	DUP	R1202652-003	Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.004	0.020		NC	4/27/12 11:23:00	N	IV
RQ1204287-02	Chromium, Hexavalent, Dissolved	MS	R1202652-003	Water	0.18 µg/L	10 mL	0.181 µg/L	1	0.004	0.020	91		4/27/12 11:40:00	N	IV
RQ1204287-03	Chromium, Hexavalent, Dissolved	CCV		Water	0.52 µg/L	10 mL	0.518 µg/L	1					4/27/12 11:57:00	N	IV
RQ1204287-05	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.004	0.020			4/27/12 12:14:00	N	IV

00018

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202652
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1202652-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.004	1	NA	4/27/12 09:12	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04021- 02
Sample Matrix: Water

Service Request: R1202652
Date Analyzed: 4/27/12

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

		Lab Control Sample R1202652-LCS			
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**
Chromium, Hexavalent, Dissolved	218.6	0.207	0.200	103	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04021- 02

Service Request: R1202652

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6

Units: µg/L

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	289262	RQ1204287-04	4/27/12 08:57	0.500	0.523	105	95 - 105
CCV2	289262	RQ1204287-03	4/27/12 11:57	0.500	0.518	104	95 - 105

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04021- 02

Service Request: R1202652

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6

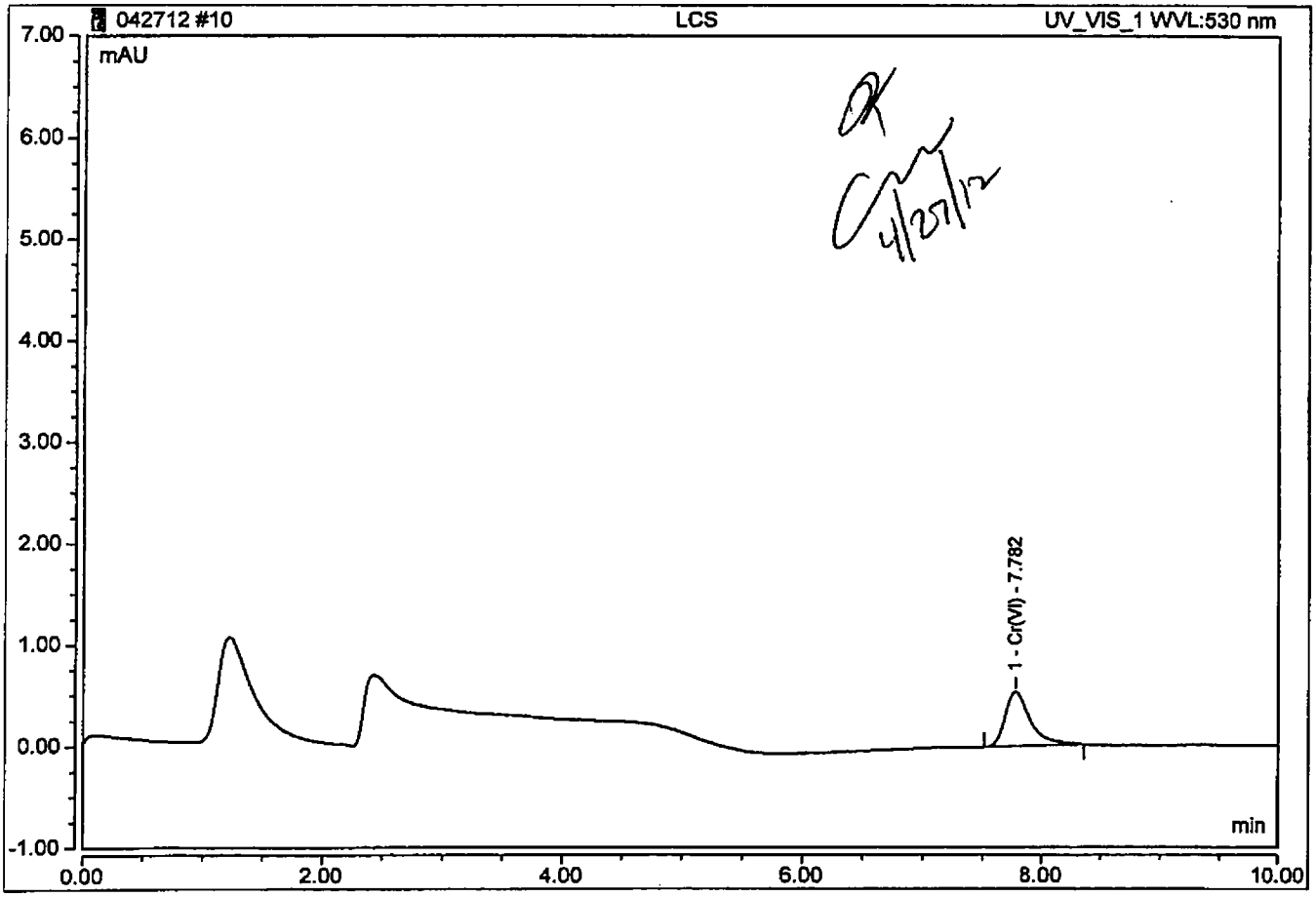
Units: µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	289262	RQ1204287-06	4/27/12 09:12	0.004	0.020	0.020	U
CCB2	289262	RQ1204287-05	4/27/12 12:14	0.004	0.020	0.020	U

Peak Integration Report

Sample Name:	LCS	*Inj. Vol.:*	1000.00
Injection Type:	Unknown	*Dilution Factor:*	1.0000
Processing Method:	8-042612	*Program:*	Cr(VI) 218.6
Inj. Date / Time:	27-Apr-2012 / 09:27	*Run Time:*	10.00

No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	7.78	Cr(VI)	BMB	0.134	0.529	0.2067
TOTAL:				0.13	0.53	0.21



OK
4/27/12

LCS
rep result
0.207 ug/L

Tetra Tech **INTERNAL CORRESPONDENCE**

TO:	**A. APANAVAGE**	**DATE:**	**JUNE 6, 2012**
FROM:	**TERRI L. SOLOMON**	**COPIES:**	**DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – HEXAVALENT CHROMIUM**
MARTIN STATE AIRPORT – GROUNDWATER
SAMPLE DELIVERY GROUP (SDG) – R1202694

SAMPLES: 6/Aqueous/

GSP-MW4-043012	GSP-MW5-043012
GSP-MW6-043012	GSP-MW7-043012
GSP-MW8-043012	MT-02S-043012

Overview

The sample set for Martin State Airport – Groundwater, SDG R1202694, consists of six (6) aqueous environmental samples. No field duplicate pairs were included in this SDG.

All samples were analyzed for hexavalent chromium. The samples were collected by Tetra Tech on April 30, 2012 and analyzed by Columbia Analytical Services, Inc. Hexavalent chromium analyses were conducted using EPA method 218.6.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, continuing calibration recoveries, laboratory method / preparation blank results, laboratory duplicate results, matrix spike recoveries, laboratory control sample recoveries, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems –None.

Minor Problems- None.

Notes

All samples were filtered in the laboratory and preserved by the laboratory to a pH of 9.3-9.7.

Nondetected results are reported to the method reporting limit.

Executive Summary

Laboratory Performance: None.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993.

The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Terri L. Solomon
Environmental Scientist

Tetra Tech
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 04021	NSAMPLE	GSP-MW4-043012			GSP-MW5-043012			GSP-MW6-043012			GSP-MW7-043012		
SDG: R1202694	LAB_ID	R1202694-003			R1202694-002			R1202694-001			R1202694-004		
FRACTION: MISC	SAMP_DATE	4/30/2012			4/30/2012			4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.02	U		0.02	U		0.118			0.11		

PROJ_NO: 04021	NSAMPLE	GSP-MW8-043012			MT-02S-043012		
SDG: R1202694	LAB_ID	R1202694-005			R1202694-006		
FRACTION: MISC	SAMP_DATE	4/30/2012			4/30/2012		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.097			0.02	U	

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202694
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/30/12 1230
Sample Matrix:	Water	**Date Received:**	5/ 1/12
Sample Name:	GSP-MW4-043012		
Lab Code:	R1202694-003	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.004	1	NA	5/1/12 11:49	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202694
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/30/12 1220
Sample Matrix:	Water	**Date Received:**	5/ 1/12
Sample Name:	GSP-MW5-043012		
Lab Code:	R1202694-002	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.004	1	NA	5/1/12 11:34	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202694
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/30/12 1210
Sample Matrix:	Water	**Date Received:**	5/ 1/12
Sample Name:	GSP-MW6-043012		
Lab Code:	R1202694-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.118**		µg/L	0.020	0.004	1	NA	5/1/12 11:19	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202694
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/30/12 1235
Sample Matrix:	Water	**Date Received:**	5/ 1/12
Sample Name:	GSP-MW7-043012		
Lab Code:	R1202694-004	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.110**		µg/L	0.020	0.004	1	NA	5/1/12 12:04	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202694
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/30/12 1240
Sample Matrix:	Water	**Date Received:**	5/ 1/12
Sample Name:	GSP-MW8-043012		
Lab Code:	R1202694-005	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.097**		µg/L	0.020	0.004	1	NA	5/1/12 12:19	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202694
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/30/12 1320
Sample Matrix:	Water	**Date Received:**	5/ 1/12
Sample Name:	MT-02S-043012		
Lab Code:	R1202694-006	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.004	1	NA	5/1/12 12:34	

APPENDIX C
SUPPORT DOCUMENTATION

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group

Client:	Tetra Tech NUS, Inc.	**Service Request No.:**	R1202694
Project:	MSA Groundwater	**Project Number:**	112IC04021 - 02
Sample Matrix:	Water	**Date Received:**	5/01/12

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 4/30/12 and received at CAS in good condition at a cooler temperature of 2.9 °C as noted on the cooler receipt and preservation check form. The samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the CAS CLP Batching sheets for a cross-reference between Client ID and CAS Job # and analyses requested.

Hexavalent Chromium Analysis – 218.6

Six water samples were analyzed for CR+6 by EPA method 218.6, low level. Values detected between the MDL and PQL have been flagged with a "J" as estimated.

All samples were analyzed within 24 hours of sampling.

All the initial and continuing calibration criteria were met.

The Blank Spike (LCS) recovery was within QC limits.

A matrix spike and duplicate analyses was not requested but was analyzed on sample MT-02S-043012. The recovery and RPD were with QC limits.

The Laboratory Blank associated with these samples was free of contamination.

No other analytical or QC problems were encountered.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

ALS

Chain of Custody Record

ALS ~~TestAmerica~~ THE LEADER IN ENVIRONMENTAL TESTING

~~TestAmerica~~ Laboratory location: 1565 Jefferson Rd Rochester NY 14623

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact			
Company Name: Tetra Tech	Client Project Manager: Tony Apanavage	Site Contact: Steve Cameron	Lab Contact:
Address: 20251 Century Blvd Ste 200	Telephone: (301) 528-5552	Telephone: (703) 342-8389	Telephone:
City/State/Zip: Germantown MD 20874	Email: Tony.Apanavage@tetratech.com	Analysis Turnaround Time (in BUS days)	
Phone: (301) 528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	
Project Name: MSA GW Sampling	Method of Shipment/Carrier: Fed Ex		
Project Number: 112IC04021	Shipping/Tracking No: 873935710956		
PO#			

COC No: 006078

1 of 1 COCs

Analyses

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (C)/Grab (G)	Hexavalent Chromium	Sample Specific Notes / Special Instructions:
GSP-MW6-043012	4/30/12	1210		X									1		N	G	X	
GSP-MW5-043012	↓	1220		X									1		N	G	X	
GSP-MW4-043012	↓	1230		X									1		N	G	X	
GSP-MW7-043012	↓	1235		X									1		N	G	X	
GSP-MW8-043012	↓	1240		X									1		N	G	X	
MT-025-043012	↓	1320		X									1		N	G	X	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____

Special Instructions/QC Requirements & Comments:

Samples Must be analyzed within 24 hrs of sample time.

R1202694 5

Tetra Tech NUS,Inc.
MSA Groundwater

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	4-30-12 / 1500			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: ALS	Date/Time: 5/1/12 0815

00006

©2008 TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

TAL 0018- 1 (04/10)

HOLDTIME

SDG R1202694

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
CR6	UG/L	MSA-DMW6S-040312	R1202808-001	NM	5/3/2012	5/4/2012	5/4/2012	1	0	1
CR6	UG/L	GSP-MW5-043012	R1202694-002	NM	4/30/2012	5/1/2012	5/1/2012	1	0	1
CR6	UG/L	GSP-MW6-043012	R1202694-001	NM	4/30/2012	5/1/2012	5/1/2012	1	0	1
CR6	UG/L	GSP-MW7-043012	R1202694-004	NM	4/30/2012	5/1/2012	5/1/2012	1	0	1
CR6	UG/L	GSP-MW8-043012	R1202694-005	NM	4/30/2012	5/1/2012	5/1/2012	1	0	1
CR6	UG/L	MSA-DMW1A-050212	R1202767-005	NM	5/2/2012	5/3/2012	5/3/2012	1	0	1
CR6	UG/L	MSA-DMW1B-050212	R1202767-006	NM	5/2/2012	5/3/2012	5/3/2012	1	0	1
CR6	UG/L	MSA-DMW2A-040312	R1202808-005	NM	5/3/2012	5/4/2012	5/4/2012	1	0	1
CR6	UG/L	MSA-DMW4D-040312	R1202808-008	NM	5/3/2012	5/4/2012	5/4/2012	1	0	1
CR6	UG/L	MSA-DMW4I-040312	R1202808-007	NM	5/3/2012	5/4/2012	5/4/2012	1	0	1
CR6	UG/L	MSA-DMW4S-040312	R1202808-006	NM	5/3/2012	5/4/2012	5/4/2012	1	0	1
CR6	UG/L	GSP-MW4-043012	R1202694-003	NM	4/30/2012	5/1/2012	5/1/2012	1	0	1
CR6	UG/L	MSA-DMW6I-040312	R1202808-002	NM	5/3/2012	5/4/2012	5/4/2012	1	0	1
CR6	UG/L	MT-02S-043012	R1202694-006	NM	4/30/2012	5/1/2012	5/1/2012	1	0	1
CR6	UG/L	MSA-DMW7S-040312	R1202808-004	NM	5/3/2012	5/4/2012	5/4/2012	1	0	1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
CR6	UG/L	MSA-DMW8D-050212	R1202767-003	NM	5/2/2012	5/3/2012	5/3/2012	1	0	1
CR6	UG/L	MSA-DMW8I-050212	R1202767-002	NM	5/2/2012	5/3/2012	5/3/2012	1	0	1
CR6	UG/L	MSA-DMW8S-050212	R1202767-001	NM	5/2/2012	5/3/2012	5/3/2012	1	0	1
CR6	UG/L	MSA-MW14D-050112	R1202733-005	NM	5/1/2012	5/2/2012	5/2/2012	1	0	1
CR6	UG/L	MSA-MW14I-050112	R1202733-004	NM	5/1/2012	5/2/2012	5/2/2012	1	0	1
CR6	UG/L	MSA-MW26S-050112	R1202733-006	NM	5/1/2012	5/2/2012	5/2/2012	1	0	1
CR6	UG/L	MSA-MW32I-050112	R1202733-001	NM	5/1/2012	5/2/2012	5/2/2012	1	0	1
CR6	UG/L	MSA-MW32S-050212	R1202767-004	NM	5/2/2012	5/3/2012	5/3/2012	1	0	1
CR6	UG/L	MSA-MW33I-050112	R1202733-003	NM	5/1/2012	5/2/2012	5/2/2012	1	0	1
CR6	UG/L	MSA-MW33S-050112	R1202733-002	NM	5/1/2012	5/2/2012	5/2/2012	1	0	1
CR6	UG/L	MSA-DMW6D-040312	R1202808-003	NM	5/3/2012	5/4/2012	5/4/2012	1	0	1

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
5/1/12	Filter Blank for 4/5/1/12 CM 5/1/12	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	—	Yes No Field	Millex HV R8A54620K	—	5.27	9.41	CMW 5/1/12 0939	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
5/1/12 0815	R1202694-001	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	4/30/12 1210	Yes No Field		—	7.02	9.34	CMW 5/1/12 0941	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
	R1202694-002	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	4/30/12 1220	Yes No Field		—	5.98	9.43	CMW 5/1/12 0942	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
	R1202694-003	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	4/30/12 1230	Yes No Field		—	6.59	9.55	CMW 5/1/12 0944	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
	R1202694-004	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	4/30/12 1235	Yes No Field		—	5.38	9.60	CMW 5/1/12 0945	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
	R1202694-005	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	4/30/12 1240	Yes No Field		—	6.99	9.56	CMW 5/1/12 0947	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
	R1202694-006	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	4/30/12 1320	Yes No Field		—	5.68	9.53	CMW 5/1/12 0949	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC112022E
		7199 218.6 RL 218.6 LL 218.7	Water Drinking Water		Yes No Field						Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

H:\SMODOCS\Forms\cr+6SMO.log

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202694
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1202694-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.004	1	NA	5/1/12 10:49	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
QA/QC Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202694
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/30/12
Sample Matrix:	Water	**Date Received:**	5/1/12
		Date Analyzed:	5/ 1/12

Replicate Sample Summary
General Chemistry Parameters

Sample Name: MT-02S-043012
Lab Code: R1202694-006

Units: µg/L
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	MT-02S-043012DUP Duplicate Sample R1202694-006DUP Result	Average	RPD	RPD Limit
Chromium, Hexavalent, Dissolved	218.6	0.020	0.004	0.020 U	0.020 U	NC	NC	20

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
QA/QC Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1202694
Project:	MSA Groundwater/112IC04021- 02	**Date Collected:**	4/30/12
Sample Matrix:	Water	**Date Received:**	5/1/12
		Date Analyzed:	5/ 1/12

Matrix Spike Summary
General Chemistry Parameters

Sample Name:	MT-02S-043012	**Units:**	µg/L
Lab Code:	R1202694-006	**Basis:**	NA

Analytical Method: 218.6

MT-02S-043012MS
Matrix Spike
R1202694-006MS

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	ND	0.192	0.200	96	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04021- 02
Sample Matrix: Water

Service Request: R1202694
Date Analyzed: 5/ 1/12

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1202694-LCS Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6	0.203	0.200	102	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Tetra Tech NUS, Inc. **Service Request:** R1202694
Project: MSA Groundwater/112IC04021- 02

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 **Units:** µg/L

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	289669	RQ1204413-04	5/1/12 10:33	0.500	0.509	102	95 - 105
CCV2	289669	RQ1204413-03	5/1/12 13:33	0.500	0.511	102	95 - 105

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04021- 02

Service Request: R1202694

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6

Units: µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	289669	RQ1204413-06	5/1/12 10:49	0.004	0.020	0.020	U
CCB2	289669	RQ1204413-05	5/1/12 13:48	0.004	0.020	0.020	U

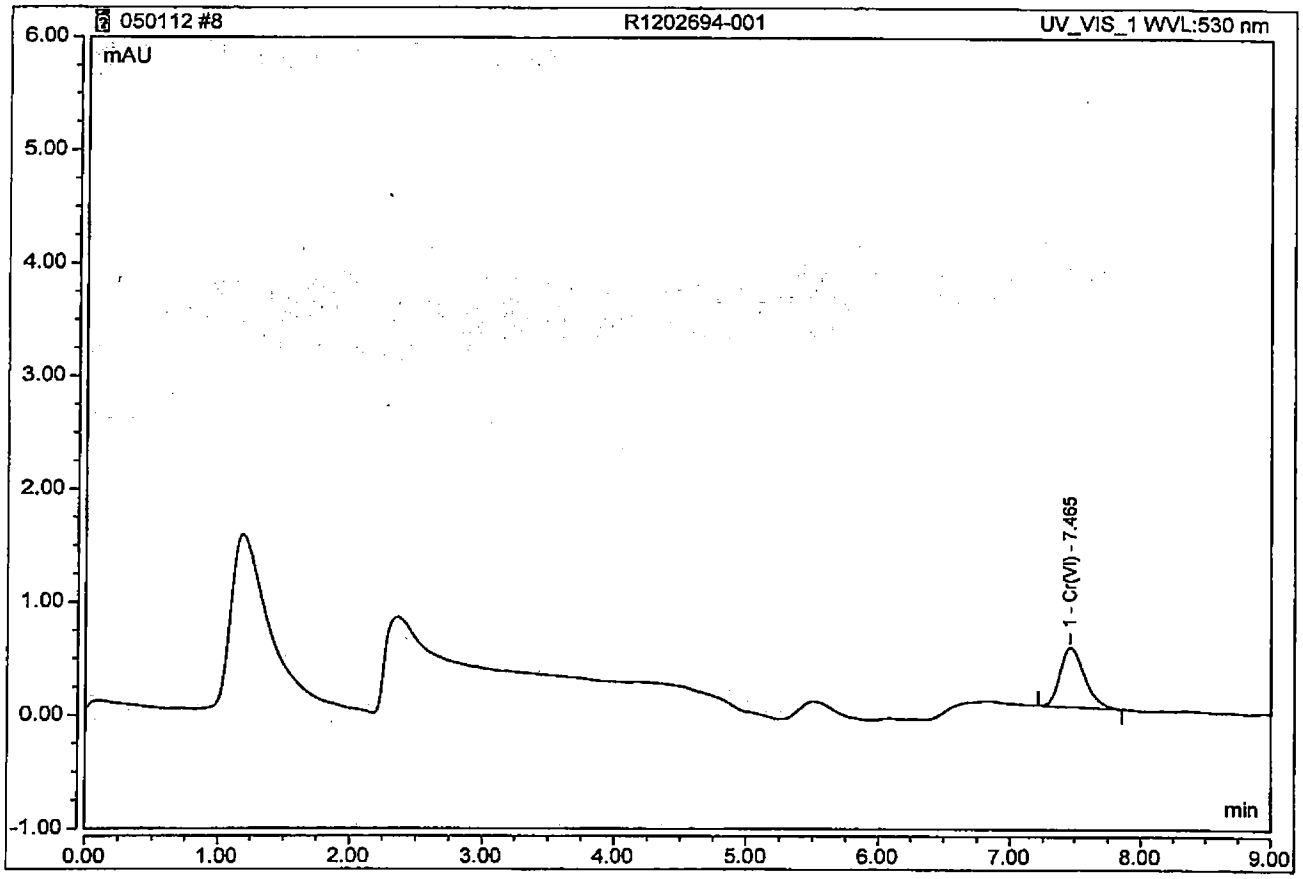
Sample GSP-mw6-043012

Peak Integration Report

Hex Reported 0.118 ug/L

Sample Name:	R1202694-001	Inj. Vol:	1000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Processing Method:	8-050112	Program:	Cr(VI) 218.6
Inj. Date / Time:	01-May-2012 / 11:19	Run Time:	9.00

No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	7.46	Cr(VI)	BMB	0.116	0.525	0.1177
TOTAL:				0.12	0.53	0.12



6-15-12
JAJ

X-VALUE	Y-VALUE	CORREL		SLOPE	
0.02	0.019		**0.999992545**		**1.005499755**
0.2	0.196	**Y-INTERC**			
1	1.003		**-0.002903234**		

MW6-043012 ✓

0.118252872	0.116

Calibration Batch Report

Sequence:	050112	Injection Volume (uL):	1,000.00
Processing Method:	8-050112	Calibration Type:	Lin. WithOffset, 1/A
Corr. Coefficient:	99.997	Instrument Method:	Cr(VI) 218.6

Calibration Summary

Injection Name Cr(VI)	Ret. Time min Cr(VI)	Area mAU*min Cr(VI)	Height mAU Cr(VI)	Amount ppb Cr(VI)
	UV_VIS_1	UV_VIS_1	UV_VIS_1	UV_VIS_1
STANDARD 1	n.a.	n.a.	n.a.	n.a.
STANDARD 2	7.487	0.0186	0.090	0.020
STANDARD 3	7.493	0.1956	0.846	0.197
STANDARD 4	7.490	1.0035	4.183	1.003
Average	7.490			
Rel. Std. Dev.	0.045 %			

Detection Parameters

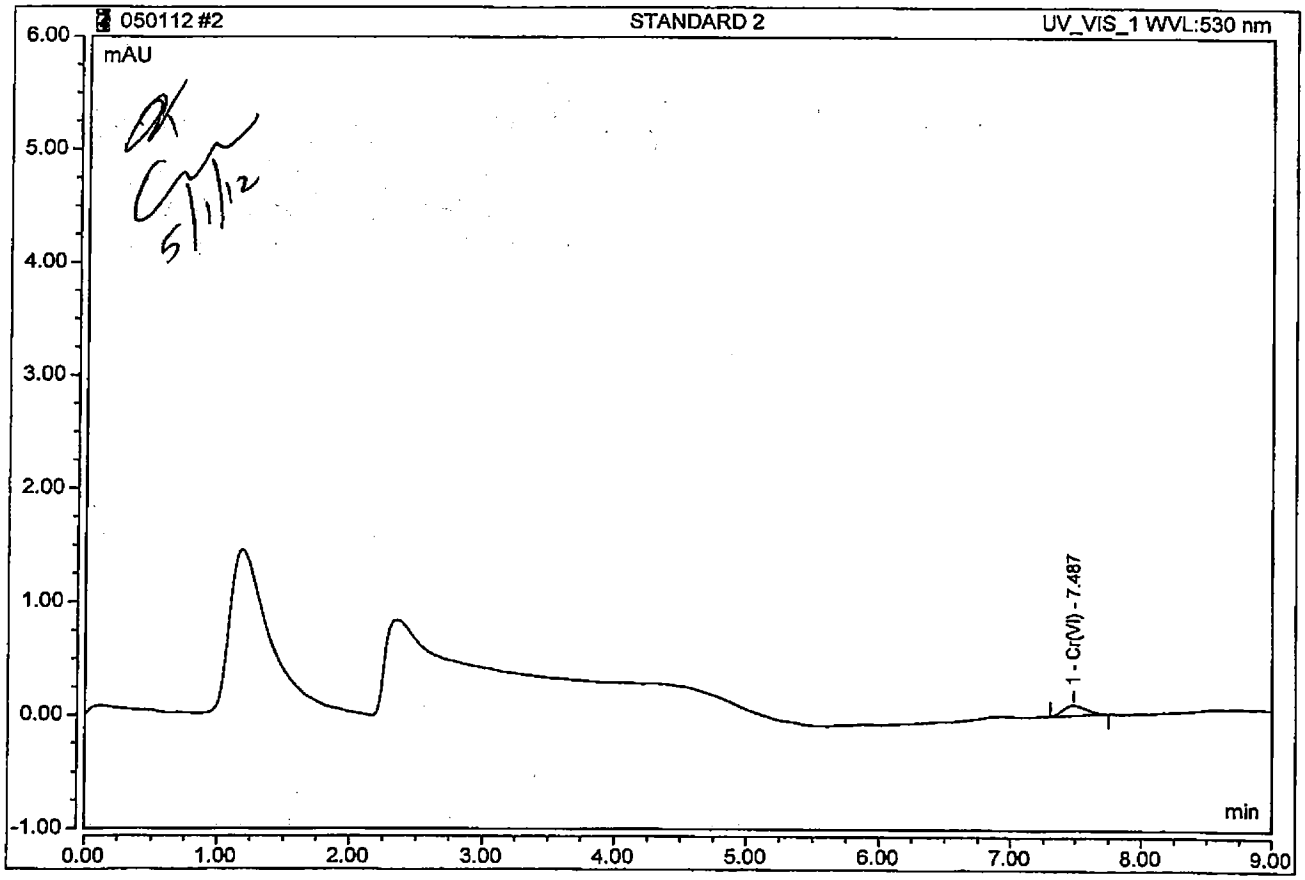
Ret. Time min	Param. Name	Param. Value	Inj. Type	Channel
0.000	Inhibit Integration	On	Any	All Channels
7.000	Valley To Valley	On	Any	All Channels
7.000	Inhibit Integration	Off	Any	All Channels
7.000	Minimum Area	0.0005 [Signal*min]	Any	All Channels
7.000	Maximum Height Reject	0.050 [Signal]	Any	All Channels

00052

Peak Integration Report

Sample Name:	STANDARD 2	Inj. Vol.:	1000.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Processing Method:	8-050112	Program:	Cr(VI) 218.6
Inj. Date & Time:	01-May-2012 / 09:46	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	7.49	Cr(VI)	BMB	0.019	0.090	0.0203
TOTAL:				0.02	0.09	0.02

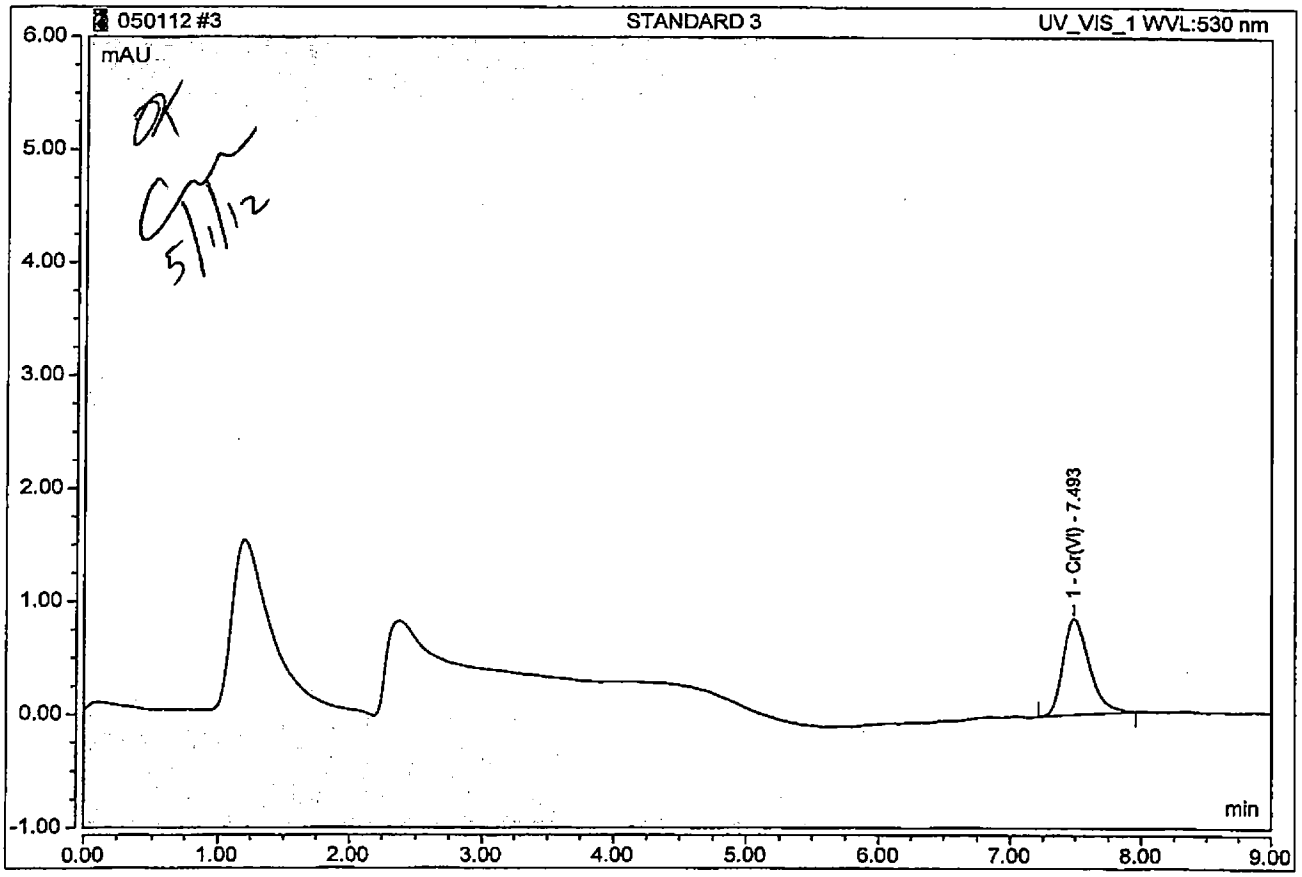


OK
5/1/12

Peak Integration Report

Sample Name:	STANDARD 3	Inj. Vol:	1000.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Processing Method:	8-050112	Program:	Cr(VI) 218.6
Inj. Date / Time:	01-May-2012 / 10:01	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	7.49	Cr(VI)	BMB	0.196	0.846	0.1969
TOTAL:				0.20	0.85	0.20

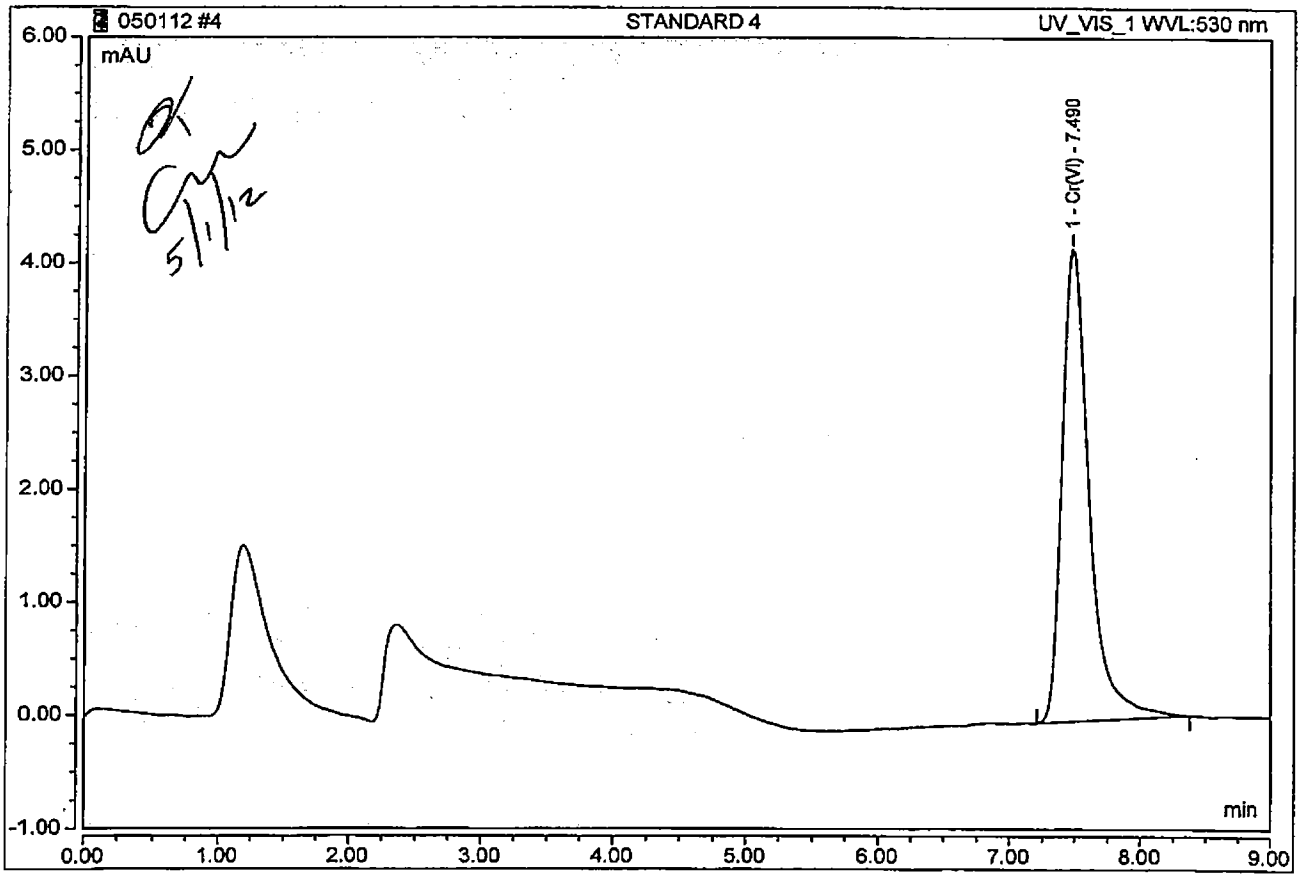


OK
5/1/12

Peak Integration Report

Sample Name:	STANDARD 4	Inj. Vol.:	1000.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Processing Method:	8-050112	Program:	Cr(VI) 218.6
Inj. Date / Time:	01-May-2012 / 10:17	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	7.49	Cr(VI)	BMB	1.003	4.183	1.0029
TOTAL:				1.00	4.18	1.00



OK
5/1/12

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO:	**T. APANAVAGE**	**DATE:**	**DECMBER 4, 2012**
FROM:	**J. KALINYAK**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION - VOC / SVOC / TPH (C06-C10) & (C10-C32)**
LOCKHEED – MSA GREATER STRAWBERRY POINT
SAMPLE DELIVERY GROUP (SDG) 240-15155-1

SAMPLES: 1 / Aqueous / VOC

TB_20120912

6 / Sediment / VOC / SVOC / TPH (C06-C10) & (C10-C32)

GSP-MW-10-2-4	GSP-MW-10-20-22	GSP-MW-11-0-2
GSP-MW-11-2-4	GSP-MW-9-0-2	GSP-MW-9-8-10

Overview

The sample set for Lockheed – MSA Greater Strawberry Point, SDG 240-15155-1, consisted of one (1) aqueous trip blank sample and six (6) sediment samples. All samples were analyzed for volatile organic compounds (VOC) as listed above. The six (6) soil samples were also analyzed for semi-volatile organic compounds (SVOC), and total petroleum hydrocarbons (TPH) C06-C10 & C10-C32, as listed above. No field duplicate sample pairs were included in the sample delivery group (SDG).

The samples were collected by Tetra Tech on September 12 and 13, 2012 and analyzed by TestAmerica Laboratories, Inc., North Canton for all analyses. All analyses were conducted in accordance with EPA SW-846 Methods 8260B for VOCs, 8270D for SVOCs, and 8015C for TPH C06-C10 & C10-C32, analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, blank spike/blank spike duplicate results, matrix spike/matrix spike duplicate results, internal standard recoveries, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major Problems

- The VOC initial calibration average relative response factors (RRF) were less than the 0.05 criteria for vinyl acetate and tert-butyl alcohol on instrument A3UX9 on 07/24/12 and for instrument A3UX14 on 09/12/12. The continuing calibration verification (CCV) RRFs for tert-butyl alcohol and vinyl acetate were also less than the 0.05 criteria for instrument A3UX9 on 09/20/12 and for instrument A3UX14 on 09/18/12.
  Affected Samples: All samples
  Action: The sample non-detected results for tert-butyl alcohol and vinyl acetate were qualified rejected, (UR).

- The VOC initial calibration average RRF was less than the 0.05 criteria for 2-butanone on instrument A3UX9 on 07/24/12. The CCV RRF for 2-butanone was also less than the 0.05 criteria for instrument A3UX9 on 09/20/12 09/18/12 @ 17:44.
  Affected Sample: TB_20120912
  Action: The sample non-detected result 2-butanone was qualified rejected, (UR).

Tetra Tech **INTERNAL CORRESPONDENCE**

TO: **A. APANAVAGE** **DATE: DECEMBER 3, 2012**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – SELECT TOTAL METALS**
MARTIN STATE AIRPORT – GREATER STRAWBERRY POINT
SAMPLE DELIVERY GROUP (SDG) – 240-15155-1

SAMPLES: 6/Sediment/

GSP-MW-10-20-22	GSP-MW-10-2-4	GSP-MW-11-0-2
GSP-MW-11-2-4	GSP-MW-9-0-2	GSP-MW-9-8-10

Overview

The sample set for Martin State Airport – Greater Strawberry Point, SDG 240-15155-1, consists of six (6) sediment environmental samples. No field duplicate pairs were included within this SDG.

All samples were analyzed for select metals including antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium and zinc. The samples were collected by Tetra Tech on September 13, 2012 and analyzed by TestAmerica. Metals analyses were conducted using SW-846 method 6010C. Mercury analyses were conducted using SW-846 method 7471B.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP interference results, laboratory control sample recoveries, matrix spike recoveries, laboratory duplicate results, ICP serial dilution results, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems

None.

Minor Problems

- The contract required detection limit (CRDL) percent recovery for selenium was > 110% quality control limit. The positive results < 2X CRDL were qualified as estimated, "J", as a result of conflicting noncompliances.

- The CRDL percent recoveries for copper and thallium were < 90% quality control limit. The positive results reported for copper < 2X CRDL were qualified as either estimated,

"J", as a result of conflicting noncompliances or biased low, "L". The nondetected results reported for thallium were qualified as biased low, "UL".

- The CRDL percent recovery for mercury was > 120% quality control limit. The positive results < 2X CRDL were qualified as estimated, "J", as a result of conflicting noncompliances.

- The following contaminants were detected in the laboratory method/preparation blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Molybdenum[1]	8.43 ug/L	4.215 mg/kg
Thallium[1]	5.56 ug/L	2.78 mg/kg
Vanadium[1]	1.44 ug/L	0.36 mg/kg
Antimony[2]	0.866 mg/kg	4.33 mg/kg
Barium[2]	0.0945 mg/kg	0.4725 mg/kg

[1] Maximum concentration present in a method blank.
[2] Maximum concentration present in a preparation blank.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The positive results less than the blank action level reported for molybdenum and thallium were qualified "B" as a result of laboratory blank contamination.

- The matrix spike percent recovery for antimony was < 75% quality control limit. The nondetected results reported for antimony were qualified as biased low, "UL".

- The matrix spike percent recovery for zinc was > 125% quality control limit. The positive results reported for zinc were qualified as either estimated, "J", as a result of conflicting noncompliances or biased high, "K".

- Laboratory duplicate imprecision (RPD > 35%) was noted for vanadium. The positive results reported for vanadium were qualified as estimated, "J".

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated, "J".

Notes

Nondetected results are reported to the method detection limits.

Executive Summary

Laboratory Performance: Several contaminants were present in the laboratory method / preparation blanks. Several CRDL percent recoveries were outside the quality control limits. Laboratory duplicate imprecision was noted for vanadium.

Other Factors Affecting Data Quality: Positive results reported below the RL but above the MDL were qualified as estimated. Several matrix spike percent recoveries were outside the quality control limits.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 2009.

The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Terri L. Solomon
Environmental Scientist

Tetra Tech
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 04136	NSAMPLE	GSP-MW-10-20-22			GSP-MW-10-2-4			GSP-MW-11-0-2			GSP-MW-11-2-4		
SDG: 240-15155-1	LAB_ID	240-15155-5			240-15155-4			240-15155-6			240-15155-7		
FRACTION: M	SAMP_DATE	9/13/2012			9/13/2012			9/13/2012			9/13/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	83.3			88.9			92.4			90.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.37	UL	D	0.4	UL	D	0.4	UL	D	0.4	UL	D
ARSENIC		0.57	J	P	1.7			3			1.7		
BARIUM		7.3	J	P	7.7	J	P	21			24		
BERYLLIUM		0.06	J	P	0.044	U		0.048	J	P	0.073	J	P
CADMIUM		0.034	U		0.037	U		0.037	U		0.037	U	
CHROMIUM		8.4			4.3			8.9			5.9		
COBALT		0.17	J	P	0.64	J	P	2.6			2.1		
COPPER		5			2	J	CP	4.4	L	C	2.6	L	C
LEAD		2.2			1.8			4.8			3.7		
MERCURY		0.052	J	CP	0.022	J	CP	0.036	J	CP	0.037	J	CP
MOLYBDENUM		0.26	U		0.28	U		0.52	B	A	0.34	B	A
NICKEL		0.72	J	P	0.92	J	P	4.2			3.3	J	P
SELENIUM		0.43	U		0.46	U		0.46	U		0.55	J	CP
SILVER		0.095	U		0.1	U		1.3			0.1	U	
THALLIUM		0.52	UL	C	0.57	UL	C	0.57	UL	C	0.56	UL	C
VANADIUM		11	J	F	7.5	J	F	15	J	F	9.9	J	F
ZINC		2.7	J	DP	6.3	K	D	15	K	D	12	K	D

PROJ_NO: 04136	NSAMPLE	GSP-MW-9-0-2			GSP-MW-9-8-10		
SDG: 240-15155-1	LAB_ID	240-15155-1			240-15155-2		
FRACTION: M	SAMP_DATE	9/12/2012			9/12/2012		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	MG/KG			MG/KG		
	PCT_SOLIDS	97.7			88.8		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.35	UL	D	0.35	UL	D
ARSENIC		1.9			0.84	J	P
BARIUM		25			5.1	J	P
BERYLLIUM		0.064	J	P	0.039	U	
CADMIUM		0.36	J	P	0.033	U	
CHROMIUM		9.1			3.5		
COBALT		1.5			0.16	J	P
COPPER		68			1.6	J	CP
LEAD		24			1		
MERCURY		0.075	J	CP	0.016	J	CP
MOLYBDENUM		0.67	B	A	0.25	B	A
NICKEL		4.3			0.44	J	P
SELENIUM		0.41	J	CP	0.41	U	
SILVER		0.09	U		0.091	U	
THALLIUM		0.58	B	A	0.5	UL	C
VANADIUM		12	J	F	4.8	J	F
ZINC		63	K	D	1.7	J	DP

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW-10-2-4
Lab Sample ID: 240-15155-4
Lab Name: TestAmerica Canton
Job No.: 240-15155-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/13/2012 09:20
Reporting Basis: DRY
Date Received: 09/14/2012 09:00
% Solids: 88.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.1	2.1	0.40	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.7	1.5	0.31	mg/Kg			1	6010C
7440-39-3	Barium	7.7	21	0.073	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.52	0.52	0.044	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.52	0.52	0.037	mg/Kg	U		1	6010C
7440-47-3	Chromium	4.3	1.0	0.21	mg/Kg			1	6010C
7440-48-4	Cobalt	0.64	1.0	0.17	mg/Kg	J		1	6010C
7440-50-8	Copper	2.0	2.6	0.76	mg/Kg	J		1	6010C
7439-92-1	Lead	1.8	1.0	0.20	mg/Kg			1	6010C
7439-98-7	Molybdenum	4.1	4.1	0.28	mg/Kg	U		1	6010C
7440-02-0	Nickel	0.92	4.1	0.28	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.1	2.1	0.46	mg/Kg	U		1	6010C
7440-22-4	Silver	1.0	1.0	0.10	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.1	2.1	0.57	mg/Kg	U		1	6010C
7440-62-2	Vanadium	7.5	1.0	0.12	mg/Kg			1	6010C
7440-66-6	Zinc	6.3	5.2	1.0	mg/Kg			1	6010C
7439-97-6	Mercury	0.022	0.10	0.016	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW-10-20-22

Lab Sample ID: 240-15155-5

Lab Name: TestAmerica Canton

Job No.: 240-15155-1

SDG ID.:

Matrix: Solid

Date Sampled: 09/13/2012 09:30

Reporting Basis: DRY

Date Received: 09/14/2012 09:00

% Solids: 83.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.9	1.9	0.37	mg/Kg	U		1	6010C
7440-38-2	Arsenic	0.57	1.4	0.28	mg/Kg	J		1	6010C
7440-39-3	Barium	7.3	19	0.067	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.060	0.47	0.041	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.47	0.47	0.034	mg/Kg	U		1	6010C
7440-47-3	Chromium	8.4	0.95	0.19	mg/Kg			1	6010C
7440-48-4	Cobalt	0.17	0.95	0.15	mg/Kg	J		1	6010C
7440-50-8	Copper	5.0	2.4	0.70	mg/Kg			1	6010C
7439-92-1	Lead	2.2	0.95	0.18	mg/Kg			1	6010C
7439-98-7	Molybdenum	3.8	3.8	0.26	mg/Kg	U		1	6010C
7440-02-0	Nickel	0.72	3.8	0.26	mg/Kg	J		1	6010C
7782-49-2	Selenium	1.9	1.9	0.43	mg/Kg	U		1	6010C
7440-22-4	Silver	0.95	0.95	0.095	mg/Kg	U		1	6010C
7440-28-0	Thallium	1.9	1.9	0.52	mg/Kg	U		1	6010C
7440-62-2	Vanadium	11	0.95	0.11	mg/Kg			1	6010C
7440-66-6	Zinc	2.7	4.7	0.95	mg/Kg	J		1	6010C
7439-97-6	Mercury	0.052	0.10	0.015	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW-11-0-2

Lab Sample ID: 240-15155-6

Lab Name: TestAmerica Canton

Job No.: 240-15155-1

SDG ID.:

Matrix: Solid

Date Sampled: 09/13/2012 15:35

Reporting Basis: DRY

Date Received: 09/14/2012 09:00

% Solids: 92.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.1	2.1	0.40	mg/Kg	U		1	6010C
7440-38-2	Arsenic	3.0	1.5	0.31	mg/Kg			1	6010C
7440-39-3	Barium	21	21	0.073	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.048	0.52	0.044	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.52	0.52	0.037	mg/Kg	U		1	6010C
7440-47-3	Chromium	8.9	1.0	0.21	mg/Kg			1	6010C
7440-48-4	Cobalt	2.6	1.0	0.16	mg/Kg			1	6010C
7440-50-8	Copper	4.4	2.6	0.76	mg/Kg			1	6010C
7439-92-1	Lead	4.8	1.0	0.20	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.52	4.1	0.28	mg/Kg	J		1	6010C
7440-02-0	Nickel	4.2	4.1	0.28	mg/Kg			1	6010C
7782-49-2	Selenium	2.1	2.1	0.46	mg/Kg	U		1	6010C
7440-22-4	Silver	1.3	1.0	0.10	mg/Kg			1	6010C
7440-28-0	Thallium	2.1	2.1	0.57	mg/Kg	U		1	6010C
7440-62-2	Vanadium	15	1.0	0.12	mg/Kg			1	6010C
7440-66-6	Zinc	15	5.2	1.0	mg/Kg			1	6010C
7439-97-6	Mercury	0.036	0.12	0.017	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW-11-2-4

Lab Sample ID: 240-15155-7

Lab Name: TestAmerica Canton

Job No.: 240-15155-1

SDG ID.:

Matrix: Solid

Date Sampled: 09/13/2012 15:45

Reporting Basis: DRY

Date Received: 09/14/2012 09:00

% Solids: 90.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.40	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.7	1.5	0.31	mg/Kg			1	6010C
7440-39-3	Barium	24	20	0.073	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.073	0.51	0.044	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.51	0.51	0.037	mg/Kg	U		1	6010C
7440-47-3	Chromium	5.9	1.0	0.20	mg/Kg			1	6010C
7440-48-4	Cobalt	2.1	1.0	0.16	mg/Kg			1	6010C
7440-50-8	Copper	2.6	2.6	0.76	mg/Kg			1	6010C
7439-92-1	Lead	3.7	1.0	0.19	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.34	4.1	0.28	mg/Kg	J		1	6010C
7440-02-0	Nickel	3.3	4.1	0.28	mg/Kg	J		1	6010C
7782-49-2	Selenium	0.55	2.0	0.46	mg/Kg	J		1	6010C
7440-22-4	Silver	1.0	1.0	0.10	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.0	2.0	0.56	mg/Kg	U		1	6010C
7440-62-2	Vanadium	9.9	1.0	0.12	mg/Kg			1	6010C
7440-66-6	Zinc	12	5.1	1.0	mg/Kg			1	6010C
7439-97-6	Mercury	0.037	0.10	0.016	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW-9-0-2
Lab Sample ID: 240-15155-1
Lab Name: TestAmerica Canton
Job No.: 240-15155-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/12/2012 18:10
Reporting Basis: DRY
Date Received: 09/14/2012 09:00
% Solids: 97.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.8	1.8	0.35	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.9	1.3	0.27	mg/Kg			1	6010C
7440-39-3	Barium	25	18	0.064	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.064	0.45	0.039	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.36	0.45	0.032	mg/Kg	J		1	6010C
7440-47-3	Chromium	9.1	0.90	0.18	mg/Kg			1	6010C
7440-48-4	Cobalt	1.5	0.90	0.14	mg/Kg			1	6010C
7440-50-8	Copper	68	2.2	0.66	mg/Kg			1	6010C
7439-92-1	Lead	24	0.90	0.17	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.67	3.6	0.24	mg/Kg	J		1	6010C
7440-02-0	Nickel	4.3	3.6	0.24	mg/Kg			1	6010C
7782-49-2	Selenium	0.41	1.8	0.40	mg/Kg	J		1	6010C
7440-22-4	Silver	0.90	0.90	0.090	mg/Kg	U		1	6010C
7440-28-0	Thallium	0.58	1.8	0.49	mg/Kg	J		1	6010C
7440-62-2	Vanadium	12	0.90	0.11	mg/Kg			1	6010C
7440-66-6	Zinc	63	4.5	0.90	mg/Kg			1	6010C
7439-97-6	Mercury	0.075	0.11	0.016	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW-9-8-10
Lab Sample ID: 240-15155-2
Lab Name: TestAmerica Canton
Job No.: 240-15155-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/12/2012 18:20
Reporting Basis: DRY
Date Received: 09/14/2012 09:00
% Solids: 88.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.8	1.8	0.35	mg/Kg	U		1	6010C
7440-38-2	Arsenic	0.84	1.4	0.27	mg/Kg	J		1	6010C
7440-39-3	Barium	5.1	18	0.064	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.45	0.45	0.039	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.45	0.45	0.033	mg/Kg	U		1	6010C
7440-47-3	Chromium	3.5	0.91	0.18	mg/Kg			1	6010C
7440-48-4	Cobalt	0.16	0.91	0.15	mg/Kg	J		1	6010C
7440-50-8	Copper	1.6	2.3	0.67	mg/Kg	J		1	6010C
7439-92-1	Lead	1.0	0.91	0.17	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.25	3.6	0.25	mg/Kg	J		1	6010C
7440-02-0	Nickel	0.44	3.6	0.25	mg/Kg	J		1	6010C
7782-49-2	Selenium	1.8	1.8	0.41	mg/Kg	U		1	6010C
7440-22-4	Silver	0.91	0.91	0.091	mg/Kg	U		1	6010C
7440-28-0	Thallium	1.8	1.8	0.50	mg/Kg	U		1	6010C
7440-62-2	Vanadium	4.8	0.91	0.11	mg/Kg			1	6010C
7440-66-6	Zinc	1.7	4.5	0.91	mg/Kg	J		1	6010C
7439-97-6	Mercury	0.016	0.11	0.016	mg/Kg	J		1	7471B

APPENDIX C
SUPPORT DOCUMENTATION

CASE NARRATIVE

Client: Tetra Tech, Inc

Project: Greater Strawberry Point Supplemental

Report Number: 240-15155-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 09/14/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 5.7 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GSP-MW-9-0-2 (240-15155-1), GSP-MW-9-8-10 (240-15155-2), GSP-MW-10-2-4 (240-15155-4), GSP-MW-10-20-22 (240-15155-5), GSP-MW-11-0-2 (240-15155-6) and GSP-MW-11-2-4 (240-15155-7) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were prepared on 09/14/2012 and analyzed on 09/18/2012.

Several analytes were detected in method blank MB 240-58198/6 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

The laboratory control sample for batch 58198 exceeded control limits for the following analyte: Chloromethane. Chloromethane has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Insufficient sample volume was available to meet method-mandated requirements for matrix spike/matrix spike duplicate (MS/MSD) analyses for batch 58198 on these samples GSP-MW-10-20-22 (240-15155-5), GSP-MW-10-2-4 (240-15155-4), GSP-MW-11-0-2 (240-15155-6), GSP-MW-11-2-4 (240-15155-7), GSP-MW-9-0-2 (240-15155-1), GSP-MW-9-8-10 (240-15155-2).

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample TB (240-15155-3) was analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 09/21/2012.

Hexachlorobutadiene and n-Butylbenzene were detected in method blank MB 240-58594/4 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

The laboratory control sample (LCS) for batch 58594 exceeded control limits for the following analyte: dibromomethane. This analyte was

biased high in the LCS and was not detected in the associated samples; therefore, the data has been reported.

No other difficulties were encountered during the VOCs analysis. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples GSP-MW-9-0-2 (240-15155-1), GSP-MW-9-8-10 (240-15155-2), GSP-MW-10-2-4 (240-15155-4), GSP-MW-10-20-22 (240-15155-5), GSP-MW-11-0-2 (240-15155-6) and GSP-MW-11-2-4 (240-15155-7) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 09/17/2012 and analyzed on 09/19/2012.

Several analytes failed the recovery criteria low for the MS/MSD of sample GSP-MW-11-2-4 (240-15155-7) in batch 240-58277.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Sample GSP-MW-11-2-4 (240-15155-7)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the SVOCs analyses. All other quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)
Samples GSP-MW-9-0-2 (240-15155-1), GSP-MW-9-8-10 (240-15155-2), GSP-MW-10-2-4 (240-15155-4), GSP-MW-10-20-22 (240-15155-5), GSP-MW-11-0-2 (240-15155-6) and GSP-MW-11-2-4 (240-15155-7) were analyzed for gasoline range organics (GRO) in accordance with EPA-SW-846 Method 8015C - GRO. The samples were analyzed on 09/20/2012.

No difficulties were encountered during the GRO analyses. All quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)
Samples GSP-MW-9-0-2 (240-15155-1), GSP-MW-9-8-10 (240-15155-2), GSP-MW-10-2-4 (240-15155-4), GSP-MW-10-20-22 (240-15155-5), GSP-MW-11-0-2 (240-15155-6) and GSP-MW-11-2-4 (240-15155-7) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015C - DRO. The samples were prepared on 09/18/2012 and analyzed on 09/24/2012.

Total Petroleum Hydrocarbons (C10-C32) was detected in method blank MB 240-58174/23-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

No other difficulties were encountered during the DRO analyses. All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP)
Samples GSP-MW-9-0-2 (240-15155-1), GSP-MW-9-8-10 (240-15155-2), GSP-MW-10-2-4 (240-15155-4), GSP-MW-10-20-22 (240-15155-5), GSP-MW-11-0-2 (240-15155-6) and GSP-MW-11-2-4 (240-15155-7) were analyzed for total metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 09/20/2012 and analyzed on 09/25/2012.

Antimony and Barium were detected in method blank MB 240-58519/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Antimony failed the recovery criteria low for the MS of sample GSP-MW-9-0-2 (240-15155-1) in batch 240-59060. Zinc failed the recovery criteria high.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

MERCURY
Samples GSP-MW-9-0-2 (240-15155-1), GSP-MW-9-8-10 (240-15155-2), GSP-MW-10-2-4 (240-15155-4), GSP-MW-10-20-22 (240-15155-5), GSP-MW-11-0-2 (240-15155-6) and GSP-MW-11-2-4 (240-15155-7) were analyzed for mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared on 09/20/2012 and analyzed on 09/22/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

PERCENT SOLIDS
Samples GSP-MW-9-0-2 (240-15155-1), GSP-MW-9-8-10 (240-15155-2), GSP-MW-10-2-4 (240-15155-4), GSP-MW-10-20-22 (240-15155-5), GSP-MW-11-0-2 (240-15155-6) and GSP-MW-11-2-4 (240-15155-7) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 09/17/2012.

No difficulties were encountered during the % solids analyses. All quality control parameters were within the acceptance limits.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location:
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact

Company Name: Tetra Tech	Client Project Manager: Tony Apanavitz	Site Contact: W. O'Neill	Lab Contact: Pat O'Meara
Address: 20251 Century Blvd Ste 200	Telephone: 301-233-8230	Telephone: 706-201-3646	Telephone:
City/State/Zip: Germantown MD	Email:	Analysis requested Time of Day	
Phone: 301-528-3063		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	
Project Name: GSP Supplemental Charge	Method of Shipment/Carrier:		
Project Number:	Shipping/Tracking No:		
PO#			

COC No: 009429
1 of 1 COCs

Analyses: VOCs, GRO, SVOCs (metals), DRO

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered sample (Y/N)	Composite (C) or Grab (G)	VOCs	GRO	SVOCs (metals) DRO								Sample Specific Notes / Special Instructions:
GSP-MW-9-0-2	9/12/12	1810			X								3	3	N	G	X	X	X								
GSP-MW-9-8-10	9/12/12	1820			X								3	3	N	G	X	X	X								VOCs-terra core kits
TB	9/12/12	—		X													X										
GSP-MW-10-2-4	9/13/12	0920			X								3	3	N	G	X	X	X								GRO-4oz
GSP-MW-10-20-22	9/13/12	0930			X								3	3	N	G	X	X	X								
GSP-MW-11-0-2	9/13/12	1535			X								3	3	N	G	X	X	X								SVOCs (metals) DRO-8oz
GSP-MW-11-2-4	9/13/12	1545			X								3	3	N	G	X	X	X								

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	9/13/12/1600	[signature]	TestAmerica	9/13/12/1600
[signature]	TestAmerica	9/13/12/1645			
			Received in Laboratory by: [signature]	TA Canton	9-14-12 9:00am

©2008. TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

TAL 0018- 1 (04/10)

HOLDTIME

SDG 240-15155-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	GSP-MW-9-8-10	240-15155-2	NM	9/12/2012	9/20/2012	9/22/2012	8	2	10
HG	MG/KG	GSP-MW-10-20-22	240-15155-5	NM	9/13/2012	9/20/2012	9/22/2012	7	2	9
HG	MG/KG	GSP-MW-10-2-4	240-15155-4	NM	9/13/2012	9/20/2012	9/22/2012	7	2	9
HG	MG/KG	GSP-MW-11-0-2	240-15155-6	NM	9/13/2012	9/20/2012	9/22/2012	7	2	9
HG	MG/KG	GSP-MW-11-2-4	240-15155-7	NM	9/13/2012	9/20/2012	9/22/2012	7	2	9
HG	MG/KG	GSP-MW-9-0-2	240-15155-1	NM	9/12/2012	9/20/2012	9/22/2012	8	2	10
M	MG/KG	GSP-MW-10-2-4	240-15155-4	NM	9/13/2012	9/20/2012	9/25/2012	7	5	12
M	MG/KG	GSP-MW-11-0-2	240-15155-6	NM	9/13/2012	9/20/2012	9/25/2012	7	5	12
M	MG/KG	GSP-MW-11-2-4	240-15155-7	NM	9/13/2012	9/20/2012	9/25/2012	7	5	12
M	MG/KG	GSP-MW-9-0-2	240-15155-1	NM	9/12/2012	9/20/2012	9/25/2012	8	5	13
M	MG/KG	GSP-MW-9-8-10	240-15155-2	NM	9/12/2012	9/20/2012	9/25/2012	8	5	13
M	MG/KG	GSP-MW-10-20-22	240-15155-5	NM	9/13/2012	9/20/2012	9/25/2012	7	5	12
OS	UG/KG	GSP-MW-10-20-22	240-15155-5	NM	9/13/2012	9/17/2012	9/19/2012	4	2	6
OS	UG/KG	GSP-MW-11-0-2	240-15155-6	NM	9/13/2012	9/17/2012	9/19/2012	4	2	6
OS	UG/KG	GSP-MW-11-2-4	240-15155-7	NM	9/13/2012	9/17/2012	9/19/2012	4	2	6

METHOD SUMMARY

Client: Tetra Tech, Inc

Job Number: 240-15155-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS)	TAL NC	SW846 8260B	
Closed System Purge and Trap	TAL NC		SW846 5035
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270D	
Soxhlet Extraction	TAL NC		SW846 3540C
Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	TAL NC	SW846 8015C	
Purge and Trap	TAL NC		SW846 5030B
Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	TAL NC	SW846 8015C	
Soxhlet Extraction	TAL NC		SW846 3540C
Metals (ICP)	TAL NC	SW846 6010C	
Preparation, Metals	TAL NC		SW846 3050B
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	TAL NC	SW846 7471B	
Preparation, Mercury	TAL NC		SW846 7471B
Percent Moisture	TAL NC	EPA Moisture	
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL NC	SW846 8260B	
Purge and Trap	TAL NC		SW846 5030B

Lab References:

TAL NC = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-15155-1

SDG No.:

Project: Greater Strawberry Point Supplemental

Client Sample ID	Lab Sample ID
GSP-MW-9-0-2	240-15155-1
GSP-MW-9-8-10	240-15155-2
GSP-MW-10-2-4	240-15155-4
GSP-MW-10-20-22	240-15155-5
GSP-MW-11-0-2	240-15155-6
GSP-MW-11-2-4	240-15155-7

Comments:

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

ICV Source: MTTRICV_00014 Concentration Units: ug/L

CCV Source: MTTRCCV_00033

Analyte	ICV 240-59060/5 09/25/2012 09:58				CCV 240-59060/104 09/25/2012 20:42				CCV 240-59060/116 09/25/2012 21:56			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	245		250	98	513		500	103	515		500	103
Arsenic	247		250	99	505		500	101	509		500	102
Barium	1030		1000	103	2100		2000	105	2090		2000	105
Beryllium	1050		1000	105	2130		2000	107	2140		2000	107
Cadmium	253		250	101	515		500	103	517		500	103
Chromium	1020		1000	102	2070		2000	103	2060		2000	103
Cobalt	1030		1000	103	2080		2000	104	2080		2000	104
Copper	1030		1000	103	2080		2000	104	2060		2000	103
Lead	252		250	101	504		500	101	509		500	102
Molybdenum	1010		1000	101	2010		2000	100	2000		2000	100
Nickel	1030		1000	103	2080		2000	104	2090		2000	104
Selenium	253		250	101	504		500	101	505		500	101
Silver	500		500	100	1030		1000	103	1030		1000	103
Thallium	501		500	100	1010		1000	101	1010		1000	101
Vanadium	1010		1000	101	2040		2000	102	2030		2000	102
Zinc	1050		1000	105	2100		2000	105	2100		2000	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

ICV Source: MTTRICV_00014 Concentration Units: ug/L

CCV Source: MTTRCCV_00033

Analyte	CCV 240-59060/128 09/25/2012 23:09											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	520		500	104								
Arsenic	518		500	104								
Barium	2130		2000	107								
Beryllium	2160		2000	108								
Cadmium	525		500	105								
Chromium	2080		2000	104								
Cobalt	2110		2000	105								
Copper	2080		2000	104								
Lead	515		500	103								
Molybdenum	2010		2000	101								
Nickel	2130		2000	106								
Selenium	514		500	103								
Silver	1040		1000	104								
Thallium	1020		1000	102								
Vanadium	2050		2000	102								
Zinc	2120		2000	106								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

ICV Source: MTHGICVW_00389 Concentration Units: ug/L

CCV Source: MTHGCALW_00252

Analyte	ICV 240-58718/7-A 09/22/2012 12:05				CCV 240-58718/10-A 09/22/2012 12:12				CCV 240-58718/10-A 09/22/2012 12:36			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.45		2.50	98	4.97		5.00	99	5.11		5.00	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Method: 6010C Instrument ID: I6

Lab Sample ID: CRI 240-59060/8 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00008

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	20.0	19.7	J	99	70-130
Arsenic	15.0	14.3	J	96	70-130
Barium	200	198	J	99	70-130
Beryllium	5.00	4.94	J	99	70-130
Cadmium	5.00	5.09		102	70-130
Chromium	10.0	9.88	J	99	70-130
Cobalt	10.0	10.0		100	70-130
Copper	20.0	18.0	J	90	70-130
Lead	10.0	10.1		101	70-130
Molybdenum	40.0	41.6		104	70-130
Nickel	40.0	40.6		101	70-130
Selenium	20.0	22.7		114	70-130
Silver	10.0	9.66	J	97	70-130
Thallium	20.0	21.1		106	70-130
Vanadium	10.0	9.92	J	99	70-130
Zinc	50.0	52.2		104	70-130

Lab Sample ID: CRI 240-59060/146 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00008

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	20.0	18.3	J	91	70-130
Arsenic	15.0	13.7	J	91	70-130
Barium	200	203		102	70-130
Beryllium	5.00	4.89	J	98	70-130
Cadmium	5.00	4.95	J	99	70-130
Chromium	10.0	9.21	J	92	70-130
Cobalt	10.0	10.3		103	70-130
Copper	20.0	15.5	J	78	70-130
Lead	10.0	9.95	J	99	70-130
Molybdenum	40.0	42.4		106	70-130
Nickel	40.0	41.4		103	70-130
Selenium	20.0	20.7		103	70-130
Silver	10.0	10.2		102	70-130
Thallium	20.0	17.7	J	88	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Method: 6010C Instrument ID: I6

Lab Sample ID: CRI 240-59060/146 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00008

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Vanadium	10.0	9.57	J	96	70-130
Zinc	50.0	52.2		104	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Method: 7471B Instrument ID: H4

Lab Sample ID: CRA 240-58718/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00252

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.279	J	140	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICBIS 240-59060/6 09/25/2012 10:04		CCB 240-59060/105 09/25/2012 20:49		CCB 240-59060/117 09/25/2012 22:02		CCB 240-59060/129 09/25/2012 23:15	
		Found	C	Found	C	Found	C	Found	C
Antimony	20	20	U	20	U	4.73	J	20	U
Arsenic	15	15	U	15	U	15	U	15	U
Barium	200	200	U	200	U	200	U	200	U
Beryllium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Cadmium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Chromium	10	10	U	10	U	10	U	10	U
Cobalt	10	10	U	10	U	10	U	10	U
Copper	25	25	U	25	U	25	U	25	U
Lead	10	10	U	10	U	10	U	10	U
Molybdenum	40	3.80	J	8.43	J	8.07	J	7.08	J
Nickel	40	40	U	40	U	40	U	40	U
Selenium	20	20	U	20	U	20	U	20	U
Silver	10	10	U	10	U	10	U	10	U
Thallium	20	20	U	20	U	5.56	J	20	U
Vanadium	10	10	U	10	U	1.44	J	10	U
Zinc	50	50	U	50	U	50	U	50	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-58718/8-A 09/22/2012 12:07		CCB 240-58718/11-A 09/22/2012 12:14		CCB 240-58718/11-A 09/22/2012 12:38			
		Found	C	Found	C	Found	C	Found	C
Mercury	0.60	0.60	U	0.60	U	0.60	U		

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 240-58519/1-A

Instrument Code: I6 Batch No.: 59060

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.866	J		6010C
7440-38-2	Arsenic	1.5	U		6010C
7440-39-3	Barium	0.0945	J		6010C
7440-41-7	Beryllium	0.50	U		6010C
7440-43-9	Cadmium	0.50	U		6010C
7440-47-3	Chromium	1.0	U		6010C
7440-48-4	Cobalt	1.0	U		6010C
7440-50-8	Copper	2.5	U		6010C
7439-92-1	Lead	1.0	U		6010C
7439-98-7	Molybdenum	4.0	U		6010C
7440-02-0	Nickel	4.0	U		6010C
7782-49-2	Selenium	2.0	U		6010C
7440-22-4	Silver	1.0	U		6010C
7440-28-0	Thallium	2.0	U		6010C
7440-62-2	Vanadium	1.0	U		6010C
7440-66-6	Zinc	5.0	U		6010C

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 240-58524/1-A

Instrument Code: H4 Batch No.: 58797

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.10	U		7471B

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: ICSA 240-59060/16 Instrument ID: I6

Lab File ID: I60925A ICS Source: MTTRICSAW_00015

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**1.42**	
Arsenic		**3.62**	
Barium		**1.75**	
Beryllium		**0.0575**	
Cadmium		**1.89**	
Chromium		**-0.0795**	
Cobalt		**0.108**	
Copper		**3.69**	
Lead		**4.88**	
Molybdenum		**-1.44**	
Nickel		**0.383**	
Selenium		**1.54**	
Silver		**-0.460**	
Thallium		**-4.32**	
Vanadium		**0.174**	
Zinc		**-0.465**	
Aluminum	*500000*	*493922*	*99*
Boron		*-0.649*	
Calcium	*500000*	*490696*	*98*
Iron	*200000*	*199162*	*100*
Magnesium	*500000*	*522285*	*104*
Manganese		*2.50*	
Potassium		*70.8*	
Sodium		*-1123*	
Tin		*0.0407*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: ICSAB 240-59060/17 Instrument ID: I6

Lab File ID: I60925A ICS Source: MTTRICSABW_00010

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**1000**	**987**	**99**
Arsenic	**1000**	**986**	**99**
Barium	**500**	**516**	**103**
Beryllium	**500**	**507**	**101**
Cadmium	**1000**	**943**	**94**
Chromium	**500**	**485**	**97**
Cobalt	**500**	**484**	**97**
Copper	**500**	**523**	**105**
Lead	**1000**	**951**	**95**
Molybdenum	**1000**	**977**	**98**
Nickel	**1000**	**946**	**95**
Selenium	**1000**	**980**	**98**
Silver	**1000**	**1047**	**105**
Thallium	**1000**	**956**	**96**
Vanadium	**500**	**490**	**98**
Zinc	**1000**	**1022**	**102**
Aluminum	*500000*	*487415*	*97*
Boron	*1000*	*1002*	*100*
Calcium	*500000*	*487510*	*98*
Iron	*200000*	*196965*	*98*
Magnesium	*500000*	*511086*	*102*
Manganese	*500*	*510*	*102*
Potassium	*10000*	*11772*	*118*
Sodium	*10000*	*10541*	*105*
Tin	*1000*	*977*	*98*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: GSP-MW-9-0-2 MS

Lab ID: 240-15155-1 MS

Lab Name: TestAmerica Canton

Job No.: 240-15155-1

SDG No.:

Matrix: Solid

Concentration Units: mg/Kg

% Solids: 97.7

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	21.3		1.8	U	44.9	47	75-125	F	6010C
Arsenic	172		1.9		180	94	75-125		6010C
Barium	209		25		180	103	75-125		6010C
Beryllium	4.47		0.064	J	4.49	98	75-125		6010C
Cadmium	4.72		0.36	J	4.49	97	75-125		6010C
Chromium	28.5		9.1		18.0	108	75-125		6010C
Cobalt	46.4		1.5		44.9	100	75-125		6010C
Copper	87.2		68		22.5	85	75-125		6010C
Lead	67.2		24		44.9	97	75-125		6010C
Molybdenum	82.5		0.67	J	89.8	91	75-125		6010C
Nickel	50.0		4.3		44.9	102	75-125		6010C
Selenium	165		0.41	J	180	92	75-125		6010C
Silver	4.44		0.90	U	4.49	99	75-125		6010C
Thallium	166		0.58	J	180	92	75-125		6010C
Vanadium	59.6		12		44.9	106	75-125		6010C
Zinc	127		63		44.9	141	75-125	F	6010C
Mercury	0.233		0.075	J	0.183	86	11-192		7471B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: GSP-MW-9-0-2 PDS
Lab ID: 240-15155-1 PDS
Lab Name: TestAmerica Canton
Job No.: 240-15155-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	13.3		1.8	U	13.5	99	80-120		6010C
Zinc	107		63		44.9	97	80-120		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

6-IN
DUPLICATES
METALS

Client ID: GSP-MW-9-0-2 DU

Lab ID: 240-15155-1 DU

Lab Name: TestAmerica Canton

Job No.: 240-15155-1

SDG No.:

% Solids for Sample: 97.7

% Solids for Duplicate: 97.7

Matrix: Solid

Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Antimony	1.8	1.8	U	1.8	U	NC		6010C
Arsenic	1.3	1.9		1.62		17		6010C
Barium	18	25		25.1		1		6010C
Beryllium	0.45	0.064	J	0.107	J	50	OC	6010C
Cadmium	0.45	0.36	J	0.282	J	25		6010C
Chromium	0.90	9.1		9.89		9		6010C
Cobalt	0.90	1.5		1.26		20		6010C
Copper	2.2	68		71.9		6		6010C
Lead	0.90	24		19.0		21		6010C
Molybdenum	3.6	0.67	J	0.438	J	41	OC	6010C
Nickel	3.6	4.3		3.42	J	23		6010C
Selenium	1.8	0.41	J	0.516	J	24		6010C
Silver	0.90	0.90	U	0.90	U	NC		6010C
Thallium	1.8	0.58	J	1.8	U	NC		6010C
Vanadium	0.90	12		22.1		60		6010C
Zinc	4.5	63		57.3		10		6010C
Mercury	0.11	0.075	J	0.0710	J	6		7471B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-58519/2-A

Lab Name: TestAmerica Canton Job No.: 240-15155-1

Sample Matrix: Solid LCS Source: MTICP1_00019

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Antimony	50.0	44.5		89	80	120		6010C
Arsenic	200	180		90	80	120		6010C
Barium	200	189		94	80	120		6010C
Beryllium	5.00	4.66		93	80	120		6010C
Cadmium	5.00	4.74		95	80	120		6010C
Chromium	20.0	18.5		92	80	120		6010C
Cobalt	50.0	46.1		92	80	120		6010C
Copper	25.0	23.3		93	80	120		6010C
Lead	50.0	45.5		91	80	120		6010C
Molybdenum	100	90.7		91	80	120		6010C
Nickel	50.0	46.9		94	80	120		6010C
Selenium	200	178		89	80	120		6010C
Silver	5.00	4.84		97	80	120		6010C
Thallium	200	183		91	80	120		6010C
Vanadium	50.0	45.8		92	80	120		6010C
Zinc	50.0	48.2		96	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-58524/2-A

Lab Name: TestAmerica Canton Job No.: 240-15155-1

Sample Matrix: Solid LCS Source: MTHGICVW_00388

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.833	0.792		95	73	121		7471B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 240-15155-1

SDG No:

Lab Name: TestAmerica Canton Job No: 240-15155-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	1.8	U	9.0	U	NC		6010C
Arsenic	1.9		2.05	J	NC		6010C
Barium	25		24.8	J	0.27		6010C
Beryllium	0.064	J	2.2	U	NC		6010C
Cadmium	0.36	J	0.405	J	NC		6010C
Chromium	9.1		9.18		1.3		6010C
Cobalt	1.5		1.53	J	NC		6010C
Copper	68		67.7		0.46		6010C
Lead	24		23.9		1.7		6010C
Molybdenum	0.67	J	18	U	NC		6010C
Nickel	4.3		4.39	J	NC		6010C
Selenium	0.41	J	9.0	U	NC		6010C
Silver	0.90	U	4.5	U	NC		6010C
Thallium	0.58	J	9.0	U	NC		6010C
Vanadium	12		12.3		2.9		6010C
Zinc	63		65.1		2.7		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-15155-1

SDG Number:

Matrix: Solid Instrument ID: I6

Method: 6010C MDL Date: 03/01/2011 14:59

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Antimony	206.838	2	0.39
Arsenic	189.042	1.5	0.3
Barium	493.409	20	0.071
Beryllium	313.042	0.5	0.043
Cadmium	226.502	0.5	0.036
Chromium	267.716	1	0.2
Cobalt	228.616	1	0.16
Copper	324.753	2.5	0.74
Lead	220.353	1	0.19
Molybdenum	202.030	4	0.27
Nickel	231.604	4	0.27
Selenium	196.026	2	0.45
Silver	328.068	1	0.1
Thallium	190.864	2	0.55
Vanadium	292.402	1	0.12
Zinc	213.856	5	1

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-15155-1

SDG Number:

Matrix: Solid Instrument ID: H4

Method: 7471B MDL Date: 02/16/2010 09:48

Prep Method: 7471B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Mercury	253.7	0.1	0.015

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 240-58519/1-A	09/20/2012 11:40	58519	1.00		100
LCS 240-58519/2-A	09/20/2012 11:40	58519	1.00		100
240-15155-1	09/20/2012 11:40	58519	1.14		100
240-15155-1 DU	09/20/2012 11:40	58519	1.14		100
240-15155-1 MS	09/20/2012 11:40	58519	1.14		100
240-15155-2	09/20/2012 11:40	58519	1.24		100
240-15155-4	09/20/2012 11:40	58519	1.09		100
240-15155-5	09/20/2012 11:40	58519	1.27		100
240-15155-6	09/20/2012 11:40	58519	1.05		100
240-15155-7	09/20/2012 11:40	58519	1.08		100

FORM XII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Prep Method: 7471B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 240-58524/1-A	09/20/2012 14:40	58524	0.60		100
LCS 240-58524/2-A	09/20/2012 14:40	58524	0.60		100
240-15155-1	09/20/2012 14:40	58524	0.56		100
240-15155-1 DU	09/20/2012 14:40	58524	0.56		100
240-15155-1 MS	09/20/2012 14:40	58524	0.56		100
240-15155-2	09/20/2012 14:40	58524	0.62		100
240-15155-4	09/20/2012 14:40	58524	0.65		100
240-15155-5	09/20/2012 14:40	58524	0.70		100
240-15155-6	09/20/2012 14:40	58524	0.56		100
240-15155-7	09/20/2012 14:40	58524	0.64		100

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Instrument ID: I6 Method: 6010C

Start Date: 09/25/2012 09:36 End Date: 09/26/2012 06:33

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	Zn				
STD 240-59060/1 IC			09:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
CALSTD 240-59060/2 IC			09:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
CALSTD 240-59060/3 IC			09:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
CALSTD 240-59060/4 IC			09:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
ICV 240-59060/5	1		09:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
ICBIS 240-59060/6	1		10:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
CRI 240-59060/7			10:10																				
CRI 240-59060/8	1		10:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
CRI 240-59060/9			10:24																				
CRI 240-59060/10			10:30																				
ZZZZZZ			10:36																				
ICSA 240-59060/12			10:42																				
ICSA 240-59060/13			10:51																				
ZZZZZZ			11:05																				
ICSA 240-59060/15			11:20																				
ICSA 240-59060/16	1		11:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
ICSAB 240-59060/17	1		11:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
CCV 240-59060/18			11:51																				
CCB 240-59060/19			11:57																				
ZZZZZZ			12:03																				
ZZZZZZ			12:09																				
ZZZZZZ			12:16																				
ZZZZZZ			12:22																				
ZZZZZZ			12:28																				
ZZZZZZ			12:34																				
ZZZZZZ			12:40																				
ZZZZZZ			12:46																				
ZZZZZZ			12:52																				
ZZZZZZ			12:58																				
CCV 240-59060/30			13:04																				
CCB 240-59060/31			13:10																				
ZZZZZZ			13:16																				
ZZZZZZ			13:23																				
ZZZZZZ			13:29																				
ZZZZZZ			13:35																				
ZZZZZZ			13:41																				
ZZZZZZ			13:47																				
ZZZZZZ			13:53																				
ZZZZZZ			13:59																				
ZZZZZZ			14:05																				
ZZZZZZ			14:11																				
CCV 240-59060/42			14:17																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Instrument ID: I6 Method: 6010C

Start Date: 09/25/2012 09:36 End Date: 09/26/2012 06:33

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	Zn				
CCB 240-59060/43			14:24																				
ZZZZZZ			14:32																				
ZZZZZZ			14:38																				
ZZZZZZ			14:44																				
ZZZZZZ			14:50																				
ZZZZZZ			14:56																				
ZZZZZZ			15:02																				
ZZZZZZ			15:09																				
ZZZZZZ			15:15																				
ZZZZZZ			15:21																				
ZZZZZZ			15:27																				
CCV 240-59060/54			15:33																				
CCB 240-59060/55			15:39																				
CCV 240-59060/56			15:49																				
CCB 240-59060/57			15:56																				
ZZZZZZ			16:02																				
ZZZZZZ			16:08																				
ZZZZZZ			16:14																				
ZZZZZZ			16:20																				
ZZZZZZ			16:26																				
ZZZZZZ			16:32																				
ZZZZZZ			16:38																				
ZZZZZZ			16:44																				
ZZZZZZ			16:50																				
ZZZZZZ			16:57																				
CCV 240-59060/68			17:03																				
CCB 240-59060/69			17:09																				
ZZZZZZ			17:15																				
ZZZZZZ			17:21																				
ZZZZZZ			17:27																				
ZZZZZZ			17:33																				
ZZZZZZ			17:39																				
ZZZZZZ			17:45																				
ZZZZZZ			17:51																				
ZZZZZZ			17:58																				
ZZZZZZ			18:04																				
ZZZZZZ			18:10																				
CCV 240-59060/80			18:16																				
CCB 240-59060/81			18:22																				
ZZZZZZ			18:28																				
ZZZZZZ			18:34																				
ZZZZZZ			18:40																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Instrument ID: I6 Method: 6010C

Start Date: 09/25/2012 09:36 End Date: 09/26/2012 06:33

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	Zn				
ZZZZZZ			18:46																				
ZZZZZZ			18:53																				
ZZZZZZ			18:59																				
ZZZZZZ			19:05																				
ZZZZZZ			19:11																				
ZZZZZZ			19:17																				
ZZZZZZ			19:23																				
CCV 240-59060/92			19:29																				
CCB 240-59060/93			19:35																				
ZZZZZZ			19:41																				
ZZZZZZ			19:47																				
ZZZZZZ			19:54																				
ZZZZZZ			20:00																				
ZZZZZZ			20:06																				
ZZZZZZ			20:12																				
ZZZZZZ			20:18																				
ZZZZZZ			20:24																				
ZZZZZZ			20:30																				
ZZZZZZ			20:36																				
CCV 240-59060/104	1		20:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
CCB 240-59060/105	1		20:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
ZZZZZZ			20:55																				
ZZZZZZ			21:01																				
ZZZZZZ			21:07																				
ZZZZZZ			21:13																				
ZZZZZZ			21:19																				
ZZZZZZ			21:25																				
ZZZZZZ			21:31																				
MB 240-58519/1-A	1	T	21:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
LCS 240-58519/2-A	1	T	21:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
240-15155-1	1	T	21:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
CCV 240-59060/116	1		21:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
CCB 240-59060/117	1		22:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
240-15155-1 SD	5	T	22:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
240-15155-1 DU	1	T	22:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
240-15155-1 MS	1	T	22:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
240-15155-1 PDS	1	T	22:26												X				X				
240-15155-2	1	T	22:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
240-15155-4	1	T	22:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
240-15155-5	1	T	22:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
240-15155-6	1	T	22:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
240-15155-7	1	T	22:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Instrument ID: I6 Method: 6010C

Start Date: 09/25/2012 09:36 End Date: 09/26/2012 06:33

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	Zn				
ZZZZZZ			23:03																				
CCV 240-59060/128	1		23:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
CCB 240-59060/129	1		23:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
ZZZZZZ			23:21																				
ZZZZZZ			23:28																				
ZZZZZZ			23:34																				
ZZZZZZ			23:40																				
ZZZZZZ			23:46																				
ZZZZZZ			23:52																				
ZZZZZZ			23:58																				
ZZZZZZ			00:04																				
ZZZZZZ			00:10																				
ZZZZZZ			00:16																				
CCV 240-59060/140			00:23																				
CCB 240-59060/141			00:29																				
ZZZZZZ			00:35																				
CRI 240-59060/143			00:41																				
CCV 240-59060/144			00:47																				
CCB 240-59060/145			00:53																				
CRI 240-59060/146	1		00:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
CCV 240-59060/147			04:43																				
CCB 240-59060/148			04:49																				
ZZZZZZ			04:55																				
ZZZZZZ			05:01																				
ZZZZZZ			05:08																				
ZZZZZZ			05:14																				
ZZZZZZ			05:20																				
ZZZZZZ			05:26																				
ZZZZZZ			05:32																				
ZZZZZZ			05:38																				
ZZZZZZ			05:44																				
ZZZZZZ			05:50																				
CCV 240-59060/159			05:56																				
CCB 240-59060/160			06:03																				
ZZZZZZ			06:09																				
ZZZZZZ			06:15																				
ZZZZZZ			06:21																				
CCV 240-59060/164			06:27																				
CCB 240-59060/165			06:33																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Instrument ID: H4 Method: 7471B

Start Date: 09/22/2012 11:53 End Date: 09/22/2012 15:10

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 240-58718/1-A			11:53	X																			
IC 240-58718/2-A			11:55	X																			
IC 240-58718/3-A			11:57	X																			
IC 240-58718/4-A			11:59	X																			
IC 240-58718/5-A			12:01	X																			
IC 240-58718/6-A			12:03	X																			
ICV 240-58718/7-A	1		12:05	X																			
ICB 240-58718/8-A	1		12:07	X																			
CRA 240-58718/9-A	1		12:08	X																			
CCV 240-58718/10-A	1		12:12	X																			
CCB 240-58718/11-A	1		12:14	X																			
MB 240-58524/1-A	1	T	12:17	X																			
LCS 240-58524/2-A	1	T	12:19	X																			
240-15155-1	1	T	12:21	X																			
240-15155-1 DU	1	T	12:22	X																			
240-15155-1 MS	1	T	12:25	X																			
240-15155-2	1	T	12:26	X																			
240-15155-4	1	T	12:28	X																			
240-15155-5	1	T	12:30	X																			
240-15155-6	1	T	12:32	X																			
240-15155-7	1	T	12:34	X																			
CCV 240-58718/10-A	1		12:36	X																			
CCB 240-58718/11-A	1		12:38	X																			
ZZZZZZ			12:40																				
ZZZZZZ			12:42																				
ZZZZZZ			12:44																				
ZZZZZZ			12:46																				
ZZZZZZ			12:48																				
ZZZZZZ			12:50																				
ZZZZZZ			12:54																				
ZZZZZZ			12:56																				
ZZZZZZ			12:57																				
ZZZZZZ			12:59																				
CCV 240-58718/10-A			13:01																				
CCB 240-58718/11-A			13:03																				
ZZZZZZ			13:05																				
ZZZZZZ			13:08																				
ZZZZZZ			13:10																				
ZZZZZZ			13:12																				
ZZZZZZ			13:14																				
ZZZZZZ			13:16																				
ZZZZZZ			13:19																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Instrument ID: H4 Method: 7471B

Start Date: 09/22/2012 11:53 End Date: 09/22/2012 15:10

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			13:20																				
ZZZZZZ			13:22																				
ZZZZZZ			13:25																				
CCV 240-58718/10-A			13:27																				
CCB 240-58718/11-A			13:29																				
ZZZZZZ			13:31																				
ZZZZZZ			13:33																				
ZZZZZZ			13:35																				
ZZZZZZ			13:36																				
ZZZZZZ			13:38																				
ZZZZZZ			13:40																				
ZZZZZZ			13:42																				
ZZZZZZ			13:45																				
ZZZZZZ			13:47																				
ZZZZZZ			13:49																				
CCV 240-58718/10-A			13:51																				
CCB 240-58718/11-A			13:53																				
ZZZZZZ			13:55																				
ZZZZZZ			13:58																				
ZZZZZZ			14:00																				
ZZZZZZ			14:03																				
ZZZZZZ			14:05																				
ZZZZZZ			14:07																				
ZZZZZZ			14:09																				
ZZZZZZ			14:11																				
ZZZZZZ			14:14																				
ZZZZZZ			14:17																				
CCV 240-58718/10-A			14:19																				
CCB 240-58718/11-A			14:21																				
ZZZZZZ			14:23																				
ZZZZZZ			14:26																				
ZZZZZZ			14:28																				
ZZZZZZ			14:30																				
ZZZZZZ			14:32																				
ZZZZZZ			14:35																				
ZZZZZZ			14:36																				
ZZZZZZ			14:39																				
ZZZZZZ			14:42																				
ZZZZZZ			14:44																				
CCV 240-58718/10-A			14:46																				
CCB 240-58718/11-A			14:48																				
ZZZZZZ			14:50																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Instrument ID: H4 Method: 7471B

Start Date: 09/22/2012 11:53 End Date: 09/22/2012 15:10

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			14:52																				
ZZZZZZ			14:54																				
ZZZZZZ			14:56																				
ZZZZZZ			14:58																				
ZZZZZZ			15:00																				
ZZZZZZ			15:02																				
ZZZZZZ			15:04																				
ZZZZZZ			15:06																				
CCV 240-58718/10-A			15:08																				
CCB 240-58718/11-A			15:10																				

Prep Types

T = Total/NA

Sample GSP-MW-10-2-4
Lead rep result 1.8 mg/kg

Method: TOTAL Sample Name: 240-15155-f-4-e Operator:
Run Time: 09/25/12 22:39 Filename: I60925A
Mode: CONC Type: S Corr. Factor: 1.00000
Lab ID.: N.CANTON Cust. Smpl. ID.: Cust. ID.:

Elems	Ag	Al	As	B	Ba	Be
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	-.6411	15180.	16.36	6.780	74.31	-.0974
SDev	.3791	5.887	1.613	.4678	.2078	0
%RSD	59.13	.0388	9.857	6.9	.2797	.0432

Elems	Ca	Cd	Co	Cr	Cu	Fe
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	53550.	.0123	6.185	41.42	19.38	27750.
SDev	1.561	.2514	.2657	2.502	.1928	27.96
%RSD	.0029	2051	4.295	6.04	.995	.1008

Elems	K	Mg	Mn	Mo	Na3302	Ni
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	1980.	7410.	141.1	2.653	-1163.	8.935
SDev	87.54	.8304	.1912	1.072	1339	3.102
%RSD	4.421	.0112	.1355	40.42	115.1	34.72

Elems	Pb	Se	Sb	Sn	Tl	V
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	17.72	2.231	2.928	7.799	-1.613	73.01
SDev	.0913	1.357	1.673	.1973	2.79	.1287
%RSD	.5151	60.83	57.13	2.53	173	.1763

Elems	Zn	2203/1	2203/2	2068/2	2068/1	1960/1
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	61.34	15.56	18.80	-1.999	5.388	-.4661
SDev	.0437	3.424	1.846	3.212	4.112	3.803
%RSD	.0713	22.01	9.822	160.7	76.31	815.9

Elems	1960/2	*Y
Units	PPB	
Avge	3.578	9546.75
SDev	3.934	1.06066
%RSD	109.9	.01111

$$\left(\frac{17.72\,ug}{L}\right)\left(\frac{0.1\,L}{1.09\,g}\right)\left(\frac{1\,mg}{1000\,ug}\right)\left(\frac{1000\,g}{1\,kg}\right)\left(\frac{1}{.889}\right)$$

1.829 mg/kg

TO: **T. APANAVAGE** **DATE:** **November 28, 2012**

FROM: **MEGAN CARSON** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION-TCLP SELECT METALS AND MERCURY MARTIN STATE AIRPORT, GREATER STRAWBERRY POINT SDG 240-15903-1**

SAMPLES: 3/Soil/
GSP-SB-139-02 GSP-SB-144-05
GSP-SB-145-06

Overview

The sample set for Martin State Airport, SDG 240-15903-1, consists of three (3) soil environmental samples. This SDG contained no field duplicate pairs.

All samples were analyzed for select TCLP metals: arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. The samples were collected by Tetra Tech on October 2nd, 2012 and analyzed by TestAmerica. Metals analyses were conducted using SW-846 method 6010C. Mercury analyses were conducted using SW-846 method 7471B.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP interference results, laboratory control sample recoveries, matrix spike recoveries, laboratory duplicate results, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems – None.

Minor Problems-

- The following contaminants were detected in the TCLP preparation blank at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Barium	0.00188 mg/L	0.0094 mg/L
Lead	0.00952 mg/L	0.046 mg/L

  An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot, percent solids, and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level were qualified as non-detected due to blank contamination.

- Positive results greater than the method detection limit but less than the reporting limit were qualified as estimated (J).

Notes

Non-detected sample results were reported on the Form 1s at the RL. The validator changed the non-detected results to be reported at the MDL to meet project requirements.

The CRDL standard analyzed on 10/9/12 had percent recoveries > 120% for mercury. All samples were affected. No validation action was warranted as sample results were non-detected.

It was noted that the 6010 analysis dates did not match between the Form 1 (10/08/12) and the raw data (10/09/12). However since the calculated sample results matched and holding time is not affected no validation action was warranted.

Executive Summary

Laboratory Performance: Preparation blank contamination resulted in the qualification of sample results.

Other Factors Affecting Data Quality: Positive results greater than the MDL but less than the RL were qualified as estimated.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993. The text of this report has been formulated to address only those problem areas affecting data quality.

Megan Carson

Tetra Tech
Megan Carson
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (i.e., base-time drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	RPD between columns/detectors >40% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient $r < 0.995$
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is less than sample activity
Z1	=	Tentatively Identified Compound considered presumptively present
Z2	=	Tentatively Identified Compound column bleed

PROJ_NO: 04136	NSAMPLE	GSP-SB-139-02			GSP-SB-144-05			GSP-SB-145-06		
SDG: 240-15903-1	LAB_ID	240-15903-3			240-15903-2			240-15903-1		
FRACTION: TCLPM	SAMP_DATE	10/2/2012			10/2/2012			10/2/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ARSENIC		0.0034	J	P	0.014	J	P	0.024	J	P
BARIUM		0.2	J	P	0.13	J	P	0.16	J	P
CADMIUM		0.0012	J	P	0.00066	U		0.00066	U	
CHROMIUM		0.0049	J	P	0.0045	J	P	0.004	J	P
LEAD		0.0093	B	A	0.023	B	A	0.011	B	A
MERCURY		0.00012	U		0.00012	U		0.00012	U	
SELENIUM		0.0041	U		0.0041	U		0.0041	U	
SILVER		0.0022	U		0.0022	U		0.0022	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Client: Tetra Tech, Inc

Job Number: 240-15903-1

Client Sample ID: **GSP-SB-139-02**

Lab Sample ID: 240-15903-3

Client Matrix: Solid

Date Sampled: 10/02/2012 0955

Date Received: 10/03/2012 0900

6010B Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	240-60579	Instrument ID:	I6
Prep Method:	3010A	Prep Batch:	240-60291	Lab File ID:	I61008A
Dilution:	1.0	Leach Batch:	240-60244	Initial Weight/Volume:	50 mL
Analysis Date:	10/08/2012 1125			Final Weight/Volume:	50 mL
Prep Date:	10/05/2012 0935				
Leach Date:	10/04/2012 1644				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.0034	J	0.0032	0.50
Barium		0.20	J B	0.00067	10
Cadmium		0.0012	J	0.00066	0.10
Chromium		0.0049	J	0.0022	0.50
Lead		0.0093	J B	0.0019	0.50
Selenium		0.25	U	0.0041	0.25
Silver		0.50	U	0.0022	0.50

7470A Mercury (CVAA)-TCLP

Analysis Method:	7470A	Analysis Batch:	240-60684	Instrument ID:	H4
Prep Method:	7470A	Prep Batch:	240-60298	Lab File ID:	100912A-HG4.PRN
Dilution:	1.0	Leach Batch:	240-60244	Initial Weight/Volume:	100 mL
Analysis Date:	10/09/2012 1045			Final Weight/Volume:	100 mL
Prep Date:	10/05/2012 1525				
Leach Date:	10/04/2012 1644				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Mercury		0.0020	U	0.00012	0.0020

Client: Tetra Tech, Inc

Job Number: 240-15903-1

Client Sample ID: **GSP-SB-144-05**

Lab Sample ID: 240-15903-2

Client Matrix: Solid

Date Sampled: 10/02/2012 0920

Date Received: 10/03/2012 0900

6010B Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	240-60579	Instrument ID:	I6
Prep Method:	3010A	Prep Batch:	240-60291	Lab File ID:	I61008A
Dilution:	1.0	Leach Batch:	240-60244	Initial Weight/Volume:	50 mL
Analysis Date:	10/08/2012 1119			Final Weight/Volume:	50 mL
Prep Date:	10/05/2012 0935				
Leach Date:	10/04/2012 1644				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.014	J	0.0032	0.50
Barium		0.13	J B	0.00067	10
Cadmium		0.10	U	0.00066	0.10
Chromium		0.0045	J	0.0022	0.50
Lead		0.023	J B	0.0019	0.50
Selenium		0.25	U	0.0041	0.25
Silver		0.50	U	0.0022	0.50

7470A Mercury (CVAA)-TCLP

Analysis Method:	7470A	Analysis Batch:	240-60684	Instrument ID:	H4
Prep Method:	7470A	Prep Batch:	240-60298	Lab File ID:	100912A-HG4.PRN
Dilution:	1.0	Leach Batch:	240-60244	Initial Weight/Volume:	100 mL
Analysis Date:	10/09/2012 1043			Final Weight/Volume:	100 mL
Prep Date:	10/05/2012 1525				
Leach Date:	10/04/2012 1644				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Mercury		0.0020	U	0.00012	0.0020

Client: Tetra Tech, Inc

Job Number: 240-15903-1

Client Sample ID: **GSP-SB-145-06**

Lab Sample ID: 240-15903-1

Client Matrix: Solid

Date Sampled: 10/02/2012 0910

Date Received: 10/03/2012 0900

6010B Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	240-60579	Instrument ID:	I6
Prep Method:	3010A	Prep Batch:	240-60291	Lab File ID:	I61008A
Dilution:	1.0	Leach Batch:	240-60244	Initial Weight/Volume:	50 mL
Analysis Date:	10/08/2012 1113			Final Weight/Volume:	50 mL
Prep Date:	10/05/2012 0935				
Leach Date:	10/04/2012 1644				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.024	J	0.0032	0.50
Barium		0.16	J B	0.00067	10
Cadmium		0.10	U	0.00066	0.10
Chromium		0.0040	J	0.0022	0.50
Lead		0.011	J B	0.0019	0.50
Selenium		0.25	U	0.0041	0.25
Silver		0.50	U	0.0022	0.50

7470A Mercury (CVAA)-TCLP

Analysis Method:	7470A	Analysis Batch:	240-60684	Instrument ID:	H4
Prep Method:	7470A	Prep Batch:	240-60298	Lab File ID:	100912A-HG4.PRN
Dilution:	1.0	Leach Batch:	240-60244	Initial Weight/Volume:	100 mL
Analysis Date:	10/09/2012 1041			Final Weight/Volume:	100 mL
Prep Date:	10/05/2012 1525				
Leach Date:	10/04/2012 1644				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Mercury		0.0020	U	0.00012	0.0020

APPENDIX C

SUPPORT DOCUMENTATION

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location:
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact			
Company Name: Tetra Tech	Client Project Manager: Tony Apanavage	Site Contact: Steve Cameron	Lab Contact: Pat O'Meara
Address: 20251 Century Blvd Ste 200	Telephone: (301) 528-5552	Telephone: (708) 542-8389	Telephone: (330) 497-9396
City/State/Zip: Germantown MD 20874	Email: Tony.Apanavage@tetratech.com	Analysis Turnaround Time (calendar days)	
Phone: (301) 528-5552		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	
Project Name: GSP Soil Sampling	Method of Shipment/Carrier:		
Project Number:	Shipping/Tracking No:		
PO#			

COC No: 009431
1 of 1 COCs

Analyses: TCLP VOCs

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	TCLP VOCs	Sample Specific Notes / Special Instructions:
GSP-SB-145-06	10/2/12	0910				X							3				X	
GSP-SB-144-05	↓	0920				X							3				X	
GSP-SB-139-02	↓	0955				X							3				X	
TB-100212	—	—		X						2							X	

Page 1047 of 1050

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	10-2-12 / 1200	[signature]	TestAmerica	10/2/12 / 1600
[signature]	TestAmerica	10/2/12 / 1700			
			Received in Laboratory by: [signature]	TAC	10/3/12 900

©2009, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

TAL 0018-1 (04/10)

CASE NARRATIVE

Client: Tetra Tech, Inc

Project: Greater Strawberry Point Supplemental

Report Number: 240-15903-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available Any exceptions to NELAP requirements are noted in this report Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client

RECEIPT
The samples were received on 10/03/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 3.0 C.

TCLP VOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples GSP-SB-145-06 (240-15903-1), GSP-SB-144-05 (240-15903-2) and GSP-SB-139-02 (240-15903-3)were analyzed for TCLP volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 1311/8260B. The samples were leached on 10/04/2012 and analyzed on 10/06/2012.

Sample GSP-SB-144-05 (240-15903-2)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: GSP-SB-144-05 (240-15903-2). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the VOCs analyses. All quality control parameters were within the acceptance limits.

TCLP SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples GSP-SB-145-06 (240-15903-1), GSP-SB-144-05 (240-15903-2) and GSP-SB-139-02 (240-15903-3)were analyzed for TCLP semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 1311/8270C. The samples were leached on 10/04/2012, prepared on 10/05/2012 and analyzed on 10/06/2012.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

No difficulties were encountered during the SVOCs analyses. All quality control parameters were within the acceptance limits.

TCLP CHLORINATED PESTICIDES
Samples GSP-SB-145-06 (240-15903-1), GSP-SB-144-05 (240-15903-2) and GSP-SB-139-02 (240-15903-3)were analyzed for TCLP chlorinated pesticides in accordance with EPA SW-846 Methods 1311/ 8081A. The samples were leached on 10/04/2012, prepared on 10/05/2012 and analyzed on 10/17/2012.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

The opening continuing calibration verification (CCV) associated with batch 64132 recovered above the upper control limit. The

samples associated with this CCVGSP-SB-139-02 (240-15903-3), GSP-SB-144-05 (240-15903-2), GSP-SB-145-06 (240-15903-1) were non-detects for the affected analytes; therefore the data have been reported.

The grand mean exception, as outlined in EPA Method 8000B, was applied to the closing continuing calibration verification (CCV) standard associated with batch 61432. This rule states that when one or more compounds in the CCV fail to meet acceptance criteria, the initial calibration (ICAL) may be used for quantitation if the average %D (the grand mean) of all the compounds in the CCV is less than or equal to 15 %D. Samples associated with this CCVGSP-SB-139-02 (240-15903-3), GSP-SB-144-05 (240-15903-2), GSP-SB-145-06 (240-15903-1) were non-detect for the affected analytes; therefore the data have been reported.

No other difficulties were encountered during the pesticides analyses. All quality control parameters were within the acceptance limits.

TCLP CHLORINATED HERBICIDES

Samples GSP-SB-145-06 (240-15903-1), GSP-SB-144-05 (240-15903-2) and GSP-SB-139-02 (240-15903-3)were analyzed for TCLP chlorinated herbicides in accordance with EPA SW-846 Methods 1311/ 8151A. The samples were leached on 10/04/2012, prepared on 10/05/2012 and analyzed on 10/11/2012.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

2,4-D was detected in method blank MB 240-60310/5-A at a level that was above the method detection limit but below the reporting limit The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

No difficulties were encountered during the herbicides analyses. All quality control parameters were within the acceptance limits.

TCLP METALS (ICP)

Samples GSP-SB-145-06 (240-15903-1), GSP-SB-144-05 (240-15903-2) and GSP-SB-139-02 (240-15903-3)were analyzed for TCLP metals (ICP) in accordance with EPA SW-846 Methods 1311/ 6010B. The samples were leached on 10/04/2012, prepared on 10/05/2012 and analyzed on 10/08/2012.

Barium and Lead were detected in method blank LB 240-60244/1-D at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

TCLP MERCURY

Samples GSP-SB-145-06 (240-15903-1), GSP-SB-144-05 (240-15903-2) and GSP-SB-139-02 (240-15903-3)were analyzed for TCLP mercury in accordance with EPA SW-846 Methods 1311/7470A. The samples were leached on 10/04/2012, prepared on 10/05/2012 and analyzed on 10/09/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

GSP-SB-139-02

$195.7 \frac{ug}{L} \times \frac{50mL}{50mL} \times \frac{1 mg}{1000 ug} = \boxed{0.195 \frac{mg}{L} \text{ reported as } 0.2 \frac{mg}{L}}$

Method: TOTAL Sample Name: 240-15903-c-3-c Operator:
Run Time: 10/09/12 11:25 Filename: I61008A
Mode: CONC Type: S Corr. Factor: 1.00000
Lab ID.: N.CANTON Cust. Smpl. ID.: Cust. ID.:

Elems	Ag	Al	As	B	Ba	Be
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	-3.151	397.5	3.436	337.4	195.7	-.2146
SDev	4.157	4.752	.8699	1.229	.2186	.0478
%RSD	131.9	1.196	25.32	.3643	.1117	22.29

Elems	Ca	Cd	Co	Cr	Cu	Fe
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	299800.	1.231	.0524	4.928	7.836	189.2
SDev	167.7	.0642	3.144	.1598	.9304	28.7
%RSD	.0559	5.213	6000	3.243	11.87	15.17

Elems	K	Mg	Mn	Mo	Na3302	Ni
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	2645.	62910.	558.4	-1.447	H1310e3	6.960
SDev	1.751	106.4	1.241	3.216	1476	.0814
%RSD	.0662	.1691	.2223	222.2	.1127	1.169

Elems	Pb	Se	Sb	Sn	Tl	V
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	9.288	2.148	11.61	4.310	4.629	3.464
SDev	2.637	1.424	15.73	2.814	3.612	.9345
%RSD	28.4	66.31	135.4	65.29	78.02	26.98

Elems	Zn	2203/1	2203/2	2068/2	2068/1	1960/1
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	53.70	-8.397	18.12	-9.795	22.30	-10.87
SDev	.0279	22.1	14.99	10.87	29.01	23.82
%RSD	.052	263.2	82.73	111	130.1	219.1

Elems	1960/2	*Y
Units	PPB	
Avge	8.646	7611.25
SDev	14.03	51.2652
%RSD	162.2	.67354

TestAmerica Canton Sample Receipt Form/Narrative Login # : 15903

Client Tetra Tech Site Name By: [signature]

Cooler Received on 10-3-12 Opened on 10-3-12 (Signature)

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other

TestAmerica Cooler # Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1	(CF 0°C)	Observed Sample Temp. °C	Corrected Sample Temp. °C	
IR GUN# 4G	(CF –1°C)	Observed Sample Temp. 4.0 °C	Corrected Sample Temp. 3.0 °C	Multiple
IR GUN# 5G	(CF –1°C)	Observed Sample Temp. °C	Corrected Sample Temp. °C	on Back
IR GUN# 8	(CF 0°C)	Observed Sample Temp. °C	Corrected Sample Temp. °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   - Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   - Were custody seals on the bottle(s)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Did all bottles arrive in good condition (Unbroken)? Yes No
7. Could all bottle labels be reconciled with the COC? Yes No
8. Were correct bottle(s) used for the test(s) indicated? Yes No
9. Sufficient quantity received to perform indicated analyses? Yes No
10. Were sample(s) at the correct pH upon receipt? Yes No NA
11. Were VOAs on the COC? Yes No
12. Were air bubbles >6 mm in any VOA vials? Yes No NA
13. Was a trip blank present in the cooler(s)? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
GRO	UG/KG	GSP-SB-147-24	240-15770-7	NM	9/28/2012	10/3/2012	10/3/2012	5	0	5
GRO	UG/KG	GSP-SB-144-10	240-15770-4	NM	9/28/2012	10/3/2012	10/3/2012	5	0	5
GRO	UG/KG	GSP-SB-142-28	240-15770-3	NM	9/28/2012	10/3/2012	10/3/2012	5	0	5
GRO	UG/KG	GSP-SB-141-10	240-15836-5	NM	10/1/2012	10/4/2012	10/4/2012	3	0	3
GRO	UG/KG	GSP-SB-144-20	240-15770-5	NM	9/28/2012	10/3/2012	10/3/2012	5	0	5
GRO	UG/KG	GSP-SB-142-20	240-15770-2	NM	9/28/2012	10/3/2012	10/3/2012	5	0	5
TCLPH	MG/L	GSP-SB-139-02	240-15903-3	NM	10/2/2012	10/5/2012	10/11/2012	3	6	9
TCLPH	MG/L	GSP-SB-144-05	240-15903-2	NM	10/2/2012	10/5/2012	10/11/2012	3	6	9
TCLPH	MG/L	GSP-SB-145-06	240-15903-1	NM	10/2/2012	10/5/2012	10/11/2012	3	6	9
TCLPM	MG/L	GSP-SB-145-06	240-15903-1	NM	10/2/2012	10/5/2012	10/8/2012	3	3	6
TCLPM	MG/L	GSP-SB-139-02	240-15903-3	NM	10/2/2012	10/5/2012	10/8/2012	3	3	6
TCLPM	MG/L	GSP-SB-139-02	240-15903-3	NM	10/2/2012	10/5/2012	10/9/2012	3	4	7
TCLPM	MG/L	GSP-SB-144-05	240-15903-2	NM	10/2/2012	10/5/2012	10/8/2012	3	3	6
TCLPM	MG/L	GSP-SB-144-05	240-15903-2	NM	10/2/2012	10/5/2012	10/9/2012	3	4	7
TCLPM	MG/L	GSP-SB-145-06	240-15903-1	NM	10/2/2012	10/5/2012	10/9/2012	3	4	7
TCLPP	MG/L	GSP-SB-145-06	240-15903-1	NM	10/2/2012	10/5/2012	10/17/2012	3	12	15
TCLPP	MG/L	GSP-SB-139-02	240-15903-3	NM	10/2/2012	10/5/2012	10/17/2012	3	12	15
TCLPP	MG/L	GSP-SB-144-05	240-15903-2	NM	10/2/2012	10/5/2012	10/17/2012	3	12	15

9-IN
DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Canton Job Number: 240-15903-1

SDG Number:

Matrix: Solid Instrument ID: I6

Method: 6010B MDL Date: 02/09/2010 07:14

Prep Method: 3010A

Leach Method: 1311

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Arsenic	189.042	0.5	0.0032
Barium	455.403	10	0.00067
Cadmium	228.802	0.1	0.00066
Chromium	267.716	0.5	0.0022
Lead	220.353	0.5	0.0019
Selenium	196.090	0.25	0.0041
Silver	328.068	0.5	0.0022

9-IN
DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Canton Job Number: 240-15903-1

SDG Number:

Matrix: Solid Instrument ID: H4

Method: 7470A MDL Date: 02/16/2010 09:34

Prep Method: 7470A

Leach Method: 1311

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Mercury	253.7	0.002	0.00012

FORM IX - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LB 240-60244/1-E	10/05/2012 15:25	60298		100	100
MB 240-60298/2-A	10/05/2012 15:25	60298		100	100
LCS 240-60298/3-A	10/05/2012 15:25	60298		100	100
240-15904-D-2-G MS	10/05/2012 15:25	60298		100	100
240-15904-D-2-H MSD	10/05/2012 15:25	60298		100	100
240-15903-1	10/05/2012 15:25	60298		100	100
240-15903-2	10/05/2012 15:25	60298		100	100
240-15903-3	10/05/2012 15:25	60298		100	100

FORM XII-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 240-60298/2-A

Instrument Code: H4 Batch No.: 60684

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.0020	U		7470A

FORM III-IN

3-IN
METHOD BLANK
METALS - TCLP

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: LB 240-60244/1-E

Instrument Code: H4 Batch No.: 60684

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.0020	U		7470A

FORM III-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TCLP

Client ID: _____ Lab ID: 240-15904-D-2-G MS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.: _____

Matrix: Solid Concentration Units: mg/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.00517		0.0020	U	0.00500	103	50-150		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TCLP

Client ID: _____ Lab ID: 240-15904-D-2-H MSD

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.: _____

Matrix: Solid Concentration Units: mg/L

% Solids: _____

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.00521		0.00500	104	50-150	1	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-60298/3-A

Lab Name: TestAmerica Canton Job No.: 240-15903-1

Sample Matrix: Water LCS Source: MTHGICVW_00399

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.00500	0.00490		98	50	150		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LB 240-60244/1-D	10/05/2012 09:35	60291		50	50
MB 240-60291/2-A	10/05/2012 09:35	60291		50	50
LCS 240-60291/3-A	10/05/2012 09:35	60291		50	50
240-15904-D-2-D MS ^5	10/05/2012 09:35	60291		50	50
240-15904-D-2-E MSD ^5	10/05/2012 09:35	60291		50	50
240-15903-1	10/05/2012 09:35	60291		50	50
240-15903-2	10/05/2012 09:35	60291		50	50
240-15903-3	10/05/2012 09:35	60291		50	50

FORM XII-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 240-60291/2-A

Instrument Code: I6 Batch No.: 60579

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	0.50	U		6010B
7440-39-3	Barium	10	U		6010B
7440-43-9	Cadmium	0.10	U		6010B
7440-47-3	Chromium	0.50	U		6010B
7439-92-1	Lead	0.50	U		6010B
7782-49-2	Selenium	0.25	U		6010B
7440-22-4	Silver	0.50	U		6010B

FORM III-IN

3-IN
METHOD BLANK
METALS - TCLP

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: LB 240-60244/1-D

Instrument Code: I6 Batch No.: 60579

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	0.50	U		6010B
7440-39-3	Barium	0.00188	J		6010B
7440-43-9	Cadmium	0.10	U		6010B
7440-47-3	Chromium	0.50	U		6010B
7439-92-1	Lead	0.00902	J		6010B
7782-49-2	Selenium	0.25	U		6010B
7440-22-4	Silver	0.50	U		6010B

FORM III-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TCLP

Client ID:
Lab ID: 240-15904-D-2-D MS ^5
Lab Name: TestAmerica Canton
Job No.: 240-15903-1
SDG No.:
Matrix: Solid
Concentration Units: mg/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Arsenic	5.42		0.0032	J	5.00	108	50-150		6010B
Barium	52.1		0.44	J	50.0	103	50-150		6010B
Cadmium	1.09		0.0052	J	1.00	109	50-150		6010B
Chromium	5.27		0.0053	J	5.00	105	50-150		6010B
Lead	5.41		0.049	J	5.00	107	50-150		6010B
Selenium	1.06	J	0.25	U	1.00	106	50-150		6010B
Silver	1.06	J	0.50	U	1.00	106	50-150		6010B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TCLP

Client ID: _____ Lab ID: 240-15904-D-2-E MSD ^5

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.: _____

Matrix: Solid Concentration Units: mg/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Arsenic	5.18		5.00	104	50-150	4	20		6010B
Barium	49.9	J	50.0	99	50-150	4	20		6010B
Cadmium	1.05		1.00	104	50-150	4	20		6010B
Chromium	5.05		5.00	101	50-150	4	20		6010B
Lead	5.18		5.00	103	50-150	4	20		6010B
Selenium	1.01	J	1.00	101	50-150	5	20		6010B
Silver	1.01	J	1.00	101	50-150	4	20		6010B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-60291/3-A

Lab Name: TestAmerica Canton Job No.: 240-15903-1

Sample Matrix: Water LCS Source: MTICP1_00019

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	2.00	1.96		98	50	150		6010B
Barium	2.00	1.92	J	96	50	150		6010B
Cadmium	0.0500	0.0494	J	99	50	150		6010B
Chromium	0.200	0.193	J	96	50	150		6010B
Lead	0.500	0.494	J	99	50	150		6010B
Selenium	2.00	1.94		97	50	150		6010B
Silver	0.0500	0.0500	J	100	50	150		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TCLP

Lab ID: 240-15904-D-2-C SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-15903-1

Matrix: Solid Concentration Units: mg/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Arsenic	0.0032	J	2.5	U	NC		6010B
Barium	0.44	J	0.446	J	1.6		6010B
Cadmium	0.0052	J	0.00588	J	NC		6010B
Chromium	0.0053	J	2.5	U	NC		6010B
Lead	0.049	J	0.0499	J	NC		6010B
Selenium	0.25	U	1.3	U	NC		6010B
Silver	0.50	U	2.5	U	NC		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 10/09/2012 09:54 End Date: 10/09/2012 13:05

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 240-60544/1-A			09:54	X																			
IC 240-60544/2-A			09:56	X																			
IC 240-60544/3-A			09:58	X																			
IC 240-60544/4-A			10:00	X																			
IC 240-60544/5-A			10:02	X																			
IC 240-60544/6-A			10:04	X																			
ICV 240-60544/7-A	1		10:06	X																			
ICB 240-60544/8-A	1		10:08	X																			
CRA 240-60544/9-A	1		10:09	X																			
CCVL 240-60544/10-A	1		10:12	X																			
CCB 240-60544/12-A	1		10:14	X																			
LB 240-60244/1-E	1	P	10:16	X																			
MB 240-60298/2-A	1	T	10:18	X																			
LCS 240-60298/3-A	1	T	10:20	X																			
ZZZZZZ			10:22																				
240-15904-D-2-G MS	1	P	10:24	X																			
240-15904-D-2-H MSD	1	P	10:26	X																			
ZZZZZZ			10:28																				
ZZZZZZ			10:29																				
ZZZZZZ			10:31																				
ZZZZZZ			10:33																				
CCV 240-60544/11-A	1		10:35	X																			
CCB 240-60544/12-A	1		10:37	X																			
ZZZZZZ			10:39																				
240-15903-1	1	P	10:41	X																			
240-15903-2	1	P	10:43	X																			
240-15903-3	1	P	10:45	X																			
ZZZZZZ			10:47																				
ZZZZZZ			10:49																				
ZZZZZZ			10:51																				
ZZZZZZ			10:52																				
ZZZZZZ			10:54																				
ZZZZZZ			10:56																				
CCV 240-60544/11-A	1		10:58	X																			
CCB 240-60544/12-A	1		11:00	X																			
ZZZZZZ			11:02																				
ZZZZZZ			11:04																				
ZZZZZZ			11:05																				
ZZZZZZ			11:07																				
ZZZZZZ			11:09																				
ZZZZZZ			11:11																				
ZZZZZZ			11:13																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 10/09/2012 09:54 End Date: 10/09/2012 13:05

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			11:15																				
ZZZZZZ			11:17																				
ZZZZZZ			11:19																				
CCV 240-60544/11-A			11:21																				
CCB 240-60544/12-A			11:23																				
ZZZZZZ			11:25																				
ZZZZZZ			11:27																				
ZZZZZZ			11:29																				
ZZZZZZ			11:31																				
ZZZZZZ			11:32																				
ZZZZZZ			11:34																				
ZZZZZZ			11:36																				
ZZZZZZ			11:38																				
ZZZZZZ			11:40																				
ZZZZZZ			11:42																				
CCV 240-60544/11-A			11:44																				
CCB 240-60544/12-A			11:46																				
ZZZZZZ			11:49																				
ZZZZZZ			11:51																				
ZZZZZZ			11:53																				
ZZZZZZ			11:55																				
ZZZZZZ			11:57																				
CCV 240-60544/11-A			11:59																				
CCB 240-60544/12-A			12:01																				
ZZZZZZ			12:03																				
ZZZZZZ			12:05																				
ZZZZZZ			12:07																				
ZZZZZZ			12:09																				
ZZZZZZ			12:11																				
ZZZZZZ			12:14																				
ZZZZZZ			12:16																				
ZZZZZZ			12:18																				
ZZZZZZ			12:20																				
ZZZZZZ			12:22																				
CCV 240-60544/11-A			12:24																				
CCB 240-60544/12-A			12:26																				
ZZZZZZ			12:28																				
ZZZZZZ			12:30																				
ZZZZZZ			12:32																				
ZZZZZZ			12:34																				
ZZZZZZ			12:36																				
ZZZZZZ			12:37																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

Instrument ID: H4 Method: 7470A

Start Date: 10/09/2012 09:54 End Date: 10/09/2012 13:05

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			12:39																				
ZZZZZZ			12:41																				
ZZZZZZ			12:43																				
ZZZZZZ			12:45																				
CCV 240-60544/11-A			12:47																				
CCB 240-60544/12-A			12:49																				
ZZZZZZ			12:51																				
ZZZZZZ			12:53																				
ZZZZZZ			12:55																				
ZZZZZZ			12:57																				
ZZZZZZ			12:59																				
CRA 240-60544/9-A			13:01																				
CCV 240-60544/11-A			13:03																				
CCB 240-60544/12-A			13:05																				

Prep Types
P = TCLP
T = Total/NA

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

ICV Source: MTHGICVW_00400 Concentration Units: ug/L

CCV Source: MTHGCALW_00258

Analyte	ICV 240-60544/7-A 10/09/2012 10:06				CCVL 240-60544/10-A 10/09/2012 10:12				CCV 240-60544/11-A 10/09/2012 10:35			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.48		2.50	99	5.18		5.00	104	5.22		5.00	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

ICV Source: MTHGICVW_00400 Concentration Units: ug/L

CCV Source: MTHGCALW_00258

Analyte	CCV 240-60544/11-A 10/09/2012 10:58											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.26		5.00	105								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

Method: 7470A Instrument ID: H4

Lab Sample ID: CRA 240-60544/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00258

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.244	J	122	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-60544/8-A 10/09/2012 10:08		CCB 240-60544/12-A 10/09/2012 10:14		CCB 240-60544/12-A 10/09/2012 10:37		CCB 240-60544/12-A 10/09/2012 11:00	
		Found	C	Found	C	Found	C	Found	C
Mercury	2.0	2.0	U	2.0	U	2.0	U	2.0	U

Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

Instrument ID: I6 Method: 6010B

Start Date: 10/08/2012 08:29 End Date: 10/09/2012 00:23

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
STD 240-60579/1 IC			08:29	X	X	X	X	X	X	X													
CALSTD 240-60579/2 IC			08:35	X	X	X	X	X	X	X													
CALSTD 240-60579/3 IC			08:41	X	X	X	X	X	X	X													
CALSTD 240-60579/4 IC			08:46	X	X	X	X	X	X	X													
ICV 240-60579/5	1		08:51	X	X	X	X	X	X	X													
ICBIS 240-60579/6	1		08:57	X	X	X	X	X	X	X													
CRI 240-60579/7	1		09:03	X	X	X	X	X	X	X													
ZZZZZZ			09:09																				
ICSA 240-60579/9	1		09:16	X	X	X	X	X	X	X													
ICSAB 240-60579/10	1		09:29	X	X	X	X	X	X	X													
CCV 240-60579/11	1		09:35	X	X	X	X	X	X	X													
CCB 240-60579/12	1		09:41	X	X	X	X	X	X	X													
LB 240-60244/1-D	1	P	09:47	X	X	X	X	X	X	X													
MB 240-60291/2-A	1	T	09:53	X	X	X	X	X	X	X													
LCS 240-60291/3-A	1	T	09:59	X	X	X	X	X	X	X													
ZZZZZZ			10:05																				
240-15904-D-2-C SD ^5	5	P	10:12	X	X	X	X	X	X	X													
240-15904-D-2-D MS ^5	5	P	10:18	X	X	X	X	X	X	X													
240-15904-D-2-E MSD ^5	5	P	10:24	X	X	X	X	X	X	X													
ZZZZZZ			10:30																				
ZZZZZZ			10:36																				
ZZZZZZ			10:42																				
CCV 240-60579/23	1		10:48	X	X	X	X	X	X	X													
CCB 240-60579/24	1		10:55	X	X	X	X	X	X	X													
ZZZZZZ			11:01																				
ZZZZZZ			11:07																				
240-15903-1	1	P	11:13	X	X	X	X	X	X	X													
240-15903-2	1	P	11:19	X	X	X	X	X	X	X													
240-15903-3	1	P	11:25	X	X	X	X	X	X	X													
ZZZZZZ			11:31																				
ZZZZZZ			11:38																				
ZZZZZZ			11:44																				
ZZZZZZ			11:50																				
ZZZZZZ			11:56																				
CCV 240-60579/35	1		12:02	X	X	X	X	X	X	X													
CCB 240-60579/36	1		12:08	X	X	X	X	X	X	X													
ZZZZZZ			12:14																				
ZZZZZZ			12:21																				
ZZZZZZ			12:27																				
ZZZZZZ			12:33																				
ZZZZZZ			12:39																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

Instrument ID: I6 Method: 6010B

Start Date: 10/08/2012 08:29 End Date: 10/09/2012 00:23

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
ZZZZZZ			12:45																				
ZZZZZZ			12:51																				
ZZZZZZ			12:57																				
ZZZZZZ			13:04																				
ZZZZZZ			13:10																				
CCV 240-60579/47			13:16																				
CCB 240-60579/48			13:22																				
ZZZZZZ			13:28																				
ZZZZZZ			13:34																				
ZZZZZZ			13:40																				
ZZZZZZ			13:47																				
ZZZZZZ			13:53																				
ZZZZZZ			13:59																				
ZZZZZZ			14:08																				
ZZZZZZ			14:14																				
ZZZZZZ			14:20																				
ZZZZZZ			14:26																				
CCV 240-60579/59			14:32																				
CCB 240-60579/60			14:38																				
ZZZZZZ			14:44																				
ZZZZZZ			14:51																				
ZZZZZZ			14:57																				
ZZZZZZ			15:03																				
ZZZZZZ			15:09																				
ZZZZZZ			15:15																				
ZZZZZZ			15:21																				
ZZZZZZ			15:27																				
ZZZZZZ			15:34																				
ZZZZZZ			15:40																				
CCV 240-60579/71			15:46																				
CCB 240-60579/72			15:52																				
ZZZZZZ			15:58																				
ZZZZZZ			16:04																				
ZZZZZZ			16:10																				
ZZZZZZ			16:17																				
ZZZZZZ			16:23																				
ZZZZZZ			16:29																				
ZZZZZZ			16:35																				
ZZZZZZ			16:41																				
ZZZZZZ			16:47																				
ZZZZZZ			16:54																				
CCV 240-60579/83			17:00																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

Instrument ID: I6 Method: 6010B

Start Date: 10/08/2012 08:29 End Date: 10/09/2012 00:23

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
CCB 240-60579/84			17:06																				
ZZZZZZ			17:12																				
ZZZZZZ			17:18																				
ZZZZZZ			17:24																				
ZZZZZZ			17:31																				
ZZZZZZ			17:37																				
ZZZZZZ			17:43																				
ZZZZZZ			17:49																				
ZZZZZZ			17:55																				
ZZZZZZ			18:01																				
ZZZZZZ			18:07																				
CCV 240-60579/95			18:14																				
CCB 240-60579/96			18:20																				
ZZZZZZ			18:26																				
ZZZZZZ			18:32																				
ZZZZZZ			18:38																				
ZZZZZZ			18:44																				
ZZZZZZ			18:51																				
ZZZZZZ			18:57																				
ZZZZZZ			19:03																				
ZZZZZZ			19:09																				
ZZZZZZ			19:15																				
ZZZZZZ			19:21																				
CCV 240-60579/107			19:27																				
CCB 240-60579/108			19:34																				
ZZZZZZ			19:40																				
ZZZZZZ			19:46																				
ZZZZZZ			19:52																				
ZZZZZZ			19:58																				
ZZZZZZ			20:04																				
ZZZZZZ			20:11																				
ZZZZZZ			20:17																				
ZZZZZZ			20:23																				
ZZZZZZ			20:29																				
ZZZZZZ			20:35																				
CCV 240-60579/119			20:41																				
CCB 240-60579/120			20:48																				
ZZZZZZ			20:54																				
ZZZZZZ			21:00																				
ZZZZZZ			21:06																				
ZZZZZZ			21:12																				
ZZZZZZ			21:18																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

Instrument ID: I6 Method: 6010B

Start Date: 10/08/2012 08:29 End Date: 10/09/2012 00:23

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
ZZZZZZ			21:25																				
ZZZZZZ			21:31																				
ZZZZZZ			21:37																				
ZZZZZZ			21:43																				
ZZZZZZ			21:49																				
CCV 240-60579/131			21:55																				
CCB 240-60579/132			22:02																				
ZZZZZZ			22:08																				
ZZZZZZ			22:14																				
ZZZZZZ			22:20																				
ZZZZZZ			22:26																				
ZZZZZZ			22:32																				
ZZZZZZ			22:39																				
ZZZZZZ			22:45																				
ZZZZZZ			22:51																				
ZZZZZZ			22:57																				
ZZZZZZ			23:03																				
CCV 240-60579/143			23:09																				
CCB 240-60579/144			23:16																				
ZZZZZZ			23:22																				
ZZZZZZ			23:28																				
ZZZZZZ			23:34																				
ZZZZZZ			23:40																				
ZZZZZZ			23:46																				
ZZZZZZ			23:53																				
ZZZZZZ			23:59																				
ZZZZZZ			00:05																				
ZZZZZZ			00:11																				
CCV 240-60579/154			00:17																				
CCB 240-60579/155			00:23																				

Prep Types

P = TCLP

T = Total/NA

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

ICV Source: MTTRICV_00015 Concentration Units: ug/L

CCV Source: MTTRCCV_00033

Analyte	ICV 240-60579/5 10/08/2012 08:51				CCV 240-60579/11 10/08/2012 09:35				CCV 240-60579/23 10/08/2012 10:48			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	255	J	250	102	519		500	104	520		500	104
Barium	1030	J	1000	103	2060	J	2000	103	2040	J	2000	102
Cadmium	259		250	104	515		500	103	510		500	102
Chromium	1020		1000	102	2060		2000	103	2020		2000	101
Lead	258	J	250	103	511		500	102	506		500	101
Selenium	256		250	102	511		500	102	505		500	101
Silver	514		500	103	1020		1000	102	1010		1000	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

ICV Source: MTTRICV_00015 Concentration Units: ug/L

CCV Source: MTTRCCV_00033

Analyte	CCV 240-60579/35 10/08/2012 12:02											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	524		500	105								
Barium	2050	J	2000	103								
Cadmium	504		500	101								
Chromium	1990		2000	99								
Lead	499	J	500	100								
Selenium	499		500	100								
Silver	1010		1000	101								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

Method: 6010B Instrument ID: I6

Lab Sample ID: CRI 240-60579/7 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIW_00009

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Arsenic	15.0	15.1	J	101	50-150
Barium	10.0	10.0	J	100	50-150
Cadmium	5.00	5.23	J	105	50-150
Chromium	5.00	5.35	J	107	50-150
Lead	10.0	9.52	J	95	50-150
Selenium	20.0	20.6	J	103	50-150
Silver	5.00	5.05	J	101	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICBIS 240-60579/6 10/08/2012 08:57		CCB 240-60579/12 10/08/2012 09:41		CCB 240-60579/24 10/08/2012 10:55		CCB 240-60579/36 10/08/2012 12:08	
		Found	C	Found	C	Found	C	Found	C
Arsenic	500	500	U	500	U	500	U	500	U
Barium	10000	10000	U	10000	U	10000	U	10000	U
Cadmium	100	100	U	100	U	100	U	100	U
Chromium	500	500	U	500	U	500	U	500	U
Lead	500	500	U	500	U	500	U	500	U
Selenium	250	250	U	250	U	250	U	250	U
Silver	500	500	U	500	U	500	U	500	U

Italicized analytes were not requested for this sequence.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

Lab Sample ID: ICSA 240-60579/9 Instrument ID: I6

Lab File ID: I61008A ICS Source: MTTRICSAW_00015

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Arsenic		**3.42**	
Barium		**1.74**	
Cadmium		**1.19**	
Chromium		**0.351**	
Lead		**-2.41**	
Selenium		**-3.80**	
Silver		**-0.560**	
Aluminum	*500000*	*478410*	*96*
Antimony		*-0.410*	
Beryllium		*0.0246*	
Boron		*0.421*	
Calcium	*500000*	*532433*	*106*
Cobalt		*-0.470*	
Copper		*2.77*	
Iron	*200000*	*191673*	*96*
Magnesium	*500000*	*507333*	*101*
Manganese		*2.28*	
Molybdenum		*-2.45*	
Nickel		*-0.0780*	
Potassium		*15.7*	
Sodium		*-1674*	
Thallium		*-7.79*	
Tin		*1.04*	
Vanadium		*-0.791*	
Zinc		*0.252*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-15903-1

SDG No.:

Lab Sample ID: ICSAB 240-60579/10 Instrument ID: I6

Lab File ID: I61008A ICS Source: MTTRICSABW_00010

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Arsenic	**1000**	**1004**	**100**
Barium	**500**	**521**	**104**
Cadmium	**1000**	**954**	**95**
Chromium	**500**	**490**	**98**
Lead	**1000**	**959**	**96**
Selenium	**1000**	**986**	**99**
Silver	**1000**	**1056**	**106**
Aluminum	*500000*	*472501*	*95*
Antimony	*1000*	*1000*	*100*
Beryllium	*500*	*511*	*102*
Boron	*1000*	*1017*	*102*
Calcium	*500000*	*529663*	*106*
Cobalt	*500*	*487*	*97*
Copper	*500*	*529*	*106*
Iron	*200000*	*189324*	*95*
Magnesium	*500000*	*496272*	*99*
Manganese	*500*	*512*	*102*
Molybdenum	*1000*	*989*	*99*
Nickel	*1000*	*961*	*96*
Potassium	*10000*	*10801*	*108*
Sodium	*10000*	*10233*	*102*
Thallium	*1000*	*955*	*96*
Tin	*1000*	*987*	*99*
Vanadium	*500*	*495*	*99*
Zinc	*1000*	*1033*	*103*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

Minor Problems

- The following laboratory VOC contaminants were detected in the method blanks at the following maximum concentrations affecting samples as listed.

Analytes	Maximum Conc.	Action Level
Acetone [1]	1.7 µg/l	17.0 µg/kg
Hexachlorobutadiene [2]	0.794 µg/l	3.970 µg/l
n-Butylbenzene [2]	0.138 µg/l	0.690 µg/l

Analytes	Maximum Conc. µg/kg	Action Level µg/kg
1,2,4-Trichlorobenzene [3]	0.511	2.555
2-Hexanone [3]	0.940	4.700
Naphthalene [3]	0.862	4.310
Styrene [3]	0.158	0.790

[1] Trip blank sample TB_20120912 affecting all soil samples.
[2] Method blank MB 240-58594/4 affecting aqueous trip blank sample TB_20120912.
[3] Method blank MB 240-58198/6 affecting all soil samples.

An action level of ten times the maximum level for acetone and five times the maximum level for other contaminants has been used to evaluate sample data for blank contamination. Sample aliquot, percent solids, and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Sample analyte results less than the action level were qualified (B) for blank contamination.

- The TPH C10-C32 was detected in the method blank at the following maximum concentration affecting all soil samples.

Analytes	Maximum Conc. mg/kg	Action Level mg/kg
TPH C10-C32 [1]	12.4	62.0

[1] Method blank MB 240-58174/23-A affecting all soil samples.

An action level of five times the maximum level for TPH C10-C32 has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The sample GSP-MW-10-20-22 TPH C10-C32 result was less than the action level and was qualified (B), for method blank contamination. All sample positive TPH C10-C32 result and method blank chromatograms were examined by the data validation chemist to ensure an accurate interpretation of the method blank contamination issue. As a result of a detailed examination of these chromatograms the remaining sample positive TPH C10-C32 results were not qualified for method blank contamination. Printed copies of the chromatograms are included in the data package.

- The VOC CCV %Ds were greater than the 20% and less than the 50% quality control limit for dichlorodifluoromethane, chloromethane, bromomethane, vinyl acetate, 2,2-dichloropropane, 2-butanone, 1,1,1-trichloroethane, 1,2,4-trimethylbenzene, sec-butylbenzene, n-butylbenzene, and 1,2,3-trimethylbenzene for instrument A3UX14 on 09/18/12 @ 13:05 and @ 13:27.
  Affected Samples: All soil samples
  Action: The sample positive chloromethane and 2-butanone results were qualified estimated, (J). The non-detected sample results for the aforementioned analytes were not qualified.

- The VOC laboratory control sample (LCS) percent recovery (%R) was greater than the quality control limit for chloromethane for batch 240-58198 affecting all of the soil samples.
  Affected Samples: All soil samples
  Action: The sample positive result for sample GSP-MW-9-8-10 was qualified estimated, (J). No validation action was taken for the remainder of the soil samples as they had non-detected chloromethane results.

- Some of the soil samples had positive VOC results reported as TICs. The sample positive VOC TIC results were qualified as estimated, (NJ), presumptively present, as a TIC analyte.

- The SVOC matrix spike (MS) and/or MS duplicate (MSD) percent recoveries (%Rs) were less than the quality control limit for anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, indeno(1,2,3-cd), and phenanthrene for spiked sample GSP-MW-11-2-4.
  Affected Sample: GSP-MW-11-2-4
  Action: The sample positive results for the aforementioned analytes were qualified estimated, (J).

- Positive results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J).

Notes

The VOC CCV %Ds were greater than the 20% and less than the 50% quality control limit for tert-butyl alcohol, 2,2-dichloropropane, dibromomethane, trans-1,3-dichloropropene, and ethyl-tert-butyl ether for instrument A3UX9 on 09/20/12 @ 13:33 and @ 18:36.
Affected Sample: TB_20120912
Action: The sample results for the aforementioned analytes were non-detected and were not qualified.

The VOC LCS %R was greater than the quality control limit for dibromomethane for batch 240-58594 affecting the trip blank sample TB_20120912. No validation action was taken as the sample had a non-detected dibromomethane result.

The VOC MS %R for dibromomethane for a spiked sample from another SDG (240-15134-C-5) was greater than the quality control limit. No validation action was necessary as the sample was not from this SDG.

The SVOC MS and/or MSD %Rs were less than the quality control limit for 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol, and hexachlorocyclopentadiene for spiked sample GSP-MW-11-2-4.
Affected Sample: GSP-MW-11-2-4
Action: No validation action was taken as the sample was spiked with a concentration for these analytes which was above the method detection limit (MDL) but less than the limit of quantitation (LOQ) for the analytes.

The SVOC MS and MSD %Rs were less than the quality control limit for fluoranthene and pyrene for spiked sample GSP-MW-11-2-4.
Affected Sample: GSP-MW-11-2-4
Action: No validation action was taken as the sample native concentration for these analytes was more than 4X the concentration of the spike added to the sample.

Sample GSP-MW-11-2-4 was diluted 5X for the SVOC analysis resulting in elevated results for non-detected analytes.

The laboratory reported non-detected sample results to the Method Detection Limit (MDL).

EXECUTIVE SUMMARY

Laboratory Performance Issues: VOC non-detected tert-butyl alcohol and vinyl acetate sample results for all samples were rejected due to calibration and CCV RRF criteria non-compliances. The VOC non-detected 2-butanone result for sample TB_20120912 was rejected due to calibration and CCV RRF criteria non-compliances. Sample VOC and TPH C10-C32 results were qualified for method blank contamination. VOC positive chloromethane and 2-butanone results were qualified for CCV %D non-compliances. The VOC positive chloromethane result for sample GSP-MW-9-8-10 was qualified for a LCS %R non-compliance. Sample GSP-MW-11-2-4 VOC analytes were qualified for MS/MSD %R non-compliances.

Other Factors Affecting Data Quality: Positive results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J). Sample positive VOC TIC results were qualified as estimated, (J), presumptively present.

The data for these analyses were reviewed with reference to EPA SW-846 Methods 8260B, 8270D, and 8015C, and the Region III EPA Functional Guidelines for Organic Data Validation (9/94).

Tetra Tech
Joseph Kalinyak
Data Validator/Environmental Scientist

Tetra Tech
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (i.e., base-time drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	RPD between columns/detectors >40% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient $r < 0.995$
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is less than sample activity
Z1	=	Tentatively Identified Compound considered presumptively present
Z2	=	Tentatively Identified Compound column bleed

PROJ_NO: 04136	NSAMPLE	TB_20120912		
SDG: 240-15155-1	LAB_ID	240-15155-3		
FRACTION: OV	SAMP_DATE	9/12/2012		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U	
1,1-DICHLOROETHANE		0.15	U	
1,1-DICHLOROETHENE		0.19	U	
1,1-DICHLOROPROPENE		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U	
1,2-DIBROMOETHANE		0.24	U	
1,2-DICHLOROBENZENE		0.13	U	
1,2-DICHLOROETHANE		0.22	U	
1,2-DICHLOROPROPANE		0.18	U	
1,3-DICHLOROBENZENE		0.14	U	
1,3-DICHLOROPROPANE		0.16	U	
1,4-DICHLOROBENZENE		0.13	U	
2,2-DICHLOROPROPANE		0.13	U	
2-BUTANONE		0.57	UR	C
2-CHLOROETHYL VINYL ETHER		0.99	U	
2-CHLOROTOLUENE		0.11	U	
2-HEXANONE		0.41	U	
4-CHLOROTOLUENE		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U	
4-METHYL-2-PENTANONE		0.32	U	
ACETONE		1.7	J	P
BENZENE		0.13	U	
BROMOBENZENE		0.13	U	
BROMOCHLOROMETHANE		0.29	U	
BROMODICHLOROMETHANE		0.15	U	
BROMOFORM		0.64	U	
BROMOMETHANE		0.41	U	

PROJ_NO: 04136	NSAMPLE	TB_20120912		
SDG: 240-15155-1	LAB_ID	240-15155-3		
FRACTION: OV	SAMP_DATE	9/12/2012		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U	
CARBON TETRACHLORIDE		0.13	U	
CHLOROBENZENE		0.15	U	
CHLORODIBROMOMETHANE		0.18	U	
CHLOROETHANE		0.29	U	
CHLOROFORM		0.16	U	
CHLOROMETHANE		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U	
DIBROMOMETHANE		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U	
DIISOPROPYL ETHER		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U	
ETHYLBENZENE		0.17	U	
HEXACHLOROBUTADIENE		0.3	U	
ISOPROPYLBENZENE		0.13	U	
M+P-XYLENES		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U	
METHYLENE CHLORIDE		0.33	U	
NAPHTHALENE		0.24	U	
N-BUTYLBENZENE		0.12	U	
N-PROPYLBENZENE		0.14	U	
O-XYLENE		0.14	U	
SEC-BUTYLBENZENE		0.13	U	
STYRENE		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U	
TERT-BUTYLBENZENE		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C
TETRACHLOROETHENE		0.29	U	
TOLUENE		0.13	U	
TOTAL XYLENES		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U	
TRICHLOROETHENE		0.17	U	
TRICHLOROFLUOROMETHANE		0.21	U	

PROJ_NO: 04136	NSAMPLE	TB_20120912		
SDG: 240-15155-1	LAB_ID	240-15155-3		
FRACTION: OV	SAMP_DATE	9/12/2012		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
VINYL ACETATE		0.19	UR	C
VINYL CHLORIDE		0.22	U	

12-5-12 JAS

PROJ_NO: 04136	NSAMPLE	GSP-MW-10-20-22			GSP-MW-10-2-4			GSP-MW-11-0-2			GSP-MW-11-2-4		
SDG: 240-15155-1	LAB_ID	240-15155-5			240-15155-4			240-15155-6			240-15155-7		
FRACTION: OV	SAMP_DATE	9/~~14~~/2012 13			9/~~14~~/2012 13			9/~~14~~/2012 13			9/~~14~~/2012 13		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	83.3			88.9			92.4			90.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.61	U		0.62	U		0.56	U		0.55	U	
1,1,1-TRICHLOROETHANE		0.55	U		0.56	U		0.51	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.34	U		0.34	U		0.31	U		0.3	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.3	U		1.3	U		1.2	U		1.2	U	
1,1-DICHLOROETHANE		0.36	U		0.36	U		0.33	U		0.32	U	
1,1-DICHLOROETHENE		0.55	J	P	0.52	U		0.47	U		0.82	J	P
1,1-DICHLOROPROPENE		0.3	U		0.3	U		0.27	U		0.27	U	
1,2,3-TRICHLOROBENZENE		0.38	U		0.38	U		0.34	U		0.34	U	
1,2,3-TRICHLOROPROPANE		0.89	U		0.9	U		0.81	U		0.8	U	
1,2,3-TRIMETHYLBENZENE		0.17	U		0.17	U		0.15	U		0.15	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.24	U		0.24	U	
1,2,4-TRIMETHYLBENZENE		0.64	U		0.65	U		0.59	U		0.58	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.3	U		1.3	U		1.2	U		1.2	U	
1,2-DIBROMOETHANE		0.49	U		0.5	U		0.45	U		0.44	U	
1,2-DICHLOROBENZENE		0.36	U		0.36	U		0.33	U		0.32	U	
1,2-DICHLOROETHANE		0.34	U		0.34	U		0.31	U		0.3	U	
1,2-DICHLOROPROPANE		0.68	U		0.69	U		0.62	U		0.61	U	
1,3-DICHLOROBENZENE		0.35	U		0.35	U		0.32	U		0.31	U	
1,3-DICHLOROPROPANE		0.34	U		0.34	U		0.31	U		0.3	U	
1,4-DICHLOROBENZENE		0.65	U		0.66	U		0.6	U		0.59	U	
2,2-DICHLOROPROPANE		0.93	U		0.94	U		0.85	U		0.83	U	
2-BUTANONE		1.5	J	CP	1.4	U		2.6	J	CP	11	J	CP
2-CHLOROETHYL VINYL ETHER		1.4	U		1.4	U		1.3	U		1.2	U	
2-CHLOROTOLUENE		0.4	U		0.4	U		0.36	U		0.36	U	
2-HEXANONE		0.62	U		0.63	U		0.57	U		0.56	U	
4-CHLOROTOLUENE		0.41	U		0.41	U		0.37	U		0.36	U	
4-ISOPROPYLTOLUENE		0.21	U		0.21	U		0.19	U		0.19	U	
4-METHYL-2-PENTANONE		0.53	U		0.54	U		0.49	U		0.48	U	
ACETONE		18	B	B	33			43			95		
BENZENE		2	J	P	0.23	U		0.21	U		0.2	U	
BROMOBENZENE		0.33	U		0.33	U		0.3	U		0.29	U	
BROMOCHLOROMETHANE		0.7	U		0.71	U		0.64	U		0.63	U	
BROMODICHLOROMETHANE		0.28	U		0.28	U		0.25	U		0.25	U	
BROMOFORM		0.33	U		0.33	U		0.3	U		0.29	U	
BROMOMETHANE		0.53	U		0.54	U		0.49	U		0.48	U	
CARBON DISULFIDE		0.44	U		0.44	U		0.46	J	P	0.53	J	P

PROJ_NO: 04136	NSAMPLE	GSP-MW-9-0-2			GSP-MW-9-8-10		
SDG: 240-15155-1	LAB_ID	240-15155-1			240-15155-2		
FRACTION: OV	SAMP_DATE	9/14/2012			9/14/2012		
MEDIA: SOIL	QC_TYPE	NM 13			NM 13		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	97.7			88.8		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.74	U		0.64	U	
1,1,1-TRICHLOROETHANE		0.67	U		0.57	U	
1,1,2,2-TETRACHLOROETHANE		0.41	U		0.35	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.6	U		1.3	U	
1,1-DICHLOROETHANE		0.43	U		0.37	U	
1,1-DICHLOROETHENE		0.71	J	P	0.53	U	
1,1-DICHLOROPROPENE		0.36	U		0.31	U	
1,2,3-TRICHLOROBENZENE		0.46	U		0.39	U	
1,2,3-TRICHLOROPROPANE		1.1	U		0.92	U	
1,2,3-TRIMETHYLBENZENE		0.2	U		0.17	U	
1,2,4-TRICHLOROBENZENE		0.32	U		0.28	U	
1,2,4-TRIMETHYLBENZENE		0.78	U		0.67	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.6	U		1.3	U	
1,2-DIBROMOETHANE		0.6	U		0.51	U	
1,2-DICHLOROBENZENE		0.43	U		0.37	U	
1,2-DICHLOROETHANE		0.41	U		0.35	U	
1,2-DICHLOROPROPANE		0.83	U		0.71	U	
1,3-DICHLOROBENZENE		0.42	U		0.36	U	
1,3-DICHLOROPROPANE		0.41	U		0.35	U	
1,4-DICHLOROBENZENE		0.79	U		0.68	U	
2,2-DICHLOROPROPANE		1.1	U		0.96	U	
2-BUTANONE		1.7	U		1.4	U	
2-CHLOROETHYL VINYL ETHER		1.7	U		1.4	U	
2-CHLOROTOLUENE		0.48	U		0.41	U	
2-HEXANONE		0.76	U		0.65	U	
4-CHLOROTOLUENE		0.49	U		0.42	U	
4-ISOPROPYLTOLUENE		0.25	U		0.22	U	
4-METHYL-2-PENTANONE		0.65	U		0.55	U	
ACETONE		7.6	U		7.3	B	B
BENZENE		0.28	U		0.24	U	
BROMOBENZENE		0.4	U		0.34	U	
BROMOCHLOROMETHANE		0.85	U		0.73	U	
BROMODICHLOROMETHANE		0.34	U		0.29	U	
BROMOFORM		0.4	U		0.34	U	
BROMOMETHANE		0.65	U		0.55	U	
CARBON DISULFIDE		0.53	U		0.45	U	

12-5-12 V.A.J

12-5-12 JAT

PROJ_NO: 04136	NSAMPLE	GSP-MW-10-20-22			GSP-MW-10-2-4			GSP-MW-11-0-2			GSP-MW-11-2-4		
SDG: 240-15155-1	LAB_ID	240-15155-5			240-15155-4			240-15155-6			240-15155-7		
FRACTION: OV	SAMP_DATE	9/~~14~~13/2012			9/~~14~~13/2012			9/~~14~~13/2012			9/~~14~~13/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	83.3			88.9			92.4			90.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON TETRACHLORIDE		0.37	U		0.37	U		0.33	U		0.33	U	
CHLOROBENZENE		0.33	U		0.33	U		0.3	U		0.29	U	
CHLORODIBROMOMETHANE		0.54	U		0.55	U		0.5	U		0.49	U	
CHLOROETHANE		0.85	U		0.86	U		0.78	U		0.76	U	
CHLOROFORM		0.29	U		0.29	U		0.26	U		0.26	U	
CHLOROMETHANE		0.41	U		0.41	U		0.37	U		0.36	U	
CIS-1,2-DICHLOROETHENE		0.64	J	P	0.36	U		0.33	U		0.32	U	
CIS-1,3-DICHLOROPROPENE		0.34	U		0.34	U		0.31	U		0.3	U	
DIBROMOMETHANE		0.62	U		0.63	U		0.57	U		0.56	U	
DICHLORODIFLUOROMETHANE		0.49	U		0.5	U		0.45	U		0.44	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.4	U		1.3	U	
ETHYL TERT-BUTYL ETHER		0.22	U		0.22	U		0.2	U		0.2	U	
ETHYLBENZENE		0.26	U		0.26	U		0.23	U		0.23	U	
HEXACHLOROBUTADIENE		1.2	U		1.2	U		1.1	U		1.1	U	
ISOPROPYLBENZENE		0.16	U		0.16	U		0.14	U		0.14	U	
M+P-XYLENES		1.2	U		1.2	U		1.1	U		1.1	U	
METHYL TERT-BUTYL ETHER		0.43	U		0.43	U		0.39	U		0.38	U	
METHYLENE CHLORIDE		0.66	U		0.67	U		0.61	U		0.6	U	
NAPHTHALENE		0.3	B	A	0.37	B	A	0.31	B	A	1.7	B	A
N-BUTYLBENZENE		0.23	U		0.23	U		0.21	U		0.2	U	
N-PROPYLBENZENE		0.4	U		0.4	U		0.36	U		0.36	U	
O-XYLENE		0.35	U		0.35	U		0.32	U		0.31	U	
SEC-BUTYLBENZENE		0.18	U		0.18	U		0.16	U		0.16	U	
STYRENE		0.15	U		0.15	U		0.14	U		0.13	U	
TERT-AMYL METHYL ETHER		0.37	U		0.37	U		0.33	U		0.33	U	
TERT-BUTYLBENZENE		0.29	U		0.29	U		0.26	U		0.26	U	
TERTIARY-BUTYL ALCOHOL		7.5	UR	C	7.6	UR	C	6.9	UR	C	6.8	UR	C
TETRACHLOROETHENE		0.51	U		0.52	U		0.47	U		0.46	U	
TOLUENE		3.4	J	P	0.45	J	P	0.26	J	P	1	J	P
TOTAL XYLENES		0.66	U		0.67	U		0.61	U		0.6	U	
TRANS-1,2-DICHLOROETHENE		0.41	U		0.41	U		0.37	U		0.36	U	
TRANS-1,3-DICHLOROPROPENE		0.53	U		0.54	U		0.49	U		0.48	U	
TRICHLOROETHENE		0.42	U		0.42	U		0.38	U		0.37	U	
TRICHLOROFLUOROMETHANE		0.34	U		0.34	U		0.31	U		0.3	U	
VINYL ACETATE		0.25	UR	C	0.25	UR	C	0.23	UR	C	0.22	UR	C
VINYL CHLORIDE		0.39	U		0.39	U		0.35	U		0.35	U	

PROJ_NO: 04136	NSAMPLE	GSP-MW-9-0-2			GSP-MW-9-8-10		
SDG: 240-15155-1	LAB_ID	240-15155-1			240-15155-2		
FRACTION: OV	SAMP_DATE	9/14/2012			9/14/2012		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	97.7			88.8		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON TETRACHLORIDE		0.44	U		0.38	U	
CHLOROBENZENE		0.4	U		0.34	U	
CHLORODIBROMOMETHANE		0.66	U		0.56	U	
CHLOROETHANE		1	U		0.88	U	
CHLOROFORM		0.35	U		0.3	U	
CHLOROMETHANE		0.49	U		1.4	J	CEP
CIS-1,2-DICHLOROETHENE		0.43	U		0.37	U	
CIS-1,3-DICHLOROPROPENE		0.41	U		0.35	U	
DIBROMOMETHANE		0.76	U		0.65	U	
DICHLORODIFLUOROMETHANE		0.6	U		0.51	U	
DIISOPROPYL ETHER		1.8	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.26	U		0.23	U	
ETHYLBENZENE		0.31	U		0.27	U	
HEXACHLOROBUTADIENE		1.4	U		1.2	U	
ISOPROPYLBENZENE		0.19	U		0.16	U	
M+P-XYLENES		1.4	U		1.2	U	
METHYL TERT-BUTYL ETHER		0.52	U		0.44	U	
METHYLENE CHLORIDE		0.8	U		0.69	U	
NAPHTHALENE		0.58	B	A	0.36	B	A
N-BUTYLBENZENE		0.28	U		0.24	U	
N-PROPYLBENZENE		0.48	U		0.41	U	
O-XYLENE		0.42	U		0.36	U	
SEC-BUTYLBENZENE		0.22	U		0.18	U	
STYRENE		0.18	U		0.15	U	
TERT-AMYL METHYL ETHER		0.44	U		0.38	U	
TERT-BUTYLBENZENE		0.35	U		0.3	U	
TERTIARY-BUTYL ALCOHOL		9.1	UR	C	7.8	UR	C
TETRACHLOROETHENE		0.62	U		0.53	U	
TOLUENE		1.4	J	P	0.3	J	P
TOTAL XYLENES		0.8	U		0.69	U	
TRANS-1,2-DICHLOROETHENE		0.49	U		0.42	U	
TRANS-1,3-DICHLOROPROPENE		0.65	U		0.55	U	
TRICHLOROETHENE		0.5	U		0.43	U	
TRICHLOROFLUOROMETHANE		0.41	U		0.35	U	
VINYL ACETATE		0.3	UR	C	0.26	UR	C
VINYL CHLORIDE		0.47	U		0.4	U	

12-5-12 JRW

PROJ_NO: 04136	NSAMPLE	GSP-MW-10-20-22			GSP-MW-10-2-4			GSP-MW-11-0-2			GSP-MW-11-2-4		
SDG: 240-15155-1	LAB_ID	240-15155-5			240-15155-4			240-15155-6			240-15155-7		
FRACTION: OS	SAMP_DATE	9/13/2012			9/13/2012			9/13/2012			9/13/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	83.3			88.9			92.4			90.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		33	U		30	U		29	U		150	U	
1,4-DIOXANE		27	U		24	U		24	U		120	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		12	U		11	U		10	U		53	U	
2,4,5-TRICHLOROPHENOL		31	U		28	U		27	U		140	U	
2,4,6-TRICHLOROPHENOL		98	U		89	U		86	U		450	U	
2,4-DICHLOROPHENOL		24	U		22	U		22	U		110	U	
2,4-DIMETHYLPHENOL		24	U		22	U		22	U		110	U	
2,4-DINITROPHENOL		98	U		89	U		86	U		450	U	
2,4-DINITROTOLUENE		33	U		30	U		29	U		150	U	
2,6-DINITROTOLUENE		26	U		23	U		23	U		120	U	
2-CHLORONAPHTHALENE		4	U		3.7	U		3.6	U		19	U	
2-CHLOROPHENOL		33	U		30	U		29	U		150	U	
2-METHYLNAPHTHALENE		4	U		3.7	U		3.6	U		19	U	
2-METHYLPHENOL		98	U		89	U		86	U		450	U	
2-NITROANILINE		11	U		10	U		9.8	U		51	U	
2-NITROPHENOL		33	U		30	U		29	U		150	U	
3&4-METHYLPHENOL		24	U		22	U		22	U		110	U	
3,3'-DICHLOROBENZIDINE		22	U		20	U		19	U		100	U	
3-NITROANILINE		20	U		18	U		17	U		90	U	
4,6-DINITRO-2-METHYLPHENOL		98	U		89	U		86	U		450	U	
4-BROMOPHENYL PHENYL ETHER		16	U		14	U		14	U		73	U	
4-CHLORO-3-METHYLPHENOL		26	U		23	U		23	U		120	U	
4-CHLOROANILINE		21	U		19	U		18	U		96	U	
4-CHLOROPHENYL PHENYL ETHER		16	U		14	U		14	U		73	U	
4-NITROANILINE		32	U		29	U		28	U		150	U	
4-NITROPHENOL		98	U		89	U		86	U		450	U	
ACENAPHTHENE		4	U		3.7	U		13			290		
ACENAPHTHYLENE		4	U		3.7	U		3.6	U		19	U	
ACETOPHENONE		11	U		10	U		9.9	U		52	U	
ANTHRACENE		4	U		3.7	U		31			910	J	D
ATRAZINE		11	U		10	U		9.8	U		51	U	
BENZALDEHYDE		15	U		13	U		13	U		67	U	
BENZO(A)ANTHRACENE		4	U		39			110			2700	J	D
BENZO(A)PYRENE		4	U		46			84			1600	J	D
BENZO(B)FLUORANTHENE		4	U		55			110			2600	J	D

PROJ_NO: 04136	NSAMPLE	GSP-MW-9-0-2			GSP-MW-9-8-10		
SDG: 240-15155-1	LAB_ID	240-15155-1			240-15155-2		
FRACTION: OS	SAMP_DATE	9/12/2012			9/12/2012		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	97.7			88.8		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		28	U		31	U	
1,4-DIOXANE		23	U		25	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		9.9	U		11	U	
2,4,5-TRICHLOROPHENOL		26	U		29	U	
2,4,6-TRICHLOROPHENOL		83	U		92	U	
2,4-DICHLOROPHENOL		21	U		23	U	
2,4-DIMETHYLPHENOL		21	U		23	U	
2,4-DINITROPHENOL		83	U		92	U	
2,4-DINITROTOLUENE		28	U		31	U	
2,6-DINITROTOLUENE		22	U		24	U	
2-CHLORONAPHTHALENE		3.4	U		3.8	U	
2-CHLOROPHENOL		28	U		31	U	
2-METHYLNAPHTHALENE		4.3	J	P	3.8	U	
2-METHYLPHENOL		83	U		92	U	
2-NITROANILINE		9.4	U		10	U	
2-NITROPHENOL		28	U		31	U	
3&4-METHYLPHENOL		21	U		23	U	
3,3'-DICHLOROBENZIDINE		19	U		21	U	
3-NITROANILINE		17	U		18	U	
4,6-DINITRO-2-METHYLPHENOL		83	U		92	U	
4-BROMOPHENYL PHENYL ETHER		13	U		15	U	
4-CHLORO-3-METHYLPHENOL		22	U		24	U	
4-CHLOROANILINE		18	U		19	U	
4-CHLOROPHENYL PHENYL ETHER		13	U		15	U	
4-NITROANILINE		27	U		30	U	
4-NITROPHENOL		83	U		92	U	
ACENAPHTHENE		22			3.8	U	
ACENAPHTHYLENE		7.6			3.8	U	
ACETOPHENONE		9.5	U		11	U	
ANTHRACENE		77			3.8	U	
ATRAZINE		9.4	U		10	U	
BENZALDEHYDE		12	U		14	U	
BENZO(A)ANTHRACENE		400			3.8	U	
BENZO(A)PYRENE		460			3.8	U	
BENZO(B)FLUORANTHENE		740			3.8	U	

PROJ_NO: 04136	NSAMPLE	GSP-MW-10-20-22			GSP-MW-10-2-4			GSP-MW-11-0-2			GSP-MW-11-2-4		
SDG: 240-15155-1	LAB_ID	240-15155-5			240-15155-4			240-15155-6			240-15155-7		
FRACTION: OS	SAMP_DATE	9/13/2012			9/13/2012			9/13/2012			9/13/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	83.3			88.9			92.4			90.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		4	U		21			35			650	J	D
BENZO(K)FLUORANTHENE		4	U		23			56			1000	J	D
BIS(2-CHLOROETHOXY)METHANE		27	U		24	U		24	U		120	U	
BIS(2-CHLOROETHYL)ETHER		2.4	U		2.2	U		2.2	U		11	U	
BIS(2-ETHYLHEXYL)PHTHALATE		23	U		21	U		21	U		110	U	
BUTYL BENZYL PHTHALATE		12	U		11	U		11	U		56	U	
CAPROLACTAM		45	U		41	U		40	U		210	U	
CARBAZOLE		33	U		30	U		29	U		290		
CHRYSENE		1.3	U		39			110			2600	J	D
DIBENZO(A,H)ANTHRACENE		4	U		3.7	U		3.6	U		19	U	
DIBENZOFURAN		4	U		3.7	U		7	J	P	180	J	P
DIETHYL PHTHALATE		20	U		18	U		17	U		90	U	
DIMETHYL PHTHALATE		21	U		19	U		18	U		96	U	
DI-N-BUTYL PHTHALATE		18	U		17	U		16	U		84	U	
DI-N-OCTYL PHTHALATE		33	U		30	U		29	U		150	U	
FLUORANTHENE		4	U		23			250			6600		
FLUORENE		4	U		3.7	U		17			470		
HEXACHLOROBENZENE		2.6	U		2.3	U		2.3	U		12	U	
HEXACHLOROBUTADIENE		33	U		30	U		29	U		150	U	
HEXACHLOROCYCLOPENTADIENE		33	U		30	U		29	U		150	U	
HEXACHLOROETHANE		11	U		10	U		9.7	U		51	U	
INDENO(1,2,3-CD)PYRENE		4	U		30			41			630	J	D
ISOPHORONE		16	U		14	U		14	U		73	U	
NAPHTHALENE		4	U		3.7	U		3.6	U		30	J	P
NITROBENZENE		2.7	U		2.4	U		2.4	U		12	U	
N-NITROSODIMETHYLAMINE		20	U		18	U		17	U		90	U	
N-NITROSO-DI-N-PROPYLAMINE		33	U		30	U		29	U		150	U	
N-NITROSODIPHENYLAMINE		26	U		23	U		23	U		120	U	
PENTACHLOROPHENOL		98	U		89	U		86	U		450	U	
PHENANTHRENE		4	U		3.7	U		80			2500	J	D
PHENOL		33	U		30	U		29	U		150	U	
PYRENE		4	U		20			200			5000		

PROJ_NO: 04136	NSAMPLE	GSP-MW-9-0-2			GSP-MW-9-8-10		
SDG: 240-15155-1	LAB_ID	240-15155-1			240-15155-2		
FRACTION: OS	SAMP_DATE	9/12/2012			9/12/2012		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	97.7			88.8		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		310			3.8	U	
BENZO(K)FLUORANTHENE		290			3.8	U	
BIS(2-CHLOROETHOXY)METHANE		23	U		25	U	
BIS(2-CHLOROETHYL)ETHER		2.1	U		2.3	U	
BIS(2-ETHYLHEXYL)PHTHALATE		23	J	P	22	U	
BUTYL BENZYL PHTHALATE		10	U		11	U	
CAPROLACTAM		38	U		42	U	
CARBAZOLE		45	J	P	31	U	
CHRYSENE		470			1.3	U	
DIBENZO(A,H)ANTHRACENE		3.4	U		3.8	U	
DIBENZOFURAN		9.8	J	P	3.8	U	
DIETHYL PHTHALATE		17	U		18	U	
DIMETHYL PHTHALATE		190			19	U	
DI-N-BUTYL PHTHALATE		16	U		17	U	
DI-N-OCTYL PHTHALATE		28	U		31	U	
FLUORANTHENE		800			3.8	U	
FLUORENE		21			3.8	U	
HEXACHLOROBENZENE		2.2	U		2.4	U	
HEXACHLOROBUTADIENE		28	U		31	U	
HEXACHLOROCYCLOPENTADIENE		28	U		31	U	
HEXACHLOROETHANE		9.3	U		10	U	
INDENO(1,2,3-CD)PYRENE		270			3.8	U	
ISOPHORONE		13	U		15	U	
NAPHTHALENE		8.4			4	J	P
NITROBENZENE		2.3	U		2.5	U	
N-NITROSODIMETHYLAMINE		17	U		18	U	
N-NITROSO-DI-N-PROPYLAMINE		28	U		31	U	
N-NITROSODIPHENYLAMINE		22	U		24	U	
PENTACHLOROPHENOL		83	U		92	U	
PHENANTHRENE		300			3.8	U	
PHENOL		28	U		31	U	
PYRENE		740			3.8	U	

PROJ_NO: 04136	NSAMPLE	GSP-MW-10-20-22						GSP-MW-10-2-4					
SDG: 240-15155-1	LAB_ID	240-15155-5						240-15155-4					
FRACTION: PET	SAMP_DATE	9/13/2012						9/13/2012					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	83.3			83.3			88.9			88.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)					55	U					52	U	
TPH (C10-C32)		13	B	A				11	U				

PROJ_NO: 04136	NSAMPLE	GSP-MW-11-0-2						GSP-MW-11-2-4					
SDG: 240-15155-1	LAB_ID	240-15155-6						240-15155-7					
FRACTION: PET	SAMP_DATE	9/13/2012						9/13/2012					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	92.4			92.4			90.4			90.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)					50	U					51	J	P
TPH (C10-C32)		17	J	A				60					

PROJ_NO: 04136	NSAMPLE	GSP-MW-9-0-2						GSP-MW-9-8-10					
SDG: 240-15155-1	LAB_ID	240-15155-1						240-15155-2					
FRACTION: PET	SAMP_DATE	9/12/2012						9/12/2012					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	97.7			97.7			88.8			88.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)					47	U					52	U	
TPH (C10-C32)		50						11	U				

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-10-2-4 | Lab Sample ID: 240-15155-4

Matrix: Solid | Lab File ID: 147994.D

Analysis Method: 8260B | Date Collected: 09/13/2012 09:20

Sample wt/vol: 5.6(g) | Date Analyzed: 09/18/2012 19:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 11.1 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	0.62
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	0.56
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.34
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	5.0	U	5.0	1.3
75-34-3	1,1-Dichloroethane	5.0	U	5.0	0.36
75-35-4	1,1-Dichloroethene	5.0	U	5.0	0.52
563-58-6	1,1-Dichloropropene	5.0	U	5.0	0.30
87-61-6	1,2,3-Trichlorobenzene	5.0	U	5.0	0.38
96-18-4	1,2,3-Trichloropropane	5.0	U	5.0	0.90
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.17
120-82-1	1,2,4-Trichlorobenzene	5.0	U	5.0	0.27
95-63-6	1,2,4-Trimethylbenzene	5.0	U	5.0	0.65
96-12-8	1,2-Dibromo-3-Chloropropane	10	U	10	1.3
106-93-4	1,2-Dibromoethane	5.0	U	5.0	0.50
95-50-1	1,2-Dichlorobenzene	5.0	U	5.0	0.36
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.34
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.69
541-73-1	1,3-Dichlorobenzene	5.0	U	5.0	0.35
142-28-9	1,3-Dichloropropane	5.0	U	5.0	0.34
106-46-7	1,4-Dichlorobenzene	5.0	U	5.0	0.66
594-20-7	2,2-Dichloropropane	5.0	U	5.0	0.94
78-93-3	2-Butanone	20	U	20	1.4
110-75-8	2-Chloroethyl vinyl ether	50	U	50	1.4
95-49-8	2-Chlorotoluene	5.0	U	5.0	0.40
591-78-6	2-Hexanone	20	U	20	0.63
106-43-4	4-Chlorotoluene	5.0	U	5.0	0.41
108-10-1	4-Methyl-2-pentanone	20	U	20	0.54
67-64-1	Acetone	33		20	6.3
71-43-2	Benzene	5.0	U	5.0	0.23
108-86-1	Bromobenzene	5.0	U	5.0	0.33
74-97-5	Bromochloromethane	5.0	U	5.0	0.71
75-27-4	Bromodichloromethane	5.0	U	5.0	0.28
75-25-2	Bromoform	5.0	U	5.0	0.33
74-83-9	Bromomethane	5.0	U	5.0	0.54
75-15-0	Carbon disulfide	5.0	U	5.0	0.44

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-10-2-4 | Lab Sample ID: 240-15155-4

Matrix: Solid | Lab File ID: 147994.D

Analysis Method: 8260B | Date Collected: 09/13/2012 09:20

Sample wt/vol: 5.6(g) | Date Analyzed: 09/18/2012 19:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 11.1 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	5.0	U	5.0	0.37
108-90-7	Chlorobenzene	5.0	U	5.0	0.33
75-00-3	Chloroethane	5.0	U	5.0	0.86
67-66-3	Chloroform	5.0	U	5.0	0.29
74-87-3	Chloromethane	5.0	U *	5.0	0.41
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.36
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.34
124-48-1	Dibromochloromethane	5.0	U	5.0	0.55
74-95-3	Dibromomethane	5.0	U	5.0	0.63
75-71-8	Dichlorodifluoromethane	5.0	U	5.0	0.50
108-20-3	Diisopropyl ether	10	U	10	1.5
100-41-4	Ethylbenzene	5.0	U	5.0	0.26
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.22
87-68-3	Hexachlorobutadiene	5.0	U	5.0	1.2
98-82-8	Isopropylbenzene	5.0	U	5.0	0.16
1634-04-4	Methyl tert-butyl ether	20	U	20	0.43
75-09-2	Methylene Chloride	5.0	U	5.0	0.67
179601-23-1	m-Xylene & p-Xylene	10	U	10	1.2
91-20-3	Naphthalene	0.37	J B	5.0	0.19
104-51-8	n-Butylbenzene	5.0	U	5.0	0.23
103-65-1	n-Propylbenzene	5.0	U	5.0	0.40
95-47-6	o-Xylene	5.0	U	5.0	0.35
99-87-6	p-Isopropyltoluene	5.0	U	5.0	0.21
135-98-8	sec-Butylbenzene	5.0	U	5.0	0.18
100-42-5	Styrene	5.0	U	5.0	0.15
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.37
75-65-0	tert-Butyl alcohol	200	U	200	7.6
98-06-6	tert-Butylbenzene	5.0	U	5.0	0.29
127-18-4	Tetrachloroethene	5.0	U	5.0	0.52
108-88-3	Toluene	0.45	J	5.0	0.27
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.41
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.54
79-01-6	Trichloroethene	5.0	U	5.0	0.42
75-69-4	Trichlorofluoromethane	5.0	U	5.0	0.34
108-05-4	Vinyl acetate	10	U	10	0.25
75-01-4	Vinyl chloride	5.0	U	5.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-10-2-4 | Lab Sample ID: 240-15155-4

Matrix: Solid | Lab File ID: 147994.D

Analysis Method: 8260B | Date Collected: 09/13/2012 09:20

Sample wt/vol: 5.6(g) | Date Analyzed: 09/18/2012 19:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 11.1 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	10	U	10	0.67

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		58-123
460-00-4	4-Bromofluorobenzene (Surr)	90		52-136
1868-53-7	Dibromofluoromethane (Surr)	86		37-132
2037-26-5	Toluene-d8 (Surr)	93		67-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-10-2-4 | Lab Sample ID: 240-15155-4

Matrix: Solid | Lab File ID: 147994.D

Analysis Method: 8260B | Date Collected: 09/13/2012 09:20

Sample wt/vol: 5.6(g) | Date Analyzed: 09/18/2012 19:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 11.1 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

Number TICs Found: 1 | TIC Result Total: 2.8

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
110-54-3	Hexane	4.73	2.8	J

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-10-20-22 | Lab Sample ID: 240-15155-5

Matrix: Solid | Lab File ID: 147995.D

Analysis Method: 8260B | Date Collected: 09/13/2012 09:30

Sample wt/vol: 6.07(g) | Date Analyzed: 09/18/2012 20:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 16.7 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.9	U	4.9	0.61
71-55-6	1,1,1-Trichloroethane	4.9	U	4.9	0.55
79-34-5	1,1,2,2-Tetrachloroethane	4.9	U	4.9	0.34
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	4.9	U	4.9	1.3
75-34-3	1,1-Dichloroethane	4.9	U	4.9	0.36
75-35-4	1,1-Dichloroethene	0.55	J	4.9	0.51
563-58-6	1,1-Dichloropropene	4.9	U	4.9	0.30
87-61-6	1,2,3-Trichlorobenzene	4.9	U	4.9	0.38
96-18-4	1,2,3-Trichloropropane	4.9	U	4.9	0.89
526-73-8	1,2,3-Trimethylbenzene	4.9	U	4.9	0.17
120-82-1	1,2,4-Trichlorobenzene	4.9	U	4.9	0.27
95-63-6	1,2,4-Trimethylbenzene	4.9	U	4.9	0.64
96-12-8	1,2-Dibromo-3-Chloropropane	9.9	U	9.9	1.3
106-93-4	1,2-Dibromoethane	4.9	U	4.9	0.49
95-50-1	1,2-Dichlorobenzene	4.9	U	4.9	0.36
107-06-2	1,2-Dichloroethane	4.9	U	4.9	0.34
78-87-5	1,2-Dichloropropane	4.9	U	4.9	0.68
541-73-1	1,3-Dichlorobenzene	4.9	U	4.9	0.35
142-28-9	1,3-Dichloropropane	4.9	U	4.9	0.34
106-46-7	1,4-Dichlorobenzene	4.9	U	4.9	0.65
594-20-7	2,2-Dichloropropane	4.9	U	4.9	0.93
78-93-3	2-Butanone	1.5	J	20	1.4
110-75-8	2-Chloroethyl vinyl ether	49	U	49	1.4
95-49-8	2-Chlorotoluene	4.9	U	4.9	0.40
591-78-6	2-Hexanone	20	U	20	0.62
106-43-4	4-Chlorotoluene	4.9	U	4.9	0.41
108-10-1	4-Methyl-2-pentanone	20	U	20	0.53
67-64-1	Acetone	18	J	20	6.2
71-43-2	Benzene	2.0	J	4.9	0.23
108-86-1	Bromobenzene	4.9	U	4.9	0.33
74-97-5	Bromochloromethane	4.9	U	4.9	0.70
75-27-4	Bromodichloromethane	4.9	U	4.9	0.28
75-25-2	Bromoform	4.9	U	4.9	0.33
74-83-9	Bromomethane	4.9	U	4.9	0.53
75-15-0	Carbon disulfide	4.9	U	4.9	0.44

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-10-20-22 | Lab Sample ID: 240-15155-5

Matrix: Solid | Lab File ID: 147995.D

Analysis Method: 8260B | Date Collected: 09/13/2012 09:30

Sample wt/vol: 6.07(g) | Date Analyzed: 09/18/2012 20:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 16.7 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	4.9	U	4.9	0.37
108-90-7	Chlorobenzene	4.9	U	4.9	0.33
75-00-3	Chloroethane	4.9	U	4.9	0.85
67-66-3	Chloroform	4.9	U	4.9	0.29
74-87-3	Chloromethane	4.9	U *	4.9	0.41
156-59-2	cis-1,2-Dichloroethene	0.64	J	4.9	0.36
10061-01-5	cis-1,3-Dichloropropene	4.9	U	4.9	0.34
124-48-1	Dibromochloromethane	4.9	U	4.9	0.54
74-95-3	Dibromomethane	4.9	U	4.9	0.62
75-71-8	Dichlorodifluoromethane	4.9	U	4.9	0.49
108-20-3	Diisopropyl ether	9.9	U	9.9	1.5
100-41-4	Ethylbenzene	4.9	U	4.9	0.26
637-92-3	Ethyl-t-butyl ether (ETBE)	4.9	U	4.9	0.22
87-68-3	Hexachlorobutadiene	4.9	U	4.9	1.2
98-82-8	Isopropylbenzene	4.9	U	4.9	0.16
1634-04-4	Methyl tert-butyl ether	20	U	20	0.43
75-09-2	Methylene Chloride	4.9	U	4.9	0.66
179601-23-1	m-Xylene & p-Xylene	9.9	U	9.9	1.2
91-20-3	Naphthalene	0.30	J B	4.9	0.19
104-51-8	n-Butylbenzene	4.9	U	4.9	0.23
103-65-1	n-Propylbenzene	4.9	U	4.9	0.40
95-47-6	o-Xylene	4.9	U	4.9	0.35
99-87-6	p-Isopropyltoluene	4.9	U	4.9	0.21
135-98-8	sec-Butylbenzene	4.9	U	4.9	0.18
100-42-5	Styrene	4.9	U	4.9	0.15
994-05-8	Tert-amyl-methyl ether (TAME)	4.9	U	4.9	0.37
75-65-0	tert-Butyl alcohol	200	U	200	7.5
98-06-6	tert-Butylbenzene	4.9	U	4.9	0.29
127-18-4	Tetrachloroethene	4.9	U	4.9	0.51
108-88-3	Toluene	3.4	J	4.9	0.27
156-60-5	trans-1,2-Dichloroethene	4.9	U	4.9	0.41
10061-02-6	trans-1,3-Dichloropropene	4.9	U	4.9	0.53
79-01-6	Trichloroethene	4.9	U	4.9	0.42
75-69-4	Trichlorofluoromethane	4.9	U	4.9	0.34
108-05-4	Vinyl acetate	9.9	U	9.9	0.25
75-01-4	Vinyl chloride	4.9	U	4.9	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-10-20-22 | Lab Sample ID: 240-15155-5

Matrix: Solid | Lab File ID: 147995.D

Analysis Method: 8260B | Date Collected: 09/13/2012 09:30

Sample wt/vol: 6.07(g) | Date Analyzed: 09/18/2012 20:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 16.7 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	9.9	U	9.9	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		58-123
460-00-4	4-Bromofluorobenzene (Surr)	89		52-136
1868-53-7	Dibromofluoromethane (Surr)	83		37-132
2037-26-5	Toluene-d8 (Surr)	92		67-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-10-20-22 | Lab Sample ID: 240-15155-5

Matrix: Solid | Lab File ID: 147995.D

Analysis Method: 8260B | Date Collected: 09/13/2012 09:30

Sample wt/vol: 6.07(g) | Date Analyzed: 09/18/2012 20:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 16.7 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-11-0-2 | Lab Sample ID: 240-15155-6

Matrix: Solid | Lab File ID: 147996.D

Analysis Method: 8260B | Date Collected: 09/13/2012 15:35

Sample wt/vol: 5.99(g) | Date Analyzed: 09/18/2012 20:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 7.6 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.5	U	4.5	0.56
71-55-6	1,1,1-Trichloroethane	4.5	U	4.5	0.51
79-34-5	1,1,2,2-Tetrachloroethane	4.5	U	4.5	0.31
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	4.5	U	4.5	1.2
75-34-3	1,1-Dichloroethane	4.5	U	4.5	0.33
75-35-4	1,1-Dichloroethene	4.5	U	4.5	0.47
563-58-6	1,1-Dichloropropene	4.5	U	4.5	0.27
87-61-6	1,2,3-Trichlorobenzene	4.5	U	4.5	0.34
96-18-4	1,2,3-Trichloropropane	4.5	U	4.5	0.81
526-73-8	1,2,3-Trimethylbenzene	4.5	U	4.5	0.15
120-82-1	1,2,4-Trichlorobenzene	4.5	U	4.5	0.24
95-63-6	1,2,4-Trimethylbenzene	4.5	U	4.5	0.59
96-12-8	1,2-Dibromo-3-Chloropropane	9.0	U	9.0	1.2
106-93-4	1,2-Dibromoethane	4.5	U	4.5	0.45
95-50-1	1,2-Dichlorobenzene	4.5	U	4.5	0.33
107-06-2	1,2-Dichloroethane	4.5	U	4.5	0.31
78-87-5	1,2-Dichloropropane	4.5	U	4.5	0.62
541-73-1	1,3-Dichlorobenzene	4.5	U	4.5	0.32
142-28-9	1,3-Dichloropropane	4.5	U	4.5	0.31
106-46-7	1,4-Dichlorobenzene	4.5	U	4.5	0.60
594-20-7	2,2-Dichloropropane	4.5	U	4.5	0.85
78-93-3	2-Butanone	2.6	J	18	1.3
110-75-8	2-Chloroethyl vinyl ether	45	U	45	1.3
95-49-8	2-Chlorotoluene	4.5	U	4.5	0.36
591-78-6	2-Hexanone	18	U	18	0.57
106-43-4	4-Chlorotoluene	4.5	U	4.5	0.37
108-10-1	4-Methyl-2-pentanone	18	U	18	0.49
67-64-1	Acetone	43		18	5.7
71-43-2	Benzene	4.5	U	4.5	0.21
108-86-1	Bromobenzene	4.5	U	4.5	0.30
74-97-5	Bromochloromethane	4.5	U	4.5	0.64
75-27-4	Bromodichloromethane	4.5	U	4.5	0.25
75-25-2	Bromoform	4.5	U	4.5	0.30
74-83-9	Bromomethane	4.5	U	4.5	0.49
75-15-0	Carbon disulfide	0.46	J	4.5	0.40

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-11-0-2 | Lab Sample ID: 240-15155-6

Matrix: Solid | Lab File ID: 147996.D

Analysis Method: 8260B | Date Collected: 09/13/2012 15:35

Sample wt/vol: 5.99(g) | Date Analyzed: 09/18/2012 20:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 7.6 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	4.5	U	4.5	0.33
108-90-7	Chlorobenzene	4.5	U	4.5	0.30
75-00-3	Chloroethane	4.5	U	4.5	0.78
67-66-3	Chloroform	4.5	U	4.5	0.26
74-87-3	Chloromethane	4.5	U *	4.5	0.37
156-59-2	cis-1,2-Dichloroethene	4.5	U	4.5	0.33
10061-01-5	cis-1,3-Dichloropropene	4.5	U	4.5	0.31
124-48-1	Dibromochloromethane	4.5	U	4.5	0.50
74-95-3	Dibromomethane	4.5	U	4.5	0.57
75-71-8	Dichlorodifluoromethane	4.5	U	4.5	0.45
108-20-3	Diisopropyl ether	9.0	U	9.0	1.4
100-41-4	Ethylbenzene	4.5	U	4.5	0.23
637-92-3	Ethyl-t-butyl ether (ETBE)	4.5	U	4.5	0.20
87-68-3	Hexachlorobutadiene	4.5	U	4.5	1.1
98-82-8	Isopropylbenzene	4.5	U	4.5	0.14
1634-04-4	Methyl tert-butyl ether	18	U	18	0.39
75-09-2	Methylene Chloride	4.5	U	4.5	0.61
179601-23-1	m-Xylene & p-Xylene	9.0	U	9.0	1.1
91-20-3	Naphthalene	0.31	J B	4.5	0.17
104-51-8	n-Butylbenzene	4.5	U	4.5	0.21
103-65-1	n-Propylbenzene	4.5	U	4.5	0.36
95-47-6	o-Xylene	4.5	U	4.5	0.32
99-87-6	p-Isopropyltoluene	4.5	U	4.5	0.19
135-98-8	sec-Butylbenzene	4.5	U	4.5	0.16
100-42-5	Styrene	4.5	U	4.5	0.14
994-05-8	Tert-amyl-methyl ether (TAME)	4.5	U	4.5	0.33
75-65-0	tert-Butyl alcohol	180	U	180	6.9
98-06-6	tert-Butylbenzene	4.5	U	4.5	0.26
127-18-4	Tetrachloroethene	4.5	U	4.5	0.47
108-88-3	Toluene	0.26	J	4.5	0.24
156-60-5	trans-1,2-Dichloroethene	4.5	U	4.5	0.37
10061-02-6	trans-1,3-Dichloropropene	4.5	U	4.5	0.49
79-01-6	Trichloroethene	4.5	U	4.5	0.38
75-69-4	Trichlorofluoromethane	4.5	U	4.5	0.31
108-05-4	Vinyl acetate	9.0	U	9.0	0.23
75-01-4	Vinyl chloride	4.5	U	4.5	0.35

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-11-0-2 | Lab Sample ID: 240-15155-6

Matrix: Solid | Lab File ID: 147996.D

Analysis Method: 8260B | Date Collected: 09/13/2012 15:35

Sample wt/vol: 5.99(g) | Date Analyzed: 09/18/2012 20:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 7.6 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	9.0	U	9.0	0.61

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		58-123
460-00-4	4-Bromofluorobenzene (Surr)	93		52-136
1868-53-7	Dibromofluoromethane (Surr)	86		37-132
2037-26-5	Toluene-d8 (Surr)	97		67-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-11-0-2 | Lab Sample ID: 240-15155-6

Matrix: Solid | Lab File ID: 147996.D

Analysis Method: 8260B | Date Collected: 09/13/2012 15:35

Sample wt/vol: 5.99(g) | Date Analyzed: 09/18/2012 20:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 7.6 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

Number TICs Found: 2 | TIC Result Total: 3.3

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
79-20-9	Methyl acetate	3.77	1.5	J
110-54-3	Hexane	4.74	1.8	J

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-11-2-4 | Lab Sample ID: 240-15155-7

Matrix: Solid | Lab File ID: 147997.D

Analysis Method: 8260B | Date Collected: 09/13/2012 15:45

Sample wt/vol: 6.23(g) | Date Analyzed: 09/18/2012 20:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.6 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.4	U	4.4	0.55
71-55-6	1,1,1-Trichloroethane	4.4	U	4.4	0.50
79-34-5	1,1,2,2-Tetrachloroethane	4.4	U	4.4	0.30
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	4.4	U	4.4	1.2
75-34-3	1,1-Dichloroethane	4.4	U	4.4	0.32
75-35-4	1,1-Dichloroethene	0.82	J	4.4	0.46
563-58-6	1,1-Dichloropropene	4.4	U	4.4	0.27
87-61-6	1,2,3-Trichlorobenzene	4.4	U	4.4	0.34
96-18-4	1,2,3-Trichloropropane	4.4	U	4.4	0.80
526-73-8	1,2,3-Trimethylbenzene	4.4	U	4.4	0.15
120-82-1	1,2,4-Trichlorobenzene	4.4	U	4.4	0.24
95-63-6	1,2,4-Trimethylbenzene	4.4	U	4.4	0.58
96-12-8	1,2-Dibromo-3-Chloropropane	8.9	U	8.9	1.2
106-93-4	1,2-Dibromoethane	4.4	U	4.4	0.44
95-50-1	1,2-Dichlorobenzene	4.4	U	4.4	0.32
107-06-2	1,2-Dichloroethane	4.4	U	4.4	0.30
78-87-5	1,2-Dichloropropane	4.4	U	4.4	0.61
541-73-1	1,3-Dichlorobenzene	4.4	U	4.4	0.31
142-28-9	1,3-Dichloropropane	4.4	U	4.4	0.30
106-46-7	1,4-Dichlorobenzene	4.4	U	4.4	0.59
594-20-7	2,2-Dichloropropane	4.4	U	4.4	0.83
78-93-3	2-Butanone	11	J	18	1.2
110-75-8	2-Chloroethyl vinyl ether	44	U	44	1.2
95-49-8	2-Chlorotoluene	4.4	U	4.4	0.36
591-78-6	2-Hexanone	18	U	18	0.56
106-43-4	4-Chlorotoluene	4.4	U	4.4	0.36
108-10-1	4-Methyl-2-pentanone	18	U	18	0.48
67-64-1	Acetone	95		18	5.6
71-43-2	Benzene	4.4	U	4.4	0.20
108-86-1	Bromobenzene	4.4	U	4.4	0.29
74-97-5	Bromochloromethane	4.4	U	4.4	0.63
75-27-4	Bromodichloromethane	4.4	U	4.4	0.25
75-25-2	Bromoform	4.4	U	4.4	0.29
74-83-9	Bromomethane	4.4	U	4.4	0.48
75-15-0	Carbon disulfide	0.53	J	4.4	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-11-2-4 | Lab Sample ID: 240-15155-7

Matrix: Solid | Lab File ID: 147997.D

Analysis Method: 8260B | Date Collected: 09/13/2012 15:45

Sample wt/vol: 6.23(g) | Date Analyzed: 09/18/2012 20:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.6 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	4.4	U	4.4	0.33
108-90-7	Chlorobenzene	4.4	U	4.4	0.29
75-00-3	Chloroethane	4.4	U	4.4	0.76
67-66-3	Chloroform	4.4	U	4.4	0.26
74-87-3	Chloromethane	4.4	U *	4.4	0.36
156-59-2	cis-1,2-Dichloroethene	4.4	U	4.4	0.32
10061-01-5	cis-1,3-Dichloropropene	4.4	U	4.4	0.30
124-48-1	Dibromochloromethane	4.4	U	4.4	0.49
74-95-3	Dibromomethane	4.4	U	4.4	0.56
75-71-8	Dichlorodifluoromethane	4.4	U	4.4	0.44
108-20-3	Diisopropyl ether	8.9	U	8.9	1.3
100-41-4	Ethylbenzene	4.4	U	4.4	0.23
637-92-3	Ethyl-t-butyl ether (ETBE)	4.4	U	4.4	0.20
87-68-3	Hexachlorobutadiene	4.4	U	4.4	1.1
98-82-8	Isopropylbenzene	4.4	U	4.4	0.14
1634-04-4	Methyl tert-butyl ether	18	U	18	0.38
75-09-2	Methylene Chloride	4.4	U	4.4	0.60
179601-23-1	m-Xylene & p-Xylene	8.9	U	8.9	1.1
91-20-3	Naphthalene	1.7	J B	4.4	0.17
104-51-8	n-Butylbenzene	4.4	U	4.4	0.20
103-65-1	n-Propylbenzene	4.4	U	4.4	0.36
95-47-6	o-Xylene	4.4	U	4.4	0.31
99-87-6	p-Isopropyltoluene	4.4	U	4.4	0.19
135-98-8	sec-Butylbenzene	4.4	U	4.4	0.16
100-42-5	Styrene	4.4	U	4.4	0.13
994-05-8	Tert-amyl-methyl ether (TAME)	4.4	U	4.4	0.33
75-65-0	tert-Butyl alcohol	180	U	180	6.8
98-06-6	tert-Butylbenzene	4.4	U	4.4	0.26
127-18-4	Tetrachloroethene	4.4	U	4.4	0.46
108-88-3	Toluene	1.0	J	4.4	0.24
156-60-5	trans-1,2-Dichloroethene	4.4	U	4.4	0.36
10061-02-6	trans-1,3-Dichloropropene	4.4	U	4.4	0.48
79-01-6	Trichloroethene	4.4	U	4.4	0.37
75-69-4	Trichlorofluoromethane	4.4	U	4.4	0.30
108-05-4	Vinyl acetate	8.9	U	8.9	0.22
75-01-4	Vinyl chloride	4.4	U	4.4	0.35

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-11-2-4 | Lab Sample ID: 240-15155-7

Matrix: Solid | Lab File ID: 147997.D

Analysis Method: 8260B | Date Collected: 09/13/2012 15:45

Sample wt/vol: 6.23(g) | Date Analyzed: 09/18/2012 20:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.6 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	8.9	U	8.9	0.60

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		58-123
460-00-4	4-Bromofluorobenzene (Surr)	93		52-136
1868-53-7	Dibromofluoromethane (Surr)	82		37-132
2037-26-5	Toluene-d8 (Surr)	94		67-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-11-2-4 | Lab Sample ID: 240-15155-7

Matrix: Solid | Lab File ID: 147997.D

Analysis Method: 8260B | Date Collected: 09/13/2012 15:45

Sample wt/vol: 6.23(g) | Date Analyzed: 09/18/2012 20:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.6 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

Number TICs Found: 1 | TIC Result Total: 3

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
79-20-9	Methyl acetate	3.76	3.0	J

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-9-0-2 | Lab Sample ID: 240-15155-1

Matrix: Solid | Lab File ID: 147993.D

Analysis Method: 8260B | Date Collected: 09/12/2012 18:10

Sample wt/vol: 4.27(g) | Date Analyzed: 09/18/2012 19:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 2.3 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	6.0	U	6.0	0.74
71-55-6	1,1,1-Trichloroethane	6.0	U	6.0	0.67
79-34-5	1,1,2,2-Tetrachloroethane	6.0	U	6.0	0.41
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	6.0	U	6.0	1.6
75-34-3	1,1-Dichloroethane	6.0	U	6.0	0.43
75-35-4	1,1-Dichloroethene	0.71	J	6.0	0.62
563-58-6	1,1-Dichloropropene	6.0	U	6.0	0.36
87-61-6	1,2,3-Trichlorobenzene	6.0	U	6.0	0.46
96-18-4	1,2,3-Trichloropropane	6.0	U	6.0	1.1
526-73-8	1,2,3-Trimethylbenzene	6.0	U	6.0	0.20
120-82-1	1,2,4-Trichlorobenzene	6.0	U	6.0	0.32
95-63-6	1,2,4-Trimethylbenzene	6.0	U	6.0	0.78
96-12-8	1,2-Dibromo-3-Chloropropane	12	U	12	1.6
106-93-4	1,2-Dibromoethane	6.0	U	6.0	0.60
95-50-1	1,2-Dichlorobenzene	6.0	U	6.0	0.43
107-06-2	1,2-Dichloroethane	6.0	U	6.0	0.41
78-87-5	1,2-Dichloropropane	6.0	U	6.0	0.83
541-73-1	1,3-Dichlorobenzene	6.0	U	6.0	0.42
142-28-9	1,3-Dichloropropane	6.0	U	6.0	0.41
106-46-7	1,4-Dichlorobenzene	6.0	U	6.0	0.79
594-20-7	2,2-Dichloropropane	6.0	U	6.0	1.1
78-93-3	2-Butanone	24	U	24	1.7
110-75-8	2-Chloroethyl vinyl ether	60	U	60	1.7
95-49-8	2-Chlorotoluene	6.0	U	6.0	0.48
591-78-6	2-Hexanone	24	U	24	0.76
106-43-4	4-Chlorotoluene	6.0	U	6.0	0.49
108-10-1	4-Methyl-2-pentanone	24	U	24	0.65
67-64-1	Acetone	24	U	24	7.6
71-43-2	Benzene	6.0	U	6.0	0.28
108-86-1	Bromobenzene	6.0	U	6.0	0.40
74-97-5	Bromochloromethane	6.0	U	6.0	0.85
75-27-4	Bromodichloromethane	6.0	U	6.0	0.34
75-25-2	Bromoform	6.0	U	6.0	0.40
74-83-9	Bromomethane	6.0	U	6.0	0.65
75-15-0	Carbon disulfide	6.0	U	6.0	0.53

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-9-0-2 | Lab Sample ID: 240-15155-1

Matrix: Solid | Lab File ID: 147993.D

Analysis Method: 8260B | Date Collected: 09/12/2012 18:10

Sample wt/vol: 4.27(g) | Date Analyzed: 09/18/2012 19:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 2.3 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	6.0	U	6.0	0.44
108-90-7	Chlorobenzene	6.0	U	6.0	0.40
75-00-3	Chloroethane	6.0	U	6.0	1.0
67-66-3	Chloroform	6.0	U	6.0	0.35
74-87-3	Chloromethane	6.0	U *	6.0	0.49
156-59-2	cis-1,2-Dichloroethene	6.0	U	6.0	0.43
10061-01-5	cis-1,3-Dichloropropene	6.0	U	6.0	0.41
124-48-1	Dibromochloromethane	6.0	U	6.0	0.66
74-95-3	Dibromomethane	6.0	U	6.0	0.76
75-71-8	Dichlorodifluoromethane	6.0	U	6.0	0.60
108-20-3	Diisopropyl ether	12	U	12	1.8
100-41-4	Ethylbenzene	6.0	U	6.0	0.31
637-92-3	Ethyl-t-butyl ether (ETBE)	6.0	U	6.0	0.26
87-68-3	Hexachlorobutadiene	6.0	U	6.0	1.4
98-82-8	Isopropylbenzene	6.0	U	6.0	0.19
1634-04-4	Methyl tert-butyl ether	24	U	24	0.52
75-09-2	Methylene Chloride	6.0	U	6.0	0.80
179601-23-1	m-Xylene & p-Xylene	12	U	12	1.4
91-20-3	Naphthalene	0.58	J B	6.0	0.23
104-51-8	n-Butylbenzene	6.0	U	6.0	0.28
103-65-1	n-Propylbenzene	6.0	U	6.0	0.48
95-47-6	o-Xylene	6.0	U	6.0	0.42
99-87-6	p-Isopropyltoluene	6.0	U	6.0	0.25
135-98-8	sec-Butylbenzene	6.0	U	6.0	0.22
100-42-5	Styrene	6.0	U	6.0	0.18
994-05-8	Tert-amyl-methyl ether (TAME)	6.0	U	6.0	0.44
75-65-0	tert-Butyl alcohol	240	U	240	9.1
98-06-6	tert-Butylbenzene	6.0	U	6.0	0.35
127-18-4	Tetrachloroethene	6.0	U	6.0	0.62
108-88-3	Toluene	1.4	J	6.0	0.32
156-60-5	trans-1,2-Dichloroethene	6.0	U	6.0	0.49
10061-02-6	trans-1,3-Dichloropropene	6.0	U	6.0	0.65
79-01-6	Trichloroethene	6.0	U	6.0	0.50
75-69-4	Trichlorofluoromethane	6.0	U	6.0	0.41
108-05-4	Vinyl acetate	12	U	12	0.30
75-01-4	Vinyl chloride	6.0	U	6.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-9-0-2 | Lab Sample ID: 240-15155-1

Matrix: Solid | Lab File ID: 147993.D

Analysis Method: 8260B | Date Collected: 09/12/2012 18:10

Sample wt/vol: 4.27(g) | Date Analyzed: 09/18/2012 19:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 2.3 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	12	U	12	0.80

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		58-123
460-00-4	4-Bromofluorobenzene (Surr)	106		52-136
1868-53-7	Dibromofluoromethane (Surr)	84		37-132
2037-26-5	Toluene-d8 (Surr)	98		67-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-9-0-2 | Lab Sample ID: 240-15155-1

Matrix: Solid | Lab File ID: 147993.D

Analysis Method: 8260B | Date Collected: 09/12/2012 18:10

Sample wt/vol: 4.27(g) | Date Analyzed: 09/18/2012 19:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 2.3 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

Number TICs Found: 1 | TIC Result Total: 12

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
79-20-9	Methyl acetate	3.76	12	

FORM I-TIC 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-9-8-10 | Lab Sample ID: 240-15155-2

Matrix: Solid | Lab File ID: 147998.D

Analysis Method: 8260B | Date Collected: 09/12/2012 18:20

Sample wt/vol: 5.49(g) | Date Analyzed: 09/18/2012 21:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 11.2 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.1	U	5.1	0.64
71-55-6	1,1,1-Trichloroethane	5.1	U	5.1	0.57
79-34-5	1,1,2,2-Tetrachloroethane	5.1	U	5.1	0.35
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	5.1	U	5.1	1.3
75-34-3	1,1-Dichloroethane	5.1	U	5.1	0.37
75-35-4	1,1-Dichloroethene	5.1	U	5.1	0.53
563-58-6	1,1-Dichloropropene	5.1	U	5.1	0.31
87-61-6	1,2,3-Trichlorobenzene	5.1	U	5.1	0.39
96-18-4	1,2,3-Trichloropropane	5.1	U	5.1	0.92
526-73-8	1,2,3-Trimethylbenzene	5.1	U	5.1	0.17
120-82-1	1,2,4-Trichlorobenzene	5.1	U	5.1	0.28
95-63-6	1,2,4-Trimethylbenzene	5.1	U	5.1	0.67
96-12-8	1,2-Dibromo-3-Chloropropane	10	U	10	1.3
106-93-4	1,2-Dibromoethane	5.1	U	5.1	0.51
95-50-1	1,2-Dichlorobenzene	5.1	U	5.1	0.37
107-06-2	1,2-Dichloroethane	5.1	U	5.1	0.35
78-87-5	1,2-Dichloropropane	5.1	U	5.1	0.71
541-73-1	1,3-Dichlorobenzene	5.1	U	5.1	0.36
142-28-9	1,3-Dichloropropane	5.1	U	5.1	0.35
106-46-7	1,4-Dichlorobenzene	5.1	U	5.1	0.68
594-20-7	2,2-Dichloropropane	5.1	U	5.1	0.96
78-93-3	2-Butanone	21	U	21	1.4
110-75-8	2-Chloroethyl vinyl ether	51	U	51	1.4
95-49-8	2-Chlorotoluene	5.1	U	5.1	0.41
591-78-6	2-Hexanone	21	U	21	0.65
106-43-4	4-Chlorotoluene	5.1	U	5.1	0.42
108-10-1	4-Methyl-2-pentanone	21	U	21	0.55
67-64-1	Acetone	7.3	J	21	6.5
71-43-2	Benzene	5.1	U	5.1	0.24
108-86-1	Bromobenzene	5.1	U	5.1	0.34
74-97-5	Bromochloromethane	5.1	U	5.1	0.73
75-27-4	Bromodichloromethane	5.1	U	5.1	0.29
75-25-2	Bromoform	5.1	U	5.1	0.34
74-83-9	Bromomethane	5.1	U	5.1	0.55
75-15-0	Carbon disulfide	5.1	U	5.1	0.45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-9-8-10 | Lab Sample ID: 240-15155-2

Matrix: Solid | Lab File ID: 147998.D

Analysis Method: 8260B | Date Collected: 09/12/2012 18:20

Sample wt/vol: 5.49(g) | Date Analyzed: 09/18/2012 21:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 11.2 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	5.1	U	5.1	0.38
108-90-7	Chlorobenzene	5.1	U	5.1	0.34
75-00-3	Chloroethane	5.1	U	5.1	0.88
67-66-3	Chloroform	5.1	U	5.1	0.30
74-87-3	Chloromethane	1.4	J *	5.1	0.42
156-59-2	cis-1,2-Dichloroethene	5.1	U	5.1	0.37
10061-01-5	cis-1,3-Dichloropropene	5.1	U	5.1	0.35
124-48-1	Dibromochloromethane	5.1	U	5.1	0.56
74-95-3	Dibromomethane	5.1	U	5.1	0.65
75-71-8	Dichlorodifluoromethane	5.1	U	5.1	0.51
108-20-3	Diisopropyl ether	10	U	10	1.5
100-41-4	Ethylbenzene	5.1	U	5.1	0.27
637-92-3	Ethyl-t-butyl ether (ETBE)	5.1	U	5.1	0.23
87-68-3	Hexachlorobutadiene	5.1	U	5.1	1.2
98-82-8	Isopropylbenzene	5.1	U	5.1	0.16
1634-04-4	Methyl tert-butyl ether	21	U	21	0.44
75-09-2	Methylene Chloride	5.1	U	5.1	0.69
179601-23-1	m-Xylene & p-Xylene	10	U	10	1.2
91-20-3	Naphthalene	0.36	J B	5.1	0.19
104-51-8	n-Butylbenzene	5.1	U	5.1	0.24
103-65-1	n-Propylbenzene	5.1	U	5.1	0.41
95-47-6	o-Xylene	5.1	U	5.1	0.36
99-87-6	p-Isopropyltoluene	5.1	U	5.1	0.22
135-98-8	sec-Butylbenzene	5.1	U	5.1	0.18
100-42-5	Styrene	5.1	U	5.1	0.15
994-05-8	Tert-amyl-methyl ether (TAME)	5.1	U	5.1	0.38
75-65-0	tert-Butyl alcohol	210	U	210	7.8
98-06-6	tert-Butylbenzene	5.1	U	5.1	0.30
127-18-4	Tetrachloroethene	5.1	U	5.1	0.53
108-88-3	Toluene	0.30	J	5.1	0.28
156-60-5	trans-1,2-Dichloroethene	5.1	U	5.1	0.42
10061-02-6	trans-1,3-Dichloropropene	5.1	U	5.1	0.55
79-01-6	Trichloroethene	5.1	U	5.1	0.43
75-69-4	Trichlorofluoromethane	5.1	U	5.1	0.35
108-05-4	Vinyl acetate	10	U	10	0.26
75-01-4	Vinyl chloride	5.1	U	5.1	0.40

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-9-8-10 | Lab Sample ID: 240-15155-2

Matrix: Solid | Lab File ID: 147998.D

Analysis Method: 8260B | Date Collected: 09/12/2012 18:20

Sample wt/vol: 5.49(g) | Date Analyzed: 09/18/2012 21:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 11.2 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	10	U	10	0.69

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		58-123
460-00-4	4-Bromofluorobenzene (Surr)	88		52-136
1868-53-7	Dibromofluoromethane (Surr)	88		37-132
2037-26-5	Toluene-d8 (Surr)	96		67-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-9-8-10 | Lab Sample ID: 240-15155-2

Matrix: Solid | Lab File ID: 147998.D

Analysis Method: 8260B | Date Collected: 09/12/2012 18:20

Sample wt/vol: 5.49(g) | Date Analyzed: 09/18/2012 21:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 11.2 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

Number TICs Found: 1 | TIC Result Total: 2.8

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
110-54-3	Hexane	4.73	2.8	J

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: TB | Lab Sample ID: 240-15155-3

Matrix: Water | Lab File ID: UX933860.D

Analysis Method: 8260B | Date Collected: 09/12/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 09/21/2012 01:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 58594 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
67-64-1	Acetone	1.7	J	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: TB | Lab Sample ID: 240-15155-3

Matrix: Water | Lab File ID: UX933860.D

Analysis Method: 8260B | Date Collected: 09/12/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 09/21/2012 01:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 58594 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
74-95-3	Dibromomethane	1.0	U *	1.0	0.28
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
108-20-3	Diisopropyl ether	10	U	10	1.5
91-20-3	Naphthalene	1.0	U	1.0	0.24
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
95-47-6	o-Xylene	1.0	U	1.0	0.14
100-42-5	Styrene	1.0	U	1.0	0.11
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
75-65-0	tert-Butyl alcohol	50	U	50	3.9
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: TB | Lab Sample ID: 240-15155-3

Matrix: Water | Lab File ID: UX933860.D

Analysis Method: 8260B | Date Collected: 09/12/2012 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 09/21/2012 01:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 58594 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-129
460-00-4	4-Bromofluorobenzene (Surr)	88		66-117
2037-26-5	Toluene-d8 (Surr)	86		74-115
1868-53-7	Dibromofluoromethane (Surr)	95		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Client Sample ID: TB Lab Sample ID: 240-15155-3

Matrix: Water Lab File ID: UX933860.D

Analysis Method: 8260B Date Collected: 09/12/2012 00:00

Sample wt/vol: 5(mL) Date Analyzed: 09/21/2012 01:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 58594 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-10-2-4 | Lab Sample ID: 240-15155-4

Matrix: Solid | Lab File ID: 0919011.D

Analysis Method: 8270D | Date Collected: 09/13/2012 09:20

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 30.41(g) | Date Analyzed: 09/19/2012 11:17

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	55	U	55	30
123-91-1	1,4-Dioxane	110	U	110	24
88-06-2	2,4,6-Trichlorophenol	170	U	170	89
95-95-4	2,4,5-Trichlorophenol	170	U	170	28
120-83-2	2,4-Dichlorophenol	170	U	170	22
105-67-9	2,4-Dimethylphenol	170	U	170	22
51-28-5	2,4-Dinitrophenol	370	U	370	89
121-14-2	2,4-Dinitrotoluene	220	U	220	30
91-58-7	2-Chloronaphthalene	55	U	55	3.7
95-57-8	2-Chlorophenol	55	U	55	30
91-57-6	2-Methylnaphthalene	7.4	U	7.4	3.7
95-48-7	2-Methylphenol	220	U	220	89
88-74-4	2-Nitroaniline	220	U	220	10
88-75-5	2-Nitrophenol	55	U	55	30
15831-10-4	3 & 4 Methylphenol	440	U	440	22
91-94-1	3,3'-Dichlorobenzidine	110	U	110	20
99-09-2	3-Nitroaniline	220	U	220	18
534-52-1	4,6-Dinitro-2-methylphenol	170	U	170	89
101-55-3	4-Bromophenyl phenyl ether	55	U	55	14
59-50-7	4-Chloro-3-methylphenol	170	U	170	23
106-47-8	4-Chloroaniline	170	U	170	19
7005-72-3	4-Chlorophenyl phenyl ether	55	U	55	14
100-01-6	4-Nitroaniline	220	U	220	29
83-32-9	Acenaphthene	7.4	U	7.4	3.7
208-96-8	Acenaphthylene	7.4	U	7.4	3.7
98-86-2	Acetophenone	110	U	110	10
120-12-7	Anthracene	7.4	U	7.4	3.7
1912-24-9	Atrazine	220	U	220	10
100-52-7	Benzaldehyde	110	U	110	13
56-55-3	Benzo[a]anthracene	39		7.4	3.7
50-32-8	Benzo[a]pyrene	46		7.4	3.7
205-99-2	Benzo[b]fluoranthene	55		7.4	3.7
191-24-2	Benzo[g,h,i]perylene	21		7.4	3.7
207-08-9	Benzo[k]fluoranthene	23		7.4	3.7

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-10-2-4 | Lab Sample ID: 240-15155-4

Matrix: Solid | Lab File ID: 0919011.D

Analysis Method: 8270D | Date Collected: 09/13/2012 09:20

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 30.41(g) | Date Analyzed: 09/19/2012 11:17

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	110	U	110	24
111-44-4	Bis(2-chloroethyl)ether	110	U	110	2.2
117-81-7	Bis(2-ethylhexyl) phthalate	55	U	55	21
85-68-7	Butyl benzyl phthalate	55	U	55	11
105-60-2	Caprolactam	370	U	370	41
86-74-8	Carbazole	55	U	55	30
218-01-9	Chrysene	39		7.4	1.2
84-74-2	Di-n-butyl phthalate	55	U	55	17
117-84-0	Di-n-octyl phthalate	55	U	55	30
53-70-3	Dibenzo(a,h)anthracene	7.4	U	7.4	3.7
132-64-9	Dibenzofuran	55	U	55	3.7
84-66-2	Diethyl phthalate	55	U	55	18
131-11-3	Dimethyl phthalate	55	U	55	19
206-44-0	Fluoranthene	23		7.4	3.7
86-73-7	Fluorene	7.4	U	7.4	3.7
118-74-1	Hexachlorobenzene	7.4	U	7.4	2.3
87-68-3	Hexachlorobutadiene	55	U	55	30
77-47-4	Hexachlorocyclopentadiene	370	U	370	30
67-72-1	Hexachloroethane	55	U	55	10
193-39-5	Indeno[1,2,3-cd]pyrene	30		7.4	3.7
78-59-1	Isophorone	55	U	55	14
621-64-7	N-Nitrosodi-n-propylamine	55	U	55	30
62-75-9	N-Nitrosodimethylamine	110	U	110	18
86-30-6	N-Nitrosodiphenylamine	55	U	55	23
91-20-3	Naphthalene	7.4	U	7.4	3.7
98-95-3	Nitrobenzene	110	U	110	2.4
87-86-5	Pentachlorophenol	170	U	170	89
85-01-8	Phenanthrene	7.4	U	7.4	3.7
108-95-2	Phenol	55	U	55	30
129-00-0	Pyrene	20		7.4	3.7
108-60-1	2,2'-oxybis[1-chloropropane]	110	U	110	11
606-20-2	2,6-Dinitrotoluene	220	U	220	23
100-02-7	4-Nitrophenol	370	U	370	89

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-10-2-4 | Lab Sample ID: 240-15155-4

Matrix: Solid | Lab File ID: 0919011.D

Analysis Method: 8270D | Date Collected: 09/13/2012 09:20

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 30.41(g) | Date Analyzed: 09/19/2012 11:17

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	77		36-110
4165-62-2	Phenol-d5 (Surr)	64		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	61		20-110
367-12-4	2-Fluorophenol (Surr)	65		24-110
321-60-8	2-Fluorobiphenyl (Surr)	56		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	46		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-10-20-22 | Lab Sample ID: 240-15155-5

Matrix: Solid | Lab File ID: 0919010.D

Analysis Method: 8270D | Date Collected: 09/13/2012 09:30

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 29.51(g) | Date Analyzed: 09/19/2012 10:53

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	61	U	61	33
123-91-1	1,4-Dioxane	120	U	120	27
88-06-2	2,4,6-Trichlorophenol	180	U	180	98
95-95-4	2,4,5-Trichlorophenol	180	U	180	31
120-83-2	2,4-Dichlorophenol	180	U	180	24
105-67-9	2,4-Dimethylphenol	180	U	180	24
51-28-5	2,4-Dinitrophenol	400	U	400	98
121-14-2	2,4-Dinitrotoluene	240	U	240	33
91-58-7	2-Chloronaphthalene	61	U	61	4.0
95-57-8	2-Chlorophenol	61	U	61	33
91-57-6	2-Methylnaphthalene	8.1	U	8.1	4.0
95-48-7	2-Methylphenol	240	U	240	98
88-74-4	2-Nitroaniline	240	U	240	11
88-75-5	2-Nitrophenol	61	U	61	33
15831-10-4	3 & 4 Methylphenol	490	U	490	24
91-94-1	3,3'-Dichlorobenzidine	120	U	120	22
99-09-2	3-Nitroaniline	240	U	240	20
534-52-1	4,6-Dinitro-2-methylphenol	180	U	180	98
101-55-3	4-Bromophenyl phenyl ether	61	U	61	16
59-50-7	4-Chloro-3-methylphenol	180	U	180	26
106-47-8	4-Chloroaniline	180	U	180	21
7005-72-3	4-Chlorophenyl phenyl ether	61	U	61	16
100-01-6	4-Nitroaniline	240	U	240	32
83-32-9	Acenaphthene	8.1	U	8.1	4.0
208-96-8	Acenaphthylene	8.1	U	8.1	4.0
98-86-2	Acetophenone	120	U	120	11
120-12-7	Anthracene	8.1	U	8.1	4.0
1912-24-9	Atrazine	240	U	240	11
100-52-7	Benzaldehyde	120	U	120	15
56-55-3	Benzo[a]anthracene	8.1	U	8.1	4.0
50-32-8	Benzo[a]pyrene	8.1	U	8.1	4.0
205-99-2	Benzo[b]fluoranthene	8.1	U	8.1	4.0
191-24-2	Benzo[g,h,i]perylene	8.1	U	8.1	4.0
207-08-9	Benzo[k]fluoranthene	8.1	U	8.1	4.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-10-20-22 | Lab Sample ID: 240-15155-5

Matrix: Solid | Lab File ID: 0919010.D

Analysis Method: 8270D | Date Collected: 09/13/2012 09:30

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 29.51(g) | Date Analyzed: 09/19/2012 10:53

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	120	U	120	27
111-44-4	Bis(2-chloroethyl)ether	120	U	120	2.4
117-81-7	Bis(2-ethylhexyl) phthalate	61	U	61	23
85-68-7	Butyl benzyl phthalate	61	U	61	12
105-60-2	Caprolactam	400	U	400	45
86-74-8	Carbazole	61	U	61	33
218-01-9	Chrysene	8.1	U	8.1	1.3
84-74-2	Di-n-butyl phthalate	61	U	61	18
117-84-0	Di-n-octyl phthalate	61	U	61	33
53-70-3	Dibenzo(a,h)anthracene	8.1	U	8.1	4.0
132-64-9	Dibenzofuran	61	U	61	4.0
84-66-2	Diethyl phthalate	61	U	61	20
131-11-3	Dimethyl phthalate	61	U	61	21
206-44-0	Fluoranthene	8.1	U	8.1	4.0
86-73-7	Fluorene	8.1	U	8.1	4.0
118-74-1	Hexachlorobenzene	8.1	U	8.1	2.6
87-68-3	Hexachlorobutadiene	61	U	61	33
77-47-4	Hexachlorocyclopentadiene	400	U	400	33
67-72-1	Hexachloroethane	61	U	61	11
193-39-5	Indeno[1,2,3-cd]pyrene	8.1	U	8.1	4.0
78-59-1	Isophorone	61	U	61	16
621-64-7	N-Nitrosodi-n-propylamine	61	U	61	33
62-75-9	N-Nitrosodimethylamine	120	U	120	20
86-30-6	N-Nitrosodiphenylamine	61	U	61	26
91-20-3	Naphthalene	8.1	U	8.1	4.0
98-95-3	Nitrobenzene	120	U	120	2.7
87-86-5	Pentachlorophenol	180	U	180	98
85-01-8	Phenanthrene	8.1	U	8.1	4.0
108-95-2	Phenol	61	U	61	33
129-00-0	Pyrene	8.1	U	8.1	4.0
108-60-1	2,2'-oxybis[1-chloropropane]	120	U	120	12
606-20-2	2,6-Dinitrotoluene	240	U	240	26
100-02-7	4-Nitrophenol	400	U	400	98

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-10-20-22 | Lab Sample ID: 240-15155-5

Matrix: Solid | Lab File ID: 0919010.D

Analysis Method: 8270D | Date Collected: 09/13/2012 09:30

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 29.51(g) | Date Analyzed: 09/19/2012 10:53

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	77		36-110
4165-62-2	Phenol-d5 (Surr)	62		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	60		20-110
367-12-4	2-Fluorophenol (Surr)	61		24-110
321-60-8	2-Fluorobiphenyl (Surr)	56		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	50		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-11-0-2 | Lab Sample ID: 240-15155-6

Matrix: Solid | Lab File ID: 0919012.D

Analysis Method: 8270D | Date Collected: 09/13/2012 15:35

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 30.07(g) | Date Analyzed: 09/19/2012 11:40

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 7.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	54	U	54	29
123-91-1	1,4-Dioxane	110	U	110	24
88-06-2	2,4,6-Trichlorophenol	160	U	160	86
95-95-4	2,4,5-Trichlorophenol	160	U	160	27
120-83-2	2,4-Dichlorophenol	160	U	160	22
105-67-9	2,4-Dimethylphenol	160	U	160	22
51-28-5	2,4-Dinitrophenol	360	U	360	86
121-14-2	2,4-Dinitrotoluene	220	U	220	29
91-58-7	2-Chloronaphthalene	54	U	54	3.6
95-57-8	2-Chlorophenol	54	U	54	29
91-57-6	2-Methylnaphthalene	7.2	U	7.2	3.6
95-48-7	2-Methylphenol	220	U	220	86
88-74-4	2-Nitroaniline	220	U	220	9.8
88-75-5	2-Nitrophenol	54	U	54	29
15831-10-4	3 & 4 Methylphenol	430	U	430	22
91-94-1	3,3'-Dichlorobenzidine	110	U	110	19
99-09-2	3-Nitroaniline	220	U	220	17
534-52-1	4,6-Dinitro-2-methylphenol	160	U	160	86
101-55-3	4-Bromophenyl phenyl ether	54	U	54	14
59-50-7	4-Chloro-3-methylphenol	160	U	160	23
106-47-8	4-Chloroaniline	160	U	160	18
7005-72-3	4-Chlorophenyl phenyl ether	54	U	54	14
100-01-6	4-Nitroaniline	220	U	220	28
83-32-9	Acenaphthene	13		7.2	3.6
208-96-8	Acenaphthylene	7.2	U	7.2	3.6
98-86-2	Acetophenone	110	U	110	9.9
120-12-7	Anthracene	31		7.2	3.6
1912-24-9	Atrazine	220	U	220	9.8
100-52-7	Benzaldehyde	110	U	110	13
56-55-3	Benzo[a]anthracene	110		7.2	3.6
50-32-8	Benzo[a]pyrene	84		7.2	3.6
205-99-2	Benzo[b]fluoranthene	110		7.2	3.6
191-24-2	Benzo[g,h,i]perylene	35		7.2	3.6
207-08-9	Benzo[k]fluoranthene	56		7.2	3.6

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-11-0-2 | Lab Sample ID: 240-15155-6

Matrix: Solid | Lab File ID: 0919012.D

Analysis Method: 8270D | Date Collected: 09/13/2012 15:35

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 30.07(g) | Date Analyzed: 09/19/2012 11:40

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 7.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	110	U	110	24
111-44-4	Bis(2-chloroethyl)ether	110	U	110	2.2
117-81-7	Bis(2-ethylhexyl) phthalate	54	U	54	21
85-68-7	Butyl benzyl phthalate	54	U	54	11
105-60-2	Caprolactam	360	U	360	40
86-74-8	Carbazole	54	U	54	29
218-01-9	Chrysene	110		7.2	1.2
84-74-2	Di-n-butyl phthalate	54	U	54	16
117-84-0	Di-n-octyl phthalate	54	U	54	29
53-70-3	Dibenzo(a,h)anthracene	7.2	U	7.2	3.6
132-64-9	Dibenzofuran	7.0	J	54	3.6
84-66-2	Diethyl phthalate	54	U	54	17
131-11-3	Dimethyl phthalate	54	U	54	18
206-44-0	Fluoranthene	250		7.2	3.6
86-73-7	Fluorene	17		7.2	3.6
118-74-1	Hexachlorobenzene	7.2	U	7.2	2.3
87-68-3	Hexachlorobutadiene	54	U	54	29
77-47-4	Hexachlorocyclopentadiene	360	U	360	29
67-72-1	Hexachloroethane	54	U	54	9.7
193-39-5	Indeno[1,2,3-cd]pyrene	41		7.2	3.6
78-59-1	Isophorone	54	U	54	14
621-64-7	N-Nitrosodi-n-propylamine	54	U	54	29
62-75-9	N-Nitrosodimethylamine	110	U	110	17
86-30-6	N-Nitrosodiphenylamine	54	U	54	23
91-20-3	Naphthalene	7.2	U	7.2	3.6
98-95-3	Nitrobenzene	110	U	110	2.4
87-86-5	Pentachlorophenol	160	U	160	86
85-01-8	Phenanthrene	80		7.2	3.6
108-95-2	Phenol	54	U	54	29
129-00-0	Pyrene	200		7.2	3.6
108-60-1	2,2'-oxybis[1-chloropropane]	110	U	110	10
606-20-2	2,6-Dinitrotoluene	220	U	220	23
100-02-7	4-Nitrophenol	360	U	360	86

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-11-0-2 | Lab Sample ID: 240-15155-6

Matrix: Solid | Lab File ID: 0919012.D

Analysis Method: 8270D | Date Collected: 09/13/2012 15:35

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 30.07(g) | Date Analyzed: 09/19/2012 11:40

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 7.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		36-110
4165-62-2	Phenol-d5 (Surr)	59		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	55		20-110
367-12-4	2-Fluorophenol (Surr)	59		24-110
321-60-8	2-Fluorobiphenyl (Surr)	53		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	54		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-11-2-4 | Lab Sample ID: 240-15155-7

Matrix: Solid | Lab File ID: 0919013.D

Analysis Method: 8270D | Date Collected: 09/13/2012 15:45

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 29.53(g) | Date Analyzed: 09/19/2012 12:04

Con. Extract Vol.: 2(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	280	U	280	150
123-91-1	1,4-Dioxane	560	U	560	120
88-06-2	2,4,6-Trichlorophenol	840	U	840	450
95-95-4	2,4,5-Trichlorophenol	840	U	840	140
120-83-2	2,4-Dichlorophenol	840	U	840	110
105-67-9	2,4-Dimethylphenol	840	U	840	110
51-28-5	2,4-Dinitrophenol	1900	U	1900	450
121-14-2	2,4-Dinitrotoluene	1100	U	1100	150
91-58-7	2-Chloronaphthalene	280	U	280	19
95-57-8	2-Chlorophenol	280	U	280	150
91-57-6	2-Methylnaphthalene	37	U	37	19
95-48-7	2-Methylphenol	1100	U	1100	450
88-74-4	2-Nitroaniline	1100	U	1100	51
88-75-5	2-Nitrophenol	280	U	280	150
15831-10-4	3 & 4 Methylphenol	2200	U	2200	110
91-94-1	3,3'-Dichlorobenzidine	560	U	560	100
99-09-2	3-Nitroaniline	1100	U	1100	90
534-52-1	4,6-Dinitro-2-methylphenol	840	U	840	450
101-55-3	4-Bromophenyl phenyl ether	280	U	280	73
59-50-7	4-Chloro-3-methylphenol	840	U	840	120
106-47-8	4-Chloroaniline	840	U	840	96
7005-72-3	4-Chlorophenyl phenyl ether	280	U	280	73
100-01-6	4-Nitroaniline	1100	U	1100	150
83-32-9	Acenaphthene	290		37	19
208-96-8	Acenaphthylene	37	U	37	19
98-86-2	Acetophenone	560	U	560	52
120-12-7	Anthracene	910		37	19
1912-24-9	Atrazine	1100	U	1100	51
100-52-7	Benzaldehyde	560	U	560	67
56-55-3	Benzo[a]anthracene	2700		37	19
50-32-8	Benzo[a]pyrene	1600		37	19
205-99-2	Benzo[b]fluoranthene	2600		37	19
191-24-2	Benzo[g,h,i]perylene	650		37	19
207-08-9	Benzo[k]fluoranthene	1000		37	19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-11-2-4 | Lab Sample ID: 240-15155-7

Matrix: Solid | Lab File ID: 0919013.D

Analysis Method: 8270D | Date Collected: 09/13/2012 15:45

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 29.53(g) | Date Analyzed: 09/19/2012 12:04

Con. Extract Vol.: 2(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	560	U	560	120
111-44-4	Bis(2-chloroethyl)ether	560	U	560	11
117-81-7	Bis(2-ethylhexyl) phthalate	280	U	280	110
85-68-7	Butyl benzyl phthalate	280	U	280	56
105-60-2	Caprolactam	1900	U	1900	210
86-74-8	Carbazole	290		280	150
218-01-9	Chrysene	2600		37	6.2
84-74-2	Di-n-butyl phthalate	280	U	280	84
117-84-0	Di-n-octyl phthalate	280	U	280	150
53-70-3	Dibenzo(a,h)anthracene	37	U	37	19
132-64-9	Dibenzofuran	180	J	280	19
84-66-2	Diethyl phthalate	280	U	280	90
131-11-3	Dimethyl phthalate	280	U	280	96
206-44-0	Fluoranthene	6600		37	19
86-73-7	Fluorene	470		37	19
118-74-1	Hexachlorobenzene	37	U	37	12
87-68-3	Hexachlorobutadiene	280	U	280	150
77-47-4	Hexachlorocyclopentadiene	1900	U	1900	150
67-72-1	Hexachloroethane	280	U	280	51
193-39-5	Indeno[1,2,3-cd]pyrene	630		37	19
78-59-1	Isophorone	280	U	280	73
621-64-7	N-Nitrosodi-n-propylamine	280	U	280	150
62-75-9	N-Nitrosodimethylamine	560	U	560	90
86-30-6	N-Nitrosodiphenylamine	280	U	280	120
91-20-3	Naphthalene	30	J	37	19
98-95-3	Nitrobenzene	560	U	560	12
87-86-5	Pentachlorophenol	840	U	840	450
85-01-8	Phenanthrene	2500		37	19
108-95-2	Phenol	280	U	280	150
129-00-0	Pyrene	5000		37	19
108-60-1	2,2'-oxybis[1-chloropropane]	560	U	560	53
606-20-2	2,6-Dinitrotoluene	1100	U	1100	120
100-02-7	4-Nitrophenol	1900	U	1900	450

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-11-2-4 | Lab Sample ID: 240-15155-7

Matrix: Solid | Lab File ID: 0919013.D

Analysis Method: 8270D | Date Collected: 09/13/2012 15:45

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 29.53(g) | Date Analyzed: 09/19/2012 12:04

Con. Extract Vol.: 2(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	78		36-110
4165-62-2	Phenol-d5 (Surr)	58		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	52		20-110
367-12-4	2-Fluorophenol (Surr)	58		24-110
321-60-8	2-Fluorobiphenyl (Surr)	56		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	58		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-9-0-2 | Lab Sample ID: 240-15155-1

Matrix: Solid | Lab File ID: 0919008.D

Analysis Method: 8270D | Date Collected: 09/12/2012 18:10

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 29.61(g) | Date Analyzed: 09/19/2012 10:06

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 2.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	52	U	52	28
123-91-1	1,4-Dioxane	100	U	100	23
88-06-2	2,4,6-Trichlorophenol	160	U	160	83
95-95-4	2,4,5-Trichlorophenol	160	U	160	26
120-83-2	2,4-Dichlorophenol	160	U	160	21
105-67-9	2,4-Dimethylphenol	160	U	160	21
51-28-5	2,4-Dinitrophenol	340	U	340	83
121-14-2	2,4-Dinitrotoluene	210	U	210	28
91-58-7	2-Chloronaphthalene	52	U	52	3.4
95-57-8	2-Chlorophenol	52	U	52	28
91-57-6	2-Methylnaphthalene	4.3	J	6.9	3.4
95-48-7	2-Methylphenol	210	U	210	83
88-74-4	2-Nitroaniline	210	U	210	9.4
88-75-5	2-Nitrophenol	52	U	52	28
15831-10-4	3 & 4 Methylphenol	410	U	410	21
91-94-1	3,3'-Dichlorobenzidine	100	U	100	19
99-09-2	3-Nitroaniline	210	U	210	17
534-52-1	4,6-Dinitro-2-methylphenol	160	U	160	83
101-55-3	4-Bromophenyl phenyl ether	52	U	52	13
59-50-7	4-Chloro-3-methylphenol	160	U	160	22
106-47-8	4-Chloroaniline	160	U	160	18
7005-72-3	4-Chlorophenyl phenyl ether	52	U	52	13
100-01-6	4-Nitroaniline	210	U	210	27
83-32-9	Acenaphthene	22		6.9	3.4
208-96-8	Acenaphthylene	7.6		6.9	3.4
98-86-2	Acetophenone	100	U	100	9.5
120-12-7	Anthracene	77		6.9	3.4
1912-24-9	Atrazine	210	U	210	9.4
100-52-7	Benzaldehyde	100	U	100	12
56-55-3	Benzo[a]anthracene	400		6.9	3.4
50-32-8	Benzo[a]pyrene	460		6.9	3.4
205-99-2	Benzo[b]fluoranthene	740		6.9	3.4
191-24-2	Benzo[g,h,i]perylene	310		6.9	3.4
207-08-9	Benzo[k]fluoranthene	290		6.9	3.4

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-9-0-2 | Lab Sample ID: 240-15155-1

Matrix: Solid | Lab File ID: 0919008.D

Analysis Method: 8270D | Date Collected: 09/12/2012 18:10

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 29.61(g) | Date Analyzed: 09/19/2012 10:06

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 2.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	100	U	100	23
111-44-4	Bis(2-chloroethyl)ether	100	U	100	2.1
117-81-7	Bis(2-ethylhexyl) phthalate	23	J	52	20
85-68-7	Butyl benzyl phthalate	52	U	52	10
105-60-2	Caprolactam	340	U	340	38
86-74-8	Carbazole	45	J	52	28
218-01-9	Chrysene	470		6.9	1.1
84-74-2	Di-n-butyl phthalate	52	U	52	16
117-84-0	Di-n-octyl phthalate	52	U	52	28
53-70-3	Dibenzo(a,h)anthracene	6.9	U	6.9	3.4
132-64-9	Dibenzofuran	9.8	J	52	3.4
84-66-2	Diethyl phthalate	52	U	52	17
131-11-3	Dimethyl phthalate	190		52	18
206-44-0	Fluoranthene	800		6.9	3.4
86-73-7	Fluorene	21		6.9	3.4
118-74-1	Hexachlorobenzene	6.9	U	6.9	2.2
87-68-3	Hexachlorobutadiene	52	U	52	28
77-47-4	Hexachlorocyclopentadiene	340	U	340	28
67-72-1	Hexachloroethane	52	U	52	9.3
193-39-5	Indeno[1,2,3-cd]pyrene	270		6.9	3.4
78-59-1	Isophorone	52	U	52	13
621-64-7	N-Nitrosodi-n-propylamine	52	U	52	28
62-75-9	N-Nitrosodimethylamine	100	U	100	17
86-30-6	N-Nitrosodiphenylamine	52	U	52	22
91-20-3	Naphthalene	8.4		6.9	3.4
98-95-3	Nitrobenzene	100	U	100	2.3
87-86-5	Pentachlorophenol	160	U	160	83
85-01-8	Phenanthrene	300		6.9	3.4
108-95-2	Phenol	52	U	52	28
129-00-0	Pyrene	740		6.9	3.4
108-60-1	2,2'-oxybis[1-chloropropane]	100	U	100	9.9
606-20-2	2,6-Dinitrotoluene	210	U	210	22
100-02-7	4-Nitrophenol	340	U	340	83

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-9-0-2 | Lab Sample ID: 240-15155-1

Matrix: Solid | Lab File ID: 0919008.D

Analysis Method: 8270D | Date Collected: 09/12/2012 18:10

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 29.61(g) | Date Analyzed: 09/19/2012 10:06

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 2.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	79		36-110
4165-62-2	Phenol-d5 (Surr)	65		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	57		20-110
367-12-4	2-Fluorophenol (Surr)	63		24-110
321-60-8	2-Fluorobiphenyl (Surr)	59		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	59		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-9-8-10 | Lab Sample ID: 240-15155-2

Matrix: Solid | Lab File ID: 0919009.D

Analysis Method: 8270D | Date Collected: 09/12/2012 18:20

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 29.51(g) | Date Analyzed: 09/19/2012 10:30

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	57	U	57	31
123-91-1	1,4-Dioxane	110	U	110	25
88-06-2	2,4,6-Trichlorophenol	170	U	170	92
95-95-4	2,4,5-Trichlorophenol	170	U	170	29
120-83-2	2,4-Dichlorophenol	170	U	170	23
105-67-9	2,4-Dimethylphenol	170	U	170	23
51-28-5	2,4-Dinitrophenol	380	U	380	92
121-14-2	2,4-Dinitrotoluene	230	U	230	31
91-58-7	2-Chloronaphthalene	57	U	57	3.8
95-57-8	2-Chlorophenol	57	U	57	31
91-57-6	2-Methylnaphthalene	7.6	U	7.6	3.8
95-48-7	2-Methylphenol	230	U	230	92
88-74-4	2-Nitroaniline	230	U	230	10
88-75-5	2-Nitrophenol	57	U	57	31
15831-10-4	3 & 4 Methylphenol	460	U	460	23
91-94-1	3,3'-Dichlorobenzidine	110	U	110	21
99-09-2	3-Nitroaniline	230	U	230	18
534-52-1	4,6-Dinitro-2-methylphenol	170	U	170	92
101-55-3	4-Bromophenyl phenyl ether	57	U	57	15
59-50-7	4-Chloro-3-methylphenol	170	U	170	24
106-47-8	4-Chloroaniline	170	U	170	19
7005-72-3	4-Chlorophenyl phenyl ether	57	U	57	15
100-01-6	4-Nitroaniline	230	U	230	30
83-32-9	Acenaphthene	7.6	U	7.6	3.8
208-96-8	Acenaphthylene	7.6	U	7.6	3.8
98-86-2	Acetophenone	110	U	110	11
120-12-7	Anthracene	7.6	U	7.6	3.8
1912-24-9	Atrazine	230	U	230	10
100-52-7	Benzaldehyde	110	U	110	14
56-55-3	Benzo[a]anthracene	7.6	U	7.6	3.8
50-32-8	Benzo[a]pyrene	7.6	U	7.6	3.8
205-99-2	Benzo[b]fluoranthene	7.6	U	7.6	3.8
191-24-2	Benzo[g,h,i]perylene	7.6	U	7.6	3.8
207-08-9	Benzo[k]fluoranthene	7.6	U	7.6	3.8

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-9-8-10 | Lab Sample ID: 240-15155-2

Matrix: Solid | Lab File ID: 0919009.D

Analysis Method: 8270D | Date Collected: 09/12/2012 18:20

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 29.51(g) | Date Analyzed: 09/19/2012 10:30

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	110	U	110	25
111-44-4	Bis(2-chloroethyl)ether	110	U	110	2.3
117-81-7	Bis(2-ethylhexyl) phthalate	57	U	57	22
85-68-7	Butyl benzyl phthalate	57	U	57	11
105-60-2	Caprolactam	380	U	380	42
86-74-8	Carbazole	57	U	57	31
218-01-9	Chrysene	7.6	U	7.6	1.3
84-74-2	Di-n-butyl phthalate	57	U	57	17
117-84-0	Di-n-octyl phthalate	57	U	57	31
53-70-3	Dibenzo(a,h)anthracene	7.6	U	7.6	3.8
132-64-9	Dibenzofuran	57	U	57	3.8
84-66-2	Diethyl phthalate	57	U	57	18
131-11-3	Dimethyl phthalate	57	U	57	19
206-44-0	Fluoranthene	7.6	U	7.6	3.8
86-73-7	Fluorene	7.6	U	7.6	3.8
118-74-1	Hexachlorobenzene	7.6	U	7.6	2.4
87-68-3	Hexachlorobutadiene	57	U	57	31
77-47-4	Hexachlorocyclopentadiene	380	U	380	31
67-72-1	Hexachloroethane	57	U	57	10
193-39-5	Indeno[1,2,3-cd]pyrene	7.6	U	7.6	3.8
78-59-1	Isophorone	57	U	57	15
621-64-7	N-Nitrosodi-n-propylamine	57	U	57	31
62-75-9	N-Nitrosodimethylamine	110	U	110	18
86-30-6	N-Nitrosodiphenylamine	57	U	57	24
91-20-3	Naphthalene	4.0	J	7.6	3.8
98-95-3	Nitrobenzene	110	U	110	2.5
87-86-5	Pentachlorophenol	170	U	170	92
85-01-8	Phenanthrene	7.6	U	7.6	3.8
108-95-2	Phenol	57	U	57	31
129-00-0	Pyrene	7.6	U	7.6	3.8
108-60-1	2,2'-oxybis[1-chloropropane]	110	U	110	11
606-20-2	2,6-Dinitrotoluene	230	U	230	24
100-02-7	4-Nitrophenol	380	U	380	92

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-9-8-10 | Lab Sample ID: 240-15155-2

Matrix: Solid | Lab File ID: 0919009.D

Analysis Method: 8270D | Date Collected: 09/12/2012 18:20

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 29.51(g) | Date Analyzed: 09/19/2012 10:30

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		36-110
4165-62-2	Phenol-d5 (Surr)	66		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	66		20-110
367-12-4	2-Fluorophenol (Surr)	67		24-110
321-60-8	2-Fluorobiphenyl (Surr)	59		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	55		10-110

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-10-2-4 | Lab Sample ID: 240-15155-4

Matrix: Solid | Lab File ID: YF092012.D

Analysis Method: 8015C | Date Collected: 09/13/2012 09:20

Sample wt/vol: 5(g) | Date Analyzed: 09/20/2012 18:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: 11.1 | Level: (low/med) Low

Analysis Batch No.: 58467 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	110	U	110	52

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	65		10-150

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-10-20-22 | Lab Sample ID: 240-15155-5

Matrix: Solid | Lab File ID: YF092013.D

Analysis Method: 8015C | Date Collected: 09/13/2012 09:30

Sample wt/vol: 5(g) | Date Analyzed: 09/20/2012 18:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: 16.7 | Level: (low/med) Low

Analysis Batch No.: 58467 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	120	U	120	55

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	63		10-150

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-11-0-2 | Lab Sample ID: 240-15155-6

Matrix: Solid | Lab File ID: YF092014.D

Analysis Method: 8015C | Date Collected: 09/13/2012 15:35

Sample wt/vol: 5(g) | Date Analyzed: 09/20/2012 19:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: 7.6 | Level: (low/med) Low

Analysis Batch No.: 58467 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	110	U	110	50

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	64		10-150

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-11-2-4 | Lab Sample ID: 240-15155-7

Matrix: Solid | Lab File ID: YF092015.D

Analysis Method: 8015C | Date Collected: 09/13/2012 15:45

Sample wt/vol: 5(g) | Date Analyzed: 09/20/2012 20:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: 9.6 | Level: (low/med) Low

Analysis Batch No.: 58467 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	51	J	110	51

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	61		10-150

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-9-0-2 | Lab Sample ID: 240-15155-1

Matrix: Solid | Lab File ID: YF092008.D

Analysis Method: 8015C | Date Collected: 09/12/2012 18:10

Sample wt/vol: 5(g) | Date Analyzed: 09/20/2012 15:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: 2.3 | Level: (low/med) Low

Analysis Batch No.: 58467 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	100	U	100	47

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	62		10-150

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-15155-1
SDG No.:
Client Sample ID: GSP-MW-9-8-10
Lab Sample ID: 240-15155-2
Matrix: Solid
Lab File ID: YF092011.D
Analysis Method: 8015C
Date Collected: 09/12/2012 18:20
Sample wt/vol: 5(g)
Date Analyzed: 09/20/2012 17:42
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture: 11.2
Level: (low/med) Low
Analysis Batch No.: 58467
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	110	U	110	52

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	65		10-150

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-15155-1
SDG No.:
Client Sample ID: GSP-MW-10-2-4
Lab Sample ID: 240-15155-4
Matrix: Solid
Lab File ID: P6F92412.D
Analysis Method: 8015C
Date Collected: 09/13/2012 09:20
Extraction Method: 3540C
Date Extracted: 09/18/2012 10:37
Sample wt/vol: 29.60(g)
Date Analyzed: 09/24/2012 18:35
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: RTX-5
ID: 0.53(mm)
% Moisture: 11.1
GPC Cleanup:(Y/N) N
Analysis Batch No.: 58808
Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	19	U	19	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	49		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-10-20-22 | Lab Sample ID: 240-15155-5

Matrix: Solid | Lab File ID: P6F92416.D

Analysis Method: 8015C | Date Collected: 09/13/2012 09:30

Extraction Method: 3540C | Date Extracted: 09/18/2012 10:37

Sample wt/vol: 29.59(g) | Date Analyzed: 09/24/2012 20:40

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 16.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58808 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	13	J B	20	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	40		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-11-0-2 | Lab Sample ID: 240-15155-6

Matrix: Solid | Lab File ID: P6F92417.D

Analysis Method: 8015C | Date Collected: 09/13/2012 15:35

Extraction Method: 3540C | Date Extracted: 09/18/2012 10:37

Sample wt/vol: 30.20(g) | Date Analyzed: 09/24/2012 21:11

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 7.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58808 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	17	J B	18	10

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	47		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-11-2-4 | Lab Sample ID: 240-15155-7

Matrix: Solid | Lab File ID: P6F92418.D

Analysis Method: 8015C | Date Collected: 09/13/2012 15:45

Extraction Method: 3540C | Date Extracted: 09/18/2012 10:37

Sample wt/vol: 29.75(g) | Date Analyzed: 09/24/2012 21:43

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 9.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58808 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	60	B	19	10

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	45		10-110

FORM I

DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-9-0-2 | Lab Sample ID: 240-15155-1

Matrix: Solid | Lab File ID: P6F92410.D

Analysis Method: 8015C | Date Collected: 09/12/2012 18:10

Extraction Method: 3540C | Date Extracted: 09/18/2012 10:37

Sample wt/vol: 30.35(g) | Date Analyzed: 09/24/2012 17:33

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 2.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58808 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	50	B	17	9.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	47		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-9-8-10 Lab Sample ID: 240-15155-2

Matrix: Solid Lab File ID: P6F92411.D

Analysis Method: 8015C Date Collected: 09/12/2012 18:20

Extraction Method: 3540C Date Extracted: 09/18/2012 10:37

Sample wt/vol: 29.76(g) Date Analyzed: 09/24/2012 18:04

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 11.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 58808 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	19	U	19	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	46		10-110

APPENDIX C

SUPPORT DOCUMENTATION

HOLDTIME

SDG 240-15155-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	GSP-MW-9-8-10	240-15155-2	NM	9/12/2012	9/20/2012	9/22/2012	8	2	10
HG	MG/KG	GSP-MW-10-20-22	240-15155-5	NM	9/13/2012	9/20/2012	9/22/2012	7	2	9
HG	MG/KG	GSP-MW-10-2-4	240-15155-4	NM	9/13/2012	9/20/2012	9/22/2012	7	2	9
HG	MG/KG	GSP-MW-11-0-2	240-15155-6	NM	9/13/2012	9/20/2012	9/22/2012	7	2	9
HG	MG/KG	GSP-MW-11-2-4	240-15155-7	NM	9/13/2012	9/20/2012	9/22/2012	7	2	9
HG	MG/KG	GSP-MW-9-0-2	240-15155-1	NM	9/12/2012	9/20/2012	9/22/2012	8	2	10
M	MG/KG	GSP-MW-10-2-4	240-15155-4	NM	9/13/2012	9/20/2012	9/25/2012	7	5	12
M	MG/KG	GSP-MW-11-0-2	240-15155-6	NM	9/13/2012	9/20/2012	9/25/2012	7	5	12
M	MG/KG	GSP-MW-11-2-4	240-15155-7	NM	9/13/2012	9/20/2012	9/25/2012	7	5	12
M	MG/KG	GSP-MW-9-0-2	240-15155-1	NM	9/12/2012	9/20/2012	9/25/2012	8	5	13
M	MG/KG	GSP-MW-9-8-10	240-15155-2	NM	9/12/2012	9/20/2012	9/25/2012	8	5	13
M	MG/KG	GSP-MW-10-20-22	240-15155-5	NM	9/13/2012	9/20/2012	9/25/2012	7	5	12
OS	UG/KG	GSP-MW-10-20-22	240-15155-5	NM	9/13/2012	9/17/2012	9/19/2012	4	2	6
OS	UG/KG	GSP-MW-11-0-2	240-15155-6	NM	9/13/2012	9/17/2012	9/19/2012	4	2	6
OS	UG/KG	GSP-MW-11-2-4	240-15155-7	NM	9/13/2012	9/17/2012	9/19/2012	4	2	6

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OS	UG/KG	GSP-MW-9-0-2	240-15155-1	NM	9/12/2012	9/17/2012	9/19/2012	5	2	7
OS	UG/KG	GSP-MW-9-8-10	240-15155-2	NM	9/12/2012	9/17/2012	9/19/2012	5	2	7
OS	UG/KG	GSP-MW-10-2-4	240-15155-4	NM	9/13/2012	9/17/2012	9/19/2012	4	2	6
OV	UG/KG	GSP-MW-9-0-2	240-15155-1	NM	9/14/2012	9/14/2012	9/18/2012	0	4	4
OV	UG/KG	GSP-MW-9-8-10	240-15155-2	NM	9/14/2012	9/14/2012	9/18/2012	0	4	4
OV	UG/KG	GSP-MW-11-2-4	240-15155-7	NM	9/14/2012	9/14/2012	9/18/2012	0	4	4
OV	UG/KG	GSP-MW-10-2-4	240-15155-4	NM	9/14/2012	9/14/2012	9/18/2012	0	4	4
OV	UG/KG	GSP-MW-10-20-22	240-15155-5	NM	9/14/2012	9/14/2012	9/18/2012	0	4	4
OV	UG/KG	GSP-MW-11-0-2	240-15155-6	NM	9/14/2012	9/14/2012	9/18/2012	0	4	4
OV	UG/L	TB_20120912	240-15155-3	NM	9/12/2012	9/21/2012	9/21/2012	9	0	9
DRO	MG/KG	GSP-MW-10-20-22	240-15155-5	NM	9/13/2012	9/18/2012	9/24/2012	5	6	11
DRO	MG/KG	GSP-MW-10-2-4	240-15155-4	NM	9/13/2012	9/18/2012	9/24/2012	5	6	11
DRO	MG/KG	GSP-MW-11-0-2	240-15155-6	NM	9/13/2012	9/18/2012	9/24/2012	5	6	11
DRO	MG/KG	GSP-MW-11-2-4	240-15155-7	NM	9/13/2012	9/18/2012	9/24/2012	5	6	11
DRO	MG/KG	GSP-MW-9-0-2	240-15155-1	NM	9/12/2012	9/18/2012	9/24/2012	6	6	12
DRO	MG/KG	GSP-MW-9-8-10	240-15155-2	NM	9/12/2012	9/18/2012	9/24/2012	6	6	12
GRO	UG/KG	GSP-MW-11-0-2	240-15155-6	NM	9/13/2012	9/20/2012	9/20/2012	7	0	7
GRO	UG/KG	GSP-MW-9-8-10	240-15155-2	NM	9/12/2012	9/20/2012	9/20/2012	8	0	8

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
GRO	UG/KG	GSP-MW-10-2-4	240-15155-4	NM	9/13/2012	9/20/2012	9/20/2012	7	0	7
GRO	UG/KG	GSP-MW-11-2-4	240-15155-7	NM	9/13/2012	9/20/2012	9/20/2012	7	0	7
GRO	UG/KG	GSP-MW-9-0-2	240-15155-1	NM	9/12/2012	9/20/2012	9/20/2012	8	0	8
GRO	UG/KG	GSP-MW-10-20-22	240-15155-5	NM	9/13/2012	9/20/2012	9/20/2012	7	0	7

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact			
Company Name: Tetra Tech	Client Project Manager: Tony Apanavage	Site Contact: W. ONeil	Lab Contact: Pat O'Meara
Address: 20251 Century Blvd Ste 200	Telephone: 301-233-8230	Telephone: 706-201-3646	Telephone:
City/State/Zip: Germantown MD	Email:		
Phone: 301-528-3063			
Project Name: GSP Supplemental Charac.	Method of Shipment/Carrier:		
Project Number:	Shipping/Tracking No:		
PO#			

COC No: 009429
1 of 1 COCs

Analysis Turnaround Time: CALENDAR DAYS
TAT if different from below _____
☐ 3 weeks
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

Analyses

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	VOCs	GRO	SVOCs, metals, DRO	Sample Specific Notes / Special Instructions:
GSP-MW-9-0-2	9/12/12	1810			X								3	3	N	G	X	X	X	
GSP-MW-9-8-10	9/12/12	1820			X								3	3	N	G	X	X	X	VOCs-terra core kits
TB	9/12/12	—		X													X			
GSP-MW-10-2-4	9/13/12	0920			X								3	3	N	G	X	X	X	GRO-4oz
GSP-MW-10-20-22	9/13/12	0930			X								3	3	N	G	X	X	X	
GSP-MW-11-0-2	9/13/12	1535			X								3	3	N	G	X	X	X	SVOCs, metals DRO-8oz
GSP-MW-11-2-4	9/13/12	1545			X								3	3	N	G	X	X	X	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	9/13/12 1600	[signature]	TestAmerica	9/13/12 1600
Relinquished by: [signature]	Company: TestAmerica	Date/Time: 9/13/12 1645	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TA Canton	Date/Time: 9-14-12 9:00am

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

TAL 0018- 1 (04/10)

TestAmerica Canton Sample Receipt Form/Narrative Login # : 15155

Client Tetra Tech Site Name GSP Supplemental By Jennifer Miller (Signature)

Cooler Received on 9-14-12 Opened on 9-14-12

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # No# Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1	(CF 0°C)	Observed Sample Temp. 5.7 °C	Corrected Sample Temp 5.7 °C	
IR GUN# 4G	(CF –1°C)	Observed Sample Temp. ____ °C	Corrected Sample Temp. ____ °C	☐ Multiple on Back
IR GUN# 5G	(CF –1°C)	Observed Sample Temp. ____ °C	Corrected Sample Temp. ____ °C	
IR GUN# 8	(CF 0°C)	Observed Sample Temp. ____ °C	Corrected Sample Temp. ____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   - Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   - Were custody seals on the bottle(s)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Did all bottles arrive in good condition (Unbroken)? Yes No
7. Could all bottle labels be reconciled with the COC? Yes No
8. Were correct bottle(s) used for the test(s) indicated? Yes No
9. Sufficient quantity received to perform indicated analyses? Yes No
10. Were sample(s) at the correct pH upon receipt? Yes No NA
11. Were VOAs on the COC? Yes No
12. Were air bubbles >6 mm in any VOA vials? Yes No NA
13. Was a trip blank present in the cooler(s)? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 031512-HNO3; Sulfuric Acid Lot# 041911-H2SO4; Sodium Hydroxide Lot# 121809 - NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant

Login Sample Receipt Checklist

Client: Tetra Tech, Inc

Job Number: 240-15155-1

Login Number: 15155
List Number: 1
Creator: Sutek, Nick

List Source: TestAmerica Canton

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	REFER TO COOLER RECEIPT FORM
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	N/A	
COC is filled out in ink and legible.	N/A	
COC is filled out with all pertinent information.	N/A	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	N/A	
Samples are received within Holding Time.	N/A	
Sample containers have legible labels.	N/A	
Containers are not broken or leaking.	N/A	
Sample collection date/times are provided.	N/A	
Appropriate sample containers are used.	N/A	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

METHOD SUMMARY

Client: Tetra Tech, Inc

Job Number: 240-15155-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS)	TAL NC	SW846 8260B	
Closed System Purge and Trap	TAL NC		SW846 5035
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270D	
Soxhlet Extraction	TAL NC		SW846 3540C
Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	TAL NC	SW846 8015C	
Purge and Trap	TAL NC		SW846 5030B
Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	TAL NC	SW846 8015C	
Soxhlet Extraction	TAL NC		SW846 3540C
Metals (ICP)	TAL NC	SW846 6010C	
Preparation, Metals	TAL NC		SW846 3050B
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	TAL NC	SW846 7471B	
Preparation, Mercury	TAL NC		SW846 7471B
Percent Moisture	TAL NC	EPA Moisture	
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL NC	SW846 8260B	
Purge and Trap	TAL NC		SW846 5030B

Lab References:

TAL NC = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

SAMPLE SUMMARY

Client: Tetra Tech, Inc

Job Number: 240-15155-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-15155-1	GSP-MW-9-0-2	Solid	09/12/2012 1810	09/14/2012 0900
240-15155-2	GSP-MW-9-8-10	Solid	09/12/2012 1820	09/14/2012 0900
240-15155-3TB	TB	Water	09/12/2012 0000	09/14/2012 0900
240-15155-4	GSP-MW-10-2-4	Solid	09/13/2012 0920	09/14/2012 0900
240-15155-5	GSP-MW-10-20-22	Solid	09/13/2012 0930	09/14/2012 0900
240-15155-6	GSP-MW-11-0-2	Solid	09/13/2012 1535	09/14/2012 0900
240-15155-7	GSP-MW-11-2-4	Solid	09/13/2012 1545	09/14/2012 0900

CASE NARRATIVE

Client: Tetra Tech, Inc

Project: Greater Strawberry Point Supplemental

Report Number: 240-15155-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available Any exceptions to NELAP requirements are noted in this report Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client

RECEIPT
The samples were received on 09/14/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 5.7 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples GSP-MW-9-0-2 (240-15155-1), GSP-MW-9-8-10 (240-15155-2), GSP-MW-10-2-4 (240-15155-4), GSP-MW-10-20-22 (240-15155-5), GSP-MW-11-0-2 (240-15155-6) and GSP-MW-11-2-4 (240-15155-7) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were prepared on 09/14/2012 and analyzed on 09/18/2012.

Several analytes were detected in method blank MB 240-58198/6 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

The laboratory control sample for batch 58198 exceeded control limits for the following analyte: Chloromethane. Chloromethane has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Insufficient sample volume was available to meet method-mandated requirements for matrix spike/matrix spike duplicate (MS/MSD) analyses for batch 58198 on these samples GSP-MW-10-20-22 (240-15155-5), GSP-MW-10-2-4 (240-15155-4), GSP-MW-11-0-2 (240-15155-6), GSP-MW-11-2-4 (240-15155-7), GSP-MW-9-0-2 (240-15155-1), GSP-MW-9-8-10 (240-15155-2).

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS)
Sample TB (240-15155-3) was analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 09/21/2012.

Hexachlorobutadiene and n-Butylbenzene were detected in method blank MB 240-58594/4 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

The laboratory control sample (LCS) for batch 58594 exceeded control limits for the following analyte: dibromomethane. This analyte was

biased high in the LCS and was not detected in the associated samples; therefore, the data has been reported.

No other difficulties were encountered during the VOCs analysis. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples GSP-MW-9-0-2 (240-15155-1), GSP-MW-9-8-10 (240-15155-2), GSP-MW-10-2-4 (240-15155-4), GSP-MW-10-20-22 (240-15155-5), GSP-MW-11-0-2 (240-15155-6) and GSP-MW-11-2-4 (240-15155-7) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 09/17/2012 and analyzed on 09/19/2012.

Several analytes failed the recovery criteria low for the MS/MSD of sample GSP-MW-11-2-4 (240-15155-7) in batch 240-58277.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Sample GSP-MW-11-2-4 (240-15155-7)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the SVOCs analyses. All other quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)
Samples GSP-MW-9-0-2 (240-15155-1), GSP-MW-9-8-10 (240-15155-2), GSP-MW-10-2-4 (240-15155-4), GSP-MW-10-20-22 (240-15155-5), GSP-MW-11-0-2 (240-15155-6) and GSP-MW-11-2-4 (240-15155-7) were analyzed for gasoline range organics (GRO) in accordance with EPA-SW-846 Method 8015C - GRO. The samples were analyzed on 09/20/2012.

No difficulties were encountered during the GRO analyses. All quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)
Samples GSP-MW-9-0-2 (240-15155-1), GSP-MW-9-8-10 (240-15155-2), GSP-MW-10-2-4 (240-15155-4), GSP-MW-10-20-22 (240-15155-5), GSP-MW-11-0-2 (240-15155-6) and GSP-MW-11-2-4 (240-15155-7) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015C - DRO. The samples were prepared on 09/18/2012 and analyzed on 09/24/2012.

Total Petroleum Hydrocarbons (C10-C32) was detected in method blank MB 240-58174/23-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

No other difficulties were encountered during the DRO analyses. All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP)
Samples GSP-MW-9-0-2 (240-15155-1), GSP-MW-9-8-10 (240-15155-2), GSP-MW-10-2-4 (240-15155-4), GSP-MW-10-20-22 (240-15155-5), GSP-MW-11-0-2 (240-15155-6) and GSP-MW-11-2-4 (240-15155-7) were analyzed for total metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 09/20/2012 and analyzed on 09/25/2012.

Antimony and Barium were detected in method blank MB 240-58519/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Antimony failed the recovery criteria low for the MS of sample GSP-MW-9-0-2 (240-15155-1) in batch 240-59060. Zinc failed the recovery criteria high.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

MERCURY
Samples GSP-MW-9-0-2 (240-15155-1), GSP-MW-9-8-10 (240-15155-2), GSP-MW-10-2-4 (240-15155-4), GSP-MW-10-20-22 (240-15155-5), GSP-MW-11-0-2 (240-15155-6) and GSP-MW-11-2-4 (240-15155-7) were analyzed for mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared on 09/20/2012 and analyzed on 09/22/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

PERCENT SOLIDS
Samples GSP-MW-9-0-2 (240-15155-1), GSP-MW-9-8-10 (240-15155-2), GSP-MW-10-2-4 (240-15155-4), GSP-MW-10-20-22 (240-15155-5), GSP-MW-11-0-2 (240-15155-6) and GSP-MW-11-2-4 (240-15155-7) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 09/17/2012.

No difficulties were encountered during the % solids analyses. All quality control parameters were within the acceptance limits.

Method 8260B

Volatile Organic Compounds (GC/MS) by Method 8260B

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab File ID: BFB2086.D BFB Injection Date: 07/24/2012

Instrument ID: A3UX9 BFB Injection Time: 17:57

Analysis Batch No.: 51898

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.6	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	80.8	
175	5.0 - 9.0 % of mass 174	6.4	(8.0)1
176	95.0 - 101.0 % of mass 174	78.5	(97.1)1
177	5.0 - 9.0 % of mass 176	5.0	(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-51898/2	UX932937.D	07/24/2012	18:21
	STD8260 240-51898/3	UX932938.D	07/24/2012	18:45
	STD8260 240-51898/4	UX932939.D	07/24/2012	19:08
	STD8260 240-51898/5	UX932940.D	07/24/2012	19:34
	STD8260 240-51898/6	UX932941.D	07/24/2012	19:59
	STD8260 240-51898/7	UX932942.D	07/24/2012	20:24
	STDA9 240-51898/8	UX932943.D	07/24/2012	21:16
	STDA9 240-51898/9	UX932944.D	07/24/2012	21:42
	STDA9 240-51898/10	UX932945.D	07/24/2012	22:07
	STDA9 240-51898/11	UX932946.D	07/24/2012	22:31
	STDA9 240-51898/12	UX932947.D	07/24/2012	22:56
	STDA9 240-51898/13	UX932948.D	07/24/2012	23:26
	ICV 240-51898/14	UX932949.D	07/24/2012	23:50

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 51898

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 18:21 Calibration End Date: 07/24/2012 20:24 Calibration ID: 10284

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-51898/2	UX932937.D
Level 2	STD8260 240-51898/3	UX932938.D
Level 3	STD8260 240-51898/4	UX932939.D
Level 4	STD8260 240-51898/5	UX932940.D
Level 5	STD8260 240-51898/6	UX932941.D
Level 6	STD8260 240-51898/7	UX932942.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2900 +++++	0.3110	0.3518	0.3527	0.3419	Ave		0.3295				8.4		15.0			
Chloromethane	0.4467 0.2875	0.3262	0.3070	0.3011	0.3105	Lin1	0.0659	0.2949			0.1000				0.9990		0.9900
Vinyl chloride	0.3065 0.2925	0.2997	0.3126	0.3124	0.3238	Ave		0.3079				3.6		15.0			
Bromomethane	0.2824 0.2322	0.2281	0.2179	0.2189	0.2268	Ave		0.2344				10.0		15.0			
Chloroethane	0.2475 0.2255	0.2249	0.2279	0.2216	0.2309	Ave		0.2297				4.0		15.0			
~~Acrolein~~*	+++++ 0.0233	0.0168	0.0255	0.0226	0.0233	Ave		~~0.0223~~				15.0		15.0			
Acetone	+++++ 0.0529	0.0586	0.0590	0.0662	0.0592	Ave		0.0592				7.9		15.0			
Trichlorofluoromethane	0.2067 0.2954	0.3157	0.4187	0.4227	0.4072	Qua	-0.349	0.5112	-0.003						0.9990		0.9900
~~Acetonitrile~~	+++++ 0.0174	0.0343	0.0206	0.0194	0.0173	Lin1	0.1868	~~0.0178~~							0.9990		0.9900
Methyl acetate	+++++ 0.1546	0.3164	0.1796	0.1670	0.1624	Lin1	0.3420	0.1554							0.9990		0.9900
Methylene Chloride	+++++ 0.3241	0.7985	0.3805	0.3517	0.3416	Lin1	0.4894	0.3230							1.0000		0.9900
tert-Butyl alcohol	+++++ 0.0184	0.0208	0.0204	0.0203	0.0194	Ave		0.0199				4.8		15.0			
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.3639 0.2388	0.2130	0.2277	0.2528	0.2380	Lin1	0.0320	0.2387							0.9990		0.9900
1,1-Dichloroethene	0.4771 0.4132	0.3674	0.4151	0.4220	0.4282	Ave		0.4205				8.4		15.0			
Iodomethane	0.3942 0.4021	0.3670	0.3888	0.4017	0.4134	Ave		0.3945				4.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 51898

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 18:21 Calibration End Date: 07/24/2012 20:24 Calibration ID: 10284

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.9737 0.8280	0.6970	0.8035	0.8160	0.8397	Ave		0.8263				11.0		15.0			
Vinyl acetate	+++++ 0.0463	0.0415	0.0470	0.0427	0.0484	Ave		0.0452				6.5		15.0			
Acrylonitrile	0.1899 0.0772	0.1119	0.0839	0.0788	0.0787	Lin1	0.0999	0.0768							1.0000		0.9900
Methyl tert-butyl ether	0.9380 0.7258	0.7871	0.6902	0.7363	0.7202	Ave		0.7663				12.0		15.0			
trans-1,2-Dichloroethene	0.2786 0.3327	0.2767	0.3358	0.3244	0.3324	Ave		0.3134				8.9		15.0			
Hexane	0.2986 0.2089	0.1810	0.2114	0.2059	0.2012	Lin1	0.0226	0.2059							0.9990		0.9900
Tetrahydrofuran	+++++ 0.0512	0.1262	0.0684	0.0640	0.0564	Lin1	0.0849	0.0531							0.9940		0.9900
1,1-Dichloroethane	0.4059 0.3974	0.3700	0.4079	0.3987	0.4017	Ave		0.3969			0.1000	3.5		15.0			
2-Butanone	0.0386 0.0257	0.0274	0.0298	0.0292	0.0275	Ave		0.0297				15.0		15.0			
cis-1,2-Dichloroethene	0.4278 0.3257	0.3096	0.3410	0.3362	0.3368	Ave		0.3462				12.0		15.0			
2,2-Dichloropropane	0.2668 0.1740	0.1756	0.1838	0.1799	0.1805	Lin1	0.0324	0.1762							0.9990		0.9900
Bromochloromethane	0.2090 0.1815	0.1959	0.2161	0.1844	0.1876	Ave		0.1958				7.2		15.0			
Chloroform	0.5001 0.4363	0.4587	0.4399	0.4421	0.4426	Ave		0.4533				5.3		15.0			
1,1,1-Trichloroethane	0.3412 0.3141	0.2950	0.2740	0.3204	0.3185	Ave		0.3105				7.5		15.0			
Cyclohexane	0.4139 0.3204	0.3097	0.3010	0.3170	0.3132	Ave		0.3292				13.0		15.0			
1,1-Dichloropropene	0.3710 0.3269	0.3310	0.3236	0.3299	0.3205	Ave		0.3338				5.6		15.0			
Carbon tetrachloride	0.2285 0.2607	0.2130	0.2347	0.2547	0.2491	Ave		0.2401				7.5		15.0			
Benzene	1.1430 0.9995	0.9361	0.9821	0.9749	1.0158	Ave		1.0086				7.1		15.0			
1,2-Dichloroethane	0.4170 0.3359	0.3575	0.3390	0.3447	0.3417	Ave		0.3560				8.7		15.0			
Trichloroethene	0.3190 0.2723	0.2526	0.2710	0.2665	0.2751	Ave		0.2761				8.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 51898

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 18:21 Calibration End Date: 07/24/2012 20:24 Calibration ID: 10284

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methylcyclohexane	0.3859 0.2113	0.2389	0.2082	0.2113	0.2039	Lin1	0.0678	0.2072							0.9990		0.9900
1,2-Dichloropropane	0.2422 0.2276	0.2342	0.2352	0.2288	0.2315	Ave		0.2333				2.3		15.0			
Dibromomethane	0.1754 0.1595	0.1677	0.1637	0.1668	0.1670	Ave		0.1667				3.1		15.0			
~~1,4-Dioxane~~	0.0040 0.0028	0.0028	0.0027	0.0027	0.0027	Lin1	0.0214	~~0.0028~~							1.0000		0.9900
Bromodichloromethane	0.3780 0.3296	0.3123	0.3232	0.3234	0.3295	Ave		0.3327				6.9		15.0			
2-Chloroethyl vinyl ether	0.1943 0.1598	0.1492	0.1577	0.1577	0.1617	Ave		0.1634				9.6		15.0			
cis-1,3-Dichloropropene	0.4585 0.4168	0.4146	0.4074	0.4024	0.4213	Ave		0.4202				4.7		15.0			
4-Methyl-2-pentanone	0.3618 0.1956	0.2213	0.2007	0.1968	0.1995	Lin1	0.1278	0.1953							1.0000		0.9900
Toluene	1.5722 1.5010	1.3772	1.4438	1.4151	1.4502	Ave		1.4599				4.7		15.0			
trans-1,3-Dichloropropene	0.5420 0.4975	0.4411	0.4732	0.4783	0.4882	Ave		0.4867				6.8		15.0			
Ethyl methacrylate	0.5143 0.4318	0.4203	0.4123	0.4237	0.4178	Ave		0.4367				8.8		15.0			
1,1,2-Trichloroethane	0.4482 0.2798	0.3195	0.2884	0.2802	0.2810	Lin1	0.0704	0.2788							1.0000		0.9900
Tetrachloroethene	0.3745 0.3089	0.2801	0.3159	0.3080	0.3032	Ave		0.3151				10.0		15.0			
1,3-Dichloropropane	0.6837 0.5175	0.5482	0.5239	0.5040	0.5213	Ave		0.5498				12.0		15.0			
2-Hexanone	0.2818 0.1787	0.1971	0.1793	0.1782	0.1823	Lin1	0.0791	0.1785							1.0000		0.9900
Dibromochloromethane	0.3441 0.3273	0.2737	0.3115	0.3078	0.3160	Ave		0.3134				7.5		15.0			
1,2-Dibromoethane	0.3852 0.2994	0.2709	0.2971	0.2964	0.2968	Ave		0.3076				13.0		15.0			
trans-1,4-Dichloro-2-butene	+++++ 0.2067	0.2742	0.2188	0.2281	0.2188	Ave		0.2293				11.0		15.0			
Chlorobenzene	1.0629 0.9757	0.9262	0.9829	0.9539	0.9653	Ave		0.9778			0.3000	4.7		15.0			
1,1,1,2-Tetrachloroethane	0.4073 0.3360	0.3069	0.3181	0.3118	0.3300	Ave		0.3350				11.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 51898

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 18:21 Calibration End Date: 07/24/2012 20:24 Calibration ID: 10284

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Ethylbenzene	0.5295 0.5026	0.4433	0.4885	0.4695	0.4972	Ave		0.4885				6.0		15.0			
m-Xylene & p-Xylene	0.6590 0.6401	0.5535	0.5980	0.5814	0.6075	Ave		0.6066				6.3		15.0			
o-Xylene	0.7088 0.6261	0.5674	0.5752	0.5778	0.6005	Ave		0.6093				8.7		15.0			
Styrene	1.1388 1.1643	0.9819	1.0291	1.0378	1.1049	Ave		1.0761				6.6		15.0			
Bromoform	0.2739 0.2079	0.1758	0.1840	0.1867	0.2034	Lin1	0.0060	0.2021			0.1000				0.9980		0.9900
Isopropylbenzene	1.4931 1.4893	1.2331	1.3528	1.3386	1.4182	Ave		1.3875				7.2		15.0			
1,1,2,2-Tetrachloroethane	1.3489 0.7192	0.8308	0.7785	0.7391	0.7618	Lin1	0.2507	0.7299			0.3000				0.9990		0.9900
Bromobenzene	0.9078 0.7774	0.8065	0.8007	0.7719	0.7928	Ave		0.8095				6.2		15.0			
1,2,3-Trichloropropane	0.4581 0.2483	0.3346	0.2648	0.2733	0.2643	Lin1	0.0998	0.2542							0.9990		0.9900
n-Propylbenzene	1.0263 0.7238	0.7174	0.7195	0.6947	0.7057	Lin1	0.0991	0.7119							0.9990		0.9900
2-Chlorotoluene	0.8341 0.6856	0.6890	0.6991	0.6649	0.6739	Ave		0.7078				8.9		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1498	0.1707	0.1644	0.1621	0.1533	Ave		0.1601				5.3		15.0			
1,3,5-Trimethylbenzene	2.6069 2.3219	2.2291	2.2355	2.1806	2.2946	Ave		2.3114				6.6		15.0			
4-Chlorotoluene	0.8065 0.7580	0.8053	0.7605	0.7363	0.7447	Ave		0.7685				3.9		15.0			
tert-Butylbenzene	1.9168 1.9404	1.9609	1.9659	1.8437	2.1228	Ave		1.9584				4.7		15.0			
1,2,4-Trimethylbenzene	2.8131 2.4048	2.2656	2.3792	2.2641	2.3684	Ave		2.4158				8.4		15.0			
sec-Butylbenzene	2.8228 2.7138	2.3379	2.6052	2.5000	2.6442	Ave		2.6040				6.5		15.0			
1,3-Dichlorobenzene	1.8495 1.4051	1.4250	1.4369	1.3670	1.4214	Ave		1.4841				12.0		15.0			
p-Isopropyltoluene	2.1935 2.3629	2.0916	2.2048	2.1725	2.2701	Ave		2.2159				4.2		15.0			
1,4-Dichlorobenzene	1.7773 1.4819	1.6809	1.5614	1.4772	1.4950	Ave		1.5789				7.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 51898

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 18:21 Calibration End Date: 07/24/2012 20:24 Calibration ID: 10284

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
n-Butylbenzene	2.1174 1.9889	1.7744	1.9494	1.9014	1.9945	Ave		1.9543				5.8		15.0			
1,2-Dichlorobenzene	1.5805 1.3963	1.5029	1.4335	1.3712	1.3972	Ave		1.4470				5.5		15.0			
1,3,5-Trichlorobenzene	1.0699 0.8574	0.9897	0.8886	0.8708	0.8897	Ave		0.9277				9.0		15.0			
1,2,4-Trichlorobenzene	1.1887 0.7594	0.9660	0.8469	0.7996	0.8116	Lin1	0.2203	0.7783							0.9990		0.9900
Hexachlorobutadiene	0.4126 0.3188	0.3431	0.3664	0.3517	0.3256	Ave		0.3530				9.6		15.0			
Naphthalene	3.3241 2.1043	2.3901	2.3612	2.3184	2.3037	Lin1	0.5265	2.1872							0.9980		0.9900
1,2,3-Trichlorobenzene	1.1111 0.6243	0.7717	0.7769	0.7341	0.7077	Lin1	0.2322	0.6643							0.9940		0.9900
1,2-Dichloroethane-d4 (Surr)	+++++ 0.2771	0.3131	0.2924	0.3116	0.2814	Ave		0.2951				5.7		15.0			
Dibromofluoromethane (Surr)	0.3038 0.2414	0.2459	0.2396	0.2467	0.2358	Ave		0.2522				10.0		15.0			
Toluene-d8 (Surr)	1.6800 1.3113	1.3890	1.2846	1.3197	1.2426	Ave		1.3712				12.0		15.0			
4-Bromofluorobenzene (Surr)	0.7643 0.4879	0.5783	0.4791	0.4767	0.4801	Lin1	0.1202	0.4805							1.0000		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 51898

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 21:16 Calibration End Date: 07/24/2012 23:26 Calibration ID: 10287

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-51898/8	UX932943.D
Level 2	STDA9 240-51898/9	UX932944.D
Level 3	STDA9 240-51898/10	UX932945.D
Level 4	STDA9 240-51898/11	UX932946.D
Level 5	STDA9 240-51898/12	UX932947.D
Level 6	STDA9 240-51898/13	UX932948.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
~~Dichlorofluoromethane~~	0.5167 0.5452	0.5469	0.5334	0.5212	0.5170	Ave		~~0.5301~~				2.6		15.0			
~~3-Chloro-1-propene~~	+++++ 0.1392	0.2906	0.1547	0.1502	0.1404	Lin1	0.1567	~~0.1378~~							1.0000		0.9900
~~Ethyl ether~~	0.2360 0.2095	0.2097	0.1997	0.1901	0.1870	Ave		0.2053				8.6		15.0			
Diisopropyl ether	0.2375 0.2551	0.2321	0.2328	0.2386	0.2410	Ave		0.2395				3.5		15.0			
~~2-Chloro-1,3-butadiene~~	0.3973 0.3807	0.3456	0.3645	0.3693	0.3624	Ave		~~0.3699~~				4.7		15.0			
Ethyl-t-butyl ether (ETBE)	0.6946 0.7817	0.7108	0.7021	0.7190	0.7130	Ave		~~0.7202~~				4.3		15.0			
~~Ethyl acetate~~	0.3172 0.2409	0.2281	0.1790	0.1711	0.1737	Qua	0.4943	~~0.1136~~	0.0008						0.9990		0.9900
~~Propionitrile~~	0.0458 0.0380	0.0339	0.0271	0.0275	0.0265	Qua	0.0821	~~0.0168~~	0.0001						0.9980		0.9900
~~Methacrylonitrile~~	0.1694 0.1498	0.1279	0.1131	0.1158	0.1108	Qua	0.1355	~~0.0792~~	0.0009						0.9990		0.9900
~~Isobutyl alcohol~~	0.0133 0.0106	0.0098	0.0081	0.0081	0.0080	Qua	0.1819	~~0.0058~~	0						0.9990		0.9900
Tert-amyl-methyl ether (TAME)	0.7313 0.7891	0.7114	0.7015	0.7014	0.7000	Ave		0.7224				4.8		15.0			
~~n-Heptane~~	1.3913 0.1139	0.7129	0.1595	0.1417	0.1262	Lin1	0.6283	0.1071							0.9980		0.9900
~~n-Butanol~~	0.0109 0.0112	0.0084	0.0077	0.0075	0.0076	Qua	0.2151	0.0045	0						0.9990		0.9900
Methyl methacrylate	0.3042 0.2304	0.2118	0.1869	0.1748	0.1722	Qua	0.2389	0.1222	0.0013						0.9990		0.9900
~~2-Nitropropane~~	0.0709 0.0624	0.0506	0.0453	0.0445	0.0422	Qua	0.1482	~~0.0257~~	0.0002						0.9980		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 51898

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 21:16 Calibration End Date: 07/24/2012 23:26 Calibration ID: 10287

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Cyclohexanone	0.0407 0.0374	0.0336	0.0266	0.0267	0.0264	Qua	0.3733	0.0169	0						0.9990		0.9900
1,2,3-Trimethylbenzene	2.4966 2.8234	2.5869	2.4914	2.5528	2.7148	Ave		2.6110				5.1		15.0			
2-Methylnaphthalene	1.2497 1.5199	0.9987	1.0476	1.1479	1.2329	Ave		1.1994				15.0		15.0			
n-Butyl acetate	0.5117 0.5130	0.3960	0.3872	0.3804	0.3863	Ave		0.4291				15.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 51898

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 18:21 Calibration End Date: 07/24/2012 20:24 Calibration ID: 10284

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-51898/2	UX932937.D
Level 2	STD8260 240-51898/3	UX932938.D
Level 3	STD8260 240-51898/4	UX932939.D
Level 4	STD8260 240-51898/5	UX932940.D
Level 5	STD8260 240-51898/6	UX932941.D
Level 6	STD8260 240-51898/7	UX932942.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	8354 +++++	20182	225922	458835	897002	0.500 +++++	1.00	10.0	20.0	40.0
Chloromethane	FB	Lin1	12871 1604468	21168	197167	391700	814736	0.500 80.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	8830 1632001	19451	200723	406370	849611	0.500 80.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	8137 1295714	14804	139927	284714	595172	0.500 80.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	7131 1258121	14594	146378	288236	605832	0.500 80.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	+++++ 1298941	10918	163530	293923	611334	+++++ 800	10.0	100	200	400
Acetone	FB	Ave	+++++ 590639	7607	75809	172151	310662	+++++ 160	2.00	20.0	40.0	80.0
Trichlorofluoromethane	FB	Qua	5954 1648265	20487	268862	549856	1068441	0.500 80.0	1.00	10.0	20.0	40.0
Acetonitrile	FB	Lin1	+++++ 971589	22236	132049	252041	454422	+++++ 800	10.0	100	200	400
Methyl acetate	FB	Lin1	+++++ 1725448	41062	230686	434406	852036	+++++ 160	2.00	20.0	40.0	80.0
Methylene Chloride	FB	Lin1	+++++ 1808212	51820	244324	457532	896262	+++++ 80.0	1.00	10.0	20.0	40.0
tert-Butyl alcohol	FB	Ave	+++++ 2056005	26976	261763	528525	1017450	+++++ 1600	20.0	200	400	800
1,1,2-Trichloro-1,2,2-trichfluoroethane	FB	Lin1	10483 1332708	13822	146249	328893	624324	0.500 80.0	1.00	10.0	20.0	40.0
1,1-Dichloroethene	FB	Ave	13747 2305387	23841	266547	548965	1123407	0.500 80.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	11356 2243733	23814	249667	522570	1084731	0.500 80.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	28054 4620332	45232	515958	1061491	2203092	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 51898

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 18:21 Calibration End Date: 07/24/2012 20:24 Calibration ID: 10284

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Vinyl acetate	FB	Ave	+++++ 258490	2696	30188	55566	127008	+++++ 80.0	1.00	10.0	20.0	40.0
Acrylonitrile	FB	Lin1	10940 861005	14522	107757	205028	412801	1.00 160	2.00	20.0	40.0	80.0
Methyl tert-butyl ether	FB	Ave	27026 4050041	51077	443236	957877	1889526	0.500 80.0	1.00	10.0	20.0	40.0
trans-1,2-Dichloroethene	FB	Ave	8027 1856212	17957	215661	422002	872031	0.500 80.0	1.00	10.0	20.0	40.0
Hexane	FB	Lin1	8604 1165601	11746	135773	267866	527999	0.500 80.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Lin1	+++++ 285515	8191	43925	83233	147848	+++++ 80.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	11694 2217670	24013	261945	518644	1053913	0.500 80.0	1.00	10.0	20.0	40.0
2-Butanone	FB	Ave	2224 287070	3553	38307	75992	144290	1.00 160	2.00	20.0	40.0	80.0
cis-1,2-Dichloroethene	FB	Ave	12324 1817205	20095	218981	437417	883778	0.500 80.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Lin1	7686 971058	11394	118018	234017	473566	0.500 80.0	1.00	10.0	20.0	40.0
Bromochloromethane	FB	Ave	6022 1012858	12715	138741	239887	492206	0.500 80.0	1.00	10.0	20.0	40.0
Chloroform	FB	Ave	14407 2434375	29771	282466	575149	1161296	0.500 80.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	9830 1752631	19144	175948	416874	835519	0.500 80.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	11924 1788027	20098	193300	412457	821652	0.500 80.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	10690 1824009	21480	207817	429155	840805	0.500 80.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	6582 1454534	13824	150742	331391	653497	0.500 80.0	1.00	10.0	20.0	40.0
Benzene	FB	Ave	32931 5577080	60750	630664	1268205	2665080	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane	FB	Ave	12014 1874509	23199	217662	448426	896420	0.500 80.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	9190 1519145	16392	174030	346663	721736	0.500 80.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Lin1	11119 1179025	15504	133709	274888	535008	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	6978 1269951	15200	151048	297697	607493	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 51898

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 18:21 Calibration End Date: 07/24/2012 20:24 Calibration ID: 10284

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dibromomethane	FB	Ave	5054 889976	10880	105141	216934	438154	0.500 80.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Lin1	5810 777595	9213	87651	178373	358377	25.0 4000	50.0	500	1000	2000
Bromodichloromethane	FB	Ave	10891 1838853	20268	207567	420658	864461	0.500 80.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	11196 1783087	19371	202538	410333	848618	1.00 160	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	13210 2325798	26906	261585	523555	1105427	0.500 80.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone	FB	Lin1	20846 2183200	28727	257773	512036	1046922	1.00 160	2.00	20.0	40.0	80.0
Toluene	CBZ	Ave	35119 6562027	70391	729330	1481910	3066579	0.500 80.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBZ	Ave	12106 2174772	22548	239031	500913	1032372	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBZ	Ave	11488 1887759	21485	208265	443703	883489	0.500 80.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBZ	Lin1	10012 1223439	16329	145664	293369	594255	0.500 80.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBZ	Ave	8365 1350527	14317	159574	322535	641178	0.500 80.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBZ	Ave	15273 2262417	28022	264622	527822	1102399	0.500 80.0	1.00	10.0	20.0	40.0
2-Hexanone	CBZ	Lin1	12587 1562809	20146	181168	373181	771024	1.00 160	2.00	20.0	40.0	80.0
Dibromochloromethane	CBZ	Ave	7686 1430914	13991	157336	322351	668137	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dibromoethane	CBZ	Ave	8605 1308792	13845	150081	310346	627627	0.500 80.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCB	Ave	+++++ 484976	6668	54799	122491	243547	+++++ 80.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBZ	Ave	23743 4265448	47341	496469	998930	2041265	0.500 80.0	1.00	10.0	20.0	40.0
1,1,1,2-Tetrachloroethane	CBZ	Ave	9097 1468790	15686	160669	326504	697791	0.500 80.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBZ	Ave	11828 2197434	22660	246743	491651	1051497	0.500 80.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBZ	Ave	29441 5596707	56577	604092	1217562	2569302	1.00 160	2.00	20.0	40.0	80.0
o-Xylene	CBZ	Ave	15833 2737182	29000	290565	605059	1269935	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 51898

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 18:21 Calibration End Date: 07/24/2012 20:24 Calibration ID: 10284

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Styrene	CBZ	Ave	25438 5089988	50187	519832	1086803	2336452	0.500 80.0	1.00	10.0	20.0	40.0
Bromoform	CBZ	Lin1	6119 908739	8986	92955	195475	430045	0.500 80.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBZ	Ave	33352 6510694	63028	683358	1401796	2999061	0.500 80.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCB	Lin1	14570 1687007	20202	195003	396910	848014	0.500 80.0	1.00	10.0	20.0	40.0
Bromobenzene	DCB	Ave	9806 1823673	19611	200551	414506	882473	0.500 80.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCB	Lin1	4948 582372	8135	66329	146751	294213	0.500 80.0	1.00	10.0	20.0	40.0
n-Propylbenzene	DCB	Lin1	11085 1697748	17444	180234	373055	785581	0.500 80.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCB	Ave	9009 1608171	16754	175120	357056	750139	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCB	Ave	+++++ 351426	4150	41187	87052	170594	+++++ 80.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCB	Ave	28158 5446486	54201	559961	1171015	2554219	0.500 80.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCB	Ave	8711 1778069	19582	190485	395380	828897	0.500 80.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCB	Ave	20704 4551611	47679	492438	990079	2363006	0.500 80.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCB	Ave	30386 5640880	55087	595949	1215824	2636311	0.500 80.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCB	Ave	30490 6365853	56845	652551	1342500	2943321	0.500 80.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCB	Ave	19977 3295944	34650	359914	734092	1582174	0.500 80.0	1.00	10.0	20.0	40.0
p-Isopropyltoluene	DCB	Ave	23693 5542694	50856	552256	1166650	2526949	0.500 80.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCB	Ave	19197 3476009	40870	391108	793241	1664089	0.500 80.0	1.00	10.0	20.0	40.0
n-Butylbenzene	DCB	Ave	22871 4665412	43145	488299	1021045	2220200	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCB	Ave	17072 3275378	36544	359082	736322	1555317	0.500 80.0	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCB	Ave	11557 2011187	24064	222585	467604	990380	0.500 80.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCB	Lin1	12840 1781415	23489	212135	429385	903456	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 51898

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 18:21 Calibration End Date: 07/24/2012 20:24 Calibration ID: 10284

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Hexachlorobutadiene	DCB	Ave	4457 747837	8343	91766	188886	362405	0.500 80.0	1.00	10.0	20.0	40.0
Naphthalene	DCB	Lin1	35905 4936170	58114	591447	1245002	2564334	0.500 80.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCB	Lin1	12002 1464365	18763	194591	394236	787763	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 1546333	20319	187740	405386	738186	+++++ 80.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	8753 1347156	15958	153884	320921	618609	0.500 80.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBZ	Ave	37526 5732762	70996	648874	1381972	2627576	0.500 80.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBZ	Lin1	17073 2133007	29556	242030	499237	1015240	0.500 80.0	1.00	10.0	20.0	40.0

Curve Type Legend:
Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 51898

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 21:16 Calibration End Date: 07/24/2012 23:26 Calibration ID: 10287

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-51898/8	UX932943.D
Level 2	STDA9 240-51898/9	UX932944.D
Level 3	STDA9 240-51898/10	UX932945.D
Level 4	STDA9 240-51898/11	UX932946.D
Level 5	STDA9 240-51898/12	UX932947.D
Level 6	STDA9 240-51898/13	UX932948.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorofluoromethane	FB	Ave	17481 2920143	34672	343254	681631	1386622	0.500 80.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Lin1	+++++ 745354	18421	99563	196416	376467	+++++ 80.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	7984 1122270	13291	128521	248617	501508	0.500 80.0	1.00	10.0	20.0	40.0
Diisopropyl ether	FB	Ave	40177 6833233	73579	749012	1560556	3231649	2.50 400	5.00	50.0	100	200
2-Chloro-1,3-butadiene	FB	Ave	13441 2038882	21906	234539	483033	971960	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl-t-butyl ether (ETBE)	FB	Ave	23503 4187040	45057	451773	940336	1912359	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl acetate	FB	Qua	21465 2580612	28922	230390	447470	931806	1.00 160	2.00	20.0	40.0	80.0
Propionitrile	FB	Qua	3098 407230	4293	34812	72001	141989	1.00 160	2.00	20.0	40.0	80.0
Methacrylonitrile	FB	Qua	5733 802145	8111	72756	151479	297260	0.500 80.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	CBZ	Qua	6901 903861	9689	80544	164777	329117	10.0 1600	20.0	200	400	800
Tert-amyl-methyl ether (TAME)	FB	Ave	24743 4226419	45100	451398	917336	1877415	0.500 80.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	47074 610202	45192	102611	185371	338340	0.500 80.0	1.00	10.0	20.0	40.0
n-Butanol	CBZ	Qua	5664 955820	8306	76738	151513	313034	10.0 1600	20.0	200	400	800
Methyl methacrylate	FB	Qua	10291 1234077	13424	120248	228622	461944	0.500 80.0	1.00	10.0	20.0	40.0
2-Nitropropane	FB	Qua	4801 668757	6411	58325	116523	226248	1.00 160	2.00	20.0	40.0	80.0
Cyclohexanone	DCB	Qua	4958 732875	7968	65901	130536	257796	5.00 800	10.0	100	200	400

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 51898

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 21:16 Calibration End Date: 07/24/2012 23:26 Calibration ID: 10287

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCB	Ave	30425 5526624	61375	616561	1246360	2654940	0.500 80.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCB	Ave	30460 5950409	47387	518514	1120873	2411325	1.00 160	2.00	20.0	40.0	80.0
n-Butyl acetate	CBZ	Ave	26580 4385380	39312	387333	772663	1588154	1.00 160	2.00	20.0	40.0	80.0

Curve Type Legend:
Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: ICV 240-51898/14 Calibration Date: 07/24/2012 23:50

Instrument ID: A3UX9 Calib Start Date: 07/24/2012 18:21

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/24/2012 20:24

Lab File ID: UX932949.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3295	0.3250		19.7	20.0	-1.3	50.0
Chloromethane	Lin1		0.3186	0.1000	21.4	20.0	7.0	50.0
Vinyl chloride	Ave	0.3079	0.3231		21.0	20.0	4.9	20.0
Bromomethane	Ave	0.2344	0.2097		17.9	20.0	-10.5	50.0
Chloroethane	Ave	0.2297	0.2239		19.5	20.0	-2.5	50.0
Trichlorofluoromethane	Qua		0.4438		20.1	20.0	0.5	50.0
Acrolein	Ave	0.0223	0.0302		81.4	60.0	35.6	50.0
1,1,2-Trichloro-1,2,2-trichf luoroethane	Lin1		0.2768		23.1	20.0	15.5	50.0
1,1-Dichloroethene	Ave	0.4205	0.4852		23.1	20.0	15.4	20.0
Acetone	Ave	0.0592	0.0711		48.1	40.0	20.1	50.0
Iodomethane	Ave	0.3945	0.4610		23.4	20.0	16.8	50.0
Carbon disulfide	Ave	0.8263	0.9192		22.2	20.0	11.2	50.0
Acetonitrile	Lin1		0.0268		81.9	60.0	36.5	50.0
Methyl acetate	Lin1		0.2257		26.9	20.0	34.5	50.0
Methylene Chloride	Lin1		0.3600		20.8	20.0	4.0	50.0
tert-Butyl alcohol	Ave	0.0199	0.0274		551	400	37.7	50.0
Acrylonitrile	Lin1		0.0977		75.0	60.0	25.0	50.0
Methyl tert-butyl ether	Ave	0.7663	0.8186		21.4	20.0	6.8	50.0
trans-1,2-Dichloroethene	Ave	0.3134	0.3646		23.3	20.0	16.3	50.0
Hexane	Lin1		0.2250		21.8	20.0	9.0	20.0
1,1-Dichloroethane	Ave	0.3969	0.4412	0.1000	22.2	20.0	11.2	50.0
Vinyl acetate	Ave	0.0452	0.0611		27.0	20.0	35.1	50.0
2,2-Dichloropropane	Lin1		0.1888		21.2	20.0	6.0	50.0
2-Butanone	Ave	0.0297	0.0347		46.7	40.0	16.9	50.0
cis-1,2-Dichloroethene	Ave	0.3462	0.3599		20.8	20.0	4.0	50.0
Bromochloromethane	Ave	0.1958	0.1983		20.3	20.0	1.3	50.0
Tetrahydrofuran	Lin1		0.0724		25.7	20.0	28.5	50.0
Chloroform	Ave	0.4533	0.4498		19.8	20.0	-0.8	20.0
1,1,1-Trichloroethane	Ave	0.3105	0.3296		21.2	20.0	6.1	50.0
Cyclohexane	Ave	0.3292	0.3185		19.3	20.0	-3.3	50.0
1,1-Dichloropropene	Ave	0.3338	0.3467		20.8	20.0	3.9	50.0
Carbon tetrachloride	Ave	0.2401	0.2649		22.1	20.0	10.3	50.0
1,2-Dichloroethane	Ave	0.3560	0.3815		21.4	20.0	7.2	50.0
Benzene	Ave	1.009	1.068		21.2	20.0	5.9	50.0
Trichloroethene	Ave	0.2761	0.2904		21.0	20.0	5.2	50.0
Methylcyclohexane	Lin1		0.2002		19.0	20.0	-5.0	50.0
1,2-Dichloropropane	Ave	0.2333	0.2474		21.2	20.0	6.1	20.0
Dibromomethane	Ave	0.1667	0.1867		22.4	20.0	12.0	50.0
Bromodichloromethane	Ave	0.3327	0.3377		20.3	20.0	1.5	50.0
2-Chloroethyl vinyl ether	Ave	0.1634	0.1735		21.2	20.0	6.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: ICV 240-51898/14 Calibration Date: 07/24/2012 23:50

Instrument ID: A3UX9 Calib Start Date: 07/24/2012 18:21

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/24/2012 20:24

Lab File ID: UX932949.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
cis-1,3-Dichloropropene	Ave	0.4202	0.4132		19.7	20.0	-1.7	50.0
4-Methyl-2-pentanone	Lin1		0.2405		48.6	40.0	21.5	50.0
Toluene	Ave	1.460	1.505		20.6	20.0	3.1	20.0
trans-1,3-Dichloropropene	Ave	0.4867	0.5164		21.2	20.0	6.1	50.0
1,1,2-Trichloroethane	Lin1		0.3257		23.1	20.0	15.5	50.0
Tetrachloroethene	Ave	0.3151	0.3129		19.9	20.0	-0.7	50.0
1,3-Dichloropropane	Ave	0.5498	0.5839		21.2	20.0	6.2	50.0
2-Hexanone	Lin1		0.2235		49.6	40.0	24.0	50.0
Dibromochloromethane	Ave	0.3134	0.3137		20.0	20.0	0.1	50.0
1,2-Dibromoethane	Ave	0.3076	0.3336		21.7	20.0	8.5	50.0
Chlorobenzene	Ave	0.9778	0.997	0.3000	20.4	20.0	2.0	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3350	0.3247		19.4	20.0	-3.1	50.0
Ethylbenzene	Ave	0.4885	0.5037		20.6	20.0	3.1	20.0
m-Xylene & p-Xylene	Ave	0.6066	0.6323		41.7	40.0	4.2	50.0
o-Xylene	Ave	0.6093	0.6224		20.4	20.0	2.2	50.0
Styrene	Ave	1.076	1.127		20.9	20.0	4.7	50.0
Bromoform	Lin1		0.2072	0.1000	20.5	20.0	2.5	50.0
Isopropylbenzene	Ave	1.388	1.424		20.5	20.0	2.6	50.0
1,1,2,2-Tetrachloroethane	Lin1		0.8615	0.3000	23.3	20.0	16.5	50.0
Bromobenzene	Ave	0.8095	0.8114		20.0	20.0	0.2	50.0
1,2,3-Trichloropropane	Lin1		0.3187		24.7	20.0	23.5	50.0
trans-1,4-Dichloro-2-butene	Ave	0.2293	0.2440		42.6	40.0	6.4	50.0
n-Propylbenzene	Lin1		0.7567		21.1	20.0	5.5	50.0
2-Chlorotoluene	Ave	0.7078	0.7051		19.9	20.0	-0.4	50.0
1,3,5-Trimethylbenzene	Ave	2.311	2.320		20.1	20.0	0.4	50.0
4-Chlorotoluene	Ave	0.7685	0.7739		20.1	20.0	0.7	50.0
tert-Butylbenzene	Ave	1.958	1.974		20.2	20.0	0.8	50.0
1,2,4-Trimethylbenzene	Ave	2.416	2.437		20.2	20.0	0.9	50.0
sec-Butylbenzene	Ave	2.604	2.685		20.6	20.0	3.1	50.0
1,3-Dichlorobenzene	Ave	1.484	1.468		19.8	20.0	-1.1	50.0
p-Isopropyltoluene	Ave	2.216	2.385		21.5	20.0	7.6	50.0
1,4-Dichlorobenzene	Ave	1.579	1.530		19.4	20.0	-3.1	50.0
n-Butylbenzene	Ave	1.954	2.014		20.6	20.0	3.0	50.0
1,2-Dichlorobenzene	Ave	1.447	1.463		20.2	20.0	1.1	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1601	0.2058		25.7	20.0	28.6	50.0
1,2,4-Trichlorobenzene	Lin1		0.8470		21.5	20.0	7.5	50.0
Hexachlorobutadiene	Ave	0.3530	0.3343		18.9	20.0	-5.3	50.0
Naphthalene	Lin1		2.738		24.8	20.0	24.0	50.0
1,2,3-Trichlorobenzene	Lin1		0.7906		23.5	20.0	17.5	50.0
Dibromofluoromethane (Surr)	Ave	0.2522	0.2424		19.2	20.0	-3.9	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2951	0.3171		21.5	20.0	7.5	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: ICV 240-51898/14 Calibration Date: 07/24/2012 23:50

Instrument ID: A3UX9 Calib Start Date: 07/24/2012 18:21

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/24/2012 20:24

Lab File ID: UX932949.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Toluene-d8 (Surr)	Ave	1.371	1.282		18.7	20.0	-6.5	50.0
4-Bromofluorobenzene (Surr)	Lin1		0.4973		20.4	20.0	2.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: ICV 240-51898/14 Calibration Date: 07/24/2012 23:50

Instrument ID: A3UX9 Calib Start Date: 07/24/2012 21:16

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/24/2012 23:26

Lab File ID: UX932949.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.2053	0.2161		21.0	20.0	5.2	50.0
Diisopropyl ether	Ave	0.2395	0.2583		21.6	20.0	7.8	50.0
Isobutyl alcohol	Qua		0.0101		1110	1000	10.6	50.0
Cyclohexanone	Qua		0.0371		495	400	23.7	50.0
1,2,3-Trimethylbenzene	Ave	2.611	2.669		20.4	20.0	2.2	50.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab File ID: BFB2131.D BFB Injection Date: 09/20/2012

Instrument ID: A3UX9 BFB Injection Time: 17:11

Analysis Batch No.: 58594

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.7	
75	30.0 - 60.0 % of mass 95	48.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.8	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	101.1	
175	5.0 - 9.0 % of mass 174	8.2	(8.1)1
176	95.0 - 101.0 % of mass 174	97.3	(96.3)1
177	5.0 - 9.0 % of mass 176	5.6	(5.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-58594/2	UX933842.D	09/20/2012	17:44
	LCS 240-58594/5	UX933843.D	09/20/2012	18:10
	CCV 240-58594/3	UX933844.D	09/20/2012	18:36
	MB 240-58594/4	UX933845.D	09/20/2012	19:03
TB	240-15155-3	UX933860.D	09/21/2012	01:02
	240-15134-C-5 MS	UX933864.D	09/21/2012	02:38
	240-15134-C-5 MSD	UX933865.D	09/21/2012	03:02

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCVIS 240-58594/2 Calibration Date: 09/20/2012 17:44

Instrument ID: A3UX9 Calib Start Date: 07/24/2012 18:21

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/24/2012 20:24

Lab File ID: UX933842.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3295	0.2849		17.3	20.0	-13.5	50.0
Chloromethane	Lin1		0.2627	0.1000	17.6	20.0	-12.0	50.0
Vinyl chloride	Ave	0.3079	0.2918		19.0	20.0	-5.2	20.0
Bromomethane	Ave	0.2344	0.2239		19.1	20.0	-4.5	50.0
Chloroethane	Ave	0.2297	0.2052		17.9	20.0	-10.7	50.0
Trichlorofluoromethane	Qua		0.4220		19.1	20.0	-4.7	50.0
~~Acrolein~~	Ave	0.0223	~~0.0287~~		257	200	~~28.7~~	50.0
1,1,2-Trichloro-1,2,2-trichf luoroethane	Lin1		0.2307		19.2	20.0	-4.0	50.0
1,1-Dichloroethene	Ave	0.4205	0.3834		18.2	20.0	-8.8	20.0
Acetone OK	Ave	0.0592	0.0698		47.2	40.0	17.9	50.0
~~Iodomethane~~	Ave	0.3945	0.4879		24.7	20.0	~~23.7~~	50.0
Carbon disulfide	Ave	0.8263	0.8215		19.9	20.0	-0.6	50.0
~~Acetonitrile~~	Lin1		~~0.0259~~		287	200	~~43.6~~	50.0
Methyl acetate	Lin1		0.1794		44.0	40.0	10.0	50.0
Methylene Chloride	Lin1		0.3088		17.6	20.0	-12.0	50.0
tert-Butyl alcohol	Ave	0.0199	0.0240		483	400	20.8	50.0
~~Acrylonitrile~~	Lin1		0.0944		47.8	40.0	19.6	50.0
Methyl tert-butyl ether	Ave	0.7663	0.7337		19.2	20.0	-4.2	50.0
trans-1,2-Dichloroethene	Ave	0.3134	0.3067		19.6	20.0	-2.1	50.0
Hexane	Lin1		0.1812		17.5	20.0	-12.6	20.0
1,1-Dichloroethane	Ave	0.3969	0.3895	0.1000	19.6	20.0	-1.9	50.0
Vinyl acetate	Ave	0.0452	0.0439		19.4	20.0	-2.9	50.0
2,2-Dichloropropane	Lin1		0.1052		11.8	20.0	-41.2	50.0
2-Butanone	Ave	0.0297	0.0327		44.0	40.0	10.0	50.0
cis-1,2-Dichloroethene	Ave	0.3462	0.3051		17.6	20.0	-11.9	50.0
Bromochloromethane	Ave	0.1958	0.1638		16.7	20.0	-16.3	50.0
Tetrahydrofuran	Lin1		0.0658		23.2	20.0	15.9	50.0
Chloroform	Ave	0.4533	0.4197		18.5	20.0	-7.4	20.0
1,1,1-Trichloroethane	Ave	0.3105	0.3055		19.7	20.0	-1.6	50.0
Cyclohexane	Ave	0.3292	0.2835		17.2	20.0	-13.9	50.0
1,1-Dichloropropene	Ave	0.3338	0.3052		18.3	20.0	-8.6	50.0
Carbon tetrachloride	Ave	0.2401	0.2623		21.9	20.0	9.3	50.0
Benzene	Ave	1.009	0.9718		19.3	20.0	-3.6	50.0
1,2-Dichloroethane	Ave	0.3560	0.3277		18.4	20.0	-7.9	50.0
Trichloroethene	Ave	0.2761	0.2952		21.4	20.0	6.9	50.0
Methylcyclohexane	Lin1		0.1781		16.9	20.0	-15.7	50.0
1,2-Dichloropropane	Ave	0.2333	0.2134		18.3	20.0	-8.5	20.0
~~1,4-Dioxane~~	Lin1		~~0.0036~~		1290	1000	~~29.0~~	50.0
Dibromomethane	Ave	0.1667	0.2111		25.3	20.0	26.7	50.0
Bromodichloromethane	Ave	0.3327	0.2997		18.0	20.0	-9.9	50.0

FORM VII 8260B

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCVIS 240-58594/2 Calibration Date: 09/20/2012 17:44

Instrument ID: A3UX9 Calib Start Date: 07/24/2012 18:21

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/24/2012 20:24

Lab File ID: UX933842.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1634	0.1748		42.8	40.0	7.0	50.0
cis-1,3-Dichloropropene	Ave	0.4202	0.3532		16.8	20.0	-15.9	50.0
4-Methyl-2-pentanone	Lin1		0.2292		46.3	40.0	15.7	50.0
Toluene	Ave	1.460	1.383		18.9	20.0	-5.3	20.0
trans-1,3-Dichloropropene	Ave	0.4867	0.3718		15.3	20.0	-23.6	50.0
Ethyl methacrylate	Ave	0.4367	0.3783		17.3	20.0	-13.4	50.0
1,1,2-Trichloroethane	Lin1		0.3013		21.4	20.0	6.8	50.0
Tetrachloroethene	Ave	0.3151	0.3419		21.7	20.0	8.5	50.0
1,3-Dichloropropane	Ave	0.5498	0.5184		18.9	20.0	-5.7	50.0
2-Hexanone	Lin1		0.2035		45.1	40.0	12.9	50.0
Dibromochloromethane	Ave	0.3134	0.3104		19.8	20.0	-1.0	50.0
1,2-Dibromoethane	Ave	0.3076	0.3052		19.8	20.0	-0.8	50.0
Chlorobenzene	Ave	0.9778	0.9485	0.3000	19.4	20.0	-3.0	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3350	0.2905		17.3	20.0	-13.3	50.0
Ethylbenzene	Ave	0.4885	0.4677		19.1	20.0	-4.3	20.0
m-Xylene & p-Xylene	Ave	0.6066	0.5898		38.9	40.0	-2.8	50.0
o-Xylene	Ave	0.6093	0.5763		18.9	20.0	-5.4	50.0
Styrene	Ave	1.076	1.044		19.4	20.0	-3.0	50.0
Bromoform	Lin1		0.2145	0.1000	21.2	20.0	6.0	50.0
Isopropylbenzene	Ave	1.388	1.296		18.7	20.0	-6.6	50.0
1,1,2,2-Tetrachloroethane	Lin1		0.7733	0.3000	20.8	20.0	4.2	50.0
Bromobenzene	Ave	0.8095	0.7854		19.4	20.0	-3.0	50.0
1,2,3-Trichloropropane	Lin1		0.2927		22.6	20.0	13.2	50.0
trans-1,4-Dichloro-2-butene	Ave	0.2293	0.1739		15.2	20.0	-24.2	50.0
n-Propylbenzene	Lin1		0.6372		17.8	20.0	-11.2	50.0
2-Chlorotoluene	Ave	0.7078	0.6326		17.9	20.0	-10.6	50.0
1,3,5-Trimethylbenzene	Ave	2.311	1.931		16.7	20.0	-16.5	50.0
4-Chlorotoluene	Ave	0.7685	0.7063		18.4	20.0	-8.1	50.0
tert-Butylbenzene	Ave	1.958	1.691		17.3	20.0	-13.7	50.0
1,2,4-Trimethylbenzene	Ave	2.416	2.042		16.9	20.0	-15.5	50.0
sec-Butylbenzene	Ave	2.604	2.207		17.0	20.0	-15.2	50.0
1,3-Dichlorobenzene	Ave	1.484	1.339		18.0	20.0	-9.8	50.0
p-Isopropyltoluene	Ave	2.216	1.968		17.8	20.0	-11.2	50.0
1,4-Dichlorobenzene	Ave	1.579	1.413		17.9	20.0	-10.5	50.0
n-Butylbenzene	Ave	1.954	1.588		16.3	20.0	-18.7	50.0
1,2-Dichlorobenzene	Ave	1.447	1.343		18.6	20.0	-7.2	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1601	0.1602		20.0	20.0	0.0	50.0
1,3,5-Trichlorobenzene	Ave	0.9277	0.8929		19.3	20.0	-3.7	50.0
1,2,4-Trichlorobenzene	Lin1		0.8132		20.6	20.0	3.1	50.0
Hexachlorobutadiene	Ave	0.3530	0.3706		21.0	20.0	5.0	50.0
Naphthalene	Lin1		2.326		21.0	20.0	5.1	50.0

FORM VII 8260B

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCVIS 240-58594/2 Calibration Date: 09/20/2012 17:44

Instrument ID: A3UX9 Calib Start Date: 07/24/2012 18:21

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/24/2012 20:24

Lab File ID: UX933842.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Lin1		0.7499		22.2	20.0	11.2	50.0
Dibromofluoromethane (Surr)	Ave	0.2522	0.2451		19.4	20.0	-2.8	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2951	0.2688		18.2	20.0	-8.9	50.0
Toluene-d8 (Surr)	Ave	1.371	1.246		18.2	20.0	-9.2	50.0
4-Bromofluorobenzene (Surr)	Lin1		0.4469		18.4	20.0	-8.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58594/3 Calibration Date: 09/20/2012 18:36

Instrument ID: A3UX9 Calib Start Date: 07/24/2012 21:16

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/24/2012 23:26

Lab File ID: UX933844.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.5301	0.4118		15.5	20.0	-22.3	50.0
Ethyl ether	Ave	0.2053	0.1715		16.7	20.0	-16.5	50.0
3-Chloro-1-propene	Lin1		0.0944		12.6	20.0	-37.2	50.0
Diisopropyl ether	Ave	0.2395	0.2176		90.9	100	-9.1	50.0
2-Chloro-1,3-butadiene	Ave	0.3699	0.3093		16.7	20.0	-16.4	50.0
Ethyl-t-butyl ether (ETBE)	Ave	0.7202	0.5708		15.9	20.0	-20.7	50.0
Ethyl acetate	Qua		0.1841		46.1	40.0	15.1	50.0
Propionitrile	Qua		0.0296		48.0	40.0	-19.9	50.0
Methacrylonitrile	Qua		0.1244		23.7	20.0	18.3	50.0
Isobutyl alcohol	Qua		0.0065		352	400	-11.9	50.0
Tert-amyl-methyl ether (TAME)	Ave	0.7224	0.6141		17.0	20.0	-15.0	50.0
n-Heptane	Lin1		0.1285		18.1	20.0	-9.4	50.0
n-Butanol	Qua		0.0051		313	400	-21.7	50.0
Methyl methacrylate	Qua		0.1837		22.6	20.0	13.2	50.0
2-Nitropropane	Qua		0.0391		40.8	40.0	1.9	50.0
Cyclohexanone	Qua		0.0217		185	200	-7.7	50.0
1,2,3-Trimethylbenzene	Ave	2.611	2.155		16.5	20.0	-17.5	50.0
2-Methylnaphthalene	Ave	1.199	0.8269		27.6	40.0	-31.1	50.0

FORM VII 8260B

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab File ID: BFB14232.D BFB Injection Date: 09/12/2012

Instrument ID: A3UX14 BFB Injection Time: 16:21

Analysis Batch No.: 57599

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	26.0	
75	30.0 - 60.0 % of mass 95	49.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	79.1	
175	5.0 - 9.0 % of mass 174	6.1	(7.7)1
176	95.0 - 101.0 % of mass 174	79.7	(100.8)1
177	5.0 - 9.0 % of mass 176	5.4	(6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 240-57599/3	147846.D	09/12/2012	17:06
	IC 240-57599/4	147847.D	09/12/2012	17:28
	IC 240-57599/5	147848.D	09/12/2012	17:50
	ICIS 240-57599/6	147849.D	09/12/2012	18:11
	IC 240-57599/7	147850.D	09/12/2012	18:33
	IC 240-57599/8	147851.D	09/12/2012	18:54
	IC 240-57599/9	147852.D	09/12/2012	19:16
	IC 240-57599/10	147853.D	09/12/2012	19:37
	IC 240-57599/11	147854.D	09/12/2012	19:59
	IC 240-57599/12	147855.D	09/12/2012	20:20
	IC 240-57599/13	147856.D	09/12/2012	20:42
	IC 240-57599/14	147857.D	09/12/2012	21:03
	IC 240-57599/15	147858.D	09/12/2012	21:25
	IC 240-57599/16	147859.D	09/12/2012	21:46
	IC 240-57599/17	147860.D	09/12/2012	22:08
	IC 240-57599/18	147861.D	09/12/2012	22:30
	IC 240-57599/19	147862.D	09/12/2012	22:51
	IC 240-57599/20	147863.D	09/12/2012	23:13
	ICV 240-57599/21	147864.D	09/12/2012	23:34

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57599

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/12/2012 17:06 Calibration End Date: 09/12/2012 19:59 Calibration ID: 11373

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-57599/11	147854.D
Level 2	IC 240-57599/10	147853.D
Level 3	IC 240-57599/9	147852.D
Level 4	IC 240-57599/8	147851.D
Level 5	IC 240-57599/7	147850.D
Level 6	ICIS 240-57599/6	147849.D
Level 7	IC 240-57599/5	147848.D
Level 8	IC 240-57599/4	147847.D
Level 9	IC 240-57599/3	147846.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3482 0.3165	0.3231 0.3043	0.3284 0.2871	0.3188 0.2969	0.3236	Ave		0.3163				5.8		15.0			
Chloromethane	0.7560 0.5839	0.6420 0.5526	0.6111 0.5063	0.6163 0.5642	0.6312	Ave		0.6071			0.1000	12.0		15.0			
Vinyl chloride	0.4289 0.4481	0.4235 0.4334	0.4449 0.4036	0.4389 0.4058	0.4640	Ave		0.4323				4.5		15.0			
Bromomethane	+++++ 0.1456	0.1603 0.1395	0.1409 0.1301	0.1504 0.1338	0.1518	Ave		0.1441				6.9		15.0			
Chloroethane	0.2249 0.2132	0.2207 0.2068	0.2158 0.1967	0.2103 0.1961	0.2252	Ave		0.2122				5.1		15.0			
Trichlorofluoromethane	0.3611 0.4410	0.3543 0.4321	0.3818 0.4194	0.3978 0.4231	0.4359	Ave		0.4051				8.1		15.0			
~~Acrolein~~	0.0332 0.0293	0.0271 0.0292	0.0338 0.0284	0.0308 0.0297	0.0329	Ave		~~0.0305~~				7.6		15.0			
1,1-Dichloroethene	0.3181 0.2842	0.2633 0.2786	0.3131 0.2644	0.2863 0.2669	0.2936	Ave		0.2854				7.0		15.0			
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.2468 0.2613	0.2240 0.2503	0.2713 0.2361	0.2657 0.2423	0.2658	Ave		0.2515				6.3		15.0			
Acetone	+++++ 0.0907	+++++ 0.0888	0.1498 0.0825	0.1221 0.0836	0.1099	Lin1	0.7784	0.0823							0.9990		0.9900
Iodomethane	0.5099 0.4844	0.4250 0.4596	0.4849 0.4375	0.5001 0.4477	0.4889	Ave		0.4709				6.3		15.0			
Carbon disulfide	+++++ 0.8434	+++++ 0.8520	0.6554 0.8419	0.6771 0.8659	0.7614	Ave		0.7853				11.0		15.0			
~~Acetonitrile~~	+++++ 0.0344	0.0380 0.0338	0.0422 0.0313	0.0385 0.0323	0.0389	Ave		~~0.0362~~				10.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57599

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/12/2012 17:06 Calibration End Date: 09/12/2012 19:59 Calibration ID: 11373

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Methyl acetate	+++++ 0.2462	0.2699 0.2328	0.2802 0.2238	0.2618 0.2391	0.2749	Ave		0.2536				8.3		15.0			
Methylene Chloride	+++++ 0.3156	+++++ 0.2914	0.5733 0.2652	0.4366 0.2707	0.3692	Lin1	1.7154	0.2650							0.9990		0.9900
tert-Butyl alcohol	0.0230 0.0193	0.0200 0.0200	0.0210 0.0193	0.0188 0.0199	0.0224	Ave		0.0204				7.1		15.0			
Acrylonitrile	0.1376 0.1078	0.1091 0.1046	0.1163 0.0997	0.1135 0.1048	0.1185	Ave		0.1124				10.0		15.0			
trans-1,2-Dichloroethene	0.3232 0.3121	0.2844 0.3018	0.3201 0.2880	0.3019 0.2915	0.3126	Ave		0.3040				4.6		15.0			
Methyl tert-butyl ether	0.6972 0.7247	0.6304 0.7075	0.7138 0.6804	0.6979 0.7041	0.7263	Ave		0.6981				4.2		15.0			
Hexane	0.0873 0.0810	0.0722 0.0804	0.0876 0.0765	0.0777 0.0784	0.0791	Ave		0.0800				6.2		15.0			
1,1-Dichloroethane	0.6548 0.6413	0.5795 0.6134	0.6384 0.5883	0.6075 0.6033	0.6446	Ave		0.6190			0.1000	4.3		15.0			
Vinyl acetate	+++++ 0.0253	0.0222 0.0270	0.0288 0.0271	0.0223 0.0289	0.0243	Ave		0.0257				10.0		15.0			
2,2-Dichloropropane	0.1948 0.2337	0.1858 0.2186	0.1971 0.2023	0.2078 0.1990	0.2249	Ave		0.2071				7.5		15.0			
cis-1,2-Dichloroethene	0.3100 0.3230	0.3091 0.3068	0.3355 0.2920	0.3211 0.2979	0.3263	Ave		0.3135				4.5		15.0			
2-Butanone	+++++ 0.1180	0.1596 0.1165	0.1528 0.1146	0.1316 0.1215	0.1298	Ave		0.1305				13.0		15.0			
Bromochloromethane	0.1350 0.1421	0.1283 0.1351	0.1503 0.1307	0.1392 0.1335	0.1415	Ave		0.1373				4.9		15.0			
Tetrahydrofuran	+++++ 0.0871	+++++ 0.0832	0.1461 0.0795	0.1084 0.0849	0.1020	Lin1	0.3199	0.0810							0.9990		0.9900
Chloroform	0.5089 0.5206	0.4441 0.5051	0.5326 0.4839	0.5014 0.5005	0.5098	Ave		0.5008				5.0		15.0			
1,1,1-Trichloroethane	0.3242 0.4295	0.3157 0.4107	0.3651 0.3976	0.3819 0.4106	0.4039	Ave		0.3821				10.0		15.0			
Cyclohexane	0.7452 0.8567	0.6744 0.8375	0.8478 0.7930	0.8212 0.8028	0.8550	Ave		0.8037				7.5		15.0			
1,1-Dichloropropene	0.3775 0.4317	0.3407 0.4202	0.4273 0.4057	0.4028 0.4133	0.4243	Ave		0.4048				7.2		15.0			
Carbon tetrachloride	0.2845 0.4045	0.2783 0.3968	0.3311 0.3858	0.3350 0.3971	0.3714	Ave		0.3538				14.0		15.0			
Benzene	1.2344 1.1513	1.1219 1.1158	1.2077 1.0880	1.1220 1.1215	1.1266	Ave		1.1432				4.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57599

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/12/2012 17:06 Calibration End Date: 09/12/2012 19:59 Calibration ID: 11373

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,2-Dichloroethane	0.4253 0.4055	0.3852 0.3880	0.4207 0.3795	0.3996 0.3961	0.4051	Ave		0.4006				3.9		15.0			
Trichloroethene	0.3164 0.3108	0.2643 0.3033	0.3275 0.2954	0.3001 0.3020	0.3017	Ave		0.3024				5.7		15.0			
Methylcyclohexane	0.4868 0.6068	0.4538 0.5879	0.5951 0.5644	0.5648 0.5602	0.5932	Ave		0.5570				9.4		15.0			
1,2-Dichloropropane	0.2923 0.3006	0.2622 0.2968	0.3000 0.2883	0.2726 0.2973	0.2906	Ave		0.2890				4.6		15.0			
Dibromomethane	0.1429 0.1304	0.1090 0.1262	0.1313 0.1221	0.1220 0.1261	0.1314	Ave		0.1268				7.2		15.0			
~~1,4-Dioxane~~	0.0023 0.0019	0.0017 0.0018	0.0018 0.0018	0.0019 0.0019	0.0019	Ave		~~0.0019~~				9.2		15.0			
Bromodichloromethane	+++++ 0.2835	+++++ 0.2970	0.2306 0.3051	0.2275 0.3209	0.2550	Ave		0.2742				13.0		15.0			
2-Chloroethyl vinyl ether	+++++ 0.0827	+++++ 0.0862	0.0667 0.0938	0.0631	0.0766	Ave		0.0782				15.0		15.0			
cis-1,3-Dichloropropene	+++++ 0.3384	+++++ 0.3490	0.2550 0.3656	0.2610	0.2938	Ave		0.3104				15.0		15.0			
4-Methyl-2-pentanone	0.3438 0.3515	0.3039 0.3558	0.3409 0.3547	0.3186 0.3678	0.3667	Ave		0.3449				6.2		15.0			
Toluene	1.7903 1.7428	1.6411 1.6854	1.7906 1.6596	1.6877 1.6723	1.7286	Ave		1.7109				3.2		15.0			
trans-1,3-Dichloropropene	+++++ 0.4054	+++++ 0.4054	0.3153 0.4281	0.3131 0.4431	0.3550	Ave		0.3808				14.0		15.0			
Ethyl methacrylate	+++++ 0.2767	+++++ 0.2781	0.2324 0.3004	0.2071	0.2496	Ave		0.2574				13.0		15.0			
1,1,2-Trichloroethane	0.2910 0.2437	0.2292 0.2310	0.2576 0.2303	0.2328 0.2362	0.2420	Ave		0.2438				8.1		15.0			
Tetrachloroethene	0.4279 0.3583	0.3713 0.3493	0.3755 0.3360	0.3592 0.3345	0.3487	Ave		0.3623				7.8		15.0			
1,3-Dichloropropane	0.4908 0.4476	0.4041 0.4230	0.4673 0.4306	0.4231 0.4444	0.4519	Ave		0.4425				5.9		15.0			
2-Hexanone	0.2225 0.1876	0.1665 0.1899	0.1854 0.2007	0.1738 0.2180	0.1924	Ave		0.1930				9.6		15.0			
Dibromochloromethane	0.1933 0.2777	0.1739 0.2849	0.2112 0.3058	0.2129 0.3175	0.2405	Lin1	-0.274	0.3040							0.9960		0.9900
1,2-Dibromoethane	0.2658 0.2466	0.2383 0.2394	0.2456 0.2394	0.2297 0.2466	0.2454	Ave		0.2441				4.0		15.0			
Chlorobenzene	1.2396 1.0805	1.1365 1.0516	1.1672 1.0473	1.0872 1.0495	1.0752	Ave		1.1039			0.3000	5.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57599

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/12/2012 17:06 Calibration End Date: 09/12/2012 19:59 Calibration ID: 11373

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,1,1,2-Tetrachloroethane	0.3285 0.4123	0.3035 0.4072	0.3740 0.3891	0.3789 0.3912	0.3984	Ave		0.3759				9.7		15.0			
Ethylbenzene	0.5773 0.5965	0.5097 0.5799	0.5554 0.5740	0.5435 0.5799	0.5667	Ave		0.5648				4.5		15.0			
m-Xylene & p-Xylene	0.6541 0.7396	0.5871 0.7136	0.7056 0.7053	0.6795 0.7043	0.7286	Ave		0.6909				6.7		15.0			
o-Xylene	0.6652 0.7579	0.6726 0.7305	0.7283 0.6916	0.7295 0.6847	0.7533	Ave		0.7126				4.9		15.0			
Styrene	0.8911 1.1020	0.8203 1.0880	0.9417 1.0878	0.9433 1.1106	1.0265	Ave		1.0013				11.0		15.0			
Bromoform	+++++ 0.1311	+++++ 0.1397	0.0999 0.1482	0.0944 0.1594	0.1162	Lin1	-0.465	0.1528			0.1000				0.9960		0.9900
Isopropylbenzene	1.6908 2.1718	1.6140 2.0580	1.9430 2.0531	1.9703 2.0098	2.1084	Ave		1.9577				9.6		15.0			
1,1,2,2-Tetrachloroethane	0.5718 0.5432	0.4343 0.5360	0.5408 0.5335	0.4884 0.5505	0.5260	Ave		0.5249			0.3000	7.7		15.0			
Bromobenzene	0.7210 0.7775	0.7883 0.7831	0.8192 0.7787	0.7287 0.7987	0.7332	Ave		0.7698				4.4		15.0			
1,2,3-Trichloropropane	0.1861 0.1770	0.1845 0.1727	0.1860 0.1679	0.1702 0.1754	0.1645	Ave		0.1760				4.6		15.0			
trans-1,4-Dichloro-2-butene	0.2389 0.2027	0.1881 0.2144	0.1945 0.2236	0.1829 0.2339	0.1882	Ave		0.2075				10.0		15.0			
n-Propylbenzene	0.7006 1.0255	0.6969 0.9961	0.8789 0.9968	0.8845 1.0134	0.9223	Ave		0.9017				14.0		15.0			
2-Chlorotoluene	0.7980 0.8687	0.7236 0.8606	0.8494 0.8271	0.8303 0.8477	0.8217	Ave		0.8252				5.3		15.0			
1,3,5-Trimethylbenzene	+++++ 3.3601	2.1577 3.2633	2.9688 3.1909	3.0108 3.2239	3.1497	Ave		3.0406				12.0		15.0			
4-Chlorotoluene	0.8072 0.8471	0.7019 0.8232	0.8478 0.8340	0.8033 0.8402	0.7862	Ave		0.8101				5.7		15.0			
tert-Butylbenzene	2.2613 3.1856	2.1256 3.0721	2.7735 2.9502	2.8514 2.9566	3.0078	Ave		2.7982				13.0		15.0			
1,2,4-Trimethylbenzene	2.5301 3.1942	2.4251 3.1083	2.9792 3.0863	2.9891 3.1188	3.0592	Ave		2.9434				9.3		15.0			
sec-Butylbenzene	3.0483 4.3402	2.9973 4.2254	3.9594 4.0980	3.9830 4.0896	4.2135	Ave		3.8839				13.0		15.0			
1,3-Dichlorobenzene	1.9485 1.6392	1.7596 1.6049	1.7489 1.5565	1.6422 1.5597	1.6361	Ave		1.6773				7.4		15.0			
p-Isopropyltoluene	2.5191 3.6177	2.4723 3.5784	3.1628 3.4650	3.3111 3.4112	3.5255	Ave		3.2292				14.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57599

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/12/2012 17:06 Calibration End Date: 09/12/2012 19:59 Calibration ID: 11373

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dichlorobenzene	+++++ 1.6549	1.9415 1.6031	1.8630 1.5744	1.6588 1.6001	1.6578	Ave		1.6942				7.9		15.0			
n-Butylbenzene	2.5270 3.0465	2.4304 2.9835	2.8560 2.9069	2.7506 2.9185	2.8758	Ave		2.8106				7.3		15.0			
1,2-Dichlorobenzene	1.9630 1.5503	1.6880 1.4497	1.6637 1.3872	1.5732 1.3971	1.5762	Ave		1.5832				11.0		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.0790	+++++ 0.0784	0.0770 0.0843	0.0807 0.0895	0.0847	Ave		0.0819				5.4		15.0			
1,3,5-Trichlorobenzene	1.5010 1.1512	1.3119 1.0298	1.2950 1.0084	1.2285 0.9939	1.2555	Ave		1.1973				14.0		15.0			
1,2,4-Trichlorobenzene	+++++ 0.9231	+++++ 0.8259	1.0714 0.8299	1.0194 0.8084	1.0456	Ave		0.9320				12.0		15.0			
Hexachlorobutadiene	0.6634 0.5288	0.5386 0.4449	0.6250	0.6363	0.6123	Ave		0.5785				13.0		15.0			
Naphthalene	2.4784 1.8347	2.0609 1.6704	1.7947 1.7045	1.8669 1.6622	1.9766	Ave		1.8944				14.0		15.0			
1,2,3-Trichlorobenzene	1.2225 0.7622	0.9965 0.6825	0.9361 0.6804	0.9726 0.6568	0.9246	Lin1	0.9016	0.6812							0.9940		0.9900
Dibromofluoromethane (Surr)	+++++ 0.2374	+++++ 0.2495	0.2853 0.2421	0.2742 0.2966	0.2624	Ave		0.2639				8.5		15.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.2662	+++++ 0.2811	0.3425 0.2805	0.3282 0.3504	0.3157	Ave		0.3092				11.0		15.0			
Toluene-d8 (Surr)	+++++ 1.3655	+++++ 1.3772	1.5578 1.3762	1.5483 1.6627	1.5086	Ave		1.4852				7.7		15.0			
4-Bromofluorobenzene (Surr)	+++++ 0.8462	+++++ 0.8885	0.9778 0.9309	0.9573 1.1503	0.8811	Ave		0.9475				11.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57599

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/12/2012 20:20 Calibration End Date: 09/12/2012 23:13 Calibration ID: 11375

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-57599/20	147863.D
Level 2	IC 240-57599/19	147862.D
Level 3	IC 240-57599/18	147861.D
Level 4	IC 240-57599/17	147860.D
Level 5	IC 240-57599/16	147859.D
Level 6	IC 240-57599/15	147858.D
Level 7	IC 240-57599/14	147857.D
Level 8	IC 240-57599/13	147856.D
Level 9	IC 240-57599/12	147855.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Dichlorofluoromethane	0.5179 0.5529	0.5204 0.5373	0.5735 0.5438	0.5864 0.5248	0.5647	Ave		0.5469				4.5		15.0			
Ethyl ether	0.3650 0.2777	0.3244 0.2794	0.3281 0.2762	0.3166 0.2881	0.2933	Ave		0.3054				9.9		15.0			
3-Chloro-1-propene	+++++ 0.1520	+++++ 0.1592	0.1187 0.1662	0.1361 0.1692	0.1429	Ave		0.1492				12.0		15.0			
2-Chloro-1,3-butadiene	+++++ 0.6672	0.4903 0.6956	0.5716 0.7128	0.6233 0.7254	0.6402	Ave		0.6408				12.0		15.0			
Diisopropyl ether	0.2244 0.2600	0.2282 0.2567	0.2685 0.2492	0.2719 0.2530	0.2631	Ave		0.2528				6.6		15.0			
Ethyl-t-butyl ether (ETBE)	0.8393 1.0401	0.8588 1.0824	0.9964 1.0888	1.0036 1.1600	1.0093	Ave		1.0088				10.0		15.0			
~~Propionitrile~~	0.0517 0.0372	0.0415 0.0371	0.0424 0.0358	0.0385 0.0393	0.0344	Ave		~~0.0398~~				13.0		15.0			
Ethyl acetate	0.2066 0.2208	0.2042 0.2293	0.2326 0.2243	0.2362 0.2496	0.2209	Ave		0.2250				6.3		15.0			
Methacrylonitrile	0.1636 0.1626	0.1622 0.1651	0.1458 0.1654	0.1735 0.1782	0.1590	Ave		0.1639				5.5		15.0			
Is~~obutyl alcohol~~	0.0080 0.0086	0.0085 0.0089	0.0096 0.0088	0.0084 0.0102	0.0085	Ave		~~0.0088~~				7.5		15.0			
Tert-amyl-methyl ether (TAME)	0.5568 0.6608	0.5427 0.6890	0.6214 0.6960	0.6227 0.7410	0.6296	Ave		0.6400				10.0		15.0			
n-Heptane	0.0707 0.0780	0.0644 0.0785	0.0759 0.0804	0.0870 0.0777	0.0809	Ave		0.0771				8.3		15.0			
~~n-Butanol~~	+++++ 0.0101	+++++ 0.0108	0.0117 0.0109	0.0096 0.0124	0.0093	Ave		~~0.0107~~				10.0		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57599

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/12/2012 20:20 Calibration End Date: 09/12/2012 23:13 Calibration ID: 11375

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Methyl methacrylate	0.2055 0.1608	0.1384 0.1786	0.1469 0.1799	0.1612 0.1997	0.1535	Ave		0.1694				14.0		15.0			
~~2-Nitropropane~~	0.0341 0.0288	0.0299 0.0339	0.0296 0.0374	0.0305	0.0284	Ave		~~0.0316~~				10.0		15.0			
~~Cyclohexanone~~	+++++ 0.0440	+++++ 0.0470	0.0353 0.0476	0.0331	0.0381	Ave		~~0.0409~~				15.0		15.0			
1,2,3-Trimethylbenzene	2.7103 3.1165	2.5288 3.3463	2.8575 3.4298	3.0678 3.3972	3.0787	Ave		3.0592				10.0		15.0			
2-Methylnaphthalene	+++++ 1.0888	+++++ 1.2251	0.9478 1.2571	0.8114 1.1995	1.0343	Ave		1.0806				15.0		15.0			
n-Butyl acetate	+++++ 0.4145	0.4065 0.4561	0.4149 0.4424	0.4316 0.4981	0.3894	Ave		0.4317				7.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57599

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/12/2012 17:06 Calibration End Date: 09/12/2012 19:59 Calibration ID: 11373

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-57599/11	147854.D
Level 2	IC 240-57599/10	147853.D
Level 3	IC 240-57599/9	147852.D
Level 4	IC 240-57599/8	147851.D
Level 5	IC 240-57599/7	147850.D
Level 6	ICIS 240-57599/6	147849.D
Level 7	IC 240-57599/5	147848.D
Level 8	IC 240-57599/4	147847.D
Level 9	IC 240-57599/3	147846.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Dichlorodifluoromethane	FB	Ave	10578 499890	19813 990491	53256 1947214	97274 2506324	197567	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Chloromethane	FB	Ave	22964 922186	39362 1798966	99088 3434031	188051 4763740	385309	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Vinyl chloride	FB	Ave	13027 707711	25966 1410937	72131 2737630	133938 3425931	283271	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Bromomethane	FB	Ave	+++++ 229941	9829 454143	22854 882562	45904 1129929	92665	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
Chloroethane	FB	Ave	6832 336670	13530 673110	34987 1334229	64161 1655277	137493	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Trichlorofluoromethane	FB	Ave	10968 696492	21723 1406670	61899 2844688	121373 3571725	266073	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Acrolein	FB	Ave	10071 461979	16646 950197	54772 1924140	94031 2507234	200552	10.0 500	20.0 1000	50.0 2000	100 2500	200
1,1-Dichloroethene	FB	Ave	9663 448871	16144 907053	50766 1793331	87352 2253730	179234	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	FB	Ave	7498 412727	13736 814934	43992 1601819	81067 2045803	162237	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Acetone	FB	Lin1	+++++ 286491	+++++ 577805	48594 1119182	74505 1411004	134143	+++++ 100	+++++ 200	10.0 400	20.0 500	40.0
Iodomethane	FB	Ave	15489 764983	26062 1495965	78630 2967479	152599 3779847	298441	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Carbon disulfide	FB	Ave	+++++ 1331947	+++++ 2773491	106276 5711031	206604 7310461	464810	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Acetonitrile	FB	Ave	+++++ 543420	23299 1099835	68448 2126073	117384 2725474	237696	+++++ 500	20.0 1000	50.0 2000	100 2500	200
Methyl acetate	FB	Ave	+++++ 777720	33103 1515470	90880 3036404	159750 4037631	335647	+++++ 100	4.00 200	10.0 400	20.0 500	40.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57599

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/12/2012 17:06 Calibration End Date: 09/12/2012 19:59 Calibration ID: 11373

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Methylene Chloride	FB	Lin1	+++++ 498460	+++++ 948509	92955 1798760	133217 2285873	225397	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
tert-Butyl alcohol	FB	Ave	13974 609799	24551 1301850	68255 2615524	114612 3361665	273745	20.0 1000	40.0 2000	100 4000	200 5000	400
Acrylonitrile	FB	Ave	8361 340602	13380 680830	37700 1352075	69295 1768881	144677	2.00 100	4.00 200	10.0 400	20.0 500	40.0
trans-1,2-Dichloroethene	FB	Ave	9816 492971	17441 982523	51896 1953666	92128 2461082	190832	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Methyl tert-butyl ether	FB	Ave	21178 1144475	38656 2302926	115746 4615407	212969 5944881	443380	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Hexane	FB	Ave	2651 127845	4426 261794	14211 519100	23719 662297	48282	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1-Dichloroethane	FB	Ave	19890 1012804	35531 1996579	103509 3990640	185361 5093600	393531	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Vinyl acetate	FB	Ave	+++++ 40004	1363 87862	4676 183618	6793 243729	14846	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
2,2-Dichloropropane	FB	Ave	5916 369085	11392 711720	31959 1372326	63408 1680435	137296	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
cis-1,2-Dichloroethene	FB	Ave	9417 510041	18955 998834	54396 1980957	97981 2514731	199203	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Butanone	FB	Ave	+++++ 372810	19569 758440	49541 1554906	80293 2051315	158501	+++++ 100	4.00 200	10.0 400	20.0 500	40.0
Bromochloromethane	FB	Ave	4102 224464	7867 439713	24364 886422	42472 1126930	86385	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Tetrahydrofuran	FB	Lin1	+++++ 137494	+++++ 270824	23688 539165	33088 716708	62246	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Chloroform	FB	Ave	15457 822112	27230 1644032	86354 3282064	153010 4225331	311235	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,1-Trichloroethane	FB	Ave	9848 678245	19356 1336891	59199 2697299	116544 3466770	246588	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Cyclohexane	FB	Ave	22635 1353026	41353 2726370	137461 5379313	250575 6777781	521940	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1-Dichloropropene	FB	Ave	11467 681709	20893 1367975	69283 2751602	122920 3489703	259010	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Carbon tetrachloride	FB	Ave	8641 638814	17067 1291605	53682 2616617	102217 3352452	226752	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Benzene	FB	Ave	37494 1818170	68789 3632145	195814 7380162	342361 9468921	687728	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dichloroethane	FB	Ave	12919 640370	23621 1263144	68206 2574092	121935 3343763	247309	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Trichloroethene	FB	Ave	9611 490778	16203 987353	53101 2003639	91558 2549753	184189	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57599

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/12/2012 17:06 Calibration End Date: 09/12/2012 19:59 Calibration ID: 11373

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Methylcyclohexane	FB	Ave	14787 958249	27825 1913642	96490 3828057	172342 4729940	362107	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dichloropropane	FB	Ave	8879 474808	16078 966204	48646 1955745	83189 2509975	177399	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Dibromomethane	FB	Ave	4340 205953	6685 410664	21294 828206	37219 1064810	80230	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,4-Dioxane	FB	Ave	3506 151669	5147 300392	14421 612222	28928 788853	59264	50.0 2500	100 5000	250 10000	500 12500	1000
Bromodichloromethane	FB	Ave	+++++ 447801	+++++ 966643	37398 2069817	69418 2708898	155697	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
2-Chloroethyl vinyl ether	FB	Ave	+++++ 261293	+++++ 561027	21630 1272167	38502	93522	+++++ 100	+++++ 200	10.0 400	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	+++++ 534360	+++++ 1135978	41350 2479740	79629	179348	+++++ 50.0	+++++ 100	5.00 200	10.0	20.0
4-Methyl-2-pentanone	CBZ	Ave	12068 708800	21365 1521921	67166 3249244	116665 4290839	272081	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Toluene	CBZ	Ave	31421 1757270	57687 3604286	176387 7602460	309008 9753585	641259	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
trans-1,3-Dichloropropene	CBZ	Ave	+++++ 408793	+++++ 866931	31063 1961239	57319 2584116	131692	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Ethyl methacrylate	CBZ	Ave	+++++ 278977	+++++ 594761	22890 1375972	37916	92591	+++++ 50.0	+++++ 100	5.00 200	10.0	20.0
1,1,2-Trichloroethane	CBZ	Ave	5107 245731	8058 494072	25375 1055122	42617 1377725	89773	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Tetrachloroethene	CBZ	Ave	7511 361277	13052 746921	36993 1539084	65759 1950898	129341	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,3-Dichloropropane	CBZ	Ave	8614 451273	14204 904644	46028 1972580	77460 2591975	167632	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Hexanone	CBZ	Ave	7811 378228	11704 812174	36525 1838672	63650 2542632	142746	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Dibromochloromethane	CBZ	Lin1	3393 279963	6113 609201	20809 1401019	38983 1851987	89219	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dibromoethane	CBZ	Ave	4665 248684	8378 512009	24194 1096728	42049 1438239	91020	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Chlorobenzene	CBZ	Ave	21757 1089454	39949 2248806	114980 4797386	199060 6121141	398883	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,1,2-Tetrachloroethane	CBZ	Ave	5765 415721	10670 870849	36841 1782486	69376 2281777	147799	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Ethylbenzene	CBZ	Ave	10132 601443	17918 1240207	54710 2629606	99509 3382035	210243	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
m-Xylene & p-Xylene	CBZ	Ave	22960 1491389	41278 3052120	139010 6461337	248839 8215009	540585	2.00 100	4.00 200	10.0 400	20.0 500	40.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57599

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/12/2012 17:06 Calibration End Date: 09/12/2012 19:59 Calibration ID: 11373

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
o-Xylene	CBZ	Ave	11675 764190	23643 1562084	71740 3168213	133562 3993717	279451	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Styrene	CBZ	Ave	15639 1111168	28835 2326686	92762 4983156	172705 6477368	380813	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Bromoform	CBZ	Lin1	+++++ 132135	+++++ 298807	9845 679045	17288 929607	43121	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Isopropylbenzene	CBZ	Ave	29675 2189768	56735 4401064	191396 9404932	360740 11721927	782159	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,2,2-Tetrachloroethane	DCB	Ave	5706 296883	8709 593797	29574 1251157	50664 1607037	112677	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Bromobenzene	DCB	Ave	7195 424949	15809 867665	44793 1826320	75599 2331727	157060	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,3-Trichloropropane	DCB	Ave	1857 96769	3699 191374	10171 393733	17660 512031	35238	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
trans-1,4-Dichloro-2-butene	DCB	Ave	2384 110785	3773 237505	10638 524357	18970 682928	40311	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
n-Propylbenzene	DCB	Ave	6992 560517	13976 1103583	48058 2337897	91761 2958447	197566	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Chlorotoluene	DCB	Ave	7964 474817	14511 953509	46445 1939893	86141 2474744	176023	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,3,5-Trimethylbenzene	DCB	Ave	+++++ 1836602	43269 3615491	162341 7483816	312343 9411486	674703	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
4-Chlorotoluene	DCB	Ave	8056 463042	14076 912034	46362 1956028	83338 2452899	168416	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
tert-Butylbenzene	DCB	Ave	22567 1741190	42625 3403717	151659 6919342	295809 8631280	644302	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,4-Trimethylbenzene	DCB	Ave	25250 1745941	48632 3443741	162908 7238652	310095 9104809	655324	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
sec-Butylbenzene	DCB	Ave	30421 2372280	60106 4681504	216508 9611421	413206 11938808	902594	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,3-Dichlorobenzene	DCB	Ave	19446 895964	35286 1778065	95631 3650676	170369 4553249	350471	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
p-Isopropyltoluene	DCB	Ave	25140 1977405	49579 3964579	172950 8126744	343496 9958333	755201	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,4-Dichlorobenzene	DCB	Ave	+++++ 904548	38934 1776095	101870 3692655	172088 4671099	355129	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
n-Butylbenzene	DCB	Ave	25219 1665190	48738 3305552	156169 6817888	285351 8520051	616039	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dichlorobenzene	DCB	Ave	19590 847390	33851 1606157	90974 3253572	163207 4078672	337638	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dibromo-3-Chloropropane	DCB	Ave	+++++ 43174	+++++ 86832	4210 197619	8370 261191	18135	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57599

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/12/2012 17:06 Calibration End Date: 09/12/2012 19:59 Calibration ID: 11373

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,3,5-Trichlorobenzene	DCB	Ave	14980 629259	26309 1140974	70813 2365189	127448 2901566	268942	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,4-Trichlorobenzene	DCB	Ave	+++++ 504543	+++++ 915058	58586 1946382	105752 2359923	223985	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Hexachlorobutadiene	DCB	Ave	6621 289015	10801 492972	34175	66012	131167	1.00 50.0	2.00 100	5.00	10.0	20.0
Naphthalene	DCB	Ave	24734 1002827	41329 1850637	98135 3997644	193673 4852391	423408	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,3-Trichlorobenzene	DCB	Lin1	12200 416618	19984 756166	51187 1595767	100903 1917280	198069	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 374938	+++++ 812223	46256 1642017	83667 2503914	160210	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 420370	+++++ 914875	55533 1902591	100158 2958127	192735	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Toluene-d8 (Surr)	CBZ	Ave	+++++ 1376757	+++++ 2945121	153455 6303948	283483 9697733	559629	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
4-Bromofluorobenzene (Surr)	DCB	Ave	+++++ 462518	+++++ 984442	53469 2183349	99309 3358143	188752	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0

Curve Type Legend:
Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57599

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/12/2012 20:20 Calibration End Date: 09/12/2012 23:13 Calibration ID: 11375

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-57599/20	147863.D
Level 2	IC 240-57599/19	147862.D
Level 3	IC 240-57599/18	147861.D
Level 4	IC 240-57599/17	147860.D
Level 5	IC 240-57599/16	147859.D
Level 6	IC 240-57599/15	147858.D
Level 7	IC 240-57599/14	147857.D
Level 8	IC 240-57599/13	147856.D
Level 9	IC 240-57599/12	147855.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Dichlorofluoromethane	FB	Ave	16621 908797	32607 1766831	89444 3464108	194462 4347045	354409	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Ethyl ether	FB	Ave	11716 456442	20323 918657	51166 1759633	104994 2386947	184094	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
3-Chloro-1-propene	FB	Ave	+++++ 249855	+++++ 523641	18517 1058457	45136 1402038	89679	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
2-Chloro-1,3-butadiene	FB	Ave	+++++ 1096732	30717 2287465	89151 4540284	206672 6009301	401809	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
Diisopropyl ether	FB	Ave	36017 2136750	71489 4221434	209334 7937462	450854 10478698	825631	5.00 250	10.0 500	25.0 1000	50.0 1250	100
Ethyl-t-butyl ether (ETBE)	FB	Ave	26938 1709807	53809 3559393	155386 6935713	332802 9609303	633470	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Propionitrile	FB	Ave	3316 122327	5201 244123	13223 456027	25557 651307	43227	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Ethyl acetate	FB	Ave	13259 725937	25590 1508142	72559 2857444	156624 4135968	277324	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Methacrylonitrile	FB	Ave	5250 267268	10162 542784	22731 1053660	57528 1476196	99799	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Isobutyl alcohol	FB	Ave	5116 282960	10644 587749	29878 1117848	55818 1683614	107249	20.0 1000	40.0 2000	100 4000	200 5000	400
Tert-amyl-methyl ether (TAME)	FB	Ave	17870 1086235	34004 2265633	96905 4433315	206500 6138563	395119	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
n-Heptane	FB	Ave	2268 128254	4036 258109	11831 512166	28853 643659	50791	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
n-Butanol	CBZ	Ave	+++++ 194580	+++++ 416533	21123 818208	38592 1214584	67537	+++++ 1000	+++++ 2000	100 4000	200 5000	400
Methyl methacrylate	FB	Ave	6595 264257	8670 587265	22910 1146077	53461 1654311	96321	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57599

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/12/2012 20:20 Calibration End Date: 09/12/2012 23:13 Calibration ID: 11375

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
2-Nitropropane	FB	Ave	2190 94815	3743 222934	9247 476886	20231	35621	2.00 100	4.00 200	10.0 400	20.0	40.0
Cyclohexanone	CBZ	Ave	+++++ 425029	+++++ 907396	32022 1792123	66296	138610	+++++ 500	+++++ 1000	50.0 2000	100	200
1,2,3-Trimethylbenzene	DCB	Ave	28005 1636693	49754 3495561	140671 6935436	321401 9196268	606787	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Methylnaphthalene	DCB	Ave	+++++ 1143570	+++++ 2559545	93318 5084126	170011 6493986	407720	+++++ 100	+++++ 200	10.0 400	20.0 500	40.0
n-Butyl acetate	CBZ	Ave	+++++ 801067	30056 1760094	75173 3330133	172717 4892753	283333	+++++ 100	4.00 200	10.0 400	20.0 500	40.0

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: ICV 240-57599/21 Calibration Date: 09/12/2012 23:34

Instrument ID: A3UX14 Calib Start Date: 09/12/2012 17:06

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 09/12/2012 19:59

Lab File ID: 147864.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3163	0.3061		48.4	50.0	-3.2	50.0
Chloromethane	Ave	0.6071	0.6070	0.1000	50.0	50.0	-0.0	50.0
Vinyl chloride	Ave	0.4323	0.4131		47.8	50.0	-4.5	20.0
Bromomethane	Ave	0.1441	0.1334		46.3	50.0	-7.4	50.0
Chloroethane	Ave	0.2122	0.1960		46.2	50.0	-7.6	50.0
Trichlorofluoromethane	Ave	0.4051	0.4131		51.0	50.0	2.0	50.0
~~Acrolein~~	Ave	0.0305	~~0.0357~~		176	150	17.2	50.0
1,1-Dichloroethene	Ave	0.2854	0.2806		49.2	50.0	-1.7	20.0
1,1,2-Trichloro-1,2,2-trichf luoroethane	Ave	0.2515	0.2729		54.2	50.0	8.5	50.0
Acetone	Lin1		0.0883		97.8	100	-2.2	50.0
Iodomethane	Ave	0.4709	0.4823		51.2	50.0	2.4	50.0
Carbon disulfide	Ave	0.7853	0.7405		47.1	50.0	-5.7	50.0
~~Acetonitrile~~	Ave	0.0362	~~0.0363~~		151	150	0.3	50.0
Methyl acetate	Ave	0.2536	0.2831		55.8	50.0	11.6	50.0
Methylene Chloride	Lin1		0.3149		52.9	50.0	5.9	50.0
tert-Butyl alcohol	Ave	0.0204	0.0196		960	1000	-4.0	50.0
Acrylonitrile	Ave	0.1124	0.1100		147	150	-2.2	50.0
trans-1,2-Dichloroethene	Ave	0.3040	0.3099		51.0	50.0	1.9	50.0
Methyl tert-butyl ether	Ave	0.6981	0.7102		50.9	50.0	1.7	50.0
Hexane	Ave	0.0800	0.0814		50.9	50.0	1.7	20.0
1,1-Dichloroethane	Ave	0.6190	0.6495	0.1000	52.5	50.0	4.9	50.0
Vinyl acetate	Ave	0.0257	0.0252		48.9	50.0	-2.1	50.0
2,2-Dichloropropane	Ave	0.2071	0.2053		49.6	50.0	-0.9	50.0
cis-1,2-Dichloroethene	Ave	0.3135	0.3132		49.9	50.0	-0.1	50.0
2-Butanone	Ave	0.1305	0.1133		86.8	100	-13.2	50.0
Bromochloromethane	Ave	0.1373	0.1393		50.7	50.0	1.4	50.0
Tetrahydrofuran	Lin1		0.0874		50.1	50.0	0.1	50.0
Chloroform	Ave	0.5008	0.4970		49.6	50.0	-0.7	20.0
1,1,1-Trichloroethane	Ave	0.3821	0.4016		52.5	50.0	5.1	50.0
Cyclohexane	Ave	0.8037	0.8158		50.7	50.0	1.5	50.0
1,1-Dichloropropene	Ave	0.4048	0.4135		51.1	50.0	2.1	50.0
Carbon tetrachloride	Ave	0.3538	0.3971		56.1	50.0	12.2	50.0
Benzene	Ave	1.143	1.161		50.8	50.0	1.5	50.0
1,2-Dichloroethane	Ave	0.4006	0.4047		50.5	50.0	1.0	50.0
Trichloroethene	Ave	0.3024	0.3029		50.1	50.0	0.2	50.0
Methylcyclohexane	Ave	0.5570	0.5684		51.0	50.0	2.0	50.0
1,2-Dichloropropane	Ave	0.2890	0.3015		52.2	50.0	4.3	20.0
Dibromomethane	Ave	0.1268	0.1297		51.1	50.0	2.3	50.0
Bromodichloromethane	Ave	0.2742	0.2766		50.4	50.0	0.9	50.0
2-Chloroethyl vinyl ether	Ave	0.0782	0.0791		50.6	50.0	1.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: ICV 240-57599/21 Calibration Date: 09/12/2012 23:34

Instrument ID: A3UX14 Calib Start Date: 09/12/2012 17:06

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 09/12/2012 19:59

Lab File ID: 147864.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
cis-1,3-Dichloropropene	Ave	0.3104	0.3021		48.7	50.0	-2.7	50.0
4-Methyl-2-pentanone	Ave	0.3449	0.3566		103	100	3.4	50.0
Toluene	Ave	1.711	1.727		50.5	50.0	0.9	20.0
trans-1,3-Dichloropropene	Ave	0.3808	0.3782		49.7	50.0	-0.7	50.0
1,1,2-Trichloroethane	Ave	0.2438	0.2471		50.7	50.0	1.4	50.0
Tetrachloroethene	Ave	0.3623	0.3415		47.1	50.0	-5.7	50.0
1,3-Dichloropropane	Ave	0.4425	0.4489		50.7	50.0	1.4	50.0
2-Hexanone	Ave	0.1930	0.1801		93.3	100	-6.7	50.0
Dibromochloromethane	Lin1		0.2549		42.8	50.0	-14.3	50.0
1,2-Dibromoethane	Ave	0.2441	0.2436		49.9	50.0	-0.2	50.0
Chlorobenzene	Ave	1.104	1.044	0.3000	47.3	50.0	-5.5	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3759	0.4073		54.2	50.0	8.3	50.0
Ethylbenzene	Ave	0.5648	0.5796		51.3	50.0	2.6	20.0
m-Xylene & p-Xylene	Ave	0.6909	0.7059		102	100	2.2	50.0
o-Xylene	Ave	0.7126	0.7423		52.1	50.0	4.2	50.0
Styrene	Ave	1.001	1.036		51.8	50.0	3.5	50.0
Bromoform	Lin1		0.1173	0.1000	41.4	50.0	-17.2	50.0
Isopropylbenzene	Ave	1.958	2.063		52.7	50.0	5.4	50.0
1,1,2,2-Tetrachloroethane	Ave	0.5249	0.5346	0.3000	50.9	50.0	1.8	50.0
Bromobenzene	Ave	0.7698	0.7640		49.6	50.0	-0.8	50.0
1,2,3-Trichloropropane	Ave	0.1760	0.1739		49.4	50.0	-1.2	50.0
trans-1,4-Dichloro-2-butene	Ave	0.2075	0.1938		93.4	100	-6.6	50.0
n-Propylbenzene	Ave	0.9017	0.9943		55.1	50.0	10.3	50.0
2-Chlorotoluene	Ave	0.8252	0.8380		50.8	50.0	1.5	50.0
1,3,5-Trimethylbenzene	Ave	3.041	3.172		52.2	50.0	4.3	50.0
4-Chlorotoluene	Ave	0.8101	0.7986		49.3	50.0	-1.4	50.0
tert-Butylbenzene	Ave	2.798	3.090		55.2	50.0	10.4	50.0
1,2,4-Trimethylbenzene	Ave	2.943	3.103		52.7	50.0	5.4	50.0
sec-Butylbenzene	Ave	3.884	4.148		53.4	50.0	6.8	50.0
1,3-Dichlorobenzene	Ave	1.677	1.522		45.4	50.0	-9.3	50.0
p-Isopropyltoluene	Ave	3.229	3.561		55.1	50.0	10.3	50.0
1,4-Dichlorobenzene	Ave	1.694	1.506		44.5	50.0	-11.1	50.0
n-Butylbenzene	Ave	2.811	2.752		49.0	50.0	-2.1	50.0
1,2-Dichlorobenzene	Ave	1.583	1.452		45.9	50.0	-8.3	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.0819	0.0763		46.5	50.0	-6.9	50.0
1,2,4-Trichlorobenzene	Ave	0.9320	0.7610		40.8	50.0	-18.3	50.0
Hexachlorobutadiene	Ave	0.5785	0.4638		40.1	50.0	-19.8	50.0
Naphthalene	Ave	1.894	1.604		42.3	50.0	-15.3	50.0
1,2,3-Trichlorobenzene	Lin1		0.6889		49.2	50.0	-1.5	50.0
Dibromofluoromethane (Surr)	Ave	0.2639	0.2373		45.0	50.0	-10.1	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3092	0.2744		44.4	50.0	-11.3	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: ICV 240-57599/21 Calibration Date: 09/12/2012 23:34

Instrument ID: A3UX14 Calib Start Date: 09/12/2012 17:06

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 09/12/2012 19:59

Lab File ID: 147864.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Toluene-d8 (Surr)	Ave	1.485	1.363		45.9	50.0	-8.2	50.0
4-Bromofluorobenzene (Surr)	Ave	0.9475	0.8582		45.3	50.0	-9.4	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: ICV 240-57599/21 Calibration Date: 09/12/2012 23:34

Instrument ID: A3UX14 Calib Start Date: 09/12/2012 20:20

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 09/12/2012 23:13

Lab File ID: 147864.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.3054	0.2922		47.8	50.0	-4.3	50.0
Diisopropyl ether	Ave	0.2528	0.2483		49.1	50.0	-1.8	50.0
Isobutyl alcohol	Ave	0.0088	0.0089		2530	2500	1.1	50.0
Cyclohexanone	Ave	0.0409	0.0125		305	1000	-69.5*	50.0
1,2,3-Trimethylbenzene	Ave	3.059	3.152		51.5	50.0	3.0	50.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab File ID: BFB14241.D BFB Injection Date: 09/18/2012

Instrument ID: A3UX14 BFB Injection Time: 12:23

Analysis Batch No.: 58198

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	28.4	
75	30.0 - 60.0 % of mass 95	52.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	76.8	
175	5.0 - 9.0 % of mass 174	6.4	(8.3)1
176	95.0 - 101.0 % of mass 174	75.6	(98.5)1
177	5.0 - 9.0 % of mass 176	5.1	(6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-58198/3	147975.D	09/18/2012	13:05
	CCV 240-58198/4	147976.D	09/18/2012	13:27
	LCS 240-58198/5	147977.D	09/18/2012	13:48
	MB 240-58198/6	147978.D	09/18/2012	14:10
GSP-MW-9-0-2	240-15155-1	147993.D	09/18/2012	19:33
GSP-MW-10-2-4	240-15155-4	147994.D	09/18/2012	19:55
GSP-MW-10-20-22	240-15155-5	147995.D	09/18/2012	20:16
GSP-MW-11-0-2	240-15155-6	147996.D	09/18/2012	20:38
GSP-MW-11-2-4	240-15155-7	147997.D	09/18/2012	20:59
GSP-MW-9-8-10	240-15155-2	147998.D	09/18/2012	21:21

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCVIS 240-58198/3 Calibration Date: 09/18/2012 13:05

Instrument ID: A3UX14 Calib Start Date: 09/12/2012 17:06

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 09/12/2012 19:59

Lab File ID: 147975.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D 36.5	MAX %D
Dichlorodifluoromethane	Ave	0.3163	0.4318		68.2	50.0	~~26.5~~	50.0
Chloromethane	Ave	0.6071	0.7703	0.1000	63.4	50.0	26.9	50.0
Vinyl chloride	Ave	0.4323	0.4740		54.8	50.0	9.6	20.0
Bromomethane	Ave	0.1441	0.1749		60.7	50.0	21.4	50.0
Chloroethane	Ave	0.2122	0.2445		57.6	50.0	15.2	50.0
Trichlorofluoromethane	Ave	0.4051	0.4858		60.0	50.0	19.9	50.0
Acrolein	Ave	0.0305	~~0.0256~~		420	500	-15.9	50.0
1,1-Dichloroethene	Ave	0.2854	0.2873		50.3	50.0	0.7	20.0
1,1,2-Trichloro-1,2,2-trichf luoroethane	Ave	0.2515	0.2704		53.7	50.0	7.5	50.0
Acetone	Lin1		0.0870		96.3	100	-3.7	50.0
Iodomethane	Ave	0.4709	0.4666		49.5	50.0	-0.9	50.0
Carbon disulfide	Ave	0.7853	0.7923		50.4	50.0	0.9	50.0
Acetonitrile	Ave	0.0362	~~0.0350~~		483	500	-3.3	50.0
Methyl acetate	Ave	0.2536	0.2288		90.2	100	-9.8	50.0
Methylene Chloride	Lin1		0.3310		56.0	50.0	12.0	50.0
tert-Butyl alcohol	Ave	0.0204	0.0183		895	1000	-10.5	50.0
Acrylonitrile	Ave	0.1124	0.1080		96.1	100	-3.9	50.0
trans-1,2-Dichloroethene	Ave	0.3040	0.3193		52.5	50.0	5.1	50.0
Methyl tert-butyl ether	Ave	0.6981	0.6878		49.3	50.0	-1.5	50.0
Hexane	Ave	0.0800	0.0766		47.8	50.0	-4.3	20.0
1,1-Dichloroethane	Ave	0.6190	0.6768	0.1000	54.7	50.0	9.3	50.0
Vinyl acetate	Ave	0.0257	0.0184		35.7	50.0	-28.5	50.0
2,2-Dichloropropane	Ave	0.2071	0.2565		61.9	50.0	23.8	50.0
cis-1,2-Dichloroethene	Ave	0.3135	0.3179		50.7	50.0	1.4	50.0
2-Butanone	Ave	0.1305	0.1043		79.9	100	-20.1	50.0
Bromochloromethane	Ave	0.1373	0.1264		46.0	50.0	-7.9	50.0
Tetrahydrofuran	Lin1		0.0725		40.8	50.0	-18.3	50.0
Chloroform	Ave	0.5008	0.5674		56.7	50.0	13.3	20.0
1,1,1-Trichloroethane	Ave	0.3821	0.4756		62.2	50.0	24.5	50.0
Cyclohexane	Ave	0.8037	0.9833		61.2	50.0	~~22.3~~	50.0
1,1-Dichloropropene	Ave	0.4048	0.4228		52.2	50.0	4.4	50.0
Carbon tetrachloride	Ave	0.3538	0.4203		59.4	50.0	18.8	50.0
Benzene	Ave	1.143	1.161		50.8	50.0	1.6	50.0
1,2-Dichloroethane	Ave	0.4006	0.4309		53.8	50.0	7.6	50.0
Trichloroethene	Ave	0.3024	0.2881		47.6	50.0	-4.7	50.0
Methylcyclohexane	Ave	0.5570	0.5927		53.2	50.0	6.4	50.0
1,2-Dichloropropane	Ave	0.2890	0.3057		52.9	50.0	5.8	20.0
Dibromomethane	Ave	0.1268	0.1220		48.1	50.0	-3.8	50.0
1,4-Dioxane	Ave	0.0019	~~0.0015~~		1920	2500	~~-23.4~~	50.0
Bromodichloromethane	Ave	0.2742	0.2979		54.3	50.0	8.6	50.0

FORM VII 8260B

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCVIS 240-58198/3 Calibration Date: 09/18/2012 13:05

Instrument ID: A3UX14 Calib Start Date: 09/12/2012 17:06

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 09/12/2012 19:59

Lab File ID: 147975.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.0782	0.0811		104	100	3.7	50.0
cis-1,3-Dichloropropene	Ave	0.3104	0.2933		47.2	50.0	-5.5	50.0
4-Methyl-2-pentanone	Ave	0.3449	0.3375		97.9	100	-2.1	50.0
Toluene	Ave	1.711	1.859		54.3	50.0	8.6	20.0
trans-1,3-Dichloropropene	Ave	0.3808	0.3787		49.7	50.0	-0.5	50.0
Ethyl methacrylate	Ave	0.2574	0.2475		48.1	50.0	-3.8	50.0
1,1,2-Trichloroethane	Ave	0.2438	0.2331		47.8	50.0	-4.4	50.0
Tetrachloroethene	Ave	0.3623	0.3984		55.0	50.0	10.0	50.0
1,3-Dichloropropane	Ave	0.4425	0.4329		48.9	50.0	-2.2	50.0
2-Hexanone	Ave	0.1930	0.1739		90.1	100	-9.9	50.0
Dibromochloromethane	Lin1		0.2649		44.5	50.0	-11.0	50.0
1,2-Dibromoethane	Ave	0.2441	0.2391		49.0	50.0	-2.1	50.0
Chlorobenzene	Ave	1.104	1.053	0.3000	47.7	50.0	-4.6	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3759	0.4429		58.9	50.0	17.8	50.0
Ethylbenzene	Ave	0.5648	0.5926		52.5	50.0	4.9	20.0
m-Xylene & p-Xylene	Ave	0.6909	0.7406		107	100	7.2	50.0
o-Xylene	Ave	0.7126	0.7692		54.0	50.0	7.9	50.0
Styrene	Ave	1.001	1.104		55.1	50.0	10.3	50.0
Bromoform	Lin1		0.1338	0.1000	46.8	50.0	-6.4	50.0
Isopropylbenzene	Ave	1.958	2.319		59.2	50.0	18.5	50.0
1,1,2,2-Tetrachloroethane	Ave	0.5249	0.5416	0.3000	51.6	50.0	3.2	50.0
Bromobenzene	Ave	0.7698	0.8357		54.3	50.0	8.6	50.0
1,2,3-Trichloropropane	Ave	0.1760	0.1764		50.1	50.0	0.2	50.0
trans-1,4-Dichloro-2-butene	Ave	0.2075	0.2224		53.6	50.0	7.2	50.0
n-Propylbenzene	Ave	0.9017	0.9934		55.1	50.0	10.2	50.0
2-Chlorotoluene	Ave	0.8252	0.8718		52.8	50.0	5.6	50.0
~~1,3,5-Trimethylbenzene~~	Ave	3.041	3.653		60.1	50.0	~~20.1~~	50.0
4-Chlorotoluene	Ave	0.8101	0.8529		52.6	50.0	5.3	50.0
tert-Butylbenzene	Ave	2.798	3.241		57.9	50.0	15.8	50.0
1,2,4-Trimethylbenzene	Ave	2.943	3.559		60.5	50.0	20.9	50.0
sec-Butylbenzene	Ave	3.884	4.696		60.5	50.0	20.9	50.0
1,3-Dichlorobenzene	Ave	1.677	1.704		50.8	50.0	1.6	50.0
~~p-Isopropyltoluene~~	Ave	3.229	3.902		60.4	50.0	~~20.8~~	50.0
1,4-Dichlorobenzene	Ave	1.694	1.693		49.9	50.0	-0.1	50.0
n-Butylbenzene	Ave	2.811	3.553		63.2	50.0	26.4	50.0
1,2-Dichlorobenzene	Ave	1.583	1.547		48.9	50.0	-2.3	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.0819	0.0702		42.8	50.0	-14.3	50.0
1,3,5-Trichlorobenzene	Ave	1.197	1.272		53.1	50.0	6.2	50.0
1,2,4-Trichlorobenzene	Ave	0.9320	1.014		54.4	50.0	8.8	50.0
Hexachlorobutadiene	Ave	0.5785	0.6381		55.2	50.0	10.3	50.0
Naphthalene	Ave	1.894	1.609		42.5	50.0	-15.1	50.0

FORM VII 8260B

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCVIS 240-58198/3 Calibration Date: 09/18/2012 13:05

Instrument ID: A3UX14 Calib Start Date: 09/12/2012 17:06

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 09/12/2012 19:59

Lab File ID: 147975.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Lin1		0.7823		56.1	50.0	12.2	50.0
Dibromofluoromethane (Surr)	Ave	0.2639	0.2460		46.6	50.0	-6.8	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3092	0.3008		48.6	50.0	-2.7	50.0
Toluene-d8 (Surr)	Ave	1.485	1.412		47.5	50.0	-4.9	50.0
4-Bromofluorobenzene (Surr)	Ave	0.9475	0.9094		48.0	50.0	-4.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58198/4 Calibration Date: 09/18/2012 13:27

Instrument ID: A3UX14 Calib Start Date: 09/12/2012 17:06

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 09/12/2012 19:59

Lab File ID: 147976.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2639	0.2271		43.0	50.0	-14.0	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3092	0.2934		47.4	50.0	-5.1	50.0
Toluene-d8 (Surr)	Ave	1.485	1.354		45.6	50.0	-8.8	50.0
4-Bromofluorobenzene (Surr)	Ave	0.9475	0.9463		49.9	50.0	-0.1	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58198/4 Calibration Date: 09/18/2012 13:27

Instrument ID: A3UX14 Calib Start Date: 09/12/2012 20:20

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 09/12/2012 23:13

Lab File ID: 147976.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.5469	0.5473		50.0	50.0	0.0	50.0
Ethyl ether	Ave	0.3054	0.2700		44.2	50.0	-11.6	50.0
3-Chloro-1-propene	Ave	0.1492	0.1465		49.1	50.0	-1.8	50.0
2-Chloro-1,3-butadiene	Ave	0.6408	0.7992		62.4	50.0	24.7	50.0
Diisopropyl ether	Ave	0.2528	0.2439		241	250	-3.5	50.0
Ethyl-t-butyl ether (ETBE)	Ave	1.009	1.136		56.3	50.0	12.6	50.0
Propionitrile	Ave	0.0398	0.0373		93.7	100	-6.3	50.0
Ethyl acetate	Ave	0.2250	0.2140		95.1	100	-4.9	50.0
Methacrylonitrile	Ave	0.1639	0.1577		48.1	50.0	-3.8	50.0
Isobutyl alcohol	Ave	0.0088	0.0080		907	1000	-9.3	50.0
Tert-amyl-methyl ether (TAME)	Ave	0.6400	0.6346		49.6	50.0	-0.8	50.0
n-Heptane	Ave	0.0771	0.0797		51.7	50.0	3.4	50.0
n-Butanol	Ave	0.0107	0.0098		923	1000	-7.7	50.0
Methyl methacrylate	Ave	0.1694	0.1672		49.4	50.0	-1.3	50.0
2-Nitropropane	Ave	0.0316	0.0268		85.0	100	-15.0	50.0
Cyclohexanone	Ave	0.0409	0.0430		526	500	5.2	50.0
1,2,3-Trimethylbenzene	Ave	3.059	3.775		61.7	50.0	23.4	50.0
2-Methylnaphthalene	Ave	1.081	0.9133		84.5	100	-15.5	50.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab File ID: UX933845.D Lab Sample ID: MB 240-58594/4

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX9 Date Analyzed: 09/20/2012 19:03

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-58594/5	UX933843.D	09/20/2012 18:10
TB	240-15155-3	UX933860.D	09/21/2012 01:02
	240-15134-C-5 MS	UX933864.D	09/21/2012 02:38
	240-15134-C-5 MSD	UX933865.D	09/21/2012 03:02

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-58594/4

Matrix: Water | Lab File ID: UX933845.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 09/20/2012 19:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 58594 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-58594/4

Matrix: Water | Lab File ID: UX933845.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 09/20/2012 19:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 58594 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24
74-95-3	Dibromomethane	1.0	U	1.0	0.28
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
108-20-3	Diisopropyl ether	10	U	10	1.5
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.794	J	1.0	0.30
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.24
104-51-8	n-Butylbenzene	0.138	J	1.0	0.12
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
75-65-0	tert-Butyl alcohol	50	U	50	3.9
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-15155-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-58594/4
Matrix: Water
Lab File ID: UX933845.D
Analysis Method: 8260B
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 09/20/2012 19:03
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 58594
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-129
460-00-4	4-Bromofluorobenzene (Surr)	88		66-117
2037-26-5	Toluene-d8 (Surr)	88		74-115
1868-53-7	Dibromofluoromethane (Surr)	94		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-58594/4

Matrix: Water Lab File ID: UX933845.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 09/20/2012 19:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 58594 Units: ug/L

Number TICs Found: 2 TIC Result Total: 2.25

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
142-82-5	n-Heptane	5.29	0.960	J
91-57-6	2-Methylnaphthalene	13.74	1.29	J

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX933843.D

Lab ID: LCS 240-58594/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	17.4	87	72-116	
1,1,1-Trichloroethane	20.0	19.9	99	74-118	
1,1,2,2-Tetrachloroethane	20.0	19.9	99	68-118	
1,1,2-Trichloro-1,2,2-trichfluoroethane	20.0	21.5	107	74-151	
1,1-Dichloroethane	20.0	19.8	99	82-115	
1,1-Dichloroethene	20.0	18.9	94	78-131	
1,1-Dichloropropene	20.0	18.5	93	83-114	
1,2,3-Trichlorobenzene	20.0	23.1	116	54-126	
1,2,3-Trichloropropane	20.0	22.4	112	73-129	
1,2,3-Trimethylbenzene	20.0	16.8	84	70-130	
1,2,4-Trichlorobenzene	20.0	21.4	107	48-135	
1,2,4-Trimethylbenzene	20.0	17.3	87	76-120	
1,2-Dibromo-3-Chloropropane	20.0	20.1	101	42-136	
1,2-Dichlorobenzene	20.0	19.5	97	81-110	
1,2-Dichloroethane	20.0	18.7	93	71-127	
1,2-Dichloropropane	20.0	18.8	94	81-115	
1,3-Dichlorobenzene	20.0	19.1	95	80-110	
1,3-Dichloropropane	20.0	18.8	94	79-116	
1,4-Dichlorobenzene	20.0	19.0	95	82-110	
2,2-Dichloropropane	20.0	12.7	63	50-129	
2-Chloroethyl vinyl ether	20.0	19.6	98	52-131	
2-Chlorotoluene	20.0	18.1	90	76-116	
2-Hexanone	40.0	43.9	110	55-133	
4-Chlorotoluene	20.0	18.0	90	77-115	
Acetone	40.0	37.5	94	43-136	
Benzene	20.0	19.6	98	83-112	
Bromobenzene	20.0	20.3	102	76-115	
Bromochloromethane	20.0	17.5	88	77-120	
Bromoform	20.0	20.9	105	40-131	
Bromomethane	20.0	17.6	88	11-185	
Carbon disulfide	20.0	19.8	99	62-142	
Carbon tetrachloride	20.0	22.3	112	66-128	
Chlorobenzene	20.0	19.7	98	85-110	
Chloroethane	20.0	16.1	81	25-153	
Chloroform	20.0	18.3	92	79-117	
Chloromethane	20.0	16.9	84	44-126	
cis-1,2-Dichloroethene	20.0	17.8	89	80-113	
Bromodichloromethane	20.0	18.7	93	72-121	
cis-1,3-Dichloropropene	20.0	16.7	84	61-115	
1,2-Dibromoethane	20.0	20.1	100	79-113	
Dibromomethane	20.0	25.7	129	81-120	*

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX933843.D

Lab ID: LCS 240-58594/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	15.3	77	19-129	
Diisopropyl ether	20.0	19.9	99	77-118	
Ethylbenzene	20.0	19.2	96	83-112	
Hexachlorobutadiene	20.0	22.3	112	36-134	
Isopropylbenzene	20.0	19.1	96	75-114	
2-Butanone	40.0	42.3	106	60-126	
4-Methyl-2-pentanone	40.0	43.0	107	63-128	
m-Xylene & p-Xylene	40.0	38.5	96	83-113	
Methyl tert-butyl ether	20.0	18.8	94	52-144	
Naphthalene	20.0	21.0	105	32-141	
n-Butylbenzene	20.0	17.5	88	66-125	
Methylene Chloride	20.0	16.9	85	66-131	
n-Propylbenzene	20.0	18.7	94	74-121	
o-Xylene	20.0	19.0	95	83-113	
p-Isopropyltoluene	20.0	19.2	96	74-120	
sec-Butylbenzene	20.0	17.5	88	70-117	
Styrene	20.0	19.5	98	79-114	
tert-Butylbenzene	20.0	19.7	99	71-115	
Tetrachloroethene	20.0	21.7	108	79-114	
Toluene	20.0	19.0	95	84-111	
trans-1,2-Dichloroethene	20.0	19.9	99	83-117	
trans-1,3-Dichloropropene	20.0	15.7	78	58-117	
Trichloroethene	20.0	21.6	108	76-117	
Trichlorofluoromethane	20.0	19.1	96	49-157	
tert-Butyl alcohol	400	444	111	70-130	
Vinyl acetate	20.0	19.9	99	46-161	
Vinyl chloride	20.0	18.4	92	53-127	
Dibromochloromethane	20.0	19.3	97	64-119	
Xylenes, Total	60.0	57.5	96	83-112	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab File ID: 147978.D Lab Sample ID: MB 240-58198/6

Matrix: Solid Heated Purge:(Y/N) Y

Instrument ID: A3UX14 Date Analyzed: 09/18/2012 14:10

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-58198/5	147977.D	09/18/2012 13:48
GSP-MW-9-0-2	240-15155-1	147993.D	09/18/2012 19:33
GSP-MW-10-2-4	240-15155-4	147994.D	09/18/2012 19:55
GSP-MW-10-20-22	240-15155-5	147995.D	09/18/2012 20:16
GSP-MW-11-0-2	240-15155-6	147996.D	09/18/2012 20:38
GSP-MW-11-2-4	240-15155-7	147997.D	09/18/2012 20:59
GSP-MW-9-8-10	240-15155-2	147998.D	09/18/2012 21:21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-58198/6

Matrix: Solid | Lab File ID: 147978.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 09/18/2012 14:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	0.62
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	0.56
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.34
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	5.0	U	5.0	1.3
75-34-3	1,1-Dichloroethane	5.0	U	5.0	0.36
75-35-4	1,1-Dichloroethene	5.0	U	5.0	0.52
563-58-6	1,1-Dichloropropene	5.0	U	5.0	0.30
87-61-6	1,2,3-Trichlorobenzene	5.0	U	5.0	0.38
96-18-4	1,2,3-Trichloropropane	5.0	U	5.0	0.90
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.17
120-82-1	1,2,4-Trichlorobenzene	0.511	J	5.0	0.27
95-63-6	1,2,4-Trimethylbenzene	5.0	U	5.0	0.65
96-12-8	1,2-Dibromo-3-Chloropropane	10	U	10	1.3
95-50-1	1,2-Dichlorobenzene	5.0	U	5.0	0.36
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.34
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.69
541-73-1	1,3-Dichlorobenzene	5.0	U	5.0	0.35
142-28-9	1,3-Dichloropropane	5.0	U	5.0	0.34
106-46-7	1,4-Dichlorobenzene	5.0	U	5.0	0.66
594-20-7	2,2-Dichloropropane	5.0	U	5.0	0.94
110-75-8	2-Chloroethyl vinyl ether	50	U	50	1.4
95-49-8	2-Chlorotoluene	5.0	U	5.0	0.40
591-78-6	2-Hexanone	0.940	J	20	0.63
106-43-4	4-Chlorotoluene	5.0	U	5.0	0.41
67-64-1	Acetone	20	U	20	6.3
71-43-2	Benzene	5.0	U	5.0	0.23
108-86-1	Bromobenzene	5.0	U	5.0	0.33
74-97-5	Bromochloromethane	5.0	U	5.0	0.71
75-25-2	Bromoform	5.0	U	5.0	0.33
74-83-9	Bromomethane	5.0	U	5.0	0.54
75-15-0	Carbon disulfide	5.0	U	5.0	0.44
56-23-5	Carbon tetrachloride	5.0	U	5.0	0.37
108-90-7	Chlorobenzene	5.0	U	5.0	0.33
75-00-3	Chloroethane	5.0	U	5.0	0.86
67-66-3	Chloroform	5.0	U	5.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-58198/6

Matrix: Solid | Lab File ID: 147978.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 09/18/2012 14:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	5.0	U	5.0	0.41
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.36
75-27-4	Bromodichloromethane	5.0	U	5.0	0.28
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.34
106-93-4	1,2-Dibromoethane	5.0	U	5.0	0.50
74-95-3	Dibromomethane	5.0	U	5.0	0.63
75-71-8	Dichlorodifluoromethane	5.0	U	5.0	0.50
108-20-3	Diisopropyl ether	10	U	10	1.5
100-41-4	Ethylbenzene	5.0	U	5.0	0.26
87-68-3	Hexachlorobutadiene	5.0	U	5.0	1.2
98-82-8	Isopropylbenzene	5.0	U	5.0	0.16
78-93-3	2-Butanone	20	U	20	1.4
108-10-1	4-Methyl-2-pentanone	20	U	20	0.54
179601-23-1	m-Xylene & p-Xylene	10	U	10	1.2
1634-04-4	Methyl tert-butyl ether	20	U	20	0.43
91-20-3	Naphthalene	0.862	J	5.0	0.19
104-51-8	n-Butylbenzene	5.0	U	5.0	0.23
75-09-2	Methylene Chloride	5.0	U	5.0	0.67
103-65-1	n-Propylbenzene	5.0	U	5.0	0.40
95-47-6	o-Xylene	5.0	U	5.0	0.35
99-87-6	p-Isopropyltoluene	5.0	U	5.0	0.21
135-98-8	sec-Butylbenzene	5.0	U	5.0	0.18
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.22
100-42-5	Styrene	0.158	J	5.0	0.15
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.37
98-06-6	tert-Butylbenzene	5.0	U	5.0	0.29
127-18-4	Tetrachloroethene	5.0	U	5.0	0.52
108-88-3	Toluene	5.0	U	5.0	0.27
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.41
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.54
79-01-6	Trichloroethene	5.0	U	5.0	0.42
75-69-4	Trichlorofluoromethane	5.0	U	5.0	0.34
75-65-0	tert-Butyl alcohol	200	U	200	7.6
108-05-4	Vinyl acetate	10	U	10	0.25
75-01-4	Vinyl chloride	5.0	U	5.0	0.39
124-48-1	Dibromochloromethane	5.0	U	5.0	0.55

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-15155-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-58198/6
Matrix: Solid
Lab File ID: 147978.D
Analysis Method: 8260B
Date Collected:
Sample wt/vol: 5(g)
Date Analyzed: 09/18/2012 14:10
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 58198
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	10	U	10	0.67

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		58-123
460-00-4	4-Bromofluorobenzene (Surr)	94		52-136
2037-26-5	Toluene-d8 (Surr)	92		67-125
1868-53-7	Dibromofluoromethane (Surr)	85		37-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-58198/6

Matrix: Solid Lab File ID: 147978.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 09/18/2012 14:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 58198 Units: ug/Kg

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I-TIC 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 147977.D

Lab ID: LCS 240-58198/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	50.0	57.2	114	81-119	
1,1,1-Trichloroethane	50.0	61.6	123	77-126	
1,1,2,2-Tetrachloroethane	50.0	54.0	108	77-123	
1,1,2-Trichloro-1,2,2-trichfluoroethane	50.0	56.7	113	82-138	
1,1-Dichloroethane	50.0	56.5	113	76-115	
1,1-Dichloroethene	50.0	52.6	105	75-135	
1,1-Dichloropropene	50.0	51.7	103	80-120	
1,2,3-Trichlorobenzene	50.0	57.5	115	61-121	
1,2,3-Trichloropropane	50.0	51.3	103	84-126	
1,2,3-Trimethylbenzene	50.0	54.4	109	70-130	
1,2,4-Trichlorobenzene	50.0	49.6	99	64-124	
1,2,4-Trimethylbenzene	50.0	58.2	116	80-129	
1,2-Dibromo-3-Chloropropane	50.0	46.1	92	61-132	
1,2-Dichlorobenzene	50.0	46.8	94	76-110	
1,2-Dichloroethane	50.0	56.7	113	72-120	
1,2-Dichloropropane	50.0	54.6	109	87-113	
1,3-Dichlorobenzene	50.0	48.9	98	78-111	
1,3-Dichloropropane	50.0	50.0	100	82-118	
1,4-Dichlorobenzene	50.0	47.8	96	75-110	
2,2-Dichloropropane	50.0	61.5	123	69-135	
2-Chloroethyl vinyl ether	50.0	57.3	115	28-173	
2-Chlorotoluene	50.0	53.1	106	78-119	
2-Hexanone	100	103	103	64-136	
4-Chlorotoluene	50.0	51.0	102	79-118	
Acetone	100	99.5	100	41-137	
Benzene	50.0	50.7	101	79-112	
Bromobenzene	50.0	51.4	103	81-115	
Bromochloromethane	50.0	44.3	89	79-111	
Bromoform	50.0	47.9	96	62-133	
Bromomethane	50.0	52.4	105	42-136	
Carbon disulfide	50.0	48.6	97	62-146	
Carbon tetrachloride	50.0	58.7	117	71-129	
Chlorobenzene	50.0	47.0	94	78-110	
Chloroethane	50.0	49.6	99	58-117	
Chloroform	50.0	53.4	107	77-114	
Chloromethane	50.0	55.7	111	50-110	*
cis-1,2-Dichloroethene	50.0	51.3	103	76-113	
Bromodichloromethane	50.0	57.6	115	84-122	
cis-1,3-Dichloropropene	50.0	47.7	95	74-128	
1,2-Dibromoethane	50.0	51.9	104	83-117	
Dibromomethane	50.0	50.9	102	85-120	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 147977.D

Lab ID: LCS 240-58198/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	50.0	53.9	108	26-113	
Diisopropyl ether	50.0	46.9	94	82-119	
Ethylbenzene	50.0	53.9	108	79-117	
Hexachlorobutadiene	50.0	50.2	100	54-131	
Isopropylbenzene	50.0	56.9	114	76-122	
2-Butanone	100	86.6	87	52-131	
4-Methyl-2-pentanone	100	116	116	67-135	
m-Xylene & p-Xylene	100	104	104	80-117	
Methyl tert-butyl ether	50.0	52.8	106	49-165	
Naphthalene	50.0	44.3	89	65-123	
n-Butylbenzene	50.0	59.1	118	68-135	
Methylene Chloride	50.0	52.3	105	75-118	
n-Propylbenzene	50.0	55.0	110	81-129	
o-Xylene	50.0	52.4	105	80-120	
p-Isopropyltoluene	50.0	57.3	115	77-131	
sec-Butylbenzene	50.0	57.3	115	74-129	
Styrene	50.0	56.2	112	87-117	
tert-Butylbenzene	50.0	54.5	109	76-126	
Tetrachloroethene	50.0	53.4	107	79-114	
Toluene	50.0	52.1	104	75-111	
trans-1,2-Dichloroethene	50.0	51.8	104	78-117	
trans-1,3-Dichloropropene	50.0	52.9	106	73-131	
Trichloroethene	50.0	47.8	96	79-113	
Trichlorofluoromethane	50.0	54.5	109	57-146	
tert-Butyl alcohol	1000	1060	106	60-125	
Vinyl acetate	50.0	47.7	95	70-130	
Vinyl chloride	50.0	50.8	102	57-114	
Dibromochloromethane	50.0	45.5	91	72-127	
Xylenes, Total	150	156	104	80-118	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX933864.D

Lab ID: 240-15134-C-5 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	2000	100 U	1430	72	64-118	
1,1,1-Trichloroethane	2000	100 U	1700	85	68-121	
1,1,2,2-Tetrachloroethane	2000	100 U	1930	96	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	2000	100 U	1940	97	70-152	
1,1-Dichloroethane	2000	100 U	1990	99	79-116	
1,1-Dichloroethene	2000	100 U	1830	91	74-135	
1,1-Dichloropropene	2000	100 U	1830	92	80-114	
1,2,3-Trichlorobenzene	2000	100 U	1970	98	45-129	
1,2,3-Trichloropropane	2000	100 U	2110	106	67-132	
1,2,3-Trimethylbenzene	2000	500 U	1690	84	70-130	
1,2,4-Trichlorobenzene	2000	100 U	1870	94	38-138	
1,2,4-Trimethylbenzene	2000	100 U	1700	85	67-124	
1,2-Dibromo-3-Chloropropane	2000	200 U	1460	73	32-139	
1,2-Dichlorobenzene	2000	100 U	1950	98	75-111	
1,2-Dichloroethane	2000	100 U	1810	90	68-129	
1,2-Dichloropropane	2000	100 U	1850	92	78-115	
1,3-Dichlorobenzene	2000	100 U	1860	93	73-110	
1,3-Dichloropropane	2000	100 U	1790	89	74-118	
1,4-Dichlorobenzene	2000	100 U	1880	94	75-110	
2,2-Dichloropropane	2000	100 U	1010	51	38-127	
2-Chloroethyl vinyl ether	2000	1000 U	666 J	33	10-150	
2-Chlorotoluene	2000	100 U	1790	89	69-117	
2-Hexanone	4000	1000 U	3730	93	47-139	
4-Chlorotoluene	2000	100 U	1820	91	71-116	
Acetone	4000	1000 U	3330	83	33-145	
Benzene	2000	100 U	1900	95	72-121	
Bromobenzene	2000	100 U	1990	100	71-116	
Bromochloromethane	2000	100 U	1670	83	73-121	
Bromoform	2000	100 U	1610	81	32-128	
Bromomethane	2000	100 U	1670	84	10-186	
Carbon disulfide	2000	100 U	1880	94	57-147	
Carbon tetrachloride	2000	100 U	1520	76	59-129	
Chlorobenzene	2000	100 U	1910	96	80-110	
Chloroethane	2000	100 U	1570	78	21-165	
Chloroform	2000	100 U	1740	87	76-118	
Chloromethane	2000	100 U	1600	80	33-132	
cis-1,2-Dichloroethene	2000	4700	6510	89	70-120	
Bromodichloromethane	2000	100 U	1670	84	67-120	
cis-1,3-Dichloropropene	2000	100 U	1440	72	51-110	
1,2-Dibromoethane	2000	100 U	1770	89	74-113	
Dibromomethane	2000	100 U	2450	123	77-121	F

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX933864.D

Lab ID: 240-15134-C-5 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	2000	100 U	1340	67	17-128	
Diisopropyl ether	2000	1000 U	1900	95	73-118	
Ethylbenzene	2000	100 U	1830	92	75-116	
Hexachlorobutadiene	2000	100 U	1960	98	27-132	
Isopropylbenzene	2000	100 U	1840	92	68-116	
2-Butanone	4000	1000 U	4150	104	54-129	
4-Methyl-2-pentanone	4000	1000 U	3850	96	56-131	
m-Xylene & p-Xylene	4000	200 U	3690	92	75-117	
Methyl tert-butyl ether	2000	500 U	1810	91	46-144	
Naphthalene	2000	100 U	1790	89	15-158	
n-Butylbenzene	2000	100 U	1670	83	56-127	
Methylene Chloride	2000	100 U	1670	83	63-128	
n-Propylbenzene	2000	100 U	1890	95	64-124	
o-Xylene	2000	100 U	1850	93	76-116	
p-Isopropyltoluene	2000	100 U	1850	93	64-122	
sec-Butylbenzene	2000	100 U	1710	86	60-119	
Styrene	2000	100 U	1870	93	71-117	
tert-Butylbenzene	2000	100 U	1710	85	61-119	
Tetrachloroethene	2000	100 U	2070	103	70-117	
Toluene	2000	100 U	1810	90	78-114	
trans-1,2-Dichloroethene	2000	22 J	2000	99	80-119	
trans-1,3-Dichloropropene	2000	100 U	1280	64	46-116	
Trichloroethene	2000	4300	6520	110	66-120	
Trichlorofluoromethane	2000	100 U	1690	84	46-157	
tert-Butyl alcohol	40000	5000 U	35400	89	70-130	
Vinyl acetate	2000	200 U	1860	93	43-157	
Vinyl chloride	2000	100 U	1700	85	49-130	
Dibromochloromethane	2000	100 U	1560	78	56-118	
Xylenes, Total	6000	200 U	5540	92	76-116	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX933865.D

Lab ID: 240-15134-C-5 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	2000	1510	75	5	30	64-118	
1,1,1-Trichloroethane	2000	1710	86	1	30	68-121	
1,1,2,2-Tetrachloroethane	2000	1850	92	4	30	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	2000	1820	91	6	30	70-152	
1,1-Dichloroethane	2000	1910	96	4	30	79-116	
1,1-Dichloroethene	2000	1740	87	5	30	74-135	
1,1-Dichloropropene	2000	1690	84	8	30	80-114	
1,2,3-Trichlorobenzene	2000	2220	111	12	30	45-129	
1,2,3-Trichloropropane	2000	2030	102	4	30	67-132	
1,2,3-Trimethylbenzene	2000	1630	82	3	30	70-130	
1,2,4-Trichlorobenzene	2000	1980	99	6	30	38-138	
1,2,4-Trimethylbenzene	2000	1640	82	3	30	67-124	
1,2-Dibromo-3-Chloropropane	2000	1520	76	4	30	32-139	
1,2-Dichlorobenzene	2000	1850	92	6	30	75-111	
1,2-Dichloroethane	2000	1730	87	4	30	68-129	
1,2-Dichloropropane	2000	1790	90	3	30	78-115	
1,3-Dichlorobenzene	2000	1790	89	4	30	73-110	
1,3-Dichloropropane	2000	1760	88	1	30	74-118	
1,4-Dichlorobenzene	2000	1760	88	6	30	75-110	
2,2-Dichloropropane	2000	1060	53	4	30	38-127	
2-Chloroethyl vinyl ether	2000	701 J	35	5	30	10-150	
2-Chlorotoluene	2000	1700	85	5	30	69-117	
2-Hexanone	4000	3700	92	1	30	47-139	
4-Chlorotoluene	2000	1720	86	6	30	71-116	
Acetone	4000	3370	84	1	30	33-145	
Benzene	2000	1860	93	2	30	72-121	
Bromobenzene	2000	1910	95	4	30	71-116	
Bromochloromethane	2000	1620	81	3	30	73-121	
Bromoform	2000	1690	85	5	30	32-128	
Bromomethane	2000	1660	83	1	30	10-186	
Carbon disulfide	2000	1850	92	2	30	57-147	
Carbon tetrachloride	2000	1560	78	3	30	59-129	
Chlorobenzene	2000	1880	94	2	30	80-110	
Chloroethane	2000	1530	76	3	30	21-165	
Chloroform	2000	1690	85	3	30	76-118	
Chloromethane	2000	1560	78	3	30	33-132	
cis-1,2-Dichloroethene	2000	6490	88	0	30	70-120	
Bromodichloromethane	2000	1720	86	3	30	67-120	
cis-1,3-Dichloropropene	2000	1480	74	3	30	51-110	
1,2-Dibromoethane	2000	1810	90	2	30	74-113	
Dibromomethane	2000	2360	118	4	30	77-121	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX933865.D

Lab ID: 240-15134-C-5 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorodifluoromethane	2000	1370	69	3	30	17-128	
Diisopropyl ether	2000	1850	93	3	30	73-118	
Ethylbenzene	2000	1870	93	2	30	75-116	
Hexachlorobutadiene	2000	2070	103	5	30	27-132	
Isopropylbenzene	2000	1850	93	1	30	68-116	
2-Butanone	4000	3920	98	6	30	54-129	
4-Methyl-2-pentanone	4000	3760	94	2	30	56-131	
m-Xylene & p-Xylene	4000	3690	92	0	30	75-117	
Methyl tert-butyl ether	2000	1730	86	5	30	46-144	
Naphthalene	2000	1910	96	7	30	15-158	
n-Butylbenzene	2000	1630	82	2	30	56-127	
Methylene Chloride	2000	1600	80	4	30	63-128	
n-Propylbenzene	2000	1770	89	7	30	64-124	
o-Xylene	2000	1890	94	2	30	76-116	
p-Isopropyltoluene	2000	1750	88	6	30	64-122	
sec-Butylbenzene	2000	1660	83	3	30	60-119	
Styrene	2000	1870	94	0	30	71-117	
tert-Butylbenzene	2000	1850	93	8	30	61-119	
Tetrachloroethene	2000	2150	108	4	30	70-117	
Toluene	2000	1830	91	1	30	78-114	
trans-1,2-Dichloroethene	2000	1930	95	4	30	80-119	
trans-1,3-Dichloropropene	2000	1330	67	4	30	46-116	
Trichloroethene	2000	6360	102	2	30	66-120	
Trichlorofluoromethane	2000	1610	81	4	30	46-157	
tert-Butyl alcohol	40000	33700	84	5	30	70-130	
Vinyl acetate	2000	1960	98	6	30	43-157	
Vinyl chloride	2000	1640	82	3	30	49-130	
Dibromochloromethane	2000	1660	83	6	30	56-118	
Xylenes, Total	6000	5580	93	1	30	76-116	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
GSP-MW-9-0-2	240-15155-1	84	104	98	106
GSP-MW-9-8-10	240-15155-2	88	104	96	88
GSP-MW-10-2-4	240-15155-4	86	102	93	90
GSP-MW-10-20-22	240-15155-5	83	104	92	89
GSP-MW-11-0-2	240-15155-6	86	106	97	93
GSP-MW-11-2-4	240-15155-7	82	102	94	93
	MB 240-58198/6	85	101	92	94
	LCS 240-58198/5	94	101	95	96

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	37-132
DCA = 1,2-Dichloroethane-d4 (Surr)	58-123
TOL = Toluene-d8 (Surr)	67-125
BFB = 4-Bromofluorobenzene (Surr)	52-136

Column to be used to flag recovery values

FORM II 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB	240-15155-3	95	93	86	88
	MB 240-58594/4	94	91	88	88
	LCS 240-58594/5	98	97	91	93
	240-15134-C-5 MS	94	98	92	94
	240-15134-C-5 MSD	95	98	91	95

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-115
BFB = 4-Bromofluorobenzene (Surr)	66-117

Column to be used to flag recovery values

FORM II 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Sample No.: ICIS 240-57599/6 Date Analyzed: 09/12/2012 18:11

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 147849.D Heated Purge: (Y/N) Y

Calibration ID: 11373

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1579287	6.89	1008275	9.59	546589	11.57
UPPER LIMIT		3158574	7.39	2016550	10.09	1093178	12.07
LOWER LIMIT		789644	6.39	504138	9.09	273295	11.07
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-57599/21		1628676	6.89	1021910	9.59	543729	11.57
CCVIS 240-58198/3		1875420	6.89	1093328	9.59	582815	11.57

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Sample No.: CCVIS 240-58198/3 Date Analyzed: 09/18/2012 13:05

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 147975.D Heated Purge: (Y/N) Y

Calibration ID: 11375

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1875420	6.89	1093328	9.59	582815	11.57
UPPER LIMIT		3750840	7.39	2186656	10.09	1165630	12.07
LOWER LIMIT		937710	6.39	546664	9.09	291408	11.07
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-58198/4		2044792	6.89	1198202	9.60	615398	11.57
LCS 240-58198/5		1938882	6.89	1150383	9.59	622656	11.57
MB 240-58198/6		1948456	6.89	1125664	9.59	610667	11.57
240-15155-1	GSP-MW-9-0-2	1667505	6.89	869991	9.59	359695	11.57
240-15155-4	GSP-MW-10-2-4	1656483	6.89	909167	9.59	495777	11.57
240-15155-5	GSP-MW-10-20-22	1736536	6.89	986450	9.60	531393	11.57
240-15155-6	GSP-MW-11-0-2	1697443	6.89	929247	9.59	479512	11.57
240-15155-7	GSP-MW-11-2-4	1793729	6.89	988762	9.59	523494	11.57
240-15155-2	GSP-MW-9-8-10	1594105	6.89	871527	9.60	484448	11.57

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4
Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Sample No.: STD8260 240-51898/5 Date Analyzed: 07/24/2012 19:34

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX932940.D Heated Purge: (Y/N) N

Calibration ID: 10284

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1300921	5.29	1047183	7.96	537003	10.19
UPPER LIMIT		2601842	5.79	2094366	8.46	1074006	10.69
LOWER LIMIT		650461	4.79	523592	7.46	268502	9.69
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-51898/14		1323674	5.30	1044972	7.96	550096	10.18
CCVIS 240-58594/2		1273848	5.30	1049397	7.96	584000	10.18

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Sample No.: CCVIS 240-58594/2 Date Analyzed: 09/20/2012 17:44

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX933842.D Heated Purge: (Y/N) N

Calibration ID: 10711

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1273848	5.30	1049397	7.96	584000	10.18
UPPER LIMIT		2547696	5.80	2098794	8.46	1168000	10.68
LOWER LIMIT		636924	4.80	524699	7.46	292000	9.68
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-58594/5		1264717	5.30	1033690	7.96	568427	10.19
CCV 240-58594/3		1282159	5.30	1025899	7.96	525583	10.19
MB 240-58594/4		1228662	5.29	1008996	7.96	528026	10.19
240-15155-3	TB	1216866	5.30	1028142	7.96	525739	10.19
240-15134-C-5 MS		1220976	5.30	996841	7.96	544062	10.19
240-15134-C-5 MSD		1255804	5.30	1009280	7.96	572657	10.19

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4
DCB = 1,4-Dichlorobenzene-d4
Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

Method 8270D

Semivolatile Organic Compounds (GC/MS) by Method 8270D

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab File ID: 0910001.D DFTPP Injection Date: 09/10/2012

Instrument ID: A4AG2 DFTPP Injection Time: 12:58

Analysis Batch No.: 57255

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	60.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	54.1	
70	Less than 2.0% of mass 69	0.2	(0.4)1
127	25.0 - 75.0% of mass 198	60.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	23.4	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	11.2	
442	40.0 - 110.0% of mass 198	70.4	
443	15.0 - 24.0% of mass 442	13.6	(19.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-57255/2	0910002.D	09/10/2012	13:17
	STD8 240-57255/3	0910003.D	09/10/2012	13:44
	STD7 240-57255/4	0910004.D	09/10/2012	14:07
	STD6 240-57255/5	0910005.D	09/10/2012	14:31
	STD5 240-57255/6	0910006.D	09/10/2012	14:55
	STD4 240-57255/7	0910007.D	09/10/2012	15:18
	STD3 240-57255/8	0910008.D	09/10/2012	15:42
	STD2 240-57255/9	0910009.D	09/10/2012	16:06
	STD1 240-57255/10	0910010.D	09/10/2012	16:30
	ICV 240-57255/11	0910011.D	09/10/2012	16:53

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57255

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/10/2012 13:17 Calibration End Date: 09/10/2012 16:30 Calibration ID: 11401

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-57255/10	0910010.D
Level 2	STD2 240-57255/9	0910009.D
Level 3	STD3 240-57255/8	0910008.D
Level 4	STD4 240-57255/7	0910007.D
Level 5	STD5 240-57255/6	0910006.D
Level 6	STD6 240-57255/5	0910005.D
Level 7	STD7 240-57255/4	0910004.D
Level 8	STD8 240-57255/3	0910003.D
Level 9	STD9 240-57255/2	0910002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5436	0.6019 0.5416	0.4577 +++++	0.5849 +++++	0.5811	Ave		0.5518				9.4		20.0			
N-Nitrosodimethylamine	0.7992	0.5820 0.8229	0.6799 0.8921	0.7703 0.8410	0.7715	Ave		0.7699				13.0		20.0			
Pyridine	1.4301	1.2804 1.4781	1.3409 1.5879	1.4852 1.5054	1.4561	Ave		1.4455				6.7		20.0			
Ethyl methacrylate	1.1766	1.1818 1.1872	1.1121 1.2844	1.2024 1.2243	1.1738	Ave		1.1928				4.1		20.0			
Malononitrile	1.3596	+++++ 1.4152	0.2448 1.6224	0.9059 1.5050	1.2743	Qua	-1.414	1.5329	0.0027						0.9950		0.9900
3-Chloropropionitrile	0.9153	0.9027 0.9311	0.8948 1.0180	0.8812 0.9731	0.9004	Ave		0.9271				5.0		20.0			
Benzaldehyde	1.1577 1.0846	1.1319 1.0624	1.1424 1.0347	1.1548 0.9159	1.1461	Ave		1.0923			0.0100	7.3		20.0			
Phenol	1.6940	1.6961 1.7104	1.6208 1.8446	1.7658 1.7319	1.7015	Ave		1.7206			0.8000	3.8		20.0			
Aniline	2.1291	2.0635 2.1830	2.0297 2.3104	2.1724 2.1969	2.1588	Ave		2.1555				4.0		20.0			
Bis(2-chloroethyl)ether	1.3236	1.4103 1.3296	1.3101 1.4133	1.3407 1.3581	1.3586	Ave		1.3555			0.7000	2.8		20.0			
2-Chlorophenol	1.3806	1.3618 1.3895	1.3404 1.4835	1.3679 1.4065	1.4099	Ave		1.3925			0.8000	3.1		20.0			
Benzoic acid	0.2074	+++++ 0.2247	0.1060 0.2388	0.1524 0.2368	0.1788	Qua	-0.313	0.2179	0.0006						0.9990		0.9900
1,3-Dichlorobenzene	1.5235	1.5913 1.5282	1.4987 1.6025	1.5173 1.5303	1.5372	Ave		1.5411				2.4		20.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57255

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/10/2012 13:17 Calibration End Date: 09/10/2012 16:30 Calibration ID: 11401

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dichlorobenzene	1.5014	1.5924 1.5064	1.5005 1.5910	1.5570 1.5143	1.5240	Ave		1.5359				2.5		20.0			
Benzyl alcohol	0.8925	0.8405 0.9235	0.7819 0.9748	0.9054 0.9265	0.9022	Ave		0.8934				6.6		20.0			
1,2-Dichlorobenzene	1.4281	1.5171 1.4485	1.3857 1.5332	1.5135 1.4638	1.4626	Ave		1.4691				3.4		20.0			
2-Methylphenol	1.2904	1.2746 1.3038	1.2249 1.3790	1.2754 1.3120	1.3093	Ave		1.2962			0.7000	3.4		20.0			
2,2'-oxybis[1-chloropropane]	2.4624	2.5183 2.4847	2.4027 2.6472	2.5241 2.5114	2.5093	Ave		2.5075				2.8		20.0			
3 & 4 Methylphenol	1.3649	1.3189 1.3706	1.2074 1.4666	1.3490 1.3829	1.3629	Ave		1.3529				5.4		20.0			
N-Nitrosodi-n-propylamine	1.0129	1.0115 1.0210	0.8999 1.0940	1.0206 1.0242	1.0493	Ave		1.0167			0.5000	5.4		20.0			
Acetophenone	1.8602	1.9429 1.8845	1.7730 1.9975	1.8841 1.8746	1.9287	Ave		1.8932			0.0100	3.5		20.0			
Hexachloroethane	0.5615	0.5683 0.5694	0.5385 0.6050	0.5717 0.5758	0.5663	Ave		0.5696			0.3000	3.2		20.0			
Nitrobenzene	0.3640	0.3386 0.3712	0.3389 0.3926	0.3663 0.3751	0.3739	Ave		0.3651			0.2000	5.0		20.0			
Isophorone	0.6658	0.6059 0.6671	0.5948 0.7192	0.6708 0.6859	0.6806	Ave		0.6613			0.4000	6.3		20.0			
2-Nitrophenol	0.1787	0.1450 0.1846	0.1456 0.1934	0.1654 0.1866	0.1748	Ave		0.1717			0.1000	11.0		20.0			
1,3,5-Trichlorobenzene	0.2758	0.3067 0.2792	0.2742 0.2939	0.2840 0.2828	0.2881	Ave		0.2856				3.7		20.0			
2,4-Dimethylphenol	0.3411	0.3346 0.3441	0.3332 0.3609	0.3601 0.3411	0.3483	Ave		0.3454			0.2000	3.0		20.0			
Bis(2-chloroethoxy)methane	0.4020	0.3879 0.4085	0.3923 0.4301	0.4148 0.4063	0.4158	Ave		0.4072			0.3000	3.3		20.0			
2,4-Dichlorophenol	0.2584	0.2232 0.2635	0.2293 0.2811	0.2635 0.2638	0.2588	Ave		0.2552			0.2000	7.6		20.0			
1,2,4-Trichlorobenzene	0.2720	0.2795 0.2790	0.2691 0.2910	0.2876 0.2803	0.2819	Ave		0.2801				2.6		20.0			
Naphthalene	1.0622 1.0065	1.0453 1.0245	1.0151 1.0832	1.0422 1.0307	1.0412	Ave		1.0390			0.7000	2.3		20.0			
4-Chloroaniline	0.4333	0.3942 0.4293	0.4044 0.4609	0.4346 0.4395	0.4429	Ave		0.4299			0.0100	5.0		20.0			
Hexachlorobutadiene	0.1253	0.1311 0.1297	0.1225 0.1350	0.1324 0.1273	0.1305	Ave		0.1292			0.0100	3.1		20.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57255

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/10/2012 13:17 Calibration End Date: 09/10/2012 16:30 Calibration ID: 11401

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,2,3-Trichlorobenzene	0.2532	0.2489 0.2621	0.2702 0.2742	0.2790 0.2633	0.2679	Ave		0.2649				3.9		20.0			
Caprolactam	0.1123	0.0867 0.1002	0.0857 0.1105	0.1080 0.1007	0.1108	Ave		0.1019			0.0100	10.0		20.0			
2,4-Dinitrophenol	0.1505	+++++ 0.1678	0.0639 0.1788	0.0890 0.1814	0.1231	Qua	-0.280	0.1556	0.0007		0.0100				0.9990		0.9900
4-Chloro-3-methylphenol	0.2963	0.2667 0.2985	0.2676 0.3249	0.3014 0.3073	0.3063	Ave		0.2961			0.2000	6.7		20.0			
2-Methylnaphthalene	0.6312 0.6706	0.6310 0.6712	0.6595 0.7147	0.6808 0.6735	0.6757	Ave		0.6676			0.4000	3.8		20.0			
1-Methylnaphthalene	0.5767 0.6335	0.6509 0.6434	0.6257 0.6867	0.6589 0.6500	0.6622	Ave		0.6431				4.7		20.0			
1,2,3,5-Tetrachlorobenzene	0.4450	0.4793 0.4441	0.4407 0.4619	0.4569 0.4446	0.4501	Ave		0.4528				2.8		20.0			
Hexachlorocyclopentadiene	0.2533	0.1930 0.2579	0.2005 0.2863	0.2160 0.2893	0.2439	Ave		0.2425			0.0500	15.0		20.0			
2,4,6-Trichlorophenol	0.3080	0.2649 0.3089	0.2438 0.3306	0.2954 0.3169	0.2972	Ave		0.2957			0.2000	9.6		20.0			
2,4,5-Trichlorophenol	0.3386	0.2813 0.3333	0.2938 0.3571	0.3296 0.3476	0.3437	Ave		0.3281			0.2000	8.1		20.0			
2,4-Toluene diamine	0.1803	0.2593 0.1709	0.1981 0.1855	0.1634 0.1643	0.1581	Ave		0.1850				18.0		20.0			
1,2,3,4 -Tetrachlorobenzene	0.4300	0.4392 0.4227	0.4411 0.4493	0.4582 0.4324	0.4231	Ave		0.4370				2.9		20.0			
1,1'-Biphenyl	1.3338 1.3867	1.4350 1.3664	1.3712 1.4442	1.4327 1.4030	1.4016	Ave		1.3972			0.0100	2.6		20.0			
2-Chloronaphthalene	1.1393 1.0744	1.1007 1.0508	1.0201 1.1200	1.0720 1.0757	1.0659	Ave		1.0799			0.8000	3.3		20.0			
2-Nitroaniline	0.3646	0.2637 0.3562	0.3022 0.3796	0.3469 0.3709	0.3555	Ave		0.3424			0.0100	12.0		20.0			
Dimethyl phthalate	1.2106	1.1500 1.1729	1.1144 1.2735	1.2257 1.2305	1.2115	Ave		1.1986			0.0100	4.2		20.0			
2,6-Dinitrotoluene	0.2796	0.1800 0.2756	0.2119 0.3005	0.2471 0.2865	0.2689	Ave		0.2563				16.0		20.0			
1,2-Dinitrobenzene	0.1335	0.0959 0.1375	0.1116 0.1455	0.1284 0.1422	0.1332	Ave		0.1285				13.0		20.0			
Acenaphthylene	1.4602 1.8961	1.7767 1.8537	1.7200 1.9980	1.9053 1.9132	1.8989	Ave		1.8247			0.9000	8.7		20.0			
3-Nitroaniline	0.3341	0.2725 0.3319	0.2686 0.3646	0.3263 0.3537	0.3357	Ave		0.3234			0.0100	11.0		20.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57255

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/10/2012 13:17 Calibration End Date: 09/10/2012 16:30 Calibration ID: 11401

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Acenaphthene	1.0345 1.1067	1.1477 1.0731	1.0821 1.1582	1.1653 1.1077	1.1359	Ave		1.1124			0.9000	3.9		20.0			
4-Nitrophenol	 0.1618	0.1045 0.1609	0.1223 0.1686	0.1563 0.1660	0.1581	Ave		0.1498				16.0		20.0			
2,4-Dinitrotoluene	 0.3647	0.2822 0.3679	0.2843 0.3951	0.3338 0.3880	0.3733	Ave		0.3487			0.2000	13.0		20.0			
Dibenzofuran	1.3541 1.5514	1.5759 1.5084	1.4753 1.6149	1.5780 1.5653	1.5468	Ave		1.5300			0.8000	5.1		20.0			
2,3,5,6-Tetrachlorophenol	 0.2485	0.1679 0.2491	0.1845 0.2673	0.2369 0.2642	0.2574	Ave		0.2345				16.0		20.0			
Diethyl phthalate	 1.2380	1.1850 1.2240	1.1624 1.3227	1.2592 1.2577	1.2673	Ave		1.2395			0.0100	4.0		20.0			
4-Chlorophenyl phenyl ether	 0.5336	0.5458 0.5208	0.5055 0.5571	0.5380 0.5379	0.5442	Ave		0.5354			0.4000	3.0		20.0			
4-Nitroaniline	 0.3433	0.2559 0.3410	0.2644 0.3637	0.3160 0.3479	0.3367	Ave		0.3211			0.0100	12.0		20.0			
Fluorene	1.1432 1.2923	1.2967 1.2406	1.2480 1.3362	1.3296 1.2771	1.2974	Ave		1.2735			0.9000	4.6		20.0			
4,6-Dinitro-2-methylphenol	 0.1270	0.0484 0.1321	0.0593 0.1471	0.0865 0.1417	0.1157	Qua	-0.076	0.1307	0.0007		0.0100				0.9980		0.9900
N-Nitrosodiphenylamine	 0.6154	0.5737 0.6076	0.5586 0.6434	0.6061 0.6280	0.6289	Ave		0.6077			0.0100	4.7		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	 0.9280	0.8379 0.9103	0.8497 0.9613	0.9229 0.9384	0.9488	Ave		0.9121				4.9		20.0			
Azobenzene	 0.9280	0.8379 0.9102	0.8497 0.9613	0.9229 0.9383	0.9488	Ave		0.9121				4.9		20.0			
4-Bromophenyl phenyl ether	 0.1876	0.1684 0.1892	0.1707 0.1990	0.1885 0.1957	0.1965	Ave		0.1870			0.1000	6.2		20.0			
Hexachlorobenzene	0.1611 0.1915	0.1773 0.1855	0.1659 0.1987	0.1929 0.1917	0.1929	Ave		0.1842			0.1000	7.2		20.0			
Atrazine	 0.1615	0.1274 0.1486	0.1330 0.1597	0.1550 0.1422	0.1683	Ave		0.1495			0.0100	9.6		20.0			
Pentachlorophenol	 0.1330	0.0723 0.1365	0.0855 0.1422	0.1057 0.1431	0.1279	Qua	-0.088	0.1329	0.0003		0.0500				1.0000		0.9900
Phenanthrene	1.1378 1.1109	1.1335 1.0967	1.0792 1.1657	1.1483 1.1292	1.1647	Ave		1.1295			0.7000	2.6		20.0			
Anthracene	0.9261 1.1644	1.0338 1.1468	1.0337 1.2314	1.1710 1.2002	1.1906	Ave		1.1220			0.7000	9.0		20.0			
Carbazole	 1.1432	1.0840 1.1136	0.9977 1.1987	1.1082 1.1602	1.1599	Ave		1.1207			0.0100	5.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57255

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/10/2012 13:17 Calibration End Date: 09/10/2012 16:30 Calibration ID: 11401

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Di-n-butyl phthalate	1.4364	1.1573 1.4298	1.2069 1.5101	1.3583 1.4915	1.4513	Ave		1.3802			0.0100	9.5		20.0			
3,3'-Dimethoxybenzidine	0.2917	+++++ 0.3102	0.1345 0.3462	0.2053 0.3378	0.2584	Qua	-0.219	0.3012	0.0020						0.9980		0.9900
Fluoranthene	0.8413 1.1436	1.0019 1.1337	1.0191 1.2080	1.1119 1.1739	1.1809	Ave		1.0905			0.6000	11.0		20.0			
Benzidine	0.7543	0.3664 0.7600	0.4393 0.8283	0.5730 0.8026	0.7008	Qua	-0.336	0.7686	0.0023						0.9990		0.9900
Pyrene	1.1526 1.2906	1.2064 1.2667	1.2105 1.3508	1.3127 1.2820	1.3093	Ave		1.2646			0.6000	5.0		20.0			
Butyl benzyl phthalate	0.6717	0.4327 0.6667	0.4911 0.7192	0.6030 0.6911	0.6522	Ave		0.6160			0.0100	17.0		20.0			
3,3'-Dichlorobenzidine	0.4378	0.3099 0.4433	0.3390 0.4727	0.4124 0.4489	0.4415	Ave		0.4132			0.0100	14.0		20.0			
4,4'-Methylene bis(2-chloroaniline)	0.2215	0.1446 0.2129	0.1630 0.2300	0.1922 0.2195	0.2100	Ave		0.1992				15.0		20.0			
Bis(2-ethylhexyl) phthalate	0.9742	0.6436 0.9723	0.7256 1.0387	0.8931 0.9953	0.9643	Ave		0.9009			0.0100	16.0		20.0			
Benzo[a]anthracene	1.0154 1.1366	1.0805 1.1129	1.0371 1.1982	1.1392 1.1420	1.1528	Ave		1.1127			0.8000	5.2		20.0			
Chrysene	0.9947 1.0526	1.0632 1.0453	1.0077 1.0970	1.0706 1.0540	1.0839	Ave		1.0521			0.7000	3.2		20.0			
Di-n-octyl phthalate	1.8580	0.8690 1.9195	1.0223 2.1046	1.4805 2.0374	1.7710	Qua	-0.831	1.9027	0.0079		0.0100				0.9980		0.9900
Benzo[b]fluoranthene	1.0221 1.3784	1.1026 1.3279	1.1203 1.4075	1.3518 1.3751	1.3740	Ave		1.2733			0.7000	12.0		20.0			
Benzo[k]fluoranthene	0.8957 1.3698	1.3082 1.3783	1.3312 1.5363	1.4392 1.4331	1.4266	Ave		1.3465			0.7000	14.0		20.0			
Benzo[a]pyrene	0.6420 1.2820	0.9657 1.2805	1.0378 1.3998	1.2013 1.3523	1.2853	Qua	-0.158	1.2701	0.0042		0.7000				0.9990		0.9900
Indeno[1,2,3-cd]pyrene	0.6375 1.3759	1.0072 1.3802	1.1000 1.4993	1.2583 1.4344	1.3871	Qua	-0.225	1.3949	0.0028		0.5000				0.9990		0.9900
Dibenzo(a,h)anthracene	0.7061 1.1495	0.8286 1.1593	0.8942 1.2778	1.0432 1.2158	1.1103	Ave		1.0428			0.4000	18.0		20.0			
Benzo[g,h,i]perylene	0.7524 1.1669	0.9071 1.1638	0.9492 1.2809	1.1307 1.2238	1.1746	Ave		1.0833			0.5000	16.0		20.0			
2-Fluorophenol (Surr)	1.2624	1.2356 1.2787	1.1444 1.3556	1.2421 1.3076	1.2567	Ave		1.2604				4.8		20.0			
Phenol-d5 (Surr)	1.5963	1.5929 1.6450	1.5124 1.7479	1.5963 1.6476	1.6089	Ave		1.6184				4.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57255

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/10/2012 13:17 Calibration End Date: 09/10/2012 16:30 Calibration ID: 11401

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Nitrobenzene-d5 (Surr)	0.3386 0.3579	0.3229 0.3660	0.3380 0.3825	0.3480 0.3683	0.3597	Ave		0.3536				5.2		20.0			
2-Fluorobiphenyl (Surr)	1.3208 1.2546	1.2561 1.2420	1.2499 1.3204	1.2928 1.2568	1.2414	Ave		1.2705				2.5		20.0			
2,4,6-Tribromophenol (Surr)	 0.1290	0.0900 0.1319	0.1046 0.1431	0.1169 0.1381	0.1260	Ave		0.1225				15.0		20.0			
Terphenyl-d14 (Surr)	0.7497 0.7438	0.7251 0.7357	0.7012 0.7899	0.7499 0.7471	0.7623	Ave		0.7450				3.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57255

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/10/2012 13:17 Calibration End Date: 09/10/2012 16:30 Calibration ID: 11401

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-57255/10	0910010.D
Level 2	STD2 240-57255/9	0910009.D
Level 3	STD3 240-57255/8	0910008.D
Level 4	STD4 240-57255/7	0910007.D
Level 5	STD5 240-57255/6	0910006.D
Level 6	STD6 240-57255/5	0910005.D
Level 7	STD7 240-57255/4	0910004.D
Level 8	STD8 240-57255/3	0910003.D
Level 9	STD9 240-57255/2	0910002.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave		15079	20852	54311	132906		0.500	1.00	2.00	5.00
			246130	384108	+++++	+++++		10.0	15.0	+++++	+++++	
N-Nitrosodimethylamine	DCB	Ave		14580	30971	71533	176451		0.500	1.00	2.00	5.00
			361831	583624	773498	983096		10.0	15.0	20.0	25.0	
Pyridine	DCB	Ave		32078	61083	137921	333010		0.500	1.00	2.00	5.00
			647463	1048356	1376835	1759756		10.0	15.0	20.0	25.0	
Ethyl methacrylate	DCB	Ave		29609	50663	111656	268459		0.500	1.00	2.00	5.00
			532696	842017	1113653	1431156		10.0	15.0	20.0	25.0	
Malononitrile	DCB	Qua		+++++	11152	84122	291435		+++++	1.00	2.00	5.00
			615567	1003743	1406769	1759349		10.0	15.0	20.0	25.0	
3-Chloropropionitrile	DCB	Ave		22616	40763	81830	205921		0.500	1.00	2.00	5.00
			414411	660406	882669	1137544		10.0	15.0	20.0	25.0	
Benzaldehyde	DCB	Ave	4935	28357	52043	107238	262103	0.100	0.500	1.00	2.00	5.00
			491041	753475	897151	1070621		10.0	15.0	20.0	25.0	
Phenol	DCB	Ave		42493	73834	163974	389133		0.500	1.00	2.00	5.00
			766943	1213135	1599438	2024562		10.0	15.0	20.0	25.0	
Aniline	DCB	Ave		51697	92463	201734	493726		0.500	1.00	2.00	5.00
			963955	1548270	2003303	2568183		10.0	15.0	20.0	25.0	
Bis(2-chloroethyl)ether	DCB	Ave		35333	59679	124498	310715		0.500	1.00	2.00	5.00
			599246	943030	1225400	1587552		10.0	15.0	20.0	25.0	
2-Chlorophenol	DCB	Ave		34118	61063	127025	322436		0.500	1.00	2.00	5.00
			625085	985530	1286256	1644198		10.0	15.0	20.0	25.0	
Benzoic acid	NPT	Qua		+++++	38016	110942	324363		+++++	2.00	4.00	10.0
			746133	1268552	1669631	2193743		20.0	30.0	40.0	50.0	
1,3-Dichlorobenzene	DCB	Ave		39868	68273	140897	351561		0.500	1.00	2.00	5.00
			689782	1083913	1389453	1788884		10.0	15.0	20.0	25.0	
1,4-Dichlorobenzene	DCB	Ave		39895	68355	144584	348528		0.500	1.00	2.00	5.00
			679763	1068396	1379466	1770157		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57255

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/10/2012 13:17 Calibration End Date: 09/10/2012 16:30 Calibration ID: 11401

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Benzyl alcohol	DCB	Ave		21057	35618	84080	206327		0.500	1.00	2.00	5.00
			404095	655030	845230	1083013		10.0	15.0	20.0	25.0	
1,2-Dichlorobenzene	DCB	Ave		38009	63124	140546	334505		0.500	1.00	2.00	5.00
			646547	1027326	1329385	1711188		10.0	15.0	20.0	25.0	
2-Methylphenol	DCB	Ave		31933	55798	118433	299441		0.500	1.00	2.00	5.00
			584224	924691	1195665	1533664		10.0	15.0	20.0	25.0	
2,2'-oxybis[1-chloropropane]	DCB	Ave		63091	109452	234391	573878		0.500	1.00	2.00	5.00
			1114859	1762256	2295328	2935822		10.0	15.0	20.0	25.0	
3 & 4 Methylphenol	DCB	Ave		33042	55000	125273	311700		0.500	1.00	2.00	5.00
			617933	972076	1271648	1616568		10.0	15.0	20.0	25.0	
N-Nitrosodi-n-propylamine	DCB	Ave		25341	40994	94778	239986		0.500	1.00	2.00	5.00
			458602	724126	948538	1197224		10.0	15.0	20.0	25.0	
Acetophenone	DCB	Ave		48675	80769	174961	441096		0.500	1.00	2.00	5.00
			842195	1336607	1731948	2191337		10.0	15.0	20.0	25.0	
Hexachloroethane	DCB	Ave		14238	24533	53091	129515		0.500	1.00	2.00	5.00
			254240	403877	524590	673062		10.0	15.0	20.0	25.0	
Nitrobenzene	NPT	Ave		34757	60762	133368	339117		0.500	1.00	2.00	5.00
			654685	1047780	1372670	1737916		10.0	15.0	20.0	25.0	
Isophorone	NPT	Ave		62193	106648	244221	617230		0.500	1.00	2.00	5.00
			1197633	1882872	2514552	3177874		10.0	15.0	20.0	25.0	
2-Nitrophenol	NPT	Ave		14879	26108	60208	158538		0.500	1.00	2.00	5.00
			321431	520980	676030	864384		10.0	15.0	20.0	25.0	
1,3,5-Trichlorobenzene	NPT	Ave		31483	49159	103384	261310		0.500	1.00	2.00	5.00
			496036	788116	1027596	1310290		10.0	15.0	20.0	25.0	
2,4-Dimethylphenol	NPT	Ave		34347	59754	131102	315849		0.500	1.00	2.00	5.00
			613502	971203	1261992	1580245		10.0	15.0	20.0	25.0	
Bis(2-chloroethoxy)methane	NPT	Ave		39819	70351	150996	377096		0.500	1.00	2.00	5.00
			723067	1153161	1503717	1882521		10.0	15.0	20.0	25.0	
2,4-Dichlorophenol	NPT	Ave		22908	41110	95940	234687		0.500	1.00	2.00	5.00
			464794	743745	982706	1221912		10.0	15.0	20.0	25.0	
1,2,4-Trichlorobenzene	NPT	Ave		28687	48262	104698	255654		0.500	1.00	2.00	5.00
			489337	787461	1017481	1298418		10.0	15.0	20.0	25.0	
Naphthalene	NPT	Ave	17408	107297	182014	379410	944240	0.100	0.500	1.00	2.00	5.00
			1810436	2891673	3787390	4775164		10.0	15.0	20.0	25.0	
4-Chloroaniline	NPT	Ave		40467	72523	158202	401660		0.500	1.00	2.00	5.00
			779507	1211618	1611326	2035916		10.0	15.0	20.0	25.0	
Hexachlorobutadiene	NPT	Ave		13455	21961	48194	118368		0.500	1.00	2.00	5.00
			225447	366085	472006	589609		10.0	15.0	20.0	25.0	
1,2,3-Trichlorobenzene	NPT	Ave		25546	48456	101577	242941		0.500	1.00	2.00	5.00
			455391	739832	958802	1219858		10.0	15.0	20.0	25.0	
Caprolactam	NPT	Ave		8897	15361	39323	100455		0.500	1.00	2.00	5.00
			202028	282810	386421	466429		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57255

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/10/2012 13:17 Calibration End Date: 09/10/2012 16:30 Calibration ID: 11401

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
2,4-Dinitrophenol	ANT	Qua		+++++	12822	36286	126666		+++++	2.00	4.00	10.0
			300524	538035	709618	932097		20.0	30.0	40.0	50.0	
4-Chloro-3-methylphenol	NPT	Ave		27380	47982	109734	277773		0.500	1.00	2.00	5.00
			532974	842626	1135921	1423527		10.0	15.0	20.0	25.0	
2-Methylnaphthalene	NPT	Ave	10345	64774	118263	247830	612806	0.100	0.500	1.00	2.00	5.00
			1206263	1894597	2498957	3119974		10.0	15.0	20.0	25.0	
1-Methylnaphthalene	NPT	Ave	9452	66815	112204	239868	600598	0.100	0.500	1.00	2.00	5.00
			1139468	1815932	2400976	3011174		10.0	15.0	20.0	25.0	
1,2,3,5-Tetrachlorobenzene	ANT	Ave		26877	44210	93190	231654		0.500	1.00	2.00	5.00
			444261	711854	916554	1142486		10.0	15.0	20.0	25.0	
Hexachlorocyclopentadiene	ANT	Ave		10821	20111	44061	125514		0.500	1.00	2.00	5.00
			252869	413436	568195	743391		10.0	15.0	20.0	25.0	
2,4,6-Trichlorophenol	ANT	Ave		14853	24459	60248	152946		0.500	1.00	2.00	5.00
			307465	495192	656041	814373		10.0	15.0	20.0	25.0	
2,4,5-Trichlorophenol	ANT	Ave		15776	29471	67219	176888		0.500	1.00	2.00	5.00
			337974	534218	708651	893181		10.0	15.0	20.0	25.0	
2,4-Toluene diamine	NPT	Ave		26616	35527	59502	143363		0.500	1.00	2.00	5.00
			324408	482454	648613	761252		10.0	15.0	20.0	25.0	
1,2,3,4 -Tetrachlorobenzene	ANT	Ave		24629	44249	93462	217746		0.500	1.00	2.00	5.00
			429216	677625	891513	1110971		10.0	15.0	20.0	25.0	
1,1'-Biphenyl	ANT	Ave	12072	80467	137564	292224	721294	0.100	0.500	1.00	2.00	5.00
			1384268	2190265	2865969	3605147		10.0	15.0	20.0	25.0	
2-Chloronaphthalene	ANT	Ave	10312	61719	102340	218650	548530	0.100	0.500	1.00	2.00	5.00
			1072491	1684331	2222535	2763963		10.0	15.0	20.0	25.0	
2-Nitroaniline	ANT	Ave		14788	30321	70748	182935		0.500	1.00	2.00	5.00
			363917	570983	753282	953022		10.0	15.0	20.0	25.0	
Dimethyl phthalate	ANT	Ave		64488	111806	250001	623479		0.500	1.00	2.00	5.00
			1208445	1880011	2527255	3161912		10.0	15.0	20.0	25.0	
2,6-Dinitrotoluene	ANT	Ave		10093	21263	50393	138364		0.500	1.00	2.00	5.00
			279093	441788	596356	736193		10.0	15.0	20.0	25.0	
1,2-Dinitrobenzene	ANT	Ave		5377	11192	26197	68563		0.500	1.00	2.00	5.00
			133305	220363	288700	365349		10.0	15.0	20.0	25.0	
Acenaphthylene	ANT	Ave	13216	99625	172559	388615	977221	0.100	0.500	1.00	2.00	5.00
			1892748	2971267	3964931	4916088		10.0	15.0	20.0	25.0	
3-Nitroaniline	ANT	Ave		15279	26943	66547	172777		0.500	1.00	2.00	5.00
			333516	531990	723489	908840		10.0	15.0	20.0	25.0	
Acenaphthene	ANT	Ave	9363	64359	108561	237685	584549	0.100	0.500	1.00	2.00	5.00
			1104782	1720130	2298470	2846362		10.0	15.0	20.0	25.0	
4-Nitrophenol	ANT	Ave		5857	12272	31870	81385		0.500	1.00	2.00	5.00
			161519	257863	334517	426493		10.0	15.0	20.0	25.0	
2,4-Dinitrotoluene	ANT	Ave		15825	28524	68094	192100		0.500	1.00	2.00	5.00
			364050	589677	784005	996949		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57255

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/10/2012 13:17 Calibration End Date: 09/10/2012 16:30 Calibration ID: 11401

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Dibenzofuran	ANT	Ave	12256 1548732	88369 2417887	148006 3204724	321867 4022211	796041	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,5,6-Tetrachlorophenol	ANT	Ave	 248045	9417 399230	18506 530352	48327 678799	132465	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 1235837	66446 1961979	116621 2624891	256828 3231690	652206	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chlorophenyl phenyl ether	ANT	Ave	 532687	30604 834732	50710 1105597	109737 1382059	280069	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	 342727	14352 546516	26525 721697	64453 893829	173254	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	10347 1290083	72710 1988565	125201 2651693	271190 3281514	667684	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,6-Dinitro-2-methylphenol	PHN	Qua	 193707	4226 325368	9168 450113	27385 559858	89620	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodiphenylamine	PHN	Ave	 938714	50118 1496207	86417 1968721	191938 2481553	487348	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	 1415598	73195 2241739	131440 2941442	292261 3707834	735255	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	 1415598	73195 2241529	131440 2941442	292261 3707691	735255	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	 286205	14710 466037	26414 608842	59707 773183	152270	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	2262 292134	15491 456747	25670 608118	61097 757573	149504	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	 246381	11130 366013	20577 488609	49087 562065	130427	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pentachlorophenol	PHN	Qua	 405718	12636 672054	26457 870143	66941 1131253	198183	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenanthrene	PHN	Ave	15974 1694545	99020 2700714	166953 3566879	363645 4461654	902537	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	13002 1776240	90314 2824202	159913 3767941	370836 4742518	922626	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	 1743793	94698 2742364	154339 3667946	350950 4584434	898865	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	 2191132	101100 3521113	186700 4620754	430148 5893421	1124637	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3,3'-Dimethoxybenzidine	CRY	Qua	 415642	+++++ 715595	18734 997677	58853 1277498	188466	 10.0	+++++ 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	11811 1744410	87523 2791946	157655 3696363	352110 4638271	915078	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Qua	 1074991	28511 1753214	61198 2386544	164233 3035219	511125	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57255

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/10/2012 13:17 Calibration End Date: 09/10/2012 16:30 Calibration ID: 11401

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Pyrene	CRY	Ave	14053 1839222	93870 2922383	168631 3892072	376220 4848217	954878	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	 957286	33672 1538142	68413 2072176	172839 2613794	475676	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3,3'-Dichlorobenzidine	CRY	Ave	 623870	24112 1022679	47229 1361916	118191 1697692	321996	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,4'-Methylene bis(2-chloroaniline)	CRY	Ave	 315598	11251 491212	22708 662670	55083 829929	153120	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-ethylhexyl) phthalate	CRY	Ave	 1388311	50081 2243015	101091 2992793	255961 3764226	703238	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]anthracene	CRY	Ave	12381 1619693	84077 2567472	144487 3452425	326495 4318710	840745	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	12128 1499988	82728 2411422	140389 3160888	306853 3985924	790460	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Qua	 2162789	52998 3665183	111578 4976574	333000 6396876	1038033	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	9530 1604520	67250 2535472	122269 3328190	304056 4317344	805336	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	8352 1594591	79785 2631729	145293 3632692	323705 4499521	836163	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Qua	5986 1492374	58896 2444933	113267 3310087	270212 4245651	753322	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Qua	5944 1601596	61432 2635307	120057 3545311	283020 4503437	813019	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzo(a,h)anthracene	PRY	Ave	6584 1338141	50537 2213686	97595 3021536	234640 3817214	650763	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	7015 1358319	55323 2222096	103600 3028973	254316 3842375	688436	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	 571529	30956 906925	52131 1175414	115344 1528603	287400	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	 722739	39906 1166747	68894 1515554	148230 1926007	367962	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	5549 643831	33144 1033049	60609 1337525	126696 1706395	326190	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	11955 1252374	70433 1990866	125399 2620270	263694 3229356	638847	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	 128788	5049 211469	10489 283900	23846 354909	64867	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	9141 1059913	56422 1697218	97692 2275995	214927 2825440	555908	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 57255

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/10/2012 13:17 Calibration End Date: 09/10/2012 16:30 Calibration ID: 11401

Curve Type Legend:
Ave = Average ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: ICV 240-57255/11 Calibration Date: 09/10/2012 16:53

Instrument ID: A4AG2 Calib Start Date: 09/10/2012 13:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 09/10/2012 16:30

Lab File ID: 0910011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5518	0.5461		9.90	10.0	-1.0	30.0
N-Nitrosodimethylamine	Ave	0.7699	0.7983		10.4	10.0	3.7	30.0
Pyridine	Ave	1.446	1.456		10.1	10.0	0.7	30.0
Ethyl methacrylate	Ave	1.193	1.163		9.75	10.0	-2.5	30.0
3-Chloropropionitrile	Ave	0.9271	0.9198		9.92	10.0	-0.8	30.0
Malononitrile	Qua		1.422		10.0	10.0	0.3	30.0
Benzaldehyde	Ave	1.092	1.070	0.0100	9.80	10.0	-2.0	30.0
Phenol	Ave	1.721	1.694	0.8000	9.84	10.0	-1.6	30.0
Aniline	Ave	2.155	2.133		9.89	10.0	-1.1	30.0
Bis(2-chloroethyl)ether	Ave	1.356	1.326	0.7000	9.79	10.0	-2.1	30.0
2-Chlorophenol	Ave	1.393	1.378	0.8000	9.90	10.0	-1.0	30.0
1,3-Dichlorobenzene	Ave	1.541	1.513		9.82	10.0	-1.8	30.0
1,4-Dichlorobenzene	Ave	1.536	1.506		9.80	10.0	-2.0	30.0
Benzyl alcohol	Ave	0.8934	0.8839		9.89	10.0	-1.1	30.0
1,2-Dichlorobenzene	Ave	1.469	1.440		9.80	10.0	-2.0	30.0
2-Methylphenol	Ave	1.296	1.287	0.7000	9.93	10.0	-0.7	30.0
2,2'-oxybis[1-chloropropane]	Ave	2.508	2.430		9.69	10.0	-3.1	30.0
3 & 4 Methylphenol	Ave	1.353	1.349		9.97	10.0	-0.3	30.0
N-Nitrosodi-n-propylamine	Ave	1.017	1.027	0.5000	10.1	10.0	1.0	30.0
Acetophenone	Ave	1.893	1.880	0.0100	9.93	10.0	-0.7	30.0
Hexachloroethane	Ave	0.5696	0.5675	0.3000	9.96	10.0	-0.4	30.0
Nitrobenzene	Ave	0.3651	0.3578	0.2000	9.80	10.0	-2.0	30.0
Isophorone	Ave	0.6613	0.6666	0.4000	10.1	10.0	0.8	30.0
2-Nitrophenol	Ave	0.1717	0.1785	0.1000	10.4	10.0	3.9	30.0
1,3,5-Trichlorobenzene	Ave	0.2856	0.2751		9.63	10.0	-3.7	30.0
2,4-Dimethylphenol	Ave	0.3454	0.3460	0.2000	10.0	10.0	0.2	30.0
Benzoic acid	Qua		0.2072		19.5	20.0	-2.6	30.0
Bis(2-chloroethoxy)methane	Ave	0.4072	0.4104	0.3000	10.1	10.0	0.8	30.0
2,4-Dichlorophenol	Ave	0.2552	0.2620	0.2000	10.3	10.0	2.7	30.0
1,2,4-Trichlorobenzene	Ave	0.2801	0.2743		9.79	10.0	-2.1	30.0
Naphthalene	Ave	1.039	1.011	0.7000	9.73	10.0	-2.7	30.0
4-Chloroaniline	Ave	0.4299	0.4239	0.0100	9.86	10.0	-1.4	30.0
Hexachlorobutadiene	Ave	0.1292	0.1254	0.0100	9.71	10.0	-2.9	30.0
1,2,3-Trichlorobenzene	Ave	0.2649	0.2547		9.62	10.0	-3.8	30.0
Caprolactam	Ave	0.1019	0.0996	0.0100	9.78	10.0	-2.2	30.0
4-Chloro-3-methylphenol	Ave	0.2961	0.3014	0.2000	10.2	10.0	1.8	30.0
2-Methylnaphthalene	Ave	0.6676	0.6633	0.4000	9.94	10.0	-0.6	30.0
1-Methylnaphthalene	Ave	0.6431	0.6418		9.98	10.0	-0.2	30.0
1,2,3,5-Tetrachlorobenzene	Ave	0.4528	0.4398		9.71	10.0	-2.9	30.0
Hexachlorocyclopentadiene	Ave	0.2425	0.2483	0.0500	10.2	10.0	2.4	30.0
2,4,6-Trichlorophenol	Ave	0.2957	0.3065	0.2000	10.4	10.0	3.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: ICV 240-57255/11 Calibration Date: 09/10/2012 16:53

Instrument ID: A4AG2 Calib Start Date: 09/10/2012 13:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 09/10/2012 16:30

Lab File ID: 0910011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3281	0.3327	0.2000	10.1	10.0	1.4	30.0
2,4-Toluene diamine	Ave	0.1850	0.1826		9.87	10.0	-1.3	30.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4370	0.4329		9.91	10.0	-0.9	30.0
1,1'-Biphenyl	Ave	1.397	1.376	0.0100	9.85	10.0	-1.5	30.0
2-Chloronaphthalene	Ave	1.080	1.045	0.8000	9.68	10.0	-3.2	30.0
2-Nitroaniline	Ave	0.3424	0.3610	0.0100	10.5	10.0	5.4	30.0
Dimethyl phthalate	Ave	1.199	1.202	0.0100	10.0	10.0	0.3	30.0
2,6-Dinitrotoluene	Ave	0.2563	0.2709		10.6	10.0	5.7	30.0
1,2-Dinitrobenzene	Ave	0.1285	0.1376		10.7	10.0	7.1	30.0
Acenaphthylene	Ave	1.825	1.892	0.9000	10.4	10.0	3.7	30.0
3-Nitroaniline	Ave	0.3234	0.3371	0.0100	10.4	10.0	4.2	30.0
2,4-Dinitrophenol	Qua		0.1534	0.0100	19.8	20.0	-0.8	30.0
Acenaphthene	Ave	1.112	1.116	0.9000	10.0	10.0	0.3	30.0
4-Nitrophenol	Ave	0.1498	0.1618		10.8	10.0	8.0	30.0
2,4-Dinitrotoluene	Ave	0.3487	0.3695	0.2000	10.6	10.0	6.0	30.0
Dibenzofuran	Ave	1.530	1.544	0.8000	10.1	10.0	0.9	30.0
2,3,5,6-Tetrachlorophenol	Ave	0.2345	0.2493		10.6	10.0	6.3	30.0
Diethyl phthalate	Ave	1.240	1.246	0.0100	10.0	10.0	0.5	30.0
4-Chlorophenyl phenyl ether	Ave	0.5354	0.5282	0.4000	9.87	10.0	-1.3	30.0
4-Nitroaniline	Ave	0.3211	0.3417	0.0100	10.6	10.0	6.4	30.0
Fluorene	Ave	1.273	1.270	0.9000	9.97	10.0	-0.3	30.0
4,6-Dinitro-2-methylphenol	Qua		0.1291	0.0100	9.95	10.0	-0.5	30.0
N-Nitrosodiphenylamine	Ave	0.6077	0.6041	0.0100	9.94	10.0	-0.6	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9121	0.9154		10.0	10.0	0.4	30.0
Azobenzene	Ave	0.9121	0.9154		10.0	10.0	0.4	30.0
4-Bromophenyl phenyl ether	Ave	0.1870	0.1890	0.1000	10.1	10.0	1.1	30.0
Hexachlorobenzene	Ave	0.1842	0.1899	0.1000	10.3	10.0	3.1	30.0
Atrazine	Ave	0.1495	0.1558	0.0100	10.4	10.0	4.2	30.0
Pentachlorophenol	Qua		0.1318	0.0500	19.8	20.0	-1.2	30.0
Phenanthrene	Ave	1.130	1.102	0.7000	9.76	10.0	-2.4	30.0
Anthracene	Ave	1.122	1.146	0.7000	10.2	10.0	2.2	30.0
Carbazole	Ave	1.121	1.123	0.0100	10.0	10.0	0.2	30.0
Di-n-butyl phthalate	Ave	1.380	1.414	0.0100	10.2	10.0	2.5	30.0
Fluoranthene	Ave	1.090	1.136	0.6000	10.4	10.0	4.2	30.0
Benzidine	Qua		0.7195		9.52	10.0	-4.8	30.0
Pyrene	Ave	1.265	1.270	0.6000	10.0	10.0	0.4	30.0
Butyl benzyl phthalate	Ave	0.6160	0.6496	0.0100	10.5	10.0	5.5	30.0
3,3'-Dimethoxybenzidine	Qua		0.2889		9.68	10.0	-3.2	30.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.1992	0.2147		10.8	10.0	7.8	30.0
3,3'-Dichlorobenzidine	Ave	0.4132	0.4384	0.0100	10.6	10.0	6.1	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: ICV 240-57255/11 Calibration Date: 09/10/2012 16:53

Instrument ID: A4AG2 Calib Start Date: 09/10/2012 13:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 09/10/2012 16:30

Lab File ID: 0910011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Bis(2-ethylhexyl) phthalate	Ave	0.9009	0.9622	0.0100	10.7	10.0	6.8	30.0
Benzo[a]anthracene	Ave	1.113	1.118	0.8000	10.0	10.0	0.4	30.0
Chrysene	Ave	1.052	1.045	0.7000	9.94	10.0	-0.6	30.0
Di-n-octyl phthalate	Qua		1.837	0.0100	9.70	10.0	-3.0	30.0
Benzo[b]fluoranthene	Ave	1.273	1.317	0.7000	10.3	10.0	3.4	30.0
Benzo[k]fluoranthene	Ave	1.346	1.446	0.7000	10.7	10.0	7.4	30.0
Benzo[a]pyrene	Qua		1.293	0.7000	9.97	10.0	-0.3	30.0
Indeno[1,2,3-cd]pyrene	Qua		1.369	0.5000	9.79	10.0	-2.1	30.0
Dibenzo(a,h)anthracene	Ave	1.043	1.157	0.4000	11.1	10.0	11.0	30.0
Benzo[g,h,i]perylene	Ave	1.083	1.188	0.5000	11.0	10.0	9.6	30.0
2-Fluorophenol (Surr)	Ave	1.260	1.240		9.84	10.0	-1.6	30.0
Phenol-d5 (Surr)	Ave	1.618	1.602		9.90	10.0	-1.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.3536	0.3561		10.1	10.0	0.7	30.0
2-Fluorobiphenyl (Surr)	Ave	1.271	1.252		9.85	10.0	-1.5	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1225	0.1329		10.8	10.0	8.5	30.0
Terphenyl-d14 (Surr)	Ave	0.7450	0.7353		9.87	10.0	-1.3	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab File ID: 0919001.D DFTPP Injection Date: 09/19/2012

Instrument ID: A4AG2 DFTPP Injection Time: 07:23

Analysis Batch No.: 58277

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	60.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	54.1	
70	Less than 2.0% of mass 69	0.3	(0.5)1
127	25.0 - 75.0% of mass 198	61.0	
197	Less than 1.0% of mass 198	0.2	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0- 30.0% of mass 198	24.0	
365	Greater than 0.75% of mass 198	2.6	
441	Present, but less than mass 443	11.1	
442	40.0 - 110.0% of mass 198	74.1	
443	15.0 - 24.0% of mass 442	14.0	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	~~CCV 240-58277/2~~	0919002.D	09/19/2012	07:46
	MB 240-58039/22-A	0919003.D	09/19/2012	08:09
	LCS 240-58039/23-A	0919004.D	09/19/2012	08:33
GSP-MW-9-0-2	240-15155-1	0919008.D	09/19/2012	10:06
GSP-MW-9-8-10	240-15155-2	0919009.D	09/19/2012	10:30
GSP-MW-10-20-22	240-15155-5	0919010.D	09/19/2012	10:53
GSP-MW-10-2-4	240-15155-4	0919011.D	09/19/2012	11:17
GSP-MW-11-0-2	240-15155-6	0919012.D	09/19/2012	11:40
GSP-MW-11-2-4	240-15155-7	0919013.D	09/19/2012	12:04
GSP-MW-11-2-4 MS	240-15155-7 MS	0919014.D	09/19/2012	12:28
GSP-MW-11-2-4 MSD	240-15155-7 MSD	0919015.D	09/19/2012	12:51

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58277/2 Calibration Date: 09/19/2012 07:46

Instrument ID: A4AG2 Calib Start Date: 09/10/2012 13:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 09/10/2012 16:30

Lab File ID: 0919002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5518	0.5617		10.2	10.0	1.8	20.0
N-Nitrosodimethylamine	Ave	0.7699	0.8246		10.7	10.0	7.1	20.0
Pyridine	Ave	1.446	1.501		10.4	10.0	3.8	20.0
Ethyl methacrylate	Ave	1.193	1.173		9.83	10.0	-1.7	20.0
3-Chloropropionitrile	Ave	0.9271	0.9130		9.85	10.0	-1.5	20.0
Malononitrile	Qua		1.471		10.3	10.0	3.4	20.0
Benzaldehyde	Ave	1.092	1.107	0.0100	10.1	10.0	1.3	20.0
Phenol	Ave	1.721	1.786	0.8000	10.4	10.0	3.8	20.0
Aniline	Ave	2.155	2.259		10.5	10.0	4.8	20.0
Bis(2-chloroethyl)ether	Ave	1.356	1.363	0.7000	10.1	10.0	0.6	20.0
2-Chlorophenol	Ave	1.393	1.434	0.8000	10.3	10.0	3.0	20.0
1,3-Dichlorobenzene	Ave	1.541	1.567		10.2	10.0	1.7	20.0
1,4-Dichlorobenzene	Ave	1.536	1.523		9.92	10.0	-0.8	20.0
Benzyl alcohol	Ave	0.8934	0.9074		10.2	10.0	1.6	20.0
1,2-Dichlorobenzene	Ave	1.469	1.479		10.1	10.0	0.7	20.0
2-Methylphenol	Ave	1.296	1.313	0.7000	10.1	10.0	1.3	20.0
2,2'-oxybis[1-chloropropane]	Ave	2.508	2.357		9.40	10.0	-6.0	20.0
3 & 4 Methylphenol	Ave	1.353	1.385		10.2	10.0	2.4	20.0
N-Nitrosodi-n-propylamine	Ave	1.017	1.028	0.5000	10.1	10.0	1.1	20.0
Acetophenone	Ave	1.893	1.928	0.0100	10.2	10.0	1.9	20.0
Hexachloroethane	Ave	0.5696	0.5827	0.3000	10.2	10.0	2.3	20.0
Nitrobenzene	Ave	0.3651	0.3729	0.2000	10.2	10.0	2.2	20.0
Isophorone	Ave	0.6613	0.6625	0.4000	10.0	10.0	0.2	20.0
2-Nitrophenol	Ave	0.1717	0.1843	0.1000	10.7	10.0	7.3	20.0
1,3,5-Trichlorobenzene	Ave	0.2856	0.2823		9.89	10.0	-1.1	20.0
2,4-Dimethylphenol	Ave	0.3454	0.3472	0.2000	10.1	10.0	0.5	20.0
Benzoic acid	Qua		0.1929		18.3	20.0	-8.6	20.0
Bis(2-chloroethoxy)methane	Ave	0.4072	0.3989	0.3000	9.80	10.0	-2.0	20.0
2,4-Dichlorophenol	Ave	0.2552	0.2584	0.2000	10.1	10.0	1.3	20.0
1,2,4-Trichlorobenzene	Ave	0.2801	0.2866		10.2	10.0	2.4	20.0
Naphthalene	Ave	1.039	1.042	0.7000	10.0	10.0	0.3	20.0
4-Chloroaniline	Ave	0.4299	0.4279	0.0100	9.95	10.0	-0.5	20.0
Hexachlorobutadiene	Ave	0.1292	0.1281	0.0100	9.91	10.0	-0.9	20.0
1,2,3-Trichlorobenzene	Ave	0.2649	0.2621		9.89	10.0	-1.1	20.0
Caprolactam	Ave	0.1019	0.1124	0.0100	11.0	10.0	10.4	20.0
4-Chloro-3-methylphenol	Ave	0.2961	0.3087	0.2000	10.4	10.0	4.2	20.0
2-Methylnaphthalene	Ave	0.6676	0.6693	0.4000	10.0	10.0	0.3	20.0
1-Methylnaphthalene	Ave	0.6431	0.6511		10.1	10.0	1.2	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.4528	0.4447		9.82	10.0	-1.8	20.0
Hexachlorocyclopentadiene	Ave	0.2425	0.2634	0.0500	10.9	10.0	8.6	20.0
2,4,6-Trichlorophenol	Ave	0.2957	0.3017	0.2000	10.2	10.0	2.0	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58277/2 Calibration Date: 09/19/2012 07:46

Instrument ID: A4AG2 Calib Start Date: 09/10/2012 13:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 09/10/2012 16:30

Lab File ID: 0919002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3281	0.3328	0.2000	10.1	10.0	1.4	20.0
2,4-Toluene diamine	Ave	0.1850	0.1675		9.05	10.0	-9.5	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4370	0.4208		9.63	10.0	-3.7	20.0
1,1'-Biphenyl	Ave	1.397	1.371	0.0100	9.81	10.0	-1.9	20.0
2-Chloronaphthalene	Ave	1.080	1.067	0.8000	9.88	10.0	-1.2	20.0
2-Nitroaniline	Ave	0.3424	0.3494	0.0100	10.2	10.0	2.0	20.0
Dimethyl phthalate	Ave	1.199	1.171	0.0100	9.77	10.0	-2.3	20.0
2,6-Dinitrotoluene	Ave	0.2563	0.2761		10.8	10.0	7.7	20.0
1,2-Dinitrobenzene	Ave	0.1285	0.1314		10.2	10.0	2.3	20.0
Acenaphthylene	Ave	1.825	1.886	0.9000	10.3	10.0	3.3	20.0
3-Nitroaniline	Ave	0.3234	0.3361	0.0100	10.4	10.0	3.9	20.0
Acenaphthene	Ave	1.112	1.104	0.9000	9.92	10.0	-0.8	20.0
2,4-Dinitrophenol	Qua		0.1485	0.0100	19.3	20.0	-3.5	20.0
4-Nitrophenol	Ave	0.1498	0.1544		10.3	10.0	3.1	20.0
2,4-Dinitrotoluene	Ave	0.3487	0.3685	0.2000	10.6	10.0	5.7	20.0
Dibenzofuran	Ave	1.530	1.515	0.8000	9.90	10.0	-1.0	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.2345	0.2462		10.5	10.0	5.0	20.0
Diethyl phthalate	Ave	1.240	1.214	0.0100	9.79	10.0	-2.1	20.0
4-Chlorophenyl phenyl ether	Ave	0.5354	0.5163	0.4000	9.64	10.0	-3.6	20.0
4-Nitroaniline	Ave	0.3211	0.3275	0.0100	10.2	10.0	2.0	20.0
Fluorene	Ave	1.273	1.253	0.9000	9.84	10.0	-1.6	20.0
4,6-Dinitro-2-methylphenol	Qua		0.1280	0.0100	9.88	10.0	-1.2	20.0
N-Nitrosodiphenylamine	Ave	0.6077	0.5916	0.0100	9.73	10.0	-2.7	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9121	0.9224		10.1	10.0	1.1	20.0
Azobenzene	Ave	0.9121	0.9224		10.1	10.0	1.1	20.0
4-Bromophenyl phenyl ether	Ave	0.1870	0.1919	0.1000	10.3	10.0	2.6	20.0
Hexachlorobenzene	Ave	0.1842	0.1889	0.1000	10.3	10.0	2.6	20.0
Atrazine	Ave	0.1495	0.1531	0.0100	10.2	10.0	2.4	20.0
Pentachlorophenol	Qua		0.1339	0.0500	20.1	20.0	0.3	20.0
Phenanthrene	Ave	1.130	1.117	0.7000	9.89	10.0	-1.1	20.0
Anthracene	Ave	1.122	1.155	0.7000	10.3	10.0	2.9	20.0
Carbazole	Ave	1.121	1.116	0.0100	9.96	10.0	-0.4	20.0
Di-n-butyl phthalate	Ave	1.380	1.400	0.0100	10.1	10.0	1.4	20.0
Fluoranthene	Ave	1.090	1.121	0.6000	10.3	10.0	2.8	20.0
Benzidine	Qua		0.6722		8.94	10.0	-10.6	20.0
Pyrene	Ave	1.265	1.310	0.6000	10.4	10.0	3.6	20.0
Butyl benzyl phthalate	Ave	0.6160	0.6477	0.0100	10.5	10.0	5.1	20.0
3,3'-Dimethoxybenzidine	Qua		0.2803		9.43	10.0	-5.7	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.1992	0.2109		10.6	10.0	5.9	20.0
3,3'-Dichlorobenzidine	Ave	0.4132	0.4223	0.0100	10.2	10.0	2.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58277/2 Calibration Date: 09/19/2012 07:46

Instrument ID: A4AG2 Calib Start Date: 09/10/2012 13:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 09/10/2012 16:30

Lab File ID: 0919002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Bis(2-ethylhexyl) phthalate	Ave	0.9009	0.9249	0.0100	10.3	10.0	2.7	20.0
Benzo[a]anthracene	Ave	1.113	1.108	0.8000	9.96	10.0	-0.4	20.0
Chrysene	Ave	1.052	1.035	0.7000	9.83	10.0	-1.7	20.0
Di-n-octyl phthalate	Qua		1.772	0.0100	9.38	10.0	-6.2	20.0
Benzo[b]fluoranthene	Ave	1.273	1.303	0.7000	10.2	10.0	2.3	20.0
Benzo[k]fluoranthene	Ave	1.346	1.418	0.7000	10.5	10.0	5.3	20.0
Benzo[a]pyrene	Qua		1.268	0.7000	9.79	10.0	-2.1	20.0
Indeno[1,2,3-cd]pyrene	Qua		1.352	0.5000	9.67	10.0	-3.3	20.0
Dibenzo(a,h)anthracene	Ave	1.043	1.116	0.4000	10.7	10.0	7.0	20.0
Benzo[g,h,i]perylene	Ave	1.083	1.168	0.5000	10.8	10.0	7.8	20.0
2-Fluorophenol (Surr)	Ave	1.260	1.289		10.2	10.0	2.3	20.0
Phenol-d5 (Surr)	Ave	1.618	1.662		10.3	10.0	2.7	20.0
Nitrobenzene-d5 (Surr)	Ave	0.3536	0.3610		10.2	10.0	2.1	20.0
2-Fluorobiphenyl (Surr)	Ave	1.271	1.242		9.78	10.0	-2.2	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1225	0.1309		10.7	10.0	6.8	20.0
Terphenyl-d14 (Surr)	Ave	0.7450	0.7559		10.1	10.0	1.5	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab File ID: 0919003.D Lab Sample ID: MB 240-58039/22-A

Matrix: Solid Date Extracted: 09/17/2012 12:48

Instrument ID: A4AG2 Date Analyzed: 09/19/2012 08:09

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-58039/23-A	0919004.D	09/19/2012 08:33
GSP-MW-9-0-2	240-15155-1	0919008.D	09/19/2012 10:06
GSP-MW-9-8-10	240-15155-2	0919009.D	09/19/2012 10:30
GSP-MW-10-20-22	240-15155-5	0919010.D	09/19/2012 10:53
GSP-MW-10-2-4	240-15155-4	0919011.D	09/19/2012 11:17
GSP-MW-11-0-2	240-15155-6	0919012.D	09/19/2012 11:40
GSP-MW-11-2-4	240-15155-7	0919013.D	09/19/2012 12:04
GSP-MW-11-2-4 MS	240-15155-7 MS	0919014.D	09/19/2012 12:28
GSP-MW-11-2-4 MSD	240-15155-7 MSD	0919015.D	09/19/2012 12:51

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-58039/22-A

Matrix: Solid | Lab File ID: 0919003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 30.00(g) | Date Analyzed: 09/19/2012 08:09

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	50	U	50	27
123-91-1	1,4-Dioxane	100	U	100	22
88-06-2	2,4,6-Trichlorophenol	150	U	150	80
95-95-4	2,4,5-Trichlorophenol	150	U	150	25
120-83-2	2,4-Dichlorophenol	150	U	150	20
105-67-9	2,4-Dimethylphenol	150	U	150	20
51-28-5	2,4-Dinitrophenol	330	U	330	80
121-14-2	2,4-Dinitrotoluene	200	U	200	27
91-58-7	2-Chloronaphthalene	50	U	50	3.3
95-57-8	2-Chlorophenol	50	U	50	27
91-57-6	2-Methylnaphthalene	6.7	U	6.7	3.3
95-48-7	2-Methylphenol	200	U	200	80
88-74-4	2-Nitroaniline	200	U	200	9.1
88-75-5	2-Nitrophenol	50	U	50	27
15831-10-4	3 & 4 Methylphenol	400	U	400	20
91-94-1	3,3'-Dichlorobenzidine	100	U	100	18
99-09-2	3-Nitroaniline	200	U	200	16
534-52-1	4,6-Dinitro-2-methylphenol	150	U	150	80
101-55-3	4-Bromophenyl phenyl ether	50	U	50	13
59-50-7	4-Chloro-3-methylphenol	150	U	150	21
106-47-8	4-Chloroaniline	150	U	150	17
7005-72-3	4-Chlorophenyl phenyl ether	50	U	50	13
100-01-6	4-Nitroaniline	200	U	200	26
83-32-9	Acenaphthene	6.7	U	6.7	3.3
208-96-8	Acenaphthylene	6.7	U	6.7	3.3
98-86-2	Acetophenone	100	U	100	9.2
120-12-7	Anthracene	6.7	U	6.7	3.3
1912-24-9	Atrazine	200	U	200	9.1
100-52-7	Benzaldehyde	100	U	100	12
56-55-3	Benzo[a]anthracene	6.7	U	6.7	3.3
50-32-8	Benzo[a]pyrene	6.7	U	6.7	3.3
205-99-2	Benzo[b]fluoranthene	6.7	U	6.7	3.3
191-24-2	Benzo[g,h,i]perylene	6.7	U	6.7	3.3
207-08-9	Benzo[k]fluoranthene	6.7	U	6.7	3.3

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-58039/22-A

Matrix: Solid | Lab File ID: 0919003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 30.00(g) | Date Analyzed: 09/19/2012 08:09

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	100	U	100	22
111-44-4	Bis(2-chloroethyl)ether	100	U	100	2.0
117-81-7	Bis(2-ethylhexyl) phthalate	50	U	50	19
85-68-7	Butyl benzyl phthalate	50	U	50	10
105-60-2	Caprolactam	330	U	330	37
86-74-8	Carbazole	50	U	50	27
218-01-9	Chrysene	6.7	U	6.7	1.1
84-74-2	Di-n-butyl phthalate	50	U	50	15
117-84-0	Di-n-octyl phthalate	50	U	50	27
53-70-3	Dibenzo(a,h)anthracene	6.7	U	6.7	3.3
132-64-9	Dibenzofuran	50	U	50	3.3
84-66-2	Diethyl phthalate	50	U	50	16
131-11-3	Dimethyl phthalate	50	U	50	17
206-44-0	Fluoranthene	6.7	U	6.7	3.3
86-73-7	Fluorene	6.7	U	6.7	3.3
118-74-1	Hexachlorobenzene	6.7	U	6.7	2.1
87-68-3	Hexachlorobutadiene	50	U	50	27
77-47-4	Hexachlorocyclopentadiene	330	U	330	27
67-72-1	Hexachloroethane	50	U	50	9.0
193-39-5	Indeno[1,2,3-cd]pyrene	6.7	U	6.7	3.3
78-59-1	Isophorone	50	U	50	13
621-64-7	N-Nitrosodi-n-propylamine	50	U	50	27
62-75-9	N-Nitrosodimethylamine	100	U	100	16
86-30-6	N-Nitrosodiphenylamine	50	U	50	21
91-20-3	Naphthalene	6.7	U	6.7	3.3
98-95-3	Nitrobenzene	100	U	100	2.2
87-86-5	Pentachlorophenol	150	U	150	80
85-01-8	Phenanthrene	6.7	U	6.7	3.3
108-95-2	Phenol	50	U	50	27
129-00-0	Pyrene	6.7	U	6.7	3.3
108-60-1	2,2'-oxybis[1-chloropropane]	100	U	100	9.5
606-20-2	2,6-Dinitrotoluene	200	U	200	21
100-02-7	4-Nitrophenol	330	U	330	80

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-58039/22-A

Matrix: Solid | Lab File ID: 0919003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48

Sample wt/vol: 30.00(g) | Date Analyzed: 09/19/2012 08:09

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	85		36-110
4165-62-2	Phenol-d5 (Surr)	67		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	63		20-110
367-12-4	2-Fluorophenol (Surr)	65		24-110
321-60-8	2-Fluorobiphenyl (Surr)	59		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	38		10-110

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 0919004.D

Lab ID: LCS 240-58039/23-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1'-Biphenyl	667	466	70	35-110	
1,4-Dioxane	667	257	39	10-110	
2,4,6-Trichlorophenol	667	391	59	12-110	
2,4,5-Trichlorophenol	667	448	67	25-110	
2,4-Dichlorophenol	667	461	69	39-110	
2,4-Dimethylphenol	667	413	62	29-110	
2,4-Dinitrophenol	667	209 J	31	10-110	
2,4-Dinitrotoluene	667	516	77	48-110	
2-Chloronaphthalene	667	461	69	32-110	
2-Chlorophenol	667	483	72	37-110	
2-Methylnaphthalene	667	484	73	36-110	
2-Methylphenol	667	472	71	41-110	
2-Nitroaniline	667	508	76	45-110	
2-Nitrophenol	667	480	72	34-110	
3 & 4 Methylphenol	1330	967	73	40-110	
3,3'-Dichlorobenzidine	667	330	50	28-110	
3-Nitroaniline	667	434	65	44-110	
4,6-Dinitro-2-methylphenol	667	242	36	10-110	
4-Bromophenyl phenyl ether	667	473	71	39-110	
4-Chloro-3-methylphenol	667	496	74	48-110	
4-Chloroaniline	667	300	45	30-110	
4-Chlorophenyl phenyl ether	667	471	71	40-110	
4-Nitroaniline	667	515	77	48-110	
Acenaphthene	667	479	72	38-110	
Acenaphthylene	667	486	73	40-110	
Acetophenone	667	477	72	40-110	
Anthracene	667	481	72	48-110	
Atrazine	667	644	97	66-127	
Benzaldehyde	667	494	74	32-110	
Benzo[a]anthracene	667	488	73	50-110	
Benzo[a]pyrene	667	421	63	44-110	
Benzo[b]fluoranthene	667	492	74	43-110	
Benzo[g,h,i]perylene	667	496	74	51-110	
Benzo[k]fluoranthene	667	493	74	38-105	
Bis(2-chloroethoxy)methane	667	457	69	32-110	
Bis(2-chloroethyl)ether	667	470	71	34-110	
Bis(2-ethylhexyl) phthalate	667	504	76	50-110	
Butyl benzyl phthalate	667	526	79	51-110	
Caprolactam	667	529	79	44-114	
Carbazole	667	473	71	50-110	
Chrysene	667	499	75	50-110	
Di-n-butyl phthalate	667	501	75	51-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 0919004.D

Lab ID: LCS 240-58039/23-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	667	462	69	48-110	
Dibenzo(a,h)anthracene	667	486	73	51-110	
Dibenzofuran	667	477	72	43-110	
Diethyl phthalate	667	497	74	52-110	
Dimethyl phthalate	667	488	73	50-110	
Fluoranthene	667	501	75	51-110	
Fluorene	667	481	72	46-110	
Hexachlorobenzene	667	483	72	43-110	
Hexachlorobutadiene	667	472	71	29-110	
Hexachlorocyclopentadiene	667	424	64	12-110	
Hexachloroethane	667	457	69	30-110	
Indeno[1,2,3-cd]pyrene	667	439	66	50-110	
Isophorone	667	480	72	36-110	
N-Nitrosodi-n-propylamine	667	497	75	38-110	
N-Nitrosodimethylamine	667	497	74	31-110	
N-Nitrosodiphenylamine	667	465	70	46-110	
Naphthalene	667	476	71	36-110	
Nitrobenzene	667	481	72	32-110	
Pentachlorophenol	667	367	55	10-110	
Phenanthrene	667	470	70	49-110	
Phenol	667	488	73	38-110	
Pyrene	667	494	74	49-110	
2,2'-oxybis[1-chloropropane]	667	436	65	29-110	
2,6-Dinitrotoluene	667	554	83	45-110	
4-Nitrophenol	667	419	63	28-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 0919014.D

Lab ID: 240-15155-7 MS Client ID: GSP-MW-11-2-4 MS

COMPOUND MDL/RL	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,1'-Biphenyl	740	280 U	470	64	32-110	
1,4-Dioxane	740	560 U	203 J	27	10-110	
2,4,6-Trichlorophenol	740	840 U	521 J	70	10-110	
2,4,5-Trichlorophenol	740	840 U	514 J	69	10-117	
2,4-Dichlorophenol	740	840 U	482 J	65	10-110	
2,4-Dimethylphenol	740	840 U	469 J	63	10-110	
2,4-Dinitrophenol 450/1800	740	1900 U	1800 U	0	10-110	F
2,4-Dinitrotoluene	740	1100 U	494 J	67	32-110	
2-Chloronaphthalene	740	280 U	475	64	28-110	
2-Chlorophenol	740	280 U	475	64	10-110	
2-Methylnaphthalene	740	37 U	457	62	10-133	
2-Methylphenol	740	1100 U	474 J	64	24-110	
2-Nitroaniline	740	1100 U	528 J	71	39-110	
2-Nitrophenol	740	280 U	436	59	10-110	
3 & 4 Methylphenol	1480	2200 U	987 J	67	25-110	
3,3'-Dichlorobenzidine	740	560 U	191 J	26	10-110	
3-Nitroaniline	740	1100 U	420 J	57	10-110	
4,6-Dinitro-2-methylphenol 450/840	740	840 U	830 U	0	10-110	F
4-Bromophenyl phenyl ether	740	280 U	498	67	33-110	
4-Chloro-3-methylphenol	740	840 U	510 J	69	25-110	
4-Chloroaniline	740	840 U	333 J	45	10-110	
4-Chlorophenyl phenyl ether	740	280 U	492	66	32-110	
4-Nitroaniline	740	1100 U	489 J	66	10-110	
Acenaphthene	740	290	658	50	22-110	
Acenaphthylene	740	37 U	497	67	24-110	
Acetophenone	740	560 U	438 J	59	31-110	
Anthracene 19/37	740	910	770	-19	20-110	F
Atrazine	740	1100 U	604 J	82	45-118	
Benzaldehyde	740	560 U	469 J	63	23-110	
Benzo[a]anthracene 19/37	740	2700	1070	-218	10-122	F
Benzo[a]pyrene 19/37	740	1600	867	-105	10-110	F
Benzo[b]fluoranthene 19/37	740	2600	1050	-216	12-118	F
Benzo[g,h,i]perylene 19/37	740	650	598	-7	10-117	F
Benzo[k]fluoranthene 19/37	740	1000	783	-35	10-121	F
Bis(2-chloroethoxy)methane	740	560 U	444 J	60	26-110	
Bis(2-chloroethyl)ether	740	560 U	463 J	63	21-110	
Bis(2-ethylhexyl) phthalate	740	280 U	570	77	40-110	
Butyl benzyl phthalate	740	280 U	564	76	44-110	
Caprolactam	740	1900 U	574 J	77	10-134	
Carbazole	740	290	611	44	34-110	
Chrysene 62/37	740	2600	1060	-212	10-125	F
Di-n-butyl phthalate	740	280 U	517	70	43-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 0919014.D

Lab ID: 240-15155-7 MS Client ID: GSP-MW-11-2-4 MS

COMPOUND MDL/RL	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	740	280 U	638	86	24-119	
Dibenzo(a,h)anthracene	740	37 U	466	63	14-113	
Dibenzofuran	740	180 J	609	58	29-110	
Diethyl phthalate	740	280 U	522	70	42-110	
Dimethyl phthalate	740	280 U	515	70	41-110	
Fluoranthene 19/37	740	6600	2030	-620	10-110	4
Fluorene	740	470	732	35	23-110	
Hexachlorobenzene	740	37 U	487	66	34-110	
Hexachlorobutadiene	740	280 U	425	57	25-110	
Hexachlorocyclopentadiene 150/1900	740	1900 U	1800 U	0	10-110	F
Hexachloroethane	740	280 U	391	53	12-110	
Indeno[1,2,3-cd]pyrene 19/37	740	630	608	-3	10-114	F
Isophorone	740	280 U	453	61	29-110	
N-Nitrosodi-n-propylamine	740	280 U	475	64	26-110	
N-Nitrosodimethylamine	741	560 U	427 J	58	20-110	
N-Nitrosodiphenylamine	740	280 U	501	68	22-110	
Naphthalene	740	30 J	500	63	10-111	
Nitrobenzene	740	560 U	476 J	64	23-110	
Pentachlorophenol	740	840 U	611 J	83	10-110	
Phenanthrene 19/37	740	2500	1440	-142	10-166	F
Phenol	740	280 U	489	66	17-110	
Pyrene 19/37	740	5000	1720	-444	10-147	4
2,2'-oxybis[1-chloropropane]	740	560 U	437 J	59	11-110	
2,6-Dinitrotoluene	740	1100 U	541 J	73	35-110	
4-Nitrophenol	740	1900 U	511 J	69	10-113	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 0919015.D

Lab ID: 240-15155-7 MSD Client ID: GSP-MW-11-2-4 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1'-Biphenyl	744	496	67	5	32	32-110	
1,4-Dioxane	744	211 J	28	4	50	10-110	
2,4,6-Trichlorophenol	744	530 J	71	2	38	10-110	
2,4,5-Trichlorophenol	744	539 J	72	5	99	10-117	
2,4-Dichlorophenol	744	504 J	68	4	34	10-110	
2,4-Dimethylphenol	744	503 J	68	7	31	10-110	
2,4-Dinitrophenol	744	1800 U	0	NC	99	10-110	F
2,4-Dinitrotoluene	744	538 J	72	8	30	32-110	
2-Chloronaphthalene	744	480	65	1	30	28-110	
2-Chlorophenol	744	479	64	1	47	10-110	
2-Methylnaphthalene	744	492	66	7	42	10-133	
2-Methylphenol	744	484 J	65	2	51	24-110	
2-Nitroaniline	744	589 J	79	11	31	39-110	
2-Nitrophenol	744	443	60	2	49	10-110	
3 & 4 Methylphenol	1490	1030 J	69	5	50	25-110	
3,3'-Dichlorobenzidine	744	229 J	31	18	56	10-110	
3-Nitroaniline	744	465 J	62	10	30	10-110	
4,6-Dinitro-2-methylphenol	744	840 U	0	NC	55	10-110	F
4-Bromophenyl phenyl ether	744	545	73	9	30	33-110	
4-Chloro-3-methylphenol	744	561 J	75	10	54	25-110	
4-Chloroaniline	744	349 J	47	5	36	10-110	
4-Chlorophenyl phenyl ether	744	538	72	9	30	32-110	
4-Nitroaniline	744	534 J	72	9	48	10-110	
Acenaphthene	744	729	59	10	99	22-110	
Acenaphthylene	744	533	72	7	99	24-110	
Acetophenone	744	459 J	62	5	43	31-110	
Anthracene	744	1030	16	29	99	20-110	F
Atrazine	744	705 J	95	15	30	45-118	
Benzaldehyde	744	480 J	64	2	42	23-110	
Benzo[a]anthracene	744	1600	-145	40	99	10-122	F
Benzo[a]pyrene	744	1170	-65	29	99	10-110	F
Benzo[b]fluoranthene	744	1510	-146	36	99	12-118	F
Benzo[g,h,i]perylene	744	771	16	25	99	10-117	
Benzo[k]fluoranthene	744	1070	4	31	99	10-121	F
Bis(2-chloroethoxy)methane	744	453 J	61	2	37	26-110	
Bis(2-chloroethyl)ether	744	442 J	59	5	55	21-110	
Bis(2-ethylhexyl) phthalate	744	583	78	2	30	40-110	
Butyl benzyl phthalate	744	607	82	7	30	44-110	
Caprolactam	744	604 J	81	5	32	10-134	
Carbazole	744	769	65	23	30	34-110	
Chrysene	744	1640	-133	43	99	10-125	F
Di-n-butyl phthalate	744	580	78	12	30	43-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 0919015.D

Lab ID: 240-15155-7 MSD Client ID: GSP-MW-11-2-4 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Di-n-octyl phthalate	744	685	92	7	30	24-119	
Dibenzo(a,h)anthracene	744	545	73	16	99	14-113	
Dibenzofuran	744	665	65	9	30	29-110	
Diethyl phthalate	744	564	76	8	30	42-110	
Dimethyl phthalate	744	553	74	7	30	41-110	
Fluoranthene	744	3550	-413	54	99	10-110	4
Fluorene	744	837	49	13	99	23-110	
Hexachlorobenzene	744	587	79	19	30	34-110	
Hexachlorobutadiene	744	419	56	2	34	25-110	
Hexachlorocyclopentadiene	744	1800 U	0	NC	79	10-110	F
Hexachloroethane	744	383	52	2	50	12-110	
Indeno[1,2,3-cd]pyrene	744	761	17	22	99	10-114	
Isophorone	744	477	64	5	38	29-110	
N-Nitrosodi-n-propylamine	744	466	63	2	42	26-110	
N-Nitrosodimethylamine	744	425 J	57	0	46	20-110	
N-Nitrosodiphenylamine	744	561	76	11	30	22-110	
Naphthalene	744	503	64	1	99	10-111	
Nitrobenzene	744	452 J	61	5	41	23-110	
Pentachlorophenol	744	636 J	86	4	50	10-110	
Phenanthrene	744	2160	-45	40	99	10-166	F
Phenol	744	508	68	4	53	17-110	
Pyrene	744	2800	-297	48	99	10-147	4
2,2'-oxybis[1-chloropropane]	744	433 J	58	1	42	11-110	
2,6-Dinitrotoluene	744	590 J	79	9	30	35-110	
4-Nitrophenol	744	482 J	65	6	49	10-113	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
GSP-MW-9-0-2	240-15155-1	63	65	57	59	59	79
GSP-MW-9-8-10	240-15155-2	67	66	66	59	55	75
GSP-MW-10-2-4	240-15155-4	65	64	61	56	46	77
GSP-MW-10-20-22	240-15155-5	61	62	60	56	50	77
GSP-MW-11-0-2	240-15155-6	59	59	55	53	54	75
GSP-MW-11-2-4	240-15155-7	58	58	52	56	58	78
	MB 240-58039/22-A	65	67	63	59	38	85
	LCS 240-58039/23-A	73	71	70	65	52	77
GSP-MW-11-2-4 MS	240-15155-7 MS	66	65	59	58	69	75
GSP-MW-11-2-4 MSD	240-15155-7 MSD	62	63	58	60	67	78

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Sample No.: STD6 240-57255/5 Date Analyzed: 09/10/2012 14:31

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0910005.D Heated Purge: (Y/N) N

Calibration ID: 11401

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		181099	6.20	719525	7.29	399302	8.77
UPPER LIMIT		362198	6.70	1439050	7.79	798604	9.27
LOWER LIMIT		90550	5.70	359763	6.79	199651	8.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-57255/11		212388	6.20	851665	7.29	477666	8.77
CCV 240-58277/2 CCVIS		248211	6.19	1001630	7.29	563196	8.81

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Sample No.: STD6 240-57255/5 Date Analyzed: 09/10/2012 14:31

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0910005.D Heated Purge: (Y/N) N

Calibration ID: 11401

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		610157	10.04	570029	12.64	465627	14.75
UPPER LIMIT		1220314	10.54	1140058	13.14	931254	15.25
LOWER LIMIT		305079	9.54	285015	12.14	232814	14.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-57255/11		744533	10.04	703553	12.64	573249	14.75
CCV 240-58277/2 CCVIS		852679	10.05	769947	12.61	622769	14.70

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Sample No.: CCV 240-58277/2 Date Analyzed: 09/19/2012 07:46

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0919002.D Heated Purge: (Y/N) N

Calibration ID: 11401

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		248211	6.19	1001630	7.29	563196	8.81
UPPER LIMIT		496422	6.69	2003260	7.79	1126392	9.31
LOWER LIMIT		124106	5.69	500815	6.79	281598	8.31
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-58039/22-A		212471	6.17	847797	7.28	468794	8.77
LCS 240-58039/23-A		224137	6.18	911747	7.30	507708	8.81
240-15155-1	GSP-MW-9-0-2	213565	6.17	861520	7.26	495122	8.75
240-15155-2	GSP-MW-9-8-10	228251	6.17	882474	7.26	498683	8.75
240-15155-5	GSP-MW-10-20-22	221437	6.18	870312	7.27	495226	8.76
240-15155-4	GSP-MW-10-2-4	219619	6.17	891843	7.27	499110	8.75
240-15155-6	GSP-MW-11-0-2	221682	6.17	887864	7.26	504048	8.75
240-15155-7	GSP-MW-11-2-4	221259	6.18	863113	7.28	491038	8.76
240-15155-7 MS	GSP-MW-11-2-4 MS	231345	6.17	941381	7.26	523221	8.76
240-15155-7 MSD	GSP-MW-11-2-4 MSD	223886	6.17	899909	7.26	515282	8.75

DCB = 1,4-Dichlorobenzene-d4

DCB = 1,4-Dichlorobenzene-d4

NPT = Naphthalene-d8

NPT = Naphthalene-d8

Area Limit = 50%-200% of internal standard area

ANT = Acenaphthene-d10

RT Limit = ± 0.5 minutes of internal standard RT

ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Sample No.: CCV 240-58277/2 Date Analyzed: 09/19/2012 07:46

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0919002.D Heated Purge: (Y/N) N

Calibration ID: 11401

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		852679	10.05	769947	12.61	622769	14.70
UPPER LIMIT		1705358	10.55	1539894	13.11	1245538	15.20
LOWER LIMIT		426340	9.55	384974	12.11	311385	14.20
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-58039/22-A		727574	10.03	625495	12.60	494036	14.70
LCS 240-58039/23-A		799687	10.05	708909	12.61	571698	14.70
240-15155-1	GSP-MW-9-0-2	777005	10.02	709990	12.60	590010	14.70
240-15155-2	GSP-MW-9-8-10	777397	10.02	696196	12.60	588075	14.69
240-15155-5	GSP-MW-10-20-22	762574	10.02	666718	12.60	540736	14.69
240-15155-4	GSP-MW-10-2-4	763866	10.02	679254	12.60	569431	14.69
240-15155-6	GSP-MW-11-0-2	777137	10.02	715541	12.60	583476	14.70
240-15155-7	GSP-MW-11-2-4	750278	10.02	703403	12.60	571040	14.70
240-15155-7 MS	GSP-MW-11-2-4 MS	833735	10.02	740311	12.60	597889	14.70
240-15155-7 MSD	GSP-MW-11-2-4 MSD	797651	10.02	737711	12.60	586381	14.70

PHN = Phenanthrene-d10

CRY = Chrysene-d12

CRY = Chrysene-d12

PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area

PRY = Perylene-d12

RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

Method 8015C - GRO

Nonhalogenated Organics using GC/FID - Modified (Gasoline Range Organics) by Method 8015C

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Instrument ID: YPID Start Date: 08/15/2012 17:16

Analysis Batch Number: 54512 End Date: 08/15/2012 22:40

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		08/15/2012 17:16	1		RTX-VRX 0.45(mm)
ZZZZZ		08/15/2012 17:57	1		RTX-VRX 0.45(mm)
STD1 240-54512/6 IC		08/15/2012 18:36	1	YF081506.D	RTX-VRX 0.45(mm)
STD2 240-54512/7 IC		08/15/2012 19:17	1	YF081507.D	RTX-VRX 0.45(mm)
STD3 240-54512/8 IC		08/15/2012 19:58	1	YF081508.D	RTX-VRX 0.45(mm)
STD4 240-54512/9 ICRT		08/15/2012 20:39	1	YF081509.D	RTX-VRX 0.45(mm)
STD5 240-54512/10 IC		08/15/2012 21:19	1	YF081510.D	RTX-VRX 0.45(mm)
STD6 240-54512/11 IC		08/15/2012 22:00	1	YF081511.D	RTX-VRX 0.45(mm)
ICV 240-54512/12		08/15/2012 22:40	1	YF081512.D	RTX-VRX 0.45(mm)

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 54512

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/15/2012 18:36 Calibration End Date: 08/15/2012 22:00 Calibration ID: 10676

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-54512/6	YF081506.D
Level 2	STD2 240-54512/7	YF081507.D
Level 3	STD3 240-54512/8	YF081508.D
Level 4	STD4 240-54512/9	YF081509.D
Level 5	STD5 240-54512/10	YF081510.D
Level 6	STD6 240-54512/11	YF081511.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Total Petroleum Hydrocarbons (C6-C10)	183542 118119	135498 128955	126511	123496	Ave		136019.970				18.0		20.0			
C6-C12	255673 133903	170408 145976	149081	141314	Lin	6701438.48	136365.157							0.9940		0.9900
Trifluorotoluene (Surr)	136571 165376	137906 183597	145025	153818	Ave		153715.733				12.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 54512

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/15/2012 18:36 Calibration End Date: 08/15/2012 22:00 Calibration ID: 10676

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-54512/6	YF081506.D
Level 2	STD2 240-54512/7	YF081507.D
Level 3	STD3 240-54512/8	YF081508.D
Level 4	STD4 240-54512/9	YF081509.D
Level 5	STD5 240-54512/10	YF081510.D
Level 6	STD6 240-54512/11	YF081511.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Total Petroleum Hydrocarbons (C6-C10)	Ave	18354154 206328514	27099537	50604228	98796615	141742722	100 1600	200	400	800	1200
C6-C12	Lin	25567346 233562173	34081672	59632568	113051081	160683965	100 1600	200	400	800	1200
Trifluorotoluene (Surr)	Ave	1365710 1835973	1379064	1450251	1538182	1653764	10.0 10.0	10.0	10.0	10.0	10.0

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 54512

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/15/2012 18:36 Calibration End Date: 08/15/2012 22:00 Calibration ID: 10676

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-54512/6	YF081506.D
Level 2	STD2 240-54512/7	YF081507.D
Level 3	STD3 240-54512/8	YF081508.D
Level 4	STD4 240-54512/9	YF081509.D
Level 5	STD5 240-54512/10	YF081510.D
Level 6	STD6 240-54512/11	YF081511.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Total Petroleum Hydrocarbons (C6-C10)	11.760	11.760	11.760	11.760	11.760	11.760					4.755 - 18.765	11.760
C6-C12	13.426	13.426	13.426	13.426	13.426	13.426					4.855 - 21.997	13.426
Trifluorotoluene (Surr)	9.711	9.710	9.713	9.708	9.711	9.712					9.463 - 9.963	9.711

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: ICV 240-54512/12 Calibration Date: 08/15/2012 22:40

Instrument ID: YPID Calib Start Date: 08/15/2012 18:36

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 08/15/2012 22:00

Lab File ID: YF081512.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	136020	146461		861	800	7.7	20.0
C6-C12	Lin		171870		959	800	19.9	20.0
Trifluorotoluene (Surr)	Ave	153716	157910		10.3	10.0	2.7	20.0

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Sample No.: CCV 240-58467/5 Date Analyzed: 09/20/2012 13:43

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF092005.D Heated Purge: (Y/N) N

Calibration ID: 10676

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #		
CONTINUING CALIBRATION SURROGATE				9.74		
UPPER LIMIT				9.84		
LOWER LIMIT				9.64		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-58467/5 CCVRT		09/20/2012 13:43	YF092005.D	9.74		
MB 240-58467/6		09/20/2012 14:34	YF092006.D	9.76		
LCS 240-58467/7		09/20/2012 15:12	YF092007.D	9.74		
240-15155-1	GSP-MW-9-0-2	09/20/2012 15:50	YF092008.D	9.73		
240-15155-1 MS	GSP-MW-9-0-2 MS	09/20/2012 16:27	YF092009.D	9.74		
240-15155-1 MSD	GSP-MW-9-0-2 MSD	09/20/2012 17:05	YF092010.D	9.74		
240-15155-2	GSP-MW-9-8-10	09/20/2012 17:42	YF092011.D	9.73		
240-15155-4	GSP-MW-10-2-4	09/20/2012 18:20	YF092012.D	9.73		
240-15155-5	GSP-MW-10-20-22	09/20/2012 18:59	YF092013.D	9.74		
240-15155-6	GSP-MW-11-0-2	09/20/2012 19:39	YF092014.D	9.73		
240-15155-7	GSP-MW-11-2-4	09/20/2012 20:19	YF092015.D	9.73		
CCV 240-58467/16		09/20/2012 20:59	YF092016.D	9.73		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58467/5 Calibration Date: 09/20/2012 13:43

Instrument ID: YPID Calib Start Date: 08/15/2012 18:36

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 08/15/2012 22:00

Lab File ID: YF092005.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	136020	140351		825	800	3.2	20.0
C6-C12	Lin		156800		871	800	8.8	20.0
Trifluorotoluene (Surr)	Ave	153716	120896		7.86	10.0	-21.4*	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: ICV 240-54512/12 Calibration Date: 08/15/2012 22:40

Instrument ID: YPID Calib Start Date: 08/15/2012 18:36

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 08/15/2012 22:00

Lab File ID: YF081512.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		TO	FROM
Total Petroleum Hydrocarbons (C6-C10)	11.76	4.76	18.77
C6-C12	13.43	4.86	22.00
Trifluorotoluene (Surr)	9.72	9.46	9.96

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58467/16 Calibration Date: 09/20/2012 20:59

Instrument ID: YPID Calib Start Date: 08/15/2012 18:36

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 08/15/2012 22:00

Lab File ID: YF092016.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	136020	134871		793	800	-0.8	20.0
C6-C12	Lin		151350		839	800	4.8	20.0
Trifluorotoluene (Surr)	Ave	153716	120640		7.85	10.0	-21.5*	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58467/5 Calibration Date: 09/20/2012 13:43

Instrument ID: YPID Calib Start Date: 08/15/2012 18:36

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 08/15/2012 22:00

Lab File ID: YF092005.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		TO	FROM
Total Petroleum Hydrocarbons (C6-C10)	11.78	4.83	18.74
C6-C12	13.46	4.93	21.99
Trifluorotoluene (Surr)	9.74	9.49	9.99

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: MB 240-58467/6

Matrix: Solid Date Extracted: 09/20/2012 14:34

Lab File ID:(1) YF092006.D Lab File ID:(2)

Date Analyzed:(1) 09/20/2012 14:34 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-58467/7	09/20/2012 15:12	
GSP-MW-9-0-2	240-15155-1	09/20/2012 15:50	
GSP-MW-9-0-2 MS	240-15155-1 MS	09/20/2012 16:27	
GSP-MW-9-0-2 MSD	240-15155-1 MSD	09/20/2012 17:05	
GSP-MW-9-8-10	240-15155-2	09/20/2012 17:42	
GSP-MW-10-2-4	240-15155-4	09/20/2012 18:20	
GSP-MW-10-20-22	240-15155-5	09/20/2012 18:59	
GSP-MW-11-0-2	240-15155-6	09/20/2012 19:39	
GSP-MW-11-2-4	240-15155-7	09/20/2012 20:19	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-15155-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-58467/6
Matrix: Solid
Lab File ID: YF092006.D
Analysis Method: 8015C
Date Collected:
Sample wt/vol: 5(g)
Date Analyzed: 09/20/2012 14:34
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 58467
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	100	U	100	46

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	66		10-150

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: YF092007.D

Lab ID: LCS 240-58467/7 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	943	118	60-142	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: YF092009.D

Lab ID: 240-15155-1 MS Client ID: GSP-MW-9-0-2 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	819	100 U	661	81	10-142	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: YF092010.D

Lab ID: 240-15155-1 MSD Client ID: GSP-MW-9-0-2 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	819	686	84	4	94	10-142	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1 #
GSP-MW-9-0-2	240-15155-1	62
GSP-MW-9-8-10	240-15155-2	65
GSP-MW-10-2-4	240-15155-4	65
GSP-MW-10-20-22	240-15155-5	63
GSP-MW-11-0-2	240-15155-6	64
GSP-MW-11-2-4	240-15155-7	61
	MB 240-58467/6	66
	LCS 240-58467/7	78
GSP-MW-9-0-2 MS	240-15155-1 MS	76
GSP-MW-9-0-2 MSD	240-15155-1 MSD	52

TFT = Trifluorotoluene (Surr)

QC LIMITS
10-150

Column to be used to flag recovery values

FORM II 8015C

Method 8015C - DRO

Nonhalogenated Organics using GC/FID - Modified (Diesel Range Organics) by Method 8015C

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Instrument ID: A2HP6F Start Date: 07/30/2012 13:26

Analysis Batch Number: 52483 End Date: 07/30/2012 18:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-52483/4 IC		07/30/2012 13:26	1	P6F73004.D	RTX-5 0.53(mm)
STD2 240-52483/5 IC		07/30/2012 13:57	1	P6F73005.D	RTX-5 0.53(mm)
STD3 240-52483/6 ICRT		07/30/2012 14:28	1	P6F73006.D	RTX-5 0.53(mm)
STD4 240-52483/7 IC		07/30/2012 14:59	1	P6F73007.D	RTX-5 0.53(mm)
STD5 240-52483/8 IC		07/30/2012 15:30	1	P6F73008.D	RTX-5 0.53(mm)
ICV 240-52483/9		07/30/2012 16:02	1	P6F73009.D	RTX-5 0.53(mm)
STD1 240-52483/10 IC		07/30/2012 16:33	1		RTX-5 0.53(mm)
STD2 240-52483/11 IC		07/30/2012 17:04	1		RTX-5 0.53(mm)
STD3 240-52483/12 ICRT		07/30/2012 17:34	1		RTX-5 0.53(mm)
STD4 240-52483/13 IC		07/30/2012 18:05	1		RTX-5 0.53(mm)
STD5 240-52483/14 IC		07/30/2012 18:36	1		RTX-5 0.53(mm)

8015C

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 52483

SDG No.:

Instrument ID: A2HP6F GC Column: RTX-5 ~~ID:~~ 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/30/2012 13:26 Calibration End Date: 07/30/2012 15:30 Calibration ID: 10355

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-52483/4	P6F73004.D
Level 2	STD2 240-52483/5	P6F73005.D
Level 3	STD3 240-52483/6	P6F73006.D
Level 4	STD4 240-52483/7	P6F73007.D
Level 5	STD5 240-52483/8	P6F73008.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	198017 164866	195063	182983	164938	Ave		181173.338				8.8		20.0			
n-Nonane	178972 183715	194879	194900	180011	Ave		186495.525				4.2		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 52483

SDG No.:

Instrument ID: A2HP6F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/30/2012 13:26 Calibration End Date: 07/30/2012 15:30 Calibration ID: 10355

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-52483/4	P6F73004.D
Level 2	STD2 240-52483/5	P6F73005.D
Level 3	STD3 240-52483/6	P6F73006.D
Level 4	STD4 240-52483/7	P6F73007.D
Level 5	STD5 240-52483/8	P6F73008.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel	Ave	19801734	39012577	91491572	164937593	329731459	100	200	500	1000	2000
n-Nonane	Ave	1789719	3897586	9745006	18001099	36743063	10.0	20.0	50.0	100	200

Curve Type Legend:
Ave = Average

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 52483

SDG No.:

Instrument ID: A2HP6F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/30/2012 13:26 Calibration End Date: 07/30/2012 15:30 Calibration ID: 10355

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-52483/4	P6F73004.D
Level 2	STD2 240-52483/5	P6F73005.D
Level 3	STD3 240-52483/6	P6F73006.D
Level 4	STD4 240-52483/7	P6F73007.D
Level 5	STD5 240-52483/8	P6F73008.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel	9.398	9.398	9.398	9.398	9.398						5.181 - 13.615	9.398
n-Nonane	4.174	4.175	4.175	4.174	4.176						4.124 - 4.224	4.175

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: ICV 240-52483/9 Calibration Date: 07/30/2012 16:02

Instrument ID: A2HP6F Calib Start Date: 07/30/2012 13:26

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 07/30/2012 15:30

Lab File ID: P6F73009.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	181173	183339		506	500	1.2	20.0

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: ICV 240-52483/9 Calibration Date: 07/30/2012 16:02

Instrument ID: A2HP6F Calib Start Date: 07/30/2012 13:26

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 07/30/2012 15:30

Lab File ID: P6F73009.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	9.40	5.18	13.62

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Sample No.: CCV 240-58635/4 Date Analyzed: 09/21/2012 12:27

Instrument ID: A2HP6F GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): P6F92104.D Heated Purge: (Y/N) N

Calibration ID: 10355

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				C9		
				RT #		
CONTINUING CALIBRATION SURROGATE				4.16		
UPPER LIMIT				4.26		
LOWER LIMIT				4.06		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-58635/4 CCVRT		09/21/2012 12:27	P6F92104.D	4.16		
CCV 240-58635/26		09/21/2012 23:52	P6F92126.D	4.16		
MB 240-58174/23-A		09/22/2012 00:23	P6F92127.D	4.16		
CCV 240-58635/28		09/22/2012 00:54	P6F92128.D	4.16		

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58635/4 Calibration Date: 09/21/2012 12:27

Instrument ID: A2HP6F Calib Start Date: 07/30/2012 13:26

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 07/30/2012 15:30

Lab File ID: P6F92104.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	181173	188630		521	500	4.1	20.0
n-Nonane	Ave	186496	205979		55.2	50.0	10.4	20.0

FORM VII 8015C

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58635/4 Calibration Date: 09/21/2012 12:27

Instrument ID: A2HP6F Calib Start Date: 07/30/2012 13:26

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 07/30/2012 15:30

Lab File ID: P6F92104.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	9.39	5.17	13.60
n-Nonane	4.16	4.11	4.21

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58635/26 Calibration Date: 09/21/2012 23:52

Instrument ID: A2HP6F Calib Start Date: 07/30/2012 13:26

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 07/30/2012 15:30

Lab File ID: P6F92126.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	181173	211449		584	500	16.7	20.0
n-Nonane	Ave	186496	228617		61.3	50.0	22.6*	20.0

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58635/26 Calibration Date: 09/21/2012 23:52

Instrument ID: A2HP6F Calib Start Date: 07/30/2012 13:26

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 07/30/2012 15:30

Lab File ID: P6F92126.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	9.39	5.17	13.60
n-Nonane	4.16	4.11	4.21

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58635/28 Calibration Date: 09/22/2012 00:54

Instrument ID: A2HP6F Calib Start Date: 07/30/2012 13:26

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 07/30/2012 15:30

Lab File ID: P6F92128.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	181173	190828		527	500	5.3	20.0
n-Nonane	Ave	186496	204893		54.9	50.0	9.9	20.0

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58635/28 Calibration Date: 09/22/2012 00:54

Instrument ID: A2HP6F Calib Start Date: 07/30/2012 13:26

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 07/30/2012 15:30

Lab File ID: P6F92128.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	9.39	5.17	13.60
n-Nonane	4.16	4.11	4.21

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Sample No.: CCV 240-58808/4 Date Analyzed: 09/24/2012 14:26

Instrument ID: A2HP6F GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): P6F92404.D Heated Purge: (Y/N) N

Calibration ID: 10355

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				C9		
				RT #		
CONTINUING CALIBRATION SURROGATE				4.16		
UPPER LIMIT				4.26		
LOWER LIMIT				4.06		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-58808/4 CCVRT		09/24/2012 14:26	P6F92404.D	4.16		
LCS 240-58174/24-A		09/24/2012 14:57	P6F92405.D	4.16		
240-15155-1	GSP-MW-9-0-2	09/24/2012 17:33	P6F92410.D	4.16		
240-15155-2	GSP-MW-9-8-10	09/24/2012 18:04	P6F92411.D	4.16		
240-15155-4	GSP-MW-10-2-4	09/24/2012 18:35	P6F92412.D	4.16		
240-15155-4 MS	GSP-MW-10-2-4 MS	09/24/2012 19:06	P6F92413.D	4.16		
240-15155-4 MSD	GSP-MW-10-2-4 MSD	09/24/2012 19:37	P6F92414.D	4.15		
CCV 240-58808/15		09/24/2012 20:09	P6F92415.D	4.16		
240-15155-5	GSP-MW-10-20-22	09/24/2012 20:40	P6F92416.D	4.15		
240-15155-6	GSP-MW-11-0-2	09/24/2012 21:11	P6F92417.D	4.16		
240-15155-7	GSP-MW-11-2-4	09/24/2012 21:43	P6F92418.D	4.16		
CCV 240-58808/26		09/25/2012 01:52	P6F92426.D	4.16		
CCV 240-58808/32		09/25/2012 04:57	P6F92432.D	4.16		

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58808/4 Calibration Date: 09/24/2012 14:26

Instrument ID: A2HP6F Calib Start Date: 07/30/2012 13:26

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 07/30/2012 15:30

Lab File ID: P6F92404.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	181173	173258		478	500	-4.4	20.0
n-Nonane	Ave	186496	194516		52.2	50.0	4.3	20.0

FORM VII 8015C

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58808/4 Calibration Date: 09/24/2012 14:26

Instrument ID: A2HP6F Calib Start Date: 07/30/2012 13:26

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 07/30/2012 15:30

Lab File ID: P6F92404.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	9.39	5.17	13.60
n-Nonane	4.16	4.11	4.21

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58808/15 Calibration Date: 09/24/2012 20:09

Instrument ID: A2HP6F Calib Start Date: 07/30/2012 13:26

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 07/30/2012 15:30

Lab File ID: P6F92415.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	181173	174861		483	500	-3.5	20.0
n-Nonane	Ave	186496	202525		54.3	50.0	8.6	20.0

FORM VII 8015C

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58808/15 Calibration Date: 09/24/2012 20:09

Instrument ID: A2HP6F Calib Start Date: 07/30/2012 13:26

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 07/30/2012 15:30

Lab File ID: P6F92415.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	9.39	5.17	13.60
n-Nonane	4.16	4.11	4.21

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58808/26 Calibration Date: 09/25/2012 01:52

Instrument ID: A2HP6F Calib Start Date: 07/30/2012 13:26

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 07/30/2012 15:30

Lab File ID: P6F92426.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	181173	189659		523	500	4.7	20.0
n-Nonane	Ave	186496	220405		59.1	50.0	18.2	20.0

FORM VII 8015C

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58808/26 Calibration Date: 09/25/2012 01:52

Instrument ID: A2HP6F Calib Start Date: 07/30/2012 13:26

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 07/30/2012 15:30

Lab File ID: P6F92426.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	9.39	5.17	13.60
n-Nonane	4.16	4.11	4.21

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: MB 240-58174/23-A

Matrix: Solid Date Extracted: 09/18/2012 10:37

Lab File ID:(1) P6F92127.D Lab File ID:(2)

Date Analyzed:(1) 09/22/2012 00:23 Date Analyzed:(2)

Instrument ID:(1) A2HP6F Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-58174/24-A	09/24/2012 14:57	
GSP-MW-9-0-2	240-15155-1	09/24/2012 17:33	
GSP-MW-9-8-10	240-15155-2	09/24/2012 18:04	
GSP-MW-10-2-4	240-15155-4	09/24/2012 18:35	
GSP-MW-10-2-4 MS	240-15155-4 MS	09/24/2012 19:06	
GSP-MW-10-2-4 MSD	240-15155-4 MSD	09/24/2012 19:37	
GSP-MW-10-20-22	240-15155-5	09/24/2012 20:40	
GSP-MW-11-0-2	240-15155-6	09/24/2012 21:11	
GSP-MW-11-2-4	240-15155-7	09/24/2012 21:43	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-15155-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-58174/23-A
Matrix: Solid
Lab File ID: P6F92127.D
Analysis Method: 8015C
Date Collected:
Extraction Method: 3540C
Date Extracted: 09/18/2012 10:37
Sample wt/vol: 30.00(g)
Date Analyzed: 09/22/2012 00:23
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: RTX-5
ID: 0.53(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 58635
Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	12.4	J	17	9.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	47		10-110

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P6F92405.D

Lab ID: LCS 240-58174/24-A Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC	QC LIMITS REC	#
Diesel	83.3	72.3	87	47-138	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
DIESEL RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P6F92413.D

Lab ID: 240-15155-4 MS Client ID: GSP-MW-10-2-4 MS

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC	QC LIMITS REC	#
Diesel	94.7	19 U	76.0	80	10-199	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
DIESEL RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P6F92414.D

Lab ID: 240-15155-4 MSD Client ID: GSP-MW-10-2-4 MSD

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Diesel	94.2	68.6	73	10	30	10-199	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RTX-5 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	C91 #
GSP-MW-9-0-2	240-15155-1	47
GSP-MW-9-8-10	240-15155-2	46
GSP-MW-10-2-4	240-15155-4	49
GSP-MW-10-20-22	240-15155-5	40
GSP-MW-11-0-2	240-15155-6	47
GSP-MW-11-2-4	240-15155-7	45
	MB 240-58174/23-A	47
	LCS 240-58174/24-A	52
GSP-MW-10-2-4 MS	240-15155-4 MS	52
GSP-MW-10-2-4 MSD	240-15155-4 MSD	47

C9 = n-Nonane

QC LIMITS
10-110

Column to be used to flag recovery values

FORM II 8015C

Report Date: 24-Sep-2012 09:25:43 Chrom Revision: 2.0 21-Aug-2012 09:09:58

TestAmerica Canton

Data File: \\Ncchrom\ChromData\A2HP6F\20120921-13434.b\P6F92127.D

Injection Date: 22-Sep-2012 00:23:37 Limit Group: GC 8015C TPH ICAL

Client ID: Instrument ID: A2HP6F

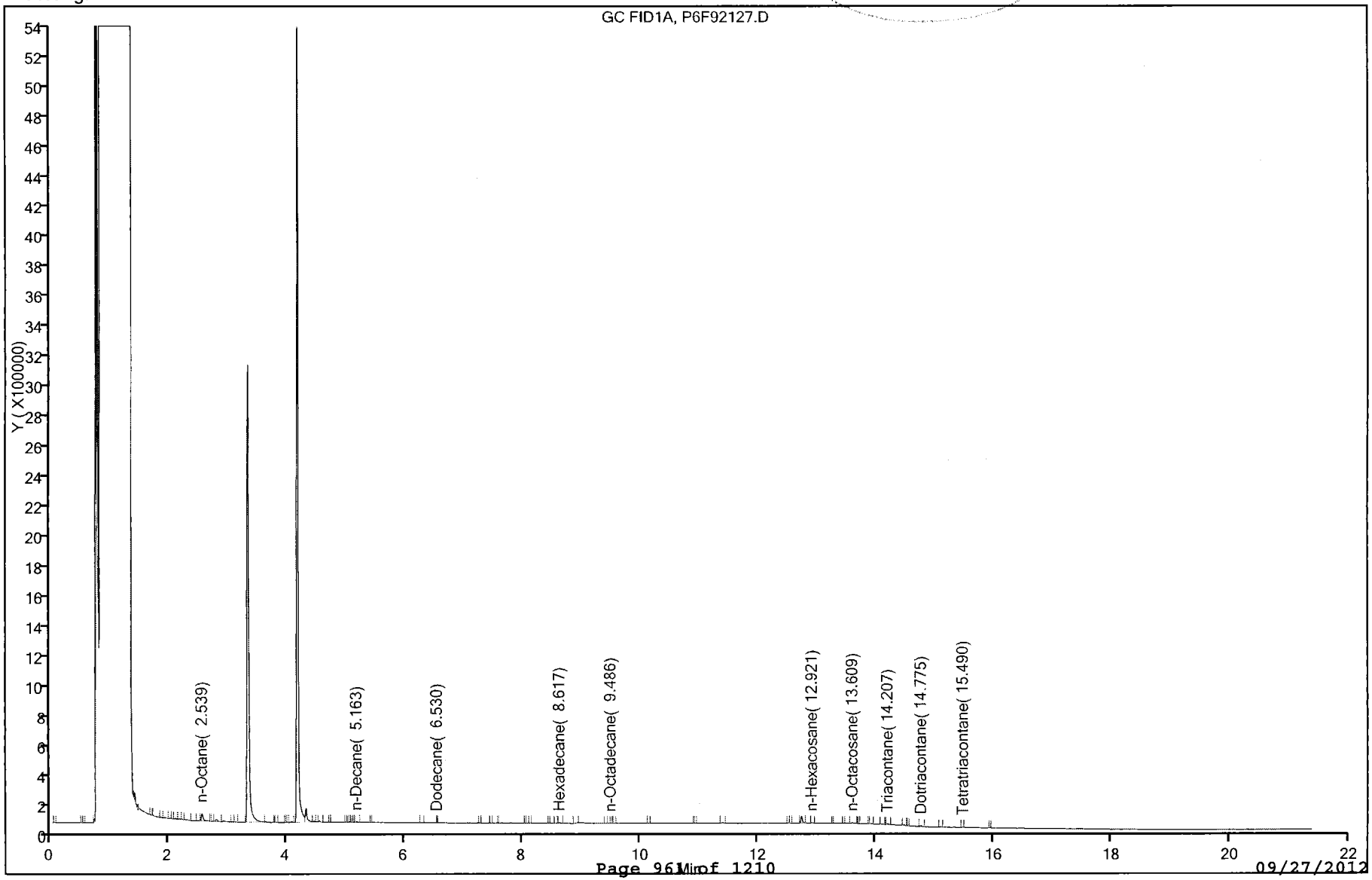
Lims Batch ID: 58635 Lims Sample ID: 27

Operator ID: 4275 Injection Vol: 1.0 ul

Column Type: Column Dia:

Y Scaling:

Method Blank

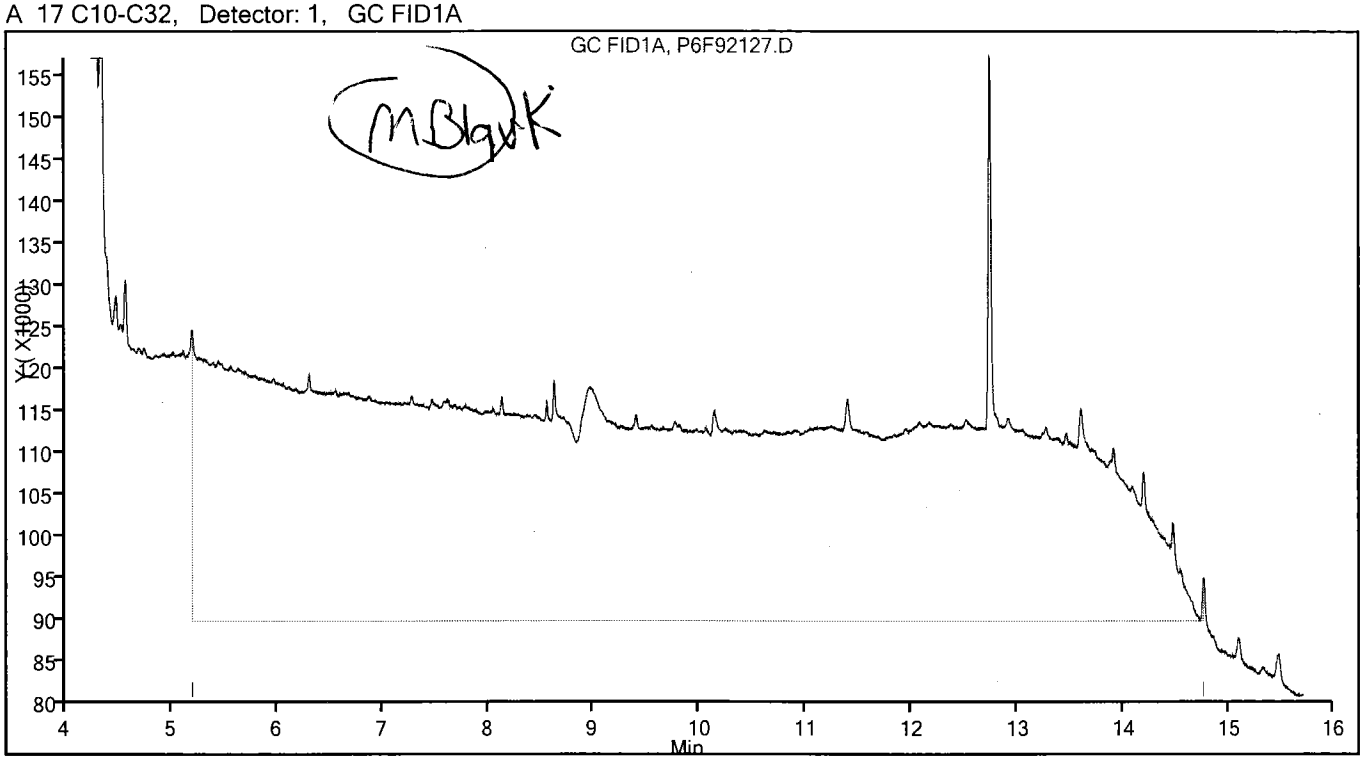


Report Date: 24-Sep-2012 09:25:43 Chrom Revision: 2.0 21-Aug-2012 09:09:58

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\A2HP6F\20120921-13434.b\P6F92127.D		
Injection Date:	22-Sep-2012 00:23:37	Limit Group:	GC 8015C TPH ICAL
Client ID:		Instrument ID:	A2HP6F
Lims Batch ID:	58635	Lims Sample ID:	27
Operator ID:	4275	Injection Vol:	1.0 ul
Column Type:		Column Dia:	

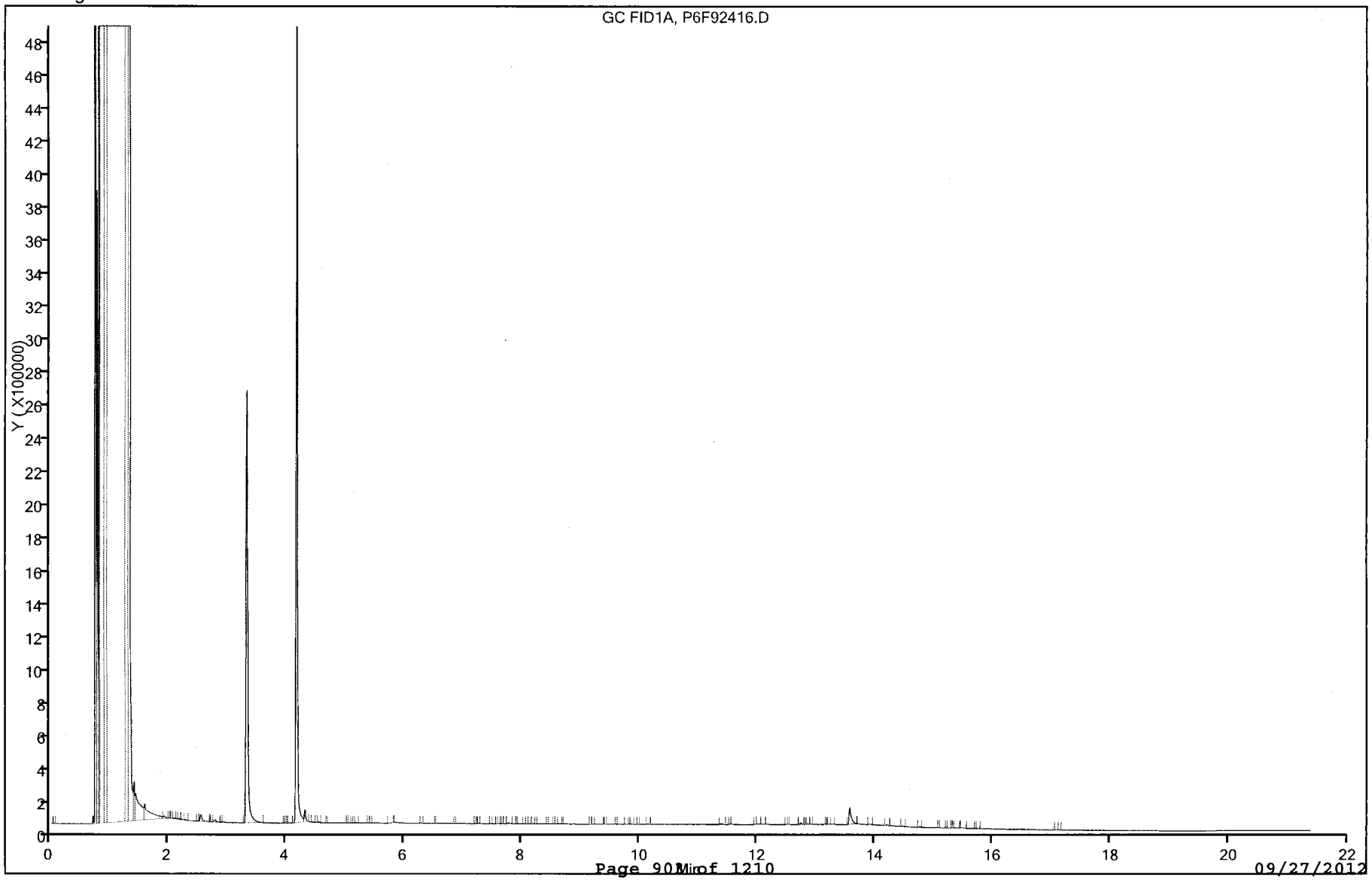
A 17 C10-C32, Detector: 1, GC FID1A



Report Date: 25-Sep-2012 09:21:33 Chrom Revision: 2.0 21-Aug-2012 09:09:58

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\A2HP6F\20120924-13483.b\P6F92416.D		
Injection Date:	24-Sep-2012 20:40:28	Limit Group:	GC 8015C TPH ICAL
Client ID:	GSP-MW-10-20-22	Instrument ID:	A2HP6F
Lims Batch ID:	58808	Lims Sample ID:	16
Operator ID:	4275	Injection Vol:	1.0 ul
Column Type:		Column Dia:	
Y Scaling:			



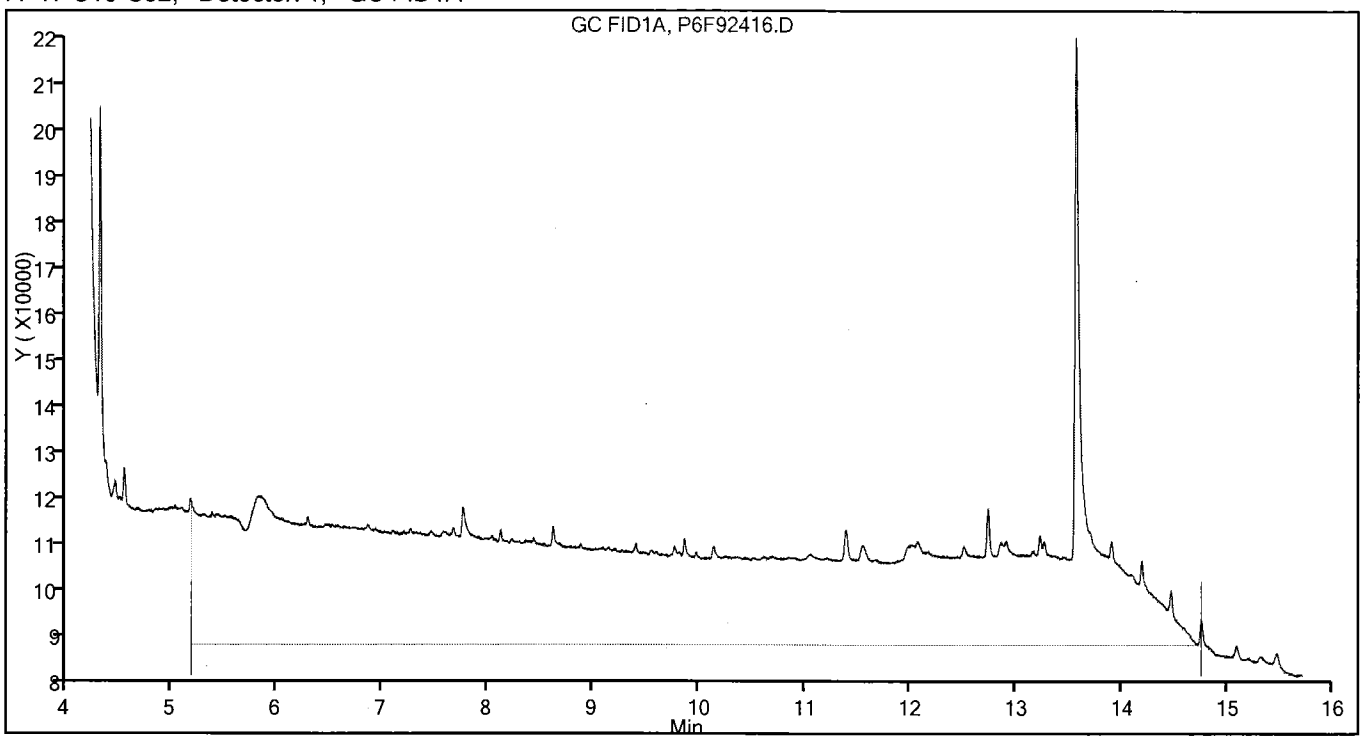
09/27/2012

Report Date: 25-Sep-2012 09:21:33 Chrom Revision: 2.0 21-Aug-2012 09:09:58

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\A2HP6F\20120924-13483.b\P6F92416.D		
Injection Date:	24-Sep-2012 20:40:28	Limit Group:	GC 8015C TPH ICAL
Client ID:	GSP-MW-10-20-22	Instrument ID:	A2HP6F
Lims Batch ID:	58808	Lims Sample ID:	16
Operator ID:	4275	Injection Vol:	1.0 ul
Column Type:		Column Dia:	

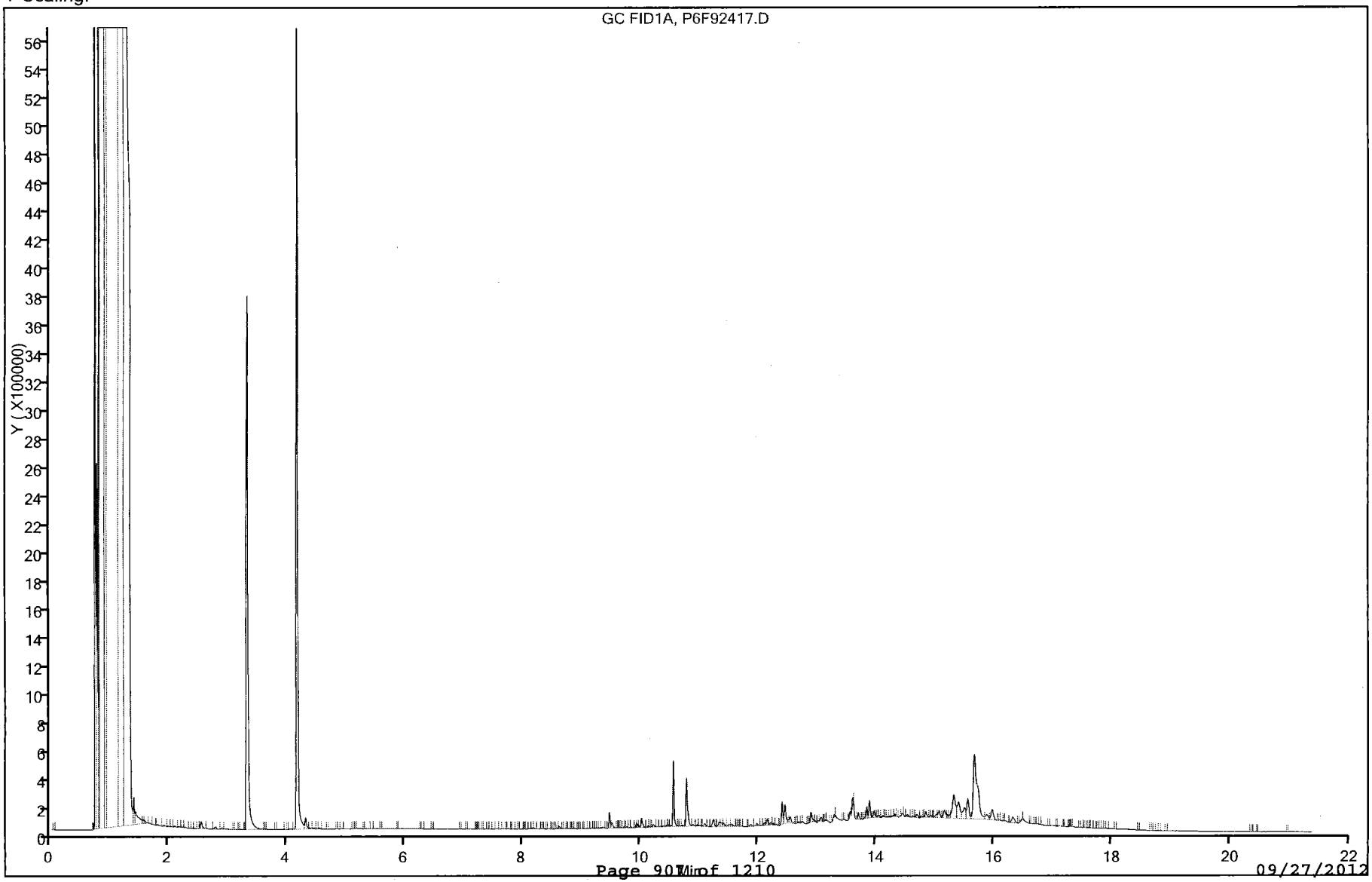
A 17 C10-C32, Detector: 1, GC FID1A



Report Date: 25-Sep-2012 09:21:34 Chrom Revision: 2.0 21-Aug-2012 09:09:58

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\A2HP6F\20120924-13483.b\P6F92417.D		
Injection Date:	24-Sep-2012 21:11:58	Limit Group:	GC 8015C TPH ICAL
Client ID:	GSP-MW-11-0-2	Instrument ID:	A2HP6F
Lims Batch ID:	58808	Lims Sample ID:	17
Operator ID:	4275	Injection Vol:	1.0 ul
Column Type:		Column Dia:	
Y Scaling:			

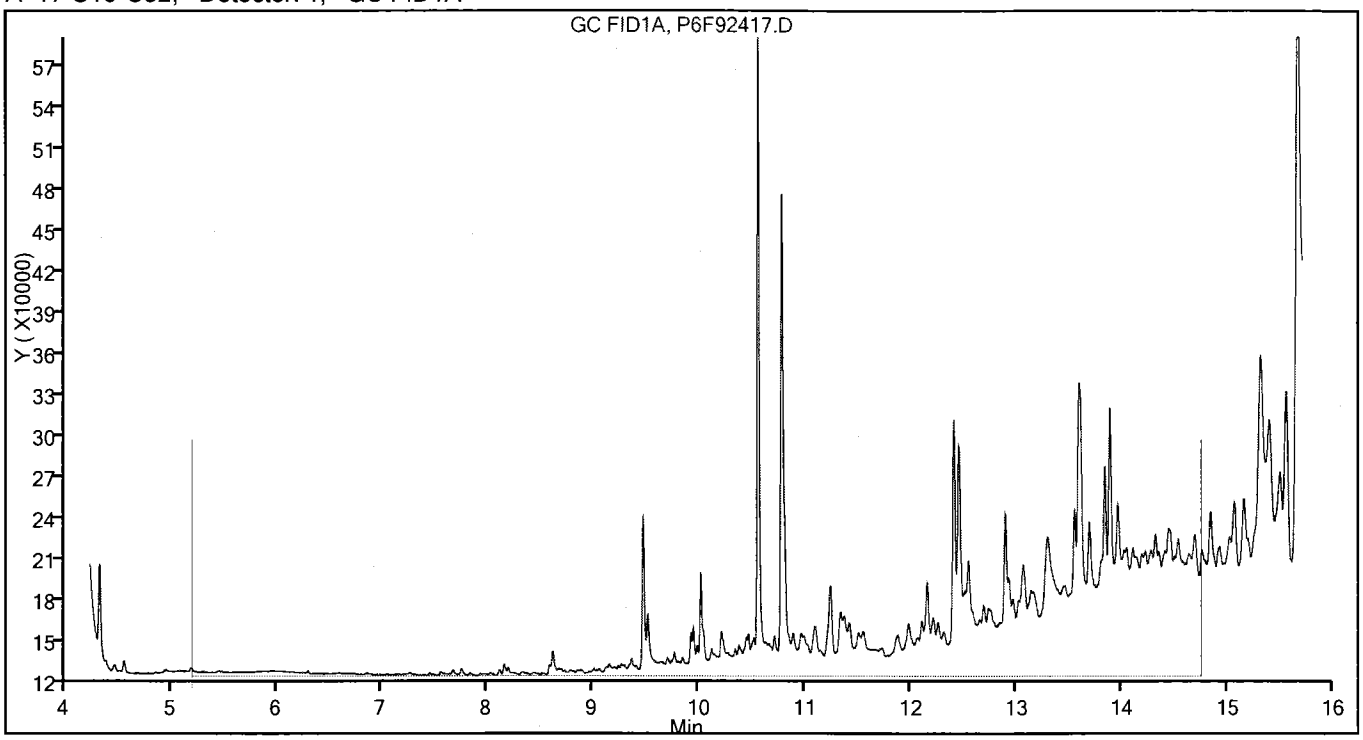


Report Date: 25-Sep-2012 09:21:34 Chrom Revision: 2.0 21-Aug-2012 09:09:58

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\A2HP6F\20120924-13483.b\P6F92417.D		
Injection Date:	24-Sep-2012 21:11:58	Limit Group:	GC 8015C TPH ICAL
Client ID:	GSP-MW-11-0-2	Instrument ID:	A2HP6F
Lims Batch ID:	58808	Lims Sample ID:	17
Operator ID:	4275	Injection Vol:	1.0 ul
Column Type:		Column Dia:	

A 17 C10-C32, Detector: 1, GC FID1A



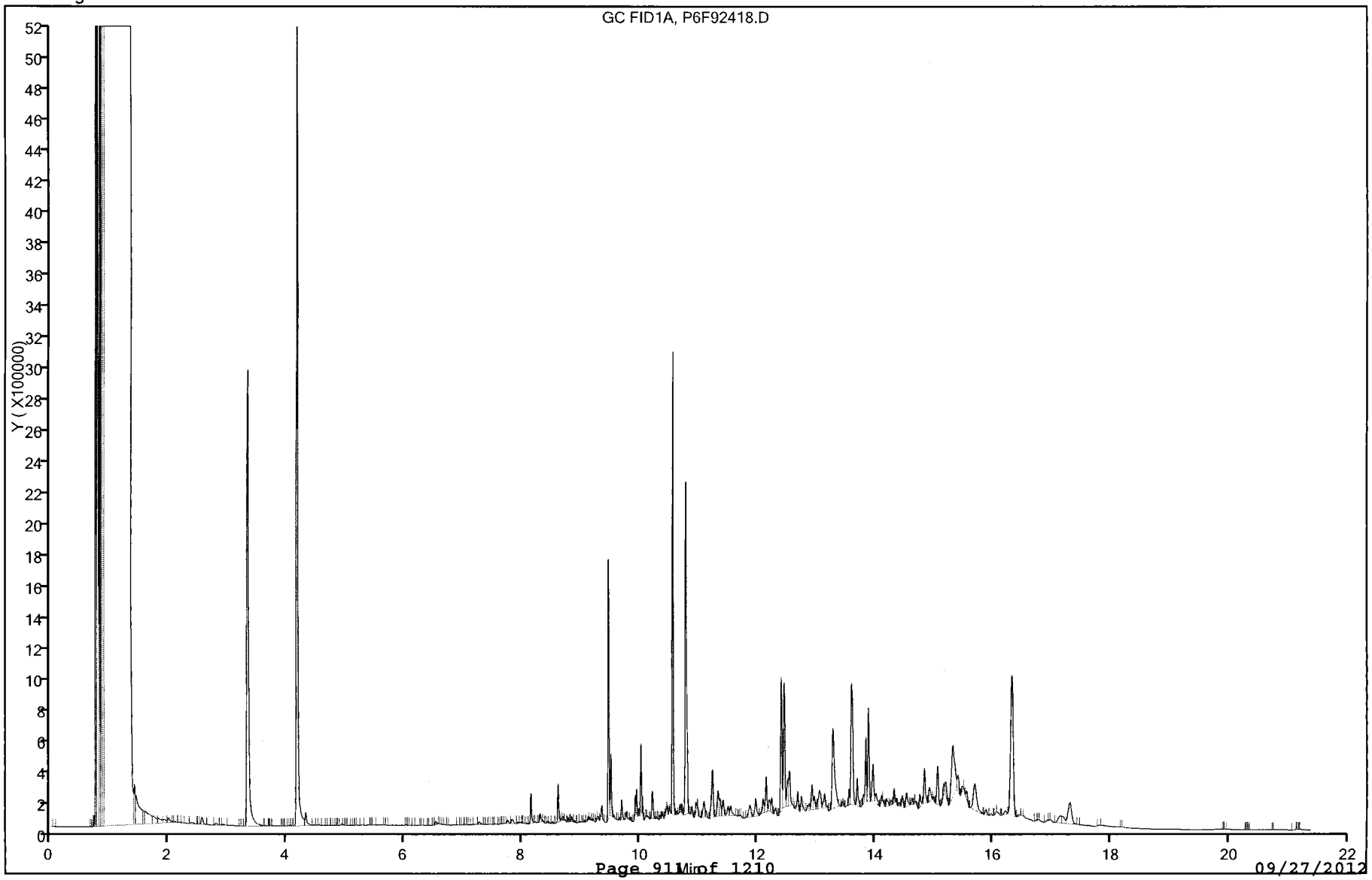
Report Date: 25-Sep-2012 09:21:35 Chrom Revision: 2.0 21-Aug-2012 09:09:58

TestAmerica Canton

Data File: \\Ncchrom\ChromData\A2HP6F\20120924-13483.b\P6F92418.D

Injection Date:	24-Sep-2012 21:43:18	Limit Group:	GC 8015C TPH ICAL
Client ID:	GSP-MW-11-2-4	Instrument ID:	A2HP6F
Lims Batch ID:	58808	Lims Sample ID:	18
Operator ID:	4275	Injection Vol:	1.0 ul
Column Type:		Column Dia:	

Y Scaling:

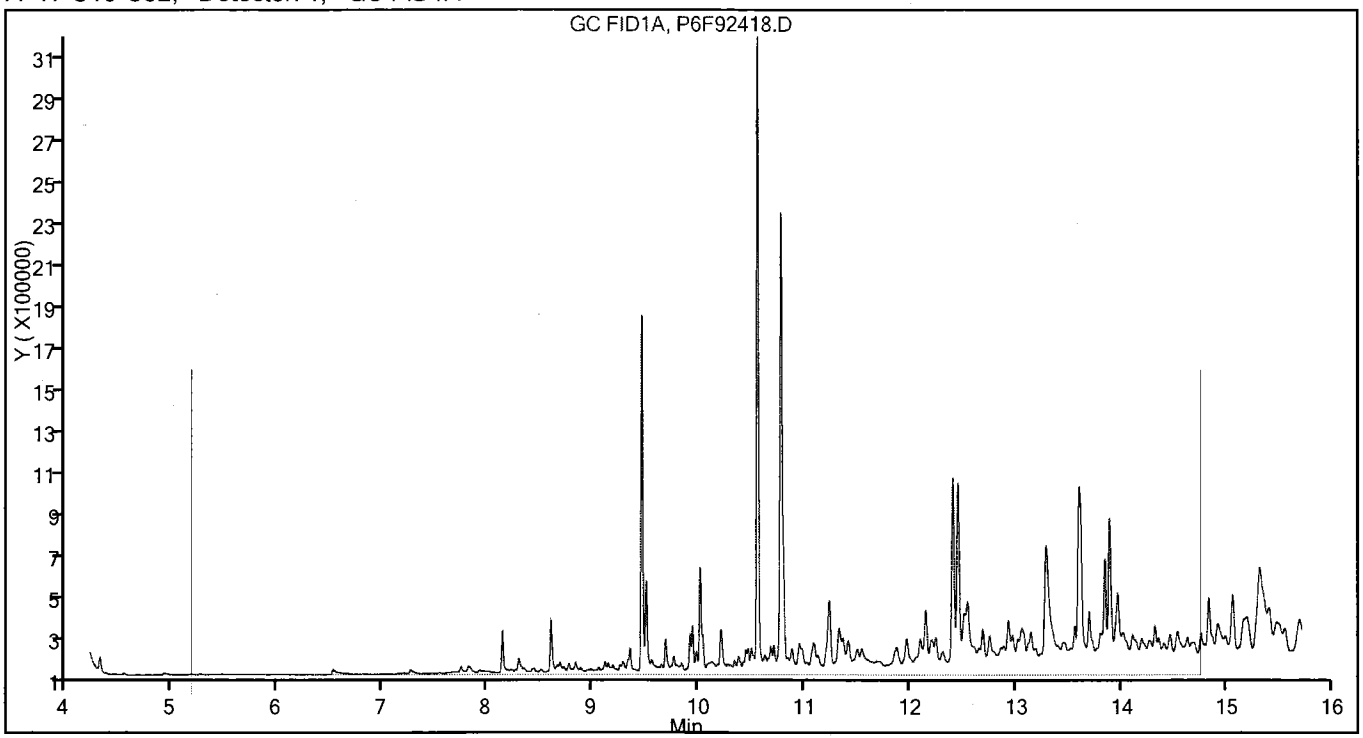


Report Date: 25-Sep-2012 09:21:35 Chrom Revision: 2.0 21-Aug-2012 09:09:58

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\A2HP6F\20120924-13483.b\P6F92418.D		
Injection Date:	24-Sep-2012 21:43:18	Limit Group:	GC 8015C TPH ICAL
Client ID:	GSP-MW-11-2-4	Instrument ID:	A2HP6F
Lims Batch ID:	58808	Lims Sample ID:	18
Operator ID:	4275	Injection Vol:	1.0 ul
Column Type:		Column Dia:	

A 17 C10-C32, Detector: 1, GC FID1A

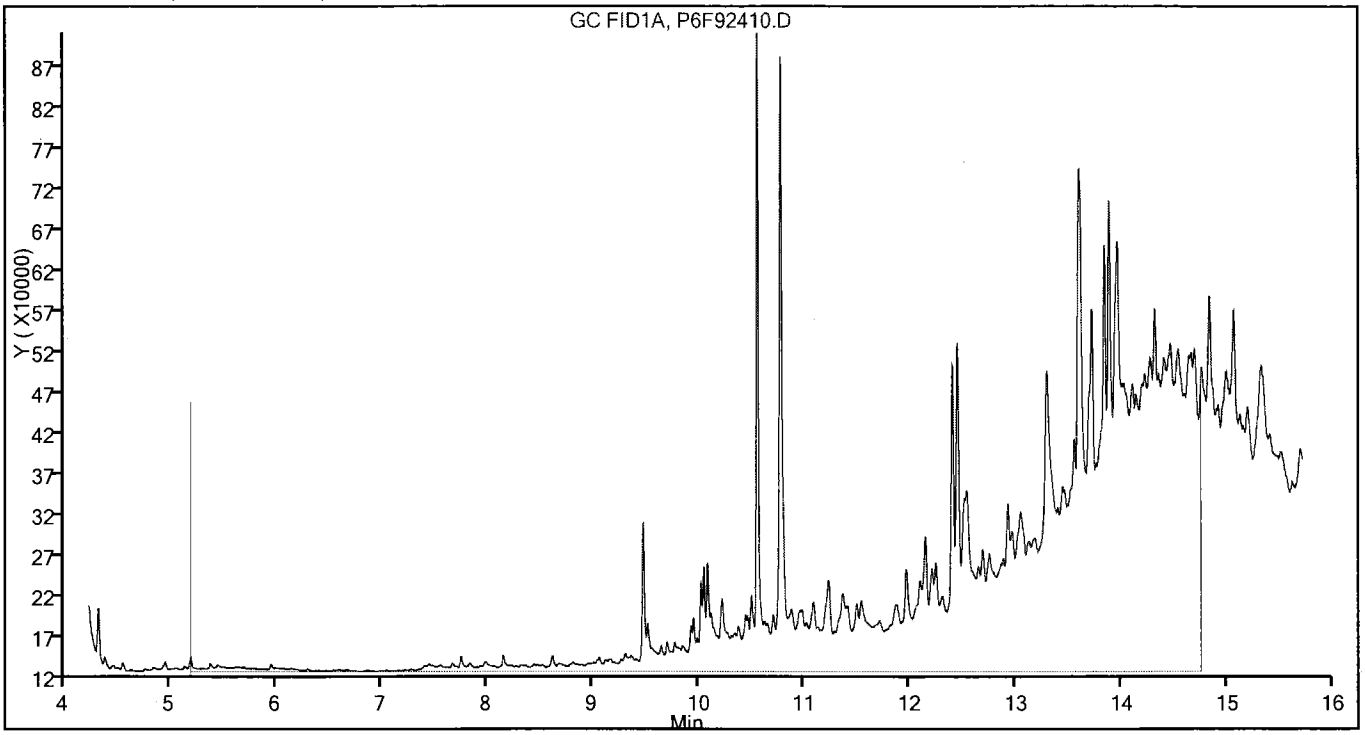


Report Date: 25-Sep-2012 09:21:28 Chrom Revision: 2.0 21-Aug-2012 09:09:58

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\A2HP6F\20120924-13483.b\P6F92410.D		
Injection Date:	24-Sep-2012 17:33:21	Limit Group:	GC 8015C TPH ICAL
Client ID:	GSP-MW-9-0-2	Instrument ID:	A2HP6F
Lims Batch ID:	58808	Lims Sample ID:	10
Operator ID:	4275	Injection Vol:	1.0 ul
Column Type:		Column Dia:	

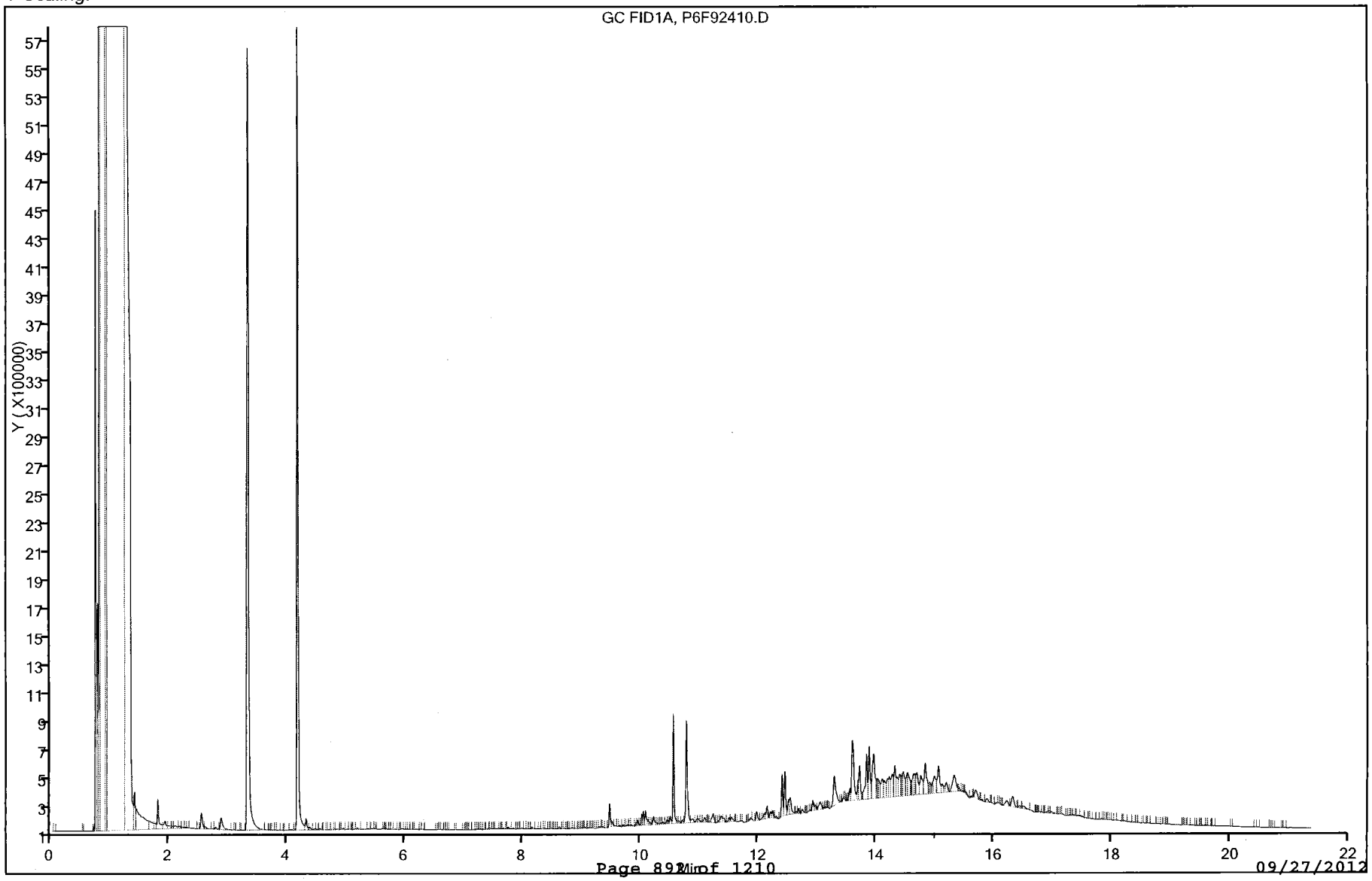
A 17 C10-C32, Detector: 1, GC FID1A



Report Date: 25-Sep-2012 09:21:28 Chrom Revision: 2.0 21-Aug-2012 09:09:58

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\A2HP6F\20120924-13483.b\P6F92410.D		
Injection Date:	24-Sep-2012 17:33:21	Limit Group:	GC 8015C TPH ICAL
Client ID:	GSP-MW-9-0-2	Instrument ID:	A2HP6F
Lims Batch ID:	58808	Lims Sample ID:	10
Operator ID:	4275	Injection Vol:	1.0 ul
Column Type:		Column Dia:	
Y Scaling:			



VOC CALCULATION	SAMPLE	
	GSP-MW-10-20-22	
TARGET ANALYTE	toluene	
ANALYTE RESPONSE	116241	
INTERNAL STANDARD	chlorobenzene-d5	
I.S. RESPONSE	986450	
I.S. CONCENTRATION	50	ug/kg
ANALYTE CAL. RF	1.711	
DILUTION FACTOR (DF)	1	
WEIGHT SAMPLE	6.07	grams
% MOISTURE	16.7	%
SOLIDS (percent /100)	0.833	
FINAL VOLUME	5	ml

$$\frac{\text{(ANALYTE RESPONSE) X (I.S. CONCENTRATION) X DF X FINAL VOL.}}{\text{(I.S. RESPONSE) X (CAL. R.F.) X WEIGHT (gms) X SOLIDS}} = 3.40518 \text{ ug/kg} \quad 0.003405184 \text{ mg/kg}$$

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1

SDG No.:

Client Sample ID: GSP-MW-10-20-22 | Lab Sample ID: 240-15155-5

Matrix: Solid | Lab File ID: 147995.D

Analysis Method: 8260B | Date Collected: 09/13/2012 09:30

Sample wt/vol: 6.07(g) | Date Analyzed: 09/18/2012 20:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 16.7 | Level: (low/med) Low

Analysis Batch No.: 58198 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	4.9	U	4.9	0.37
108-90-7	Chlorobenzene	4.9	U	4.9	0.33
75-00-3	Chloroethane	4.9	U	4.9	0.85
67-66-3	Chloroform	4.9	U	4.9	0.29
74-87-3	Chloromethane	4.9	U *	4.9	0.41
156-59-2	cis-1,2-Dichloroethene	0.64	J	4.9	0.36
10061-01-5	cis-1,3-Dichloropropene	4.9	U	4.9	0.34
124-48-1	Dibromochloromethane	4.9	U	4.9	0.54
74-95-3	Dibromomethane	4.9	U	4.9	0.62
75-71-8	Dichlorodifluoromethane	4.9	U	4.9	0.49
108-20-3	Diisopropyl ether	9.9	U	9.9	1.5
100-41-4	Ethylbenzene	4.9	U	4.9	0.26
637-92-3	Ethyl-t-butyl ether (ETBE)	4.9	U	4.9	0.22
87-68-3	Hexachlorobutadiene	4.9	U	4.9	1.2
98-82-8	Isopropylbenzene	4.9	U	4.9	0.16
1634-04-4	Methyl tert-butyl ether	20	U	20	0.43
75-09-2	Methylene Chloride	4.9	U	4.9	0.66
179601-23-1	m-Xylene & p-Xylene	9.9	U	9.9	1.2
91-20-3	Naphthalene	0.30	J B	4.9	0.19
104-51-8	n-Butylbenzene	4.9	U	4.9	0.23
103-65-1	n-Propylbenzene	4.9	U	4.9	0.40
95-47-6	o-Xylene	4.9	U	4.9	0.35
99-87-6	p-Isopropyltoluene	4.9	U	4.9	0.21
135-98-8	sec-Butylbenzene	4.9	U	4.9	0.18
100-42-5	Styrene	4.9	U	4.9	0.15
994-05-8	Tert-amyl-methyl ether (TAME)	4.9	U	4.9	0.37
75-65-0	tert-Butyl alcohol	200	U	200	7.5
98-06-6	tert-Butylbenzene	4.9	U	4.9	0.29
127-18-4	Tetrachloroethene	4.9	U	4.9	0.51
108-88-3	Toluene	3.4	J	4.9	0.27
156-60-5	trans-1,2-Dichloroethene	4.9	U	4.9	0.41
10061-02-6	trans-1,3-Dichloropropene	4.9	U	4.9	0.53
79-01-6	Trichloroethene	4.9	U	4.9	0.42
75-69-4	Trichlorofluoromethane	4.9	U	4.9	0.34
108-05-4	Vinyl acetate	9.9	U	9.9	0.25
75-01-4	Vinyl chloride	4.9	U	4.9	0.39

FORM I 8260B

Report Date: 19-Sep-2012 10:22:38 Chrom Revision: 2.0 21-Aug-2012 09:09:58

TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\NCChrom\ChromData\A3UX14\20120918-13319.b\147995.D		
Lims ID:	240-15155-B-5-A	Client ID:	GSP-MW-10-20-22
Inject. Date:	18-Sep-2012 20:16:30	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-15155-b-5-a		
Misc. Info.:	240-0013319-025 =240-0013319-025		
Operator:	002808	Instrument ID:	A3UX14
Purge Vol:	5.000 mL	ALS Bottle#:	22
Lims Batch ID:	58198	Lims Sample ID:	25
Detector:	MS SCAN		

Method:	\\NCChrom\ChromData\A3UX14\20120918-13319.b\8260_14.m		
Last Update:	19-Sep-2012 10:22:28	Calib Date:	12-Sep-2012 23:13:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCChrom\ChromData\A3UX14\20120912-13162.b\147863.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624	Column Dia:	0.18 mm
Process Host:	XAWRK015		

First Level Reviewer: macenczaks Date: 19-Sep-2012 09:23:33

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	6.885	6.885	0.0	98	1736536	50.0	
* 2 Chlorobenzene-d5	117	9.595	9.595	0.0	93	986450	50.0	
* 3 1,4-Dichlorobenzene-d4	152	11.571	11.571	0.0	96	531393	50.0	
$ 5 Dibromofluoromethane (Surr)	113	6.210	6.210	0.0	70	378921	41.3	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	6.542	6.542	0.0	91	558284	52.0	
$ 7 Toluene-d8 (Surr)	98	8.352	8.352	0.0	95	1340694	45.8	
$ 131 4-Bromofluorobenzene (Surr)	95	10.588	10.588	0.0	86	448702	44.6	
12 Dichlorodifluoromethane	85	1.442	1.442	0.0	64	1916	0.1744	
13 Chloromethane	50		1.607					9
14 Vinyl chloride	62		1.737					9
15 Bromomethane	94		2.069					
16 Chloroethane	64		2.187					
18 Trichlorofluoromethane	101	2.483	2.506	-0.023	62	4258	0.3026	
21 1,1-Dichloroethene	96	3.157	3.157	0.0	73	5532	0.5581	
23 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.193					9
22 Acetone	43	3.264	3.264	0.0	99	78999	18.2	
26 Carbon disulfide	76		3.429					9
30 Methylene Chloride	84		3.891					
31 2-Methyl-2-propanol	59	4.199	4.199	0.0	52	2474	3.49	
33 trans-1,2-Dichloroethene	96		4.317					9
34 Methyl tert-butyl ether	73		4.352					9
36 1,1-Dichloroethane	63		4.920					
37 Vinyl acetate	86		5.039					
38 Isopropyl ether	87		5.074					
40 Tert-butyl ethyl ether	59		5.524					
43 2,2-Dichloropropane	77		5.642					9
42 cis-1,2-Dichloroethene	96	5.654	5.654	0.0	80	7077	0.6499	
41 2-Butanone (MEK)	43	5.713	5.701	0.012	23	6723	1.48	
47 Chlorobromomethane	128		5.926					
49 Chloroform	83	6.033	6.033	0.0	60	2322	0.1335	

Report Date: 19-Sep-2012 10:22:38 Chrom Revision: 2.0 21-Aug-2012 09:09:58
Data File: \\NCChrom\ChromData\A3UX14\20120918-13319.b\147995.D

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
50 1,1,1-Trichloroethane	97		6.210					9
52 1,1-Dichloropropene	75		6.388					9
53 Carbon tetrachloride	117	6.388	6.388	0.0	48	1742	0.1418	
55 Benzene	78	6.601	6.601	0.0	92	79804	2.01	
56 1,2-Dichloroethane	62		6.624					
57 Tert-amyl methyl ether	73		6.743					
60 Trichloroethene	130	7.240	7.240	0.0	68	1818	0.1731	
62 1,2-Dichloropropane	63		7.453					9
65 Dibromomethane	93		7.559					
67 Dichlorobromomethane	83		7.713					9
69 2-Chloroethyl vinyl ether	63		7.997					9
70 cis-1,3-Dichloropropene	75		8.115					
71 4-Methyl-2-pentanone (MIBK)	43		8.257					9
72 Toluene	91	8.411	8.411	0.0	97	116241	3.44	
73 trans-1,3-Dichloropropene	75		8.600					9
77 Tetrachloroethene	164	8.885	8.884	0.001	62	1030	0.1441	
76 1,3-Dichloropropane	76		8.908					
78 2-Hexanone	43		8.979					9
79 Chlorodibromomethane	129		9.109					
123 Ethylene Dibromide	107		9.204					
82 Chlorobenzene	112		9.618					9
83 1,1,1,2-Tetrachloroethane	131		9.689					
84 Ethylbenzene	106		9.713					9
10 m-Xylene & p-Xylene	106	9.819	9.807	0.012	50	1620	0.1189	
85 o-Xylene	106		10.151					
86 Styrene	104		10.162					9
87 Bromoform	173		10.328					
88 Isopropylbenzene	105	10.458	10.458	0.0	74	5238	0.1356	
90 1,1,2,2-Tetrachloroethane	83		10.707					9
91 Bromobenzene	156		10.719					
92 1,2,3-Trichloropropane	110		10.742					9
94 N-Propylbenzene	120		10.801					9
95 2-Chlorotoluene	126		10.884					9
104 4-Chlorotoluene	126		10.967					9
97 tert-Butylbenzene	119		11.227					9
98 1,2,4-Trimethylbenzene	105		11.263					9
99 sec-Butylbenzene	105		11.417					9
100 1,3-Dichlorobenzene	146		11.511					
101 4-Isopropyltoluene	119		11.535					
102 1,4-Dichlorobenzene	146		11.582					
103 1,2,3-Trimethylbenzene	105		11.630					
105 n-Butylbenzene	91		11.878					
106 1,2-Dichlorobenzene	146		11.902					9
107 1,2-Dibromo-3-Chloropropane	157		12.553					
109 1,2,4-Trichlorobenzene	180		13.239					9
110 Hexachlorobutadiene	225		13.369					
111 Naphthalene	128	13.428	13.440	-0.012	61	6201	0.3080	
112 1,2,3-Trichlorobenzene	180		13.629					9
S 114 Xylenes, Total	106				0		0.1189	

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCVIS 240-58198/3 Calibration Date: 09/18/2012 13:05

Instrument ID: A3UX14 Calib Start Date: 09/12/2012 17:06

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 09/12/2012 19:59

Lab File ID: 147975.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.0782	0.0811		104	100	3.7	50.0
cis-1,3-Dichloropropene	Ave	0.3104	0.2933		47.2	50.0	-5.5	50.0
4-Methyl-2-pentanone	Ave	0.3449	0.3375		97.9	100	-2.1	50.0
Toluene	Ave	1.711	1.859		54.3	50.0	8.6	20.0
trans-1,3-Dichloropropene	Ave	0.3808	0.3787		49.7	50.0	-0.5	50.0
Ethyl methacrylate	Ave	0.2574	0.2475		48.1	50.0	-3.8	50.0
1,1,2-Trichloroethane	Ave	0.2438	0.2331		47.8	50.0	-4.4	50.0
Tetrachloroethene	Ave	0.3623	0.3984		55.0	50.0	10.0	50.0
1,3-Dichloropropane	Ave	0.4425	0.4329		48.9	50.0	-2.2	50.0
2-Hexanone	Ave	0.1930	0.1739		90.1	100	-9.9	50.0
Dibromochloromethane	Lin1		0.2649		44.5	50.0	-11.0	50.0
1,2-Dibromoethane	Ave	0.2441	0.2391		49.0	50.0	-2.1	50.0
Chlorobenzene	Ave	1.104	1.053	0.3000	47.7	50.0	-4.6	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3759	0.4429		58.9	50.0	17.8	50.0
Ethylbenzene	Ave	0.5648	0.5926		52.5	50.0	4.9	20.0
m-Xylene & p-Xylene	Ave	0.6909	0.7406		107	100	7.2	50.0
o-Xylene	Ave	0.7126	0.7692		54.0	50.0	7.9	50.0
Styrene	Ave	1.001	1.104		55.1	50.0	10.3	50.0
Bromoform	Lin1		0.1338	0.1000	46.8	50.0	-6.4	50.0
Isopropylbenzene	Ave	1.958	2.319		59.2	50.0	18.5	50.0
1,1,2,2-Tetrachloroethane	Ave	0.5249	0.5416	0.3000	51.6	50.0	3.2	50.0
Bromobenzene	Ave	0.7698	0.8357		54.3	50.0	8.6	50.0
1,2,3-Trichloropropane	Ave	0.1760	0.1764		50.1	50.0	0.2	50.0
trans-1,4-Dichloro-2-butene	Ave	0.2075	0.2224		53.6	50.0	7.2	50.0
n-Propylbenzene	Ave	0.9017	0.9934		55.1	50.0	10.2	50.0
2-Chlorotoluene	Ave	0.8252	0.8718		52.8	50.0	5.6	50.0
1,3,5-Trimethylbenzene	Ave	3.041	3.653		60.1	50.0	20.1	50.0
4-Chlorotoluene	Ave	0.8101	0.8529		52.6	50.0	5.3	50.0
tert-Butylbenzene	Ave	2.798	3.241		57.9	50.0	15.8	50.0
1,2,4-Trimethylbenzene	Ave	2.943	3.559		60.5	50.0	20.9	50.0
sec-Butylbenzene	Ave	3.884	4.696		60.5	50.0	20.9	50.0
1,3-Dichlorobenzene	Ave	1.677	1.704		50.8	50.0	1.6	50.0
p-Isopropyltoluene	Ave	3.229	3.902		60.4	50.0	20.8	50.0
1,4-Dichlorobenzene	Ave	1.694	1.693		49.9	50.0	-0.1	50.0
n-Butylbenzene	Ave	2.811	3.553		63.2	50.0	26.4	50.0
1,2-Dichlorobenzene	Ave	1.583	1.547		48.9	50.0	-2.3	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.0819	0.0702		42.8	50.0	-14.3	50.0
1,3,5-Trichlorobenzene	Ave	1.197	1.272		53.1	50.0	6.2	50.0
1,2,4-Trichlorobenzene	Ave	0.9320	1.014		54.4	50.0	8.8	50.0
Hexachlorobutadiene	Ave	0.5785	0.6381		55.2	50.0	10.3	50.0
Naphthalene	Ave	1.894	1.609		42.5	50.0	-15.1	50.0

FORM VII 8260B

PAH CALCULATION	SAMPLE		
	GSP-MW-9-0-2		
TARGET ANALYTE	benzo(a)anthracene		
ANALYTE RESPONSE	1153939		
INTERNAL STANDARD	chrysene-d12		
I.S. RESPONSE	709990		
I.S. CONCENTRATION	4	ug/ml	
ANALYTE CAL. RF	1.113		
DILUTION FACTOR (DF)	1		
WEIGHT SAMPLE	29.61	grams	
% MOISTURE	2.3		
SOLIDS (percent /100)	0.977		
FINAL VOLUME	2000	µL	
INJECTION VOLUME	1	µL	
CORRECTION FACTOR CF1	1000		
	on column		
	7.235787022		
(ANALYTE RESPONSE) X (I.S. CONCENTRATION) X DF X FINAL VOL.X CF1	=	403.8243	ug/kg
(I.S. RESPONSE) X (CAL. R.F.) X WEIGHT (gms) X SOLIDS x INJ. VOL.		0.4038	mg/kg

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-15155-1
SDG No.:
Client Sample ID: GSP-MW-9-0-2 | Lab Sample ID: 240-15155-1
Matrix: Solid | Lab File ID: 0919008.D
Analysis Method: 8270D | Date Collected: 09/12/2012 18:10
Extract. Method: 3540C | Date Extracted: 09/17/2012 12:48
Sample wt/vol: 29.61(g) | Date Analyzed: 09/19/2012 10:06
Con. Extract Vol.: 2(mL) | Dilution Factor: 1
Injection Volume: 1(uL) | Level: (low/med) Low
% Moisture: 2.3 | GPC Cleanup:(Y/N) N
Analysis Batch No.: 58277 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	52	U	52	28
123-91-1	1,4-Dioxane	100	U	100	23
88-06-2	2,4,6-Trichlorophenol	160	U	160	83
95-95-4	2,4,5-Trichlorophenol	160	U	160	26
120-83-2	2,4-Dichlorophenol	160	U	160	21
105-67-9	2,4-Dimethylphenol	160	U	160	21
51-28-5	2,4-Dinitrophenol	340	U	340	83
121-14-2	2,4-Dinitrotoluene	210	U	210	28
91-58-7	2-Chloronaphthalene	52	U	52	3.4
95-57-8	2-Chlorophenol	52	U	52	28
91-57-6	2-Methylnaphthalene	4.3	J	6.9	3.4
95-48-7	2-Methylphenol	210	U	210	83
88-74-4	2-Nitroaniline	210	U	210	9.4
88-75-5	2-Nitrophenol	52	U	52	28
15831-10-4	3 & 4 Methylphenol	410	U	410	21
91-94-1	3,3'-Dichlorobenzidine	100	U	100	19
99-09-2	3-Nitroaniline	210	U	210	17
534-52-1	4,6-Dinitro-2-methylphenol	160	U	160	83
101-55-3	4-Bromophenyl phenyl ether	52	U	52	13
59-50-7	4-Chloro-3-methylphenol	160	U	160	22
106-47-8	4-Chloroaniline	160	U	160	18
7005-72-3	4-Chlorophenyl phenyl ether	52	U	52	13
100-01-6	4-Nitroaniline	210	U	210	27
83-32-9	Acenaphthene	22		6.9	3.4
208-96-8	Acenaphthylene	7.6		6.9	3.4
98-86-2	Acetophenone	100	U	100	9.5
120-12-7	Anthracene	77		6.9	3.4
1912-24-9	Atrazine	210	U	210	9.4
100-52-7	Benzaldehyde	100	U	100	12
56-55-3	Benzo[a]anthracene	400		6.9	3.4
50-32-8	Benzo[a]pyrene	460		6.9	3.4
205-99-2	Benzo[b]fluoranthene	740		6.9	3.4
191-24-2	Benzo[g,h,i]perylene	310		6.9	3.4
207-08-9	Benzo[k]fluoranthene	290		6.9	3.4

TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A4AG2\20120919-13344.b\0919008.D		
Lims ID:	240-15155-F-1-A	Client ID:	GSP-MW-9-0-2
Inject. Date:	19-Sep-2012 10:06:30	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0013344-008		
Misc. Info.:	240-15155-f-1-a =240-15155-F-1-A		
Operator:		Instrument ID:	A4AG2
Injection Vol:	1.0 ul	ALS Bottle#:	8
Lims Batch ID:	58277	Lims Sample ID:	8
Detector:	MS SCAN		

Method:	\\Ncchrom\ChromData\A4AG2\20120919-13344.b\8270 ag2.m		
Last Update:	20-Sep-2012 07:20:17	Calib Date:	10-Sep-2012 16:30:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A4AG2\20120910-13068.b\0910010.D		
Limit Group:	MSS 8270D ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	5% phenyl	Column Dia:	0.18 mm
Process Host:	XAWRK024		

First Level Reviewer: hulat Date: 19-Sep-2012 14:03:20

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.171	6.187	-0.016	96	213565	4.00	
* 2 Naphthalene-d8	136	7.262	7.289	-0.027	99	861520	4.00	
* 3 Acenaphthene-d10	164	8.749	8.808	-0.059	93	495122	4.00	
* 4 Phenanthrene-d10	188	10.017	10.049	-0.032	98	777005	4.00	
* 5 Chrysene-d12	240	12.600	12.611	-0.011	95	709990	4.00	
* 6 Perylene-d12	264	14.702	14.702	0.0	94	590010	4.00	
$ 7 2-Fluorophenol	112	4.984	4.968	0.016	93	638149	9.48	
$ 8 Phenol-d5	99	5.824	5.824	0.0	99	836648	9.68	
$ 9 Nitrobenzene-d5	82	6.642	6.658	-0.016	90	434725	5.71	
$ 10 2-Fluorobiphenyl (Surr)	172	8.161	8.230	-0.069	100	931347	5.92	
$ 11 2,4,6-Tribromophenol	330	9.418	9.461	-0.043	88	134750	8.89	
$ 12 Terphenyl-d14	244	11.386	11.402	-0.016	98	1042628	7.89	
26 1,4-Dioxane	88		2.844					
27 N-Nitrosodimethylamine	74		3.374					
42 Benzaldehyde	77		5.791					
43 Phenol	94		5.840					9
45 Bis(2-chloroethyl)ether	93		5.936					9
47 2-Chlorophenol	128		5.995					
52 2-Methylphenol	108		6.380					9
54 2,2'-oxybis[1-chloropropane]	45		6.412					
55 3 & 4 Methylphenol	108		6.503					
57 N-Nitrosodi-n-propylamine	70		6.519					9
58 Acetophenone	105		6.524					
61 Hexachloroethane	117		6.631					
62 Nitrobenzene	77		6.679					9
64 Isophorone	82		6.872					
65 2-Nitrophenol	139		6.947					
66 2,4-Dimethylphenol	107		6.957					
69 Bis(2-chloroethoxy)methane	93		7.048					
72 2,4-Dichlorophenol	162		7.150					

Report Date: 20-Sep-2012 07:20:18 Chrom Revision: 2.0 21-Aug-2012 09:09:58
Data File: \\Ncchrom\ChromData\A4AG2\20120919-13344.b\0919008.D

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ng/ul	Flags
74 Naphthalene	128	7.278	7.310	-0.032	68	27208	0.1216	
75 4-Chloroaniline	127		7.343					9
78 Hexachlorobutadiene	225		7.407					
83 Caprolactam	113		7.637					9
85 4-Chloro-3-methylphenol	107		7.749					9
86 2-Methylnaphthalene	142	7.861	7.920	-0.059	62	8842	0.0615	
89 Hexachlorocyclopentadiene	237		8.054					
93 2,4,6-Trichlorophenol	196		8.156					
94 2,4,5-Trichlorophenol	196		8.188					
99 1,1'-Biphenyl	154		8.316					
100 2-Chloronaphthalene	162		8.343					
101 2-Nitroaniline	65		8.418					9
104 Dimethyl phthalate	163	8.487	8.551	-0.064	98	412856	2.78	
106 2,6-Dinitrotoluene	165		8.610					9
108 Acenaphthylene	152	8.637	8.696	-0.059	87	24882	0.1102	
109 3-Nitroaniline	138		8.755					9
111 Acenaphthene	153	8.781	8.835	-0.054	90	43189	0.3137	
110 2,4-Dinitrophenol	184		8.840					
112 4-Nitrophenol	109		8.867					
113 2,4-Dinitrotoluene	165		8.947					9
115 Dibenzofuran	168	8.926	8.979	-0.053	86	26750	0.1412	
120 Diethyl phthalate	149		9.134					9
122 4-Chlorophenyl phenyl ether	204		9.252					
124 Fluorene	166	9.215	9.263	-0.048	90	48842	0.3099	
125 4-Nitroaniline	138		9.263					9
127 4,6-Dinitro-2-methylphenol	198		9.284					
128 N-Nitrosodiphenylamine	169		9.343					
138 4-Bromophenyl phenyl ether	248		9.658					
140 Hexachlorobenzene	284		9.723					
141 Atrazine	200		9.765					
143 Pentachlorophenol	266		9.878					9
148 Phenanthrene	178	10.038	10.070	-0.032	97	960697	4.38	
149 Anthracene	178	10.081	10.113	-0.032	98	241641	1.11	
150 Carbazole	167	10.204	10.236	-0.032	78	141444	0.6497	
154 Di-n-butyl phthalate	149	10.466	10.488	-0.022	68	59743	0.2228	
159 Fluoranthene	202	11.060	11.076	-0.016	98	2449426	11.6	
161 Pyrene	202	11.274	11.284	-0.010	94	2401722	10.7	
169 Butyl benzyl phthalate	149		11.878					
177 3,3'-Dichlorobenzidine	252		12.541					9
174 Bis(2-ethylhexyl) phthalate	149	12.547	12.557	-0.010	91	52708	0.3296	
178 Benzo[a]anthracene	228	12.584	12.595	-0.011	98	1153939	5.84	
179 Chrysene	228	12.632	12.643	-0.011	95	1265520	6.78	
181 Di-n-octyl phthalate	149		13.472					
183 Benzo[b]fluoranthene	252	14.114	14.114	0.0	93	2006282	10.7	
184 Benzo[k]fluoranthene	252	14.151	14.157	-0.006	1	830024	4.18	M
185 Benzo[a]pyrene	252	14.611	14.617	-0.006	82	1259766	6.70	
190 Indeno[1,2,3-cd]pyrene	276	16.376	16.382	-0.006	95	777109	3.91	
189 Dibenz(a,h)anthracene	278		16.408					
191 Benzo[g,h,i]perylene	276	16.836	16.842	-0.006	83	708428	4.43	

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-15155-1

SDG No.:

Lab Sample ID: CCV 240-58277/2 Calibration Date: 09/19/2012 07:46

Instrument ID: A4AG2 Calib Start Date: 09/10/2012 13:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 09/10/2012 16:30

Lab File ID: 0919002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Bis(2-ethylhexyl) phthalate	Ave	0.9009	0.9249	0.0100	10.3	10.0	2.7	20.0
Benzo[a]anthracene	Ave	1.113	1.108	0.8000	9.96	10.0	-0.4	20.0
Chrysene	Ave	1.052	1.035	0.7000	9.83	10.0	-1.7	20.0
Di-n-octyl phthalate	Qua		1.772	0.0100	9.38	10.0	-6.2	20.0
Benzo[b]fluoranthene	Ave	1.273	1.303	0.7000	10.2	10.0	2.3	20.0
Benzo[k]fluoranthene	Ave	1.346	1.418	0.7000	10.5	10.0	5.3	20.0
Benzo[a]pyrene	Qua		1.268	0.7000	9.79	10.0	-2.1	20.0
Indeno[1,2,3-cd]pyrene	Qua		1.352	0.5000	9.67	10.0	-3.3	20.0
Dibenzo(a,h)anthracene	Ave	1.043	1.116	0.4000	10.7	10.0	7.0	20.0
Benzo[g,h,i]perylene	Ave	1.083	1.168	0.5000	10.8	10.0	7.8	20.0
2-Fluorophenol (Surr)	Ave	1.260	1.289		10.2	10.0	2.3	20.0
Phenol-d5 (Surr)	Ave	1.618	1.662		10.3	10.0	2.7	20.0
Nitrobenzene-d5 (Surr)	Ave	0.3536	0.3610		10.2	10.0	2.1	20.0
2-Fluorobiphenyl (Surr)	Ave	1.271	1.242		9.78	10.0	-2.2	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1225	0.1309		10.7	10.0	6.8	20.0
Terphenyl-d14 (Surr)	Ave	0.7450	0.7559		10.1	10.0	1.5	20.0

TPH CALCULATION SOILS

	SAMPLE		
	GSP-MW-11-2-4		
TARGET ANALYTE	TPH		
ANALYTE RESPONSE	6260808		
TPH RESPONSE	136020		
DILUTION FACTOR (DF)	1		
WEIGHT SAMPLE	5	grams	
% MOISTURE	9.6		
SOLIDS (percent /100)	0.904		
FINAL VOLUME	5	ml	

$$\frac{\text{(ANALYTE RESPONSE) X DF X FINAL VOL.}}{\text{(RESPONSE) X (CAL. R.F.) X WEIGHT (gms) X SOLIDS}} = 50.9166 \text{ mg/kg}$$

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-15155-1
SDG No.:
Client Sample ID: GSP-MW-11-2-4
Lab Sample ID: 240-15155-7
Matrix: Solid
Lab File ID: YF092015.D
Analysis Method: 8015C
Date Collected: 09/13/2012 15:45
Sample wt/vol: 5(g)
Date Analyzed: 09/20/2012 20:19
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture: 9.6
Level: (low/med) Low
Analysis Batch No.: 58467
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	51	J	110	51

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	61		10-150

Report Date: 21-Sep-2012 09:32:09 Chrom Revision: 2.0 21-Aug-2012 09:09:58

TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\YPID\20120920-13385.b\YF092015.D		
Lims ID:	240-15155-B-7	Client ID:	GSP-MW-11-2-4
Inject. Date:	20-Sep-2012 20:19:22	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0013385-015		
Misc. Info.:			
Operator:	1765	Instrument ID:	YPID
Purge Vol:	5.000 mL	ALS Bottle#:	1
Lims Batch ID:	58467	Lims Sample ID:	15
Detector 1 :	GC ELC2B		
Detector 2 :	GC FID1A		
Method:	\\Ncchrom\ChromData\YPID\20120920-13385.b\Y80158021.m		
Last Update:	21-Sep-2012 09:31:52	Calib Date:	27-Aug-2012 15:06:37
Quant Method:	Internal/External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\YPID\20120827-12713.b\YF082710.D		
Limit Group:	GCV 8015C GRO ICAL		
Integrator:	Falcon		
Column Type:		Column Dia:	
Process Host:	XAWRK012		

Compound	Det	RT	ADJ RT	DLT RT	Response	On-Col Amt ug/l	Flags
S 17 Xylenes, Total	1		0.000				7
6 2-Methylpentane	2		5.073				1
12 Methyl tert-butyl ether	2		5.156				1
3 Benzene	1		7.999				1
* 15 Fluorobenzene	1	0.000	8.418	-8.418	0	0	
$ 16 Trifluorotoluene (Surr)	2	9.731	9.736	-0.005	936908	6.10	
$ 18 a,a,a-Trifluorotoluene (pid)	1		9.772				1
A 5 C6-C10	2	11.775	4.829 -	18.737	6260808	46.0	
8 Toluene	1		11.964				1
A 1 C6-C12	2	13.461	4.929 -	21.994	10991847	31.5	
A 11 GRO	2	13.581	4.888 -	22.274	14532491	0	
13 Ethylbenzene	1		15.042				1
2 m-Xylene & p-Xylene	1		15.410				1
4 o-Xylene	1		16.061				1
10 1,3,5-Trimethylbenzene	1		17.985				1
7 1,2,4-Trimethylbenzene	1	0.000	18.579	-18.579	0	0	
14 Dodecane	2	21.738	21.747	-0.009	18372	0	
9 Naphthalene	2	22.065	22.066	-0.001	372403	0	

QC Flag Legend

Processing Flags
1 - Missing Peaks
7 - Failed Limit of Detection

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 54512

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/15/2012 18:36 Calibration End Date: 08/15/2012 22:00 Calibration ID: 10676

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-54512/6	YF081506.D
Level 2	STD2 240-54512/7	YF081507.D
Level 3	STD3 240-54512/8	YF081508.D
Level 4	STD4 240-54512/9	YF081509.D
Level 5	STD5 240-54512/10	YF081510.D
Level 6	STD6 240-54512/11	YF081511.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Total Petroleum Hydrocarbons (C6-C10)	183542 118119	135498 128955	126511	123496	Ave		136019.970				18.0		20.0			
C6-C12	255673 133903	170408 145976	149081	141314	Lin	6701438.48	136365.157							0.9940		0.9900
Trifluorotoluene (Surr)	136571 165376	137906 183597	145025	153818	Ave		153715.733				12.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

TPH CALCULATION SOILS

	SAMPLE		
	GSP-MW-9-0-2		
TARGET ANALYTE	TPH		
ANALYTE RESPONSE	54017968		
TPH RESPONSE	181173		
DILUTION FACTOR (DF)	1		
WEIGHT SAMPLE	30.35	grams	
% MOISTURE	2.3		
SOLIDS (percent /100)	0.977		
FINAL VOLUME	5	ml	

$$\frac{\text{(ANALYTE RESPONSE) X DF X FINAL VOL.}}{\text{(RESPONSE) X (CAL. R.F.) X WEIGHT (gms) X SOLIDS}} = 50.2761 \text{ mg/kg}$$

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-15155-1
SDG No.:
Client Sample ID: GSP-MW-9-0-2
Lab Sample ID: 240-15155-1
Matrix: Solid
Lab File ID: P6F92410.D
Analysis Method: 8015C
Date Collected: 09/12/2012 18:10
Extraction Method: 3540C
Date Extracted: 09/18/2012 10:37
Sample wt/vol: 30.35(g)
Date Analyzed: 09/24/2012 17:33
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: RTX-5 ID: 0.53(mm)
% Moisture: 2.3
GPC Cleanup:(Y/N) N
Analysis Batch No.: 58808
Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	50	B	17	9.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	47		10-110

TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A2HP6F\20120924-13483.b\P6F92410.D		
Lims ID:	240-15155-F-1-B	Client ID:	GSP-MW-9-0-2
Inject. Date:	24-Sep-2012 17:33:21	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0013483-010		
Misc. Info.:			
Operator:	4275	Instrument ID:	A2HP6F
Injection Vol:	1.0 ul	ALS Bottle#:	10
Lims Batch ID:	58808	Lims Sample ID:	10
Detector:	GC FID1A		
Method:	\\Ncchrom\ChromData\A2HP6F\20120924-13483.b\TPH6F.m		
Last Update:	25-Sep-2012 09:21:24	Calib Date:	30-Jul-2012 18:36:48
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A2HP6F\20120730-11928.b\P6F73014.D		
Limit Group:	GC 8015C TPH ICAL		
Integrator:	Falcon		
Column Type:		Column Dia:	
Process Host:	XAWRK010		

RT	EXP RT	DLT RT	Response	On-Col Amt ng/ul	Flags
$ 8 n-Nonane					
4.155	4.158	-0.003	8847396	47.4	
A 15 Diesel					
9.385	5.170 - 13.600		28386848	156.7	
A 17 C10-C32					
9.968	5.170 - 14.767		54017968	298.2	

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-15155-1 Analy Batch No.: 52483

SDG No.:

Instrument ID: A2HP6F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/30/2012 13:26 Calibration End Date: 07/30/2012 15:30 Calibration ID: 10355

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-52483/4	P6F73004.D
Level 2	STD2 240-52483/5	P6F73005.D
Level 3	STD3 240-52483/6	P6F73006.D
Level 4	STD4 240-52483/7	P6F73007.D
Level 5	STD5 240-52483/8	P6F73008.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	198017 164866	195063	182983	164938	Ave		181173.338				8.8		20.0			
n-Nonane	178972 183715	194879	194900	180011	Ave		186495.525				4.2		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

APPENDIX I—INVESTIGATION-DERIVED WASTE DOCUMENTATION

Trailer #52634

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) D44639225 SC PPW 3/3/2011 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: MDR000518760
2. Page 1 of 1
3. Emergency Response Phone: (800) 483-3718
4. Manifest Tracking Number: 005563735 FLE

5. Generator's Name and Mailing Address
Lockheed Martin
195 Chesapeake Park Plaza
Baltimore, MD 21220
Generator's Phone: (610) 656-4012 ATTN Mike Musheno

Generator's Site Address (if different than mailing address)
701 Wilson Point Road
Baltimore, MD 21220

6. Transporter 1 Company Name: Clean Harbors Environmental Services Inc
U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name: Bobbie Dalwood, Inc
U.S. EPA ID Number: ALD 067138891

8. Designated Facility Name and Site Address
Clean Harbors Chattanooga LLC
3300 Cummings Road
Chattanooga, TN 37419
Facility's Phone: (423) 821-6926
U.S. EPA ID Number: TND982141392 DONALD G. MOLCSAN

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. NON D.O.T. REGULATED. (SOIL)	~~007~~ 035	DM	~~8540~~ 24500	P	NONE
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1. CH582930 ~~(47x55)~~ (35x55)

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Michael Musheno
Signature: Michael Musheno
Month 10 Day 12 Year 12

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Gregory Ansonne
Signature:
Month 10 Day 12 Year 12
Transporter 2 Printed/Typed Name: DONALD G. MOLCSAN
Signature:
Month 10 Day 16 Year 12

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H141 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Doug Kelly
Signature:
Month 10 Day 26 Year 12

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping

Trailer #5263649T

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) D44639225 SC PPW 3/3/2011 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
MDR000518760	1	(800) 483-3718	005563736 FLE

5. Generator's Name and Mailing Address
Lockheed Martin
195 Chesapeake Park Plaza
Baltimore, MD 21220
Generator's Phone: (610) 656-4012 ATTN: Mike Musheno

Generator's Site Address (if different than mailing address)
701 Wilson Point Road
Baltimore, MD 21220

6. Transporter 1 Company Name: Clean Harbors Environmental Services Inc — U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name: Robbin D. Wood Inc. — U.S. EPA ID Number: ACD067138891

8. Designated Facility Name and Site Address
Clean Harbors Env Services Inc
2900 Rockefeller Avenue
Cleveland, OH 44115
Facility's Phone: (216) 429-2402
U.S. EPA ID Number: OHD000724153

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. NON D.O.T. REGULATED (NON-HAZ WATER)	~~013~~ 047	DM	~~00500~~ 2500	P P	NONE		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. CH582926 ~~(13X55)~~ (47X55) ~~D44663683~~ Aej

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Michael Musheno — Signature: [signature] — Month 10 Day 12 Year 12

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Gregory Andrews — Signature: [signature] — Month 10 Day 12 Year 12
Transporter 2 Printed/Typed Name: Anthony T. Kus — Signature: — Month 10 Day 15 Year 12

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☒ Full Rejection
All waste has been returned to OH TSDF.
Manifest Reference Number:

18b. Alternate Facility (or Generator) Spring Grove Resource Recovery 1440 Spring Grove Ave. Cincinnati, OH 45232 — U.S. EPA ID Number: OHD065116629
Facility's Phone: 513 681 6842

18c. Signature of Alternate Facility (or Generator) — Month 10 Day 18 Year 12

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. ~~H077~~ H082 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Nicole [illegible] — Signature: [signature] — Month 10 Day 18 Year 12

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

Clean Harbors has the appropriate permits for and will accept the waste the Generator is shipping

APPENDIX J—CALCULATION OF BENZO(A)PYRENE EQUIVALENT CONCENTRATIONS

Appendix J
Calculation of Benzo(a)Pyrene Equivalents Concentrations
Greater Strawberry Point
Martin State Airport
Middle River, Maryland

Polycyclic aromatic hydrocarbons (PAHs) are typically found in the environment as mixtures. These PAHs include benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-c,d)pyrene. The individual PAH vary widely in terms of carcinogenic potency, but have a common toxicity mechanism. Using a toxicity equivalency approach, the total PAH concentrations can be expressed in terms of the toxicity of benzo(a)pyrene, with concentrations expressed as benzo(a)pyrene equivalents (BaPEq).

For sites contaminated with PAHs, BaPEq are calculated as the sum of each individual PAH concentration times its toxicity equivalency factor (TEF). These TEFs are presented in Table J-1. For example, the TEF for benzo(a)anthracene is 0.1; this means that benzo(a)pyrene is 10 times more toxic than benzo(a)anthracene. If the benzo(a)anthracene concentration in a soil sample is 10 µg/kg, this is equivalent to 1 µg/kg of benzo(a)pyrene [10 µg/kg (benzo(a)anthracene) x 0.1 (TEF) = 1 µg/kg (BaPEq)].

Table J 1
Toxicity Equivalency Factors for PAHs

PAH	TEF
Benzo(a)pyrene	1.0
Benzo(a)anthracene	0.1
Benzo(b)fluoranthene	0.1
Benzo(k)fluoranthene	0.01
Chrysene	0.001
Dibenz(a,h)anthracene	1.0
Indeno(1,2,3-c,d)pyrene	0.1

The application of benzo(a)pyrene's TEF to PAH concentrations and the subsequent calculation of BaPEq can provide a more accurate evaluation of environmental risk exposure to PAHs.

- A conservative approach to calculating BaPEq for environmental samples is performed using the product of the respective TEFs for each of the seven (7) PAHs and a representative concentration using ***both*** positive results and ½ of the reported detection limit for non-detected values.

- Alternatively, sample calculations for BaPEq may be performed using ***only*** positive results as the product of the reported analyte concentrations and the respective TEFs for each of the seven reported PAHs. Non-detected results

within a given sample are entirely ignored and only positively reported concentrations are considered for use in summation when this latter calculation method is employed.

The reported concentration of the benzo(a)pyrene detection limit is used as the default representative value of the BaP Equivalent in cases where ***all*** of the 7 PAHs are reported as non-detected results.

Currently, there are only seven PAHs which are included in the calculation of the BaP equivalents. It is expected the US EPA will be adding additional PAHs to the calculation process likely beginning sometime in 2013.