# Maryland Air National Guard Munitions Area Soil Vapor and Indoor Air Investigation Report Martin State Airport Middle River, Maryland

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June 2012

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# ACRONYMS

ASG	Automated Services Group
ASTM	American Society for Testing and Materials
AZP	Airport Zoning Permit
BTEX	benzene, toluene, ethylbenzene, and xylenes
са	carcinogenic
c-1,2-DCE	cis-1,2-dichloroethene
COC	chain of custody
cVOC	chlorinated volatile organic compound
DERP	Defense Environmental Restoration Program
DPT	direct push technology
DRO	diesel range organics
DRA	Dump Road Area
EE/CA	engineering evaluation/cost analysis
EESH	energy, environment, safety, and health
EGIS	environmental geographic information system
EM	electromagnetic
Enviroscan	Enviroscan, Inc.
ERA	ecological risk assessment
FAA	Federal Aviation Administration
FMC	Frog Mortar Creek
GC/MS	gas chromatography/mass spectrometry
GIS	geographic information system
GPR	ground penetrating radar
GPS	global positioning system
HASP	health and safety plan
HERO	hazards of electromagnetic radiation to ordnance
HHRA	human health risk assessment
HVAC	heating, ventilation, and air conditioning
IAQ	indoor air quality
IDW	investigation derived waste
IR	(U.S. Department of Defense) Installation Restoration program
IRIS	Integrated Risk Information System

Lockheed Martin	Lockheed Martin Corporation
MAA	Maryland Aviation Administration
MCL	maximum contaminant level
MDANG	Maryland Air National Guard
MDE	Maryland Department of the Environment
MDL	method detection limit
MDOT	Maryland Department of Transportation
MES	Maryland Environmental Service
MRC	Middle River Complex
MSA	Martin State Airport
msl	mean sea level
PA	preliminary assessment
РАН	polycyclic aromatic hydrocarbon
PCE	tetrachloroethene
PDF	portable document format
PM	project manager
PPE	personal protective equipment
PSI	public sector information
QA/QC	quality assurance/quality control
RCRA	Resource Conservation and Recovery Act
RI	remedial investigation
SDG	sample delivery group
SI	site investigation
SVOC	semivolatile organic compounds
TCE	trichloroethene
Tetra Tech	Tetra Tech, Inc.
TPH	total petroleum hydrocarbons
USACE	United States Army Corps of Engineers
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
UXO	unexploded ordnance
VC	vinyl chloride
VOC	volatile organic compounds

# Section 1 Introduction

On behalf of Lockheed Martin Corporation (Lockheed Martin), Tetra Tech, Inc. (Tetra Tech) has prepared the following report documenting an investigation of soil vapor and indoor air at the Munitions Area of the Maryland Air National Guard (MDANG) installation at Martin State Airport (MSA) in Baltimore County, Maryland. The property is part of Martin State Airport and is currently owned by the Maryland Department of Transportation (MDOT). Maryland Air National Guard occupies a portion of Martin State Airport, including the Munitions Area, leased from the Maryland Aviation Administration (MAA) by the National Guard Bureau. The objectives of this investigation are to:

- perform a soil vapor and indoor air quality (IAQ) monitoring investigation to evaluate possible volatile organic compounds (VOCs) in soil vapor and indoor air at the Munitions Area
- establish a soil vapor monitoring grid that includes north-south transects of sampling locations in the Munitions Area to help assess whether the northern extent of the Dump Road Area (DRA) plume of volatile organic compounds extends beneath the Munitions Area

The investigation objectives were achieved through the following activities:

- obtaining utility clearances from Miss Utility and a private utility locating firm
- obtaining Digging Permit AF IMT 103 for intrusive investigations from the Maryland Air National Guard
- installing 22 temporary soil vapor probes in key areas of the Munitions Area using direct push technology (DPT) to a depth of approximately five feet below grade, adjusted appropriately depending on the depth to groundwater
- collecting 22 soil vapor samples (one sample per temporary vapor sampling point) to characterize volatile organic compounds in the shallow subsurface soil of the Munitions Area
- collecting three indoor air quality samples from inside Maryland Air National Guard facility buildings in the Munitions Area using Summa<sup>®</sup> canisters over an eight hour sampling period, in conformance with United States Environmental Protection Agency (USEPA) Method TO-15

- analysis of soil vapor and indoor air samples by a state-accredited laboratory for volatile organic compounds by United States Environmental Protection Agency Method TO-15
- evaluating environmental sampling data
- reporting results

This report is organized as follows:

<u>Section 2—Site Background</u>: Briefly describes the site history, subsurface conditions, and previous investigations.

<u>Section 3—Investigation Approach and Methodology</u>: Presents the technical approach to the investigation and describes the field methodologies used.

<u>Section 4—Investigation Results</u>: Discusses the results of the field program.

<u>Section 5—Summary and Recommendations</u>: Summarizes the investigation program and findings, and provides recommendations for further investigation.

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

# Section 2 Site Background

This section includes background information for the Maryland Air National Guard (MDANG) site at Martin State Airport (MSA). Much of the information presented herein pertains to Martin State Airport, within which the MDANG facility and the Munitions Area are located.

# 2.1 SITE DESCRIPTION

## 2.1.1 Location

MSA is at 701 Wilson Point Road in Baltimore County, Middle River, Maryland, bounded by Frog Mortar Creek (FMC) to the east and Stansbury Creek to the west (Figure 2-1). Both creeks eventually join Middle River and flow into Chesapeake Bay south of the airport. The MDANG facility is at 2701 Eastern Boulevard, in the northeastern quadrant of MSA. It is part of MSA and is currently owned by the Maryland Department of Transportation (MDOT). The National Guard Bureau leases a portion of MSA, including the Munitions Area, from the MAA.

## 2.1.2 History

MSA was owned and operated by the Glenn L. Martin Company from approximately 1929-1975. Glenn L. Martin Company is the predecessor entity of Martin Marietta Corporation. In 1929, Glenn L. Martin, an aviation designer and builder, purchased 1,260 acres of land approximately 12 miles east of Baltimore for a manufacturing facility for the Glenn L. Martin Aircraft Company. Three runways, Hangars 1, 2, and 3, and the Airport Administration building were built in 1939–1940. Hangars 4, 5, and 6 and the Strawberry Point Hangar were completed in 1940 and 1941. Various aircraft were produced in these facilities. After World War II, commercial transports and jet aircraft were produced at MSA.

In July 1955, the MDANG 104<sup>th</sup> Tactical Fighter Group began leasing property from the Glenn L. Martin Company. On April 1, 1960, the 135<sup>th</sup> Tactical Airlift, previously based in Baltimore, was transferred to MSA, and by October 1962, the 104<sup>th</sup> Tactical Fighter Group had been reorganized and designated the 175<sup>th</sup> Tactical Fighter Group. The Glenn L. Martin Company

consolidated with American Marietta Corporation in September 1961 to form Martin Marietta Corporation. On September 20, 1975, MAA purchased the 747 acres that are now used as the airfield.

# 2.1.3 Current Conditions

MDANG leases a portion of the MSA airfield for its operations. The MDANG facility is comprised of 175 acres in the northeastern portion of MSA. The facility is fenced and has a separate entrance from Eastern Boulevard. The site is currently developed with runways, parking aprons, operations and training buildings, general supply and ammunition storage facilities, fuel storage structures, maintenance shops and sheds, and aircraft hangars. The southern boundary of the leasehold extends to the ponds at the Dump Road Area (DRA); these ponds are in an undeveloped area.

# 2.1.4 Land Use

MSA is generally characterized as a moderately developed tract in a largely suburbanized, moderate density, populated setting. Land use surrounding MSA is, to a significant degree, a combination of mixed suburban, industrial, and commercial lightly to moderately developed tracts and woodland tracts. The northern boundary of MSA is bordered 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 line.

The MSA's eastern, southern, and western boundaries are bordered by FMC and Stansbury Creek, which are wide, brackish, tidal tributaries of the middle Chesapeake Bay. Lockheed Martin Corporation's (Lockheed Martin) Middle River Complex (MRC), currently used to assemble military launch electronics and aircraft parts, lies along MSA's northwestern boundary. Low- to medium-density residential and light commercial land uses (e.g., shopping centers, convenience stores, restaurants, etc.) lie beyond the creeks east, south, and west of MSA. Farther east and west from MSA are the high-density residential communities of Bengies Corner and Hawthorne Park. The town of Middle River is approximately 1.5 miles northwest of MSA.

The MDANG facility is in the northeastern quadrant of MSA. Land use is industrial/commercial. The MDANG facility is comprised of runways, parking aprons, operations and training buildings, general supply and ammunition storage facilities, fuel storage structures, maintenance shops and sheds, and aircraft hangars. The Munitions Area (see Figure 2-2) is on the southern end of the MDANG leasehold. The Munitions Area comprises approximately five acres of mostly open land bordering FMC. The area is east of Lynbrook Road and north of the DRA. The Munitions Area has three buildings, all founded on concrete slabs at grade. Along the south side of the Munitions Area is a bunker that is also a slab at grade, but it is covered by an earthen mound. A drainage feature associated with the wetland area on the west side of the Munitions Area runs east to FMC, bisecting the Munitions Area. The three buildings are north of this drainage feature; the bunker is south of it.

## 2.1.5 Climate

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

### 2.1.6 Physiography

The site is on the western side of the Coastal Plain physiographic province. The Coastal Plain consists of sediments composed of alluvium from the Pleistocene Epoch and material from 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. Its name refers to an imaginary line connecting waterfalls or changes in stream flow between the hard-rock upland areas of the Piedmont and the soft-sediment lowland areas of the Coastal Plain. The Coastal Plain is generally characterized by low topographic relief. However, steep embankments and hills are found along stream channels, rivers, and Chesapeake Bay.

## 2.1.7 Topography

Most of MSA's land surface is generally flat to gently sloping in the areas of the runway, taxiways, and surrounding support operations. A steeply sloped embankment along the FMC shoreline separates the facility from the creek; the bank is comprised of fill placed there as part

of airport construction. The airport's runway forms a northwest-southeast trending topographic ridge (i.e., drainage divide) that gently slopes from the northwest end to the southeast end of the airport. Runway elevations range from slightly more than 20 feet above mean sea level (msl) at the northern end of the runway to slightly more than 10 feet above msl at the southern end of the runway. The land slopes away from the runway toward FMC to the northeast and Stansbury Creek to the southwest.

In general, MDANG site topography is relatively flat, sloping gently toward FMC. Land elevations are approximately 20 feet above msl at a mounded area near the embankment bordering FMC. The elevation at the top of the embankment ranges from approximately 10 feet above msl at the northern portion of the DRA to approximately 20 feet above msl in the southern portion. Land surface elevation at the FMC shoreline is at mean sea level.

# 2.1.8 Surface Water Hydrology

The eastern, southern, and western boundaries of MSA are bordered by FMC and Stansbury Creek, which are wide, brackish water, 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 of the site, or via storm sewers that drain the airport runway, taxiways, and developed portions of the facility. MSA encompasses 47 drainage areas in three watersheds, forming a total drainage area of 700 acres (MAA, 2009). The airport drainage areas range in size from seven acres to more than 170 acres.

In the MDANG facility and Munitions Area, four drainage areas drain the runway, taxiways, and wooded areas, discharging to FMC on the eastern side of the facility. One drains the taxiways, runway, and hangars discharging to Stansbury Creek on the western side of the airport. The remaining drainage areas include two small ponds (Ponds #1 and #2) and wetlands (both in the DRA) and a storm water management pond near the Fire Pump House (in the western portion of MSA). These ponds and the DRA wetland are contained within each drainage area and do not discharge to FMC. The storm water pond near the Fire Pump House discharges to the upper reaches of the Stansbury Creek tidal area.

## 2.1.9 Geology and Hydrogeology

MSA is on the western side of the Coastal Plain physiographic province. Regional and local studies (Vroblesky and Fleck, 1991; Chapelle, 1985) indicate that MSA lies on the Patapsco

Formation. This formation consists of complex and interbedded mixtures of gray, brown, and red sands, silts, and clays originating from sediment deposition in a low coastal plain traversed by low-gradient meandering streams.

Below the Patapsco Formation lies a regionally extensive, thick, clay confining-unit known as the Arundel Formation. It is a massive and probably impermeable unit underlying the site and surrounding area. The Arundel Formation 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.

Regional lithologic information indicates that the Arundel Formation may be as thick as 150 feet at MSA (Vroblesky and Fleck, 1991; Chapelle, 1985). The formation probably acts as an impermeable barrier to the downward movement of any constituents found in the surficial aquifer. The base of the Arundel Formation (i.e., the top surface of the deeper Patuxent Formation) is approximately 225 feet below msl near MSA (Vroblesky and Fleck, 1991; Chapelle, 1985). Therefore, the depth to the base of the Arundel Formation may range from 235-255 feet below grade at MSA.

Below the Arundel Formation is the Patuxent Formation. It is a multi-aquifer unit comprised of various interbedded sand and silt/clay layers with rapid changes of 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, potentiometric maps of the Patuxent Formation indicate that groundwater flows to the south and southwest in response to industrial wells withdrawing water southwest and west of the site (Chapelle, 1985 and Curtin, 2006).

# 2.2 MARYLAND AIR NATIONAL GUARD AND MARTIN STATE AIRPORT PREVIOUS INVESTIGATIONS

As shown in Table 2-1, several investigations have been performed at MSA. A brief summary of these investigations follows. In 1988, Automated Services Group, Inc. (ASG) conducted a preliminary assessment (PA) of MDANG facilities for the Maryland Department of the Environment (MDE) (ASG, 1988). The PA identified several areas of concern, including locations near pits reportedly used by the Glenn L. Martin Aircraft Company in the 1930s and 1950s for materials disposal. These areas are subject to regulation under the federal Resource Conservation and Recovery Act (RCRA).

Previous investigations at the MDANG facility were conducted under the U.S. Department of Defense Defense Environmental Restoration Program (DERP) and Installation Restoration (IR) program. Sixteen DERP sites were identified as warranting further investigation. Several investigations were subsequently performed, and all DERP sites at the MDANG facility have since received "No Further Action Concurrence" from MDE.

In July 1991, drums containing dried zinc-chromate paint were uncovered during installation of underground electric cables adjacent to Taxiway Tango (Figure 2-3); MAA removed these drums. MDE ordered additional studies when the drums were discovered. In October 1991, MAA contracted with Handex Environmental Management to survey the site. Large geophysical anomalies were detected northeast of the drum removal area and an additional anomalous area was identified in the northwestern corner of the study area (Handex, 1992).

Upon review of the Handex report, MDE asked MAA to further investigate and remediate the drum site. In response, MAA conducted a records and public sector information [PSI] search and, subsequently, a field investigation during which soil, soil vapor, and groundwater samples were collected. Methyl ethyl ketone and chlorinated volatile organic compounds (cVOCs) (such as tetrachloroethene [PCE], trichloroethene [TCE] and vinyl chloride [VC]) were detected in soil samples. Several volatile organic compounds (VOCs) were detected in groundwater at concentrations exceeding United States Environmental Protection Agency's (USEPA) maximum contaminant levels (MCLs) for safe drinking water by more than a factor of 1,000 (Maryland Environmental Service [MES], 1994).

MAA conducted a subsequent confirmation investigation to further delineate the extent of contamination at the drum site. Soil and groundwater samples were collected during the field program. The investigation indicated that higher concentrations of contaminants in soil correlated with identified geophysical anomalies. In groundwater samples, elevated concentrations of total petroleum hydrocarbons (TPH), VOCs, and semivolatile organic compounds (SVOCs) were detected, and concentrations of several metals (chromium, lead, and nickel) exceeded their respective MCLs at many sampling locations (MES, 1994).

MAA conducted an expanded investigation of soil and groundwater in 1996 to evaluate potential human health risks. Soil, groundwater, and sediment samples from the ponds were collected. TPH-diesel range organics (DRO) were detected at elevated levels in soils, and TCE was detected at elevated levels in both soil and groundwater samples. The TCE concentration at one well was four orders of magnitude greater than the MCL.

In late 1997, MAA conducted an investigation to evaluate possible impacts of surface water and bottom sediments in FMC. Several metals exceeded comparison criteria in surface water samples, and copper and several SVOCs (primarily polycyclic aromatic hydrocarbons [PAHs]) were detected at high concentrations in sediment samples (Apex Environmental, 1998). However, MES determined that the SVOC concentrations in sediment were comparable to levels found in other sediment samples collected in the Chesapeake Bay, and that they posed no public health or environmental concerns with respect to surface water or bottom sediment quality.

Groundwater samples were collected in March 1999 to obtain updated chemical data on groundwater quality and elevations and flow direction at the southeast portion of MSA. Groundwater samples confirmed the presence of TCE, cis-1,2-dichloroethene (c-1,2-DCE), and VC at concentrations exceeding both MDE groundwater standards and USEPA MCLs. Groundwater level measurements confirm that shallow groundwater flows from the runway and taxiway area to the southeast and east, toward FMC (Tetra Tech, 1999).

A remedial investigation (RI) was conducted at MSA from March 2000–October 2009 to determine the nature and extent of environmental impacts in soil, groundwater, surface water, and sediment. Data collected from this investigation were used to complete a human health risk assessment (HHRA) and an ecological risk assessment (ERA), as well as to assess the need for additional sampling for potential remedial actions, or to justify no further action. The RI identified surface and subsurface soil impacts and identified four areas as primary source areas. Detailed information about the RI and its results can be found in the *Remedial Investigation Report—Martin State Airport* (Tetra Tech, 2010).

The investigations detailed above identified several areas of concern at MSA, described below (see Figure 2-3):

• *Taxiway Tango Median Anomaly Area*—This is the area between Taxiway Tango and the airport runway, northwest of Taxiway D, where four buried drums containing dried zinc-chromate paint were unearthed and removed in 1991. A construction drawing indicates the presence of fill and trash, and an initial geophysical survey indicated several electromagnetic anomalies, suggesting buried metal.

- *Drum Area*—This area is in the forested area northeast of Taxiway Tango where several drums were uncovered when surface vegetation was cleared during a 1996 site investigation. It is near wells MW2 and MW5.
- *Two ponds*—These ponds are approximately 450 feet and 600 feet, respectively, northeast of Taxiway Tango. Historical records indicate that acids may have been discharged at the present location of the two ponds sometime during the 1950s and 1960s.
- *Petroleum Hydrocarbon Area*—The Petroleum Hydrocarbon Area is approximately 200 feet west of the ponds. Petroleum hydrocarbons were encountered while drilling a soil boring during the 1996 site investigation.
- *Dump Road Area*—This area is along the northeast side of the runway at MSA. A portion of the area extends to the west across Taxiway Tango into the median between the taxiway and runway. Chlorinated VOCs were detected during previous studies in this area. Site investigations at MSA have identified soil and groundwater impacts associated with past activities. The areal extent of VOC impacts in this area has, for the most part, been delineated; exceptions include the areas around the MDANG bunkers and, to a lesser extent, the area between the runway and Taxiway Tango. Figure 2-4 shows the groundwater plume extent based on contours generated by a groundwater model based on TCE concentrations, the most prevalent VOC.

TCE and TCE-degradation daughter products were detected in groundwater throughout the MSA investigation area, with the highest concentrations detected in monitoring well MW5 located north/northeast of the historical Drum Area. The TCE Groundwater Plume Maps showing the surficial, intermediate and deep aquifers are presented in Figure 2-4. The groundwater monitoring well locations are presented in Figure 2-5. Petroleum–related benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected in groundwater at several site locations, but BTEX is not as widespread as the cVOCs. The northern extent of the DRA groundwater VOC plume has been estimated to be close to the southern boundary of the Munitions Area. The soil vapor monitoring grid used in this investigation included north–south transects of sampling locations in the Munitions Area to assess whether the northern extent of this VOC plume extends beneath the Munitions Area.

#### SUMMARY OF DUMP ROAD AREA INVESTIGATIONS LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND PAGE 1 OF 6

Report	Report Date	Fieldwork Date	Geophysical Survey/Utility Survey	Soil Gas	Soil Borings	Test Pits	Well Installation	Groundwater	Surface Water	Sediment	
Geophysical Survey Report, (Handex, 1992)	February 1992	October 1991	A geophysical survey consisted of the EM-31, ground penetrating radar (GPR), and limited magnetometry (LM) surveys of a 1600-foot by 200-foot area along Taxiway Tango and north of Taxiway D	None	None	None	None	None	None	None	The geophysical ir discovered large geo
Preliminary Site Investigation, (MES, 1994)	May 1994	January 1994	None	15 samples (thrirteen collected 4 feet bgs and two collected 3.5 feet bgs) Analyzed for TPH, GRO, VOCs, and BTEX	<ul> <li>16 soil samples collected. 13 DPT samples (between 2 and 6 feet), and 3 samples during the installation of piezometers (between 9 and 11 ft.).</li> <li>Analyzed for TCLP metals, TCLP VOCs, pH, ignitability and sulfide.</li> </ul>	None	3 wells PZ-1, PZ-2, and PZ-3 Slug Tests	11 groundwater samples taken from 3 piezometers and 8 DPT locations. Analyzed for VOCs, metals, and water quality parameters.	None	None	Petroleum saturated / water in the vicinity of which would classify i ug/L and toluene at contamination c
Confirmation Investigation (MES, 1995)	January 1995	July-August 1994	None	None	78 Soil samples collected from DPT methods as well as during MW well installation. Analyzed for TPH, VOCs, SVOCs, and total metals. Select samples were analyzed for full TCLP parameters.	None	Install 3 wells MW-1, MW-2 and MW-3	33 ground water samples were analyzed including 5 duplicates, and a blank, 24 probe samples and 3 well samples. Groundwater samples analyzed for VOC, SVOCs, metals, sodium, chloride, and TPH.	One acid pit / pond sample	None	MES concluded that adverse impact on s concentrations of conta and initial field investig water table with elevate
Expanded Investigation (MES, 1996)	July 1996	January - February 1996	None	None	15 samples from 25 bore holes and 3 monitoring wells. Analyzed for VOCs, SVOCs and heavy metals.	None	Install 3 wells MW-4 MW-5 MW-6 Slug tests	10 samples were collected from temporary screens in bore holes at various locations along the grid. 6 wells and 3 piezometers were also sampled. Analyzed for VOCs, SVOCs, and heavy metals.	None		Deteriorated drums v hazardous for chromiu show an open dump ar No. 1). Thick smoke area. Average hydrauli Human Health Risk A

# Comments l investigation spurred by the encounter of four Drums in July 1991, geophysical anomalies indicating the presence of metal were detected northeast of the July 1991 drum removal area. ed / contaminated soils were present in select samples. Soils and gound of some of these sample locations are heavily contaminated at the levels fy it as hazardous waste. TCE was detected at a concentration of 92,000 e at 42,000 ug/L at probe GW-9 at depth of 5 to 6 feet. The extent of on of soils and ground water was not defined in this investigation. hat disposal of petroleum products and chlorinated solvents has had an on soils and ground water at the site. Generally the locations of higher ontaminants correlate with the anomalies found in the geophysical survey stigation conducted in January of 1994. Samples collected in the shallow vated concentrations of TPH, VOCs, and SVOCs show that the impacted soils are leaching into the ground water. s were discovered northeast of Dump Road area; contents tested TCLP nium; drum contents were containerized; Air photos from 1952 and 1957 area adjacent to what is now Taxiway Tango and Acid Pit #1 (i.e., Pond ke emissions appeared to be emanating from the vicinity of the Acid Pit aulic conductivity of 2.5 feet per day estimated from the wells. Performed k Assessment as part of the study. Select soil and groundwater samples were analyzed for full TCLP parameters.

#### SUMMARY OF DUMP ROAD AREA INVESTIGATIONS LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND PAGE 2 OF 6

Report	Report Date	Fieldwork Date	Geophysical Survey/Utility Survey	Soil Gas	Soil Borings	Test Pits	Well Installation	Groundwater	Surface Water	Sediment	
Frog Mortar Creek Sediment Sampling (Apex, 1998)	January 1998	December 1997	None	None	None	None	None	None	9 samples collected in Frog Mortar Creek. Analyzed for VOCs, SVOCs, metals, cyanide and pH.	6 samples collected in Frog Mortar Creek. Analyzed for VOCs, SVOCs, metal, cyanide and pH.	All metals except merci with the exceptions of ant samples. Surface water p leve
Groundwater Monitoring Well Surveying and Sampling Report, (Tetra Tech, 1999)	May 1999	March 1999	None	None	None	None	None	6 existing wells and 1 piezometer were sampled. Analyzed for TPH, VOCs, SVOCs, and metals.	None	None	Eight samples including
Source Identification and Assessment Report (Tetra Tech, 2000)	September 2000	March-May 2000	A utility survey consisting of a combination of electromagnetic resistivity / conductivity, line locating, and ground penetrating radar was used to clear the excavation areas.	None	83 samples taken from the test pits and from soil borings. Analyzed for VOCs, SVOCs, heavy metals, and PCBs/pesticides.	7 Test Pits/Excavations	12 temporary wells.	12 Samples Analyzed for VOCs, SVOCs, pH, heavy metals and PCBs/pesticides.	None	4 Samples collected from Pond #1 and Pond #2.	Fifteen 55-gallon and 1 (consisting of a 100 por
Chemical Delineation and Groundwater Monitoring Report (Tetra Tech, 2002)	December 2002	March-October 2002	A utility survey consisting of a combination of electromagnetic resistivity / conductivity, line locating, and ground penetrating radar was used to assure that all proposed sampling locations were clear.	None	20 Samples Analyzed for VOCs, SVOCs, hexavalent chromium, heavy metals, and PCBs/pesticides.	None	Insall 4 wells DMW-1A DMW-1B DMW-2A DMW-2B	6 previous wells, 4 new wells, and 46 temporary wells were sampled. Analyzed for VOCs, SVOCs, hexavalent chromium, heavy metals, and PCBs/pesticids.	None	None	All GW samples were ar chromium, PCBs, and pe samples were analyzed samples were analyzed fo

Comments
ercury were detected in the surface water samples. PAHs and metals, antimony, beryllium, mercury and silver, were detected in the sediment er pH levels were nearly neutral (pH range of 6.8 to 7.1). Sediment pH evels were slightly acidic (pH range of 6.6 to 6.9).
ng 2 duplicates were collected from the 6 GW and 1 piezometer wells.
1 30-gallon drum, readings above 2000 ppmv, and inactive ordinance pound bomb, two 1,000 pound bombs, and a 2,000 pound bomb) were discovered.
e analyzed for VOCs, SVOCs, Priority Plutant Metals, TPH, hexavalent pesticides. All twenty soil samples were analyzed for VOCs; nineteen ed for total priority pollutant metals, and hexavalent chromium; seven l for gasoline, diesel, and residual range organics; and six samples were analyzed for SVOCs.

#### SUMMARY OF DUMP ROAD AREA INVESTIGATIONS LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND PAGE 3 OF 6

Report	Report Date	Fieldwork Date	Geophysical Survey/Utility Survey	Soil Gas	Soil Borings	Test Pits	Well Installation	Groundwater	Surface Water	Sediment	
Final Data Gap Investigation and Modeling Report (Tetra Tech, 2004a)	May 2004	September - December 2003	A utility survey consisting of a combination of electromagnetic resistivity / conductivity, line locating, and ground penetrating radar was used to assure that all proposed well locations were clear.	None	<ul> <li>11 Soil samples were collected at depths corresponding to changes in major lithologic zones.</li> <li>Evaluated for various geotechnical properties such as soil porosity, bulk density, moisture content and total organic carbon.</li> </ul>	None	28 permanent wells and 4 temporary wells. DMW-1S through DMW-10S DMW-31 through DMW-11S DMW-3D through DMW-9D MW7 TT-11-TT-14. Slug Test	Quarterly GW sampling event of the 10 existing wells, the 28 new wells, and the 4 Temporary wells. Analyzed for VOCs, SVOCs, metals, and pesticides. Select wells were also analyzed for nitrate, sulfate, and iron.	None	None	The intent of the o groundwater plumes during the investiga groundwater, charac groundwater monito
December 2003 Quarterly Groundwater Sampling Report (Tetra Tech, 2004b)	May 2004	December 2003	None	None	None	None	None	Quarterly GW sampling event of the 38 permanent and the 4 temporary wells. See comments for analysis.	None	None	All Samples were and also analyzed for SV
March 2004 Quarterly Groundwater Sampling Report (Tetra Tech, 2004c)	June 2004	March 2004	None	None	None	None	None	Quarterly GW sampling event of the 38 permantent wells. See comments for analysis.	None	None	The four temporary v were analyzed for VO for SVOCs. Bio-parar
June 2004 Quarterly Groundwater Sampling Report (Tetra Tech, 2004d)	September 2004	June 2004	None	None	None	None	None	Quarterly GW sampling event of 24 permantent wells. See comments for analysis.	None	None	Based on Tetra Tech's wells in the June 2004 dissolved metals. Sele of nitrate, sulfate
September 2004 Quarterly Groundwater Sampling Report (Tetra Tech, 2004e)	November 2004	September 2004	None	None	None	None	None	Quarterly GW sampling event of 13 permanent wells. See comments for analysis.	None	None	MDE approved a re monitoring events. A Select samples were
December 2004 Quarterly Groundwater Sampling Report (Tetra Tech, 2005a)	March 2005	December 2004	None	None	None	None	None	Quarterly GW sampling event of 13 permanent wells. See comments for analysis.	None	None	MDE approved a re monitoring events. A Select samples were

# Comments he data gap investigation was to determine the extent of chemicals in nes at the southeast portion of MSA. The Specific objectives completed igation were to deliniate the eastern and western extent of chemicals in racterize VOC plumes, characterize site geology, and conduct quarterly nitoring. This groundwater sampling even is the baseline event for the upcoming quarterly sampling events. analyzed for VOCs, and total and dissolved metals. Select samples were SVOCs. Bio-parameters consisting of nitrate, sulfate, and iron (III) were also analyzed at selected deep well locations wells were not sampled and scheduled for abandonment. All Samples VOCs, and total and dissolved metals. Select samples were also analyzed rameters consisting of nitrate, sulfate, and iron (III) were also analyzed at selected deep well locations ch's letter dated May 28,2004, MDE approved a reduction in sampling 13 04 monitoring event. All Samples were analyzed for VOCs, and total and elect samples were also analyzed for SVOCs. Bio-parameters consisting ate, and iron (III) were also analyzed at selected deep well locations a reduction in sampling 12 wells in the September and December 2004 All Samples were analyzed for VOCs, and total and dissolved metals. ere also analyzed for SVOCs. In addition, perchlorate was added to this sampling event. a reduction in sampling 12 wells in the September and December 2004 All Samples were analyzed for VOCs, and total and dissolved metals. ere also analyzed for SVOCs. In addition, perchlorate was added to this sampling event.

#### SUMMARY OF DUMP ROAD AREA INVESTIGATIONS LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND PAGE 4 OF 6

Report	Report Date	Fieldwork Date	Geophysical Survey/Utility Survey	Soil Gas	Soil Borings	Test Pits	Well Installation	Groundwater	Surface Water	Sediment	
Additional Soil and Sediment Sampling Letter Report (Tetra Tech, 2005b)	July 2005	May 2004	A utility survey consisting of a combination of electromagnetic resistivity / conductivity, line locating, and ground penetrating radar was used to assure that all proposed sampling locations were clear.	None	<ul> <li>12 soil samples collected. A sample was collected at 1 and 4 feet bgs from 6 soil borings.</li> <li>Analyzed for total chromium and hexavalent chromium.</li> </ul>	None	None	None	None	Four sediment samples were taken from Pond #1. See comments for analysis.	This additional samp chromium concentration further evaluate pol concentrations. The sedin hexavalent chromium, and
Soil and Groundwater Investigation Data Report (Tetra	a June 2008	2008 October 2007 - February 2008	survey consisted of a reconnaissance- level HM	None	27 soil samples collected using MIP/DPT sampling.	50 soil samples taken from 25 test pits.	35 permanent wells including 2 OW wells and 2 RW wells.	23 gw samples collected using MIP/DPT sampling, and 33 samples from new and 36 samples from existing permanent wells.	None	None	Five 55-gallon drums and
Tech, 2008)					Analyzed for VOCs.	Analyzed for VOCs, SVOCs, metals, 1,4- dioxane, and PCBs.	MW-15 through MW-26 (SID) OW1 and RW1 (SI)	Analyzed for VOCs, metals, and 1,4- dioxane.			
Groundwater Monitoring Report, August - September 2008 (Tetra Tech, 2009b)	May 2009	August - September 2008	None	None	None	None	None	Sampled 35 wells installed before 2007 and 34 wells installed in 2007. See comments for	None	None	Samples were analyzed for metals. Select samples
Deep Groundwater Report (Tetra Tech, 2009c)	April 2009	June 2008 - January 2009	A utility survey consisting of a combination of electromagnetic resistivity / conductivity, line locating, and ground penetrating radar was used to assure that all proposed well locations were clear.	None	8 Soil samples collected. 2 Geotechnical Samples collected from each deep well boring. Evaluated for soil porosity, bulk	None	4 Deep Wells 1 Intermediate well MW-27D MW-281	analysis. Groundwater samples were collected from each of the new monitoring wells. Analyzed for VOCs,	None	None	The purpose of the Deep ( in the surficial aquifer g
					porosity, bulk density, moisture content and total organic carbon.		MW-29D MW-30D MW-31D	Analyzed for VOCs, SVOCs, 1,4-dioxane, and metals.			

Comments
mpling was conducted to address comments reguarding hexavalent tions in areas where elevated total chromium were detected and also to potential environmental risks associated with sediment chemical ediment samples were analyzed for VOCs, SVOCs, PCBs, total metals, and simultaneously extracted metals/acid volatile sulfides (SEM/AVS).
s and two 30 gallon containers, and PID readings up to 700 ppmv were discovered.
d for VOCs, 1,4-dioxane, hexavalent chromium, and total and dissolved les were also analyzed for alkalinity, chemical oxygen demand (COD), total organic carbon (TOC), and pH.
ep Groundwater Investigation was to determine whether VOCs detected er groundwater at the MSA have migrated vertically through clay-rich sediments to the next underlying aquifer.

#### SUMMARY OF DUMP ROAD AREA INVESTIGATIONS LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND PAGE 5 OF 6

Report	Report Date	Fieldwork Date	Geophysical Survey/Utility Survey	Soil Gas	Soil Borings	Test Pits	Well Installation	Groundwater	Surface Water	Sediment	Comments	
Groundwater Sampling 2009 (Tetra Tech, 2009b)	January 2010	August - September 2009	None	None	None	None	6 Permanent Wells MW-32 through	65 new and existing wells were sampled See comments for	None	None	Samples were analyzed for VOCs, 1,4-Dioxane, Hexavalent chromium, and total and dissolved metals. Select samples were also analyzed for TPH-DRO, TPH-GRO.	
Remedial Investigation	November 23, 2010	August - September 2009	A utility survey consisting of a combination of electromagnetic resistivity / conductivity, line locating, and ground penetrating radar was used	None	72 soil samples taken from 25 soil boring locations.	28 samples taken from 27 test pits.	MW-34 (SI) None	analysis.	None	None	None	Three orphan drums and one apparent 55-gallon drum were discovered during excavation.
Report			to clear the excavation areas.		Analyzed for VOCs, SVOCs, and total metals.	Analyzed for VOCs, and total metals.						
Off-site Piezometer Installation and Water Level Monitoring	November 18, 2010	May-July 2010	A utility survey consisting of a combination of electromagnetic resistivity / conductivity, line locating, and ground penetrating radar was used to clear the boring areas.	None	None	None	9 piezometers PZ-1S,I,D, PZ- 2S,I,D	None	None	None	Two MIPs borings were advanced and nine piezometers to were installed via DPT on the Conrad's Ruth Villa and Parkside Marina properties. Groundwater levels at the piezometers and three wells at MSA were recorded every 15 minutes for one month. Surface water levels were recorded at the same interval at a tidal gaging station installed on the Parkside Marina pier. Baromteric pressure was recorded every 15 minutes at MSA.	
Groundwater Sampling 2010	December 10, 2010	July 2010	None	None	None	None	None	65 wells were sampled See comments for analysis.	3 samples collected in Frog Mortar Creek	None	Groundwater and surface water samples were analyzed for VOCs, 1,4-dioxane, hexavalent chromium, perchlorate, and total and dissolved metals,a and perchlorate. Select groundwater samples were also analyzed for RDX (an explosive compound), TPH-DRO, TPH-GRO, radium-226, radium-228 and natural attenuation parameters	
Groundwater Sampling 2011	March 2012	May to June 2011	None	None	None	None	None	65 wells were sampled	6 sampling events from March to December 2011	None	Groundwater and surface water samples were analyzed for VOCs, 1,4-dioxane, hexavalent chromium, perchlorate, and total and dissolved metals,a and perchlorate. Select groundwater samples were also analyzed for RDX (an explosive compound), TPH-DRO, TPH-GRO, radium-226, radium-228 and natural attenuation parameters	
Supplemental Investigation Report	April 1, 2011	•	Reconnaissance level EM survey was conducted for 21 acres from the southern boundary of the Dump Road Area to south of the Compass Rose area.	101 passive soil gas samples set at 4 ft. bgs. 99 samples analyzed for VOCs, TPH and diesel alkanes	None	None	None	None	None	None	Topographic surveying and a wetlands assessment of the complete Dump Road Area and Compass Rose area were conducted. Slug tests (single-well permeability tests) were conducted on 16 surficial aquifer wells.	

#### SUMMARY OF DUMP ROAD AREA INVESTIGATIONS LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND PAGE 6 OF 6

Report	Report Date	Fieldwork Date	Geophysical Survey/Utility Survey	Soil Gas	Soil Borings	Test Pits	Well Installation	Groundwater	Surface Water	Sediment	
2011 Compass Rose Soil Investigation	Deecember 2011	June 2011	Assess subsurface conditions based on elevated geophysical survey EM readings of Anomalies A, B, C and D identified during 2010 geophysical survey.	None	None	4 Test Pits/Excavations 4 soil samples analyzed for VOCs (8260B); SVOCs (8270D); PCBs (8082A); TPH GRO/DRO (8015B); priority pollutant metals (6010C, 7471A)	None	None	None	None	This investigation pr testing, to assess wh investigation also asse whether these mineral. This study seeked to e Dump Road supplem some areas near the Co

Notes:

bgs = below ground surface BTEX = benzene, toluene, ethylbenzene, xylenes COD = chemical oxygen demand DPT = direct push technology DRO = diesel range organics EM = electromagnetic GPR = ground-penetrating radar GRO = gasoline range organics GW = groundwater LM = limited magnetometry MDE = Maryland Department of the Environment MES = Maryland Environmental Services MIP = membrane interface probe MSA = Martin State Airport PCBs = polychlorinated biphenyls PID = photoionization detector ppmv = parts per million volume PZ = piezometer SEM/AVS = simultaneously extracted metals/acid volatile sufide SVOCs = semivolatile organic compounds TCE = trichloroethene TCLP = toxicity characteristic leaching procedure TOC = total organic carbon TPH = total petroleum hydrocarbon VOCs = volatile organic compounds

#### Comments

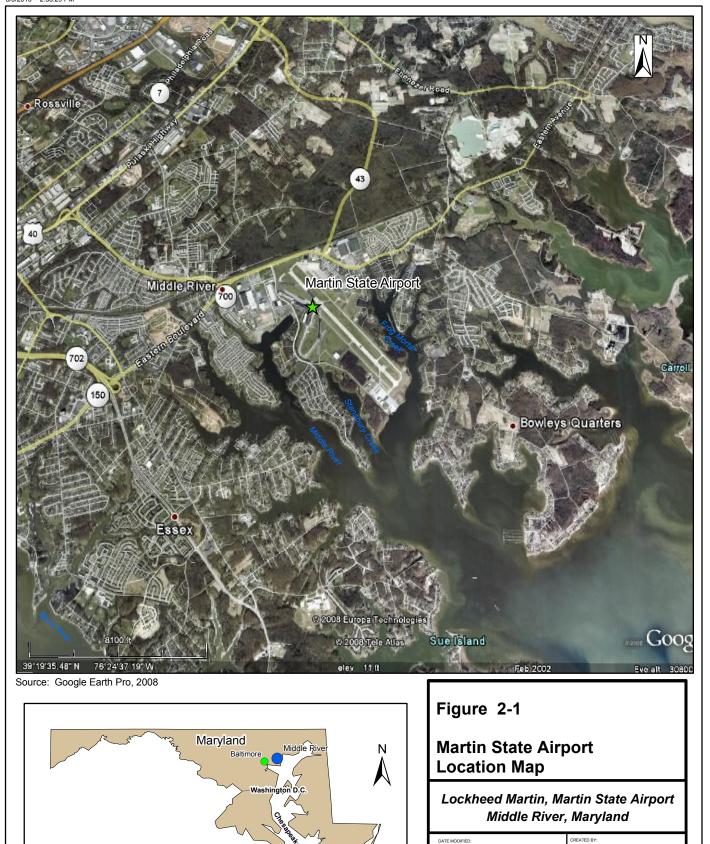
a provided additional data, via surface and subsurface exploration and whether waste had been disposed of in the Compass Rose Area. This ssessed the nature (e.g., mineral content) of soils in the area to discover rals may have contributed to geophysical survey anomalies found there. to evaluate more definitively the geophysical survey findings of the 2010 emental design investigation (Tetra Tech, 2010d), which indicated that Compass Rose Area exhibit anomalous electromagnetic (EM) responses. Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\MSA Location Map\_080310.mxd) 8/3/2010 - 2:33:29 PM

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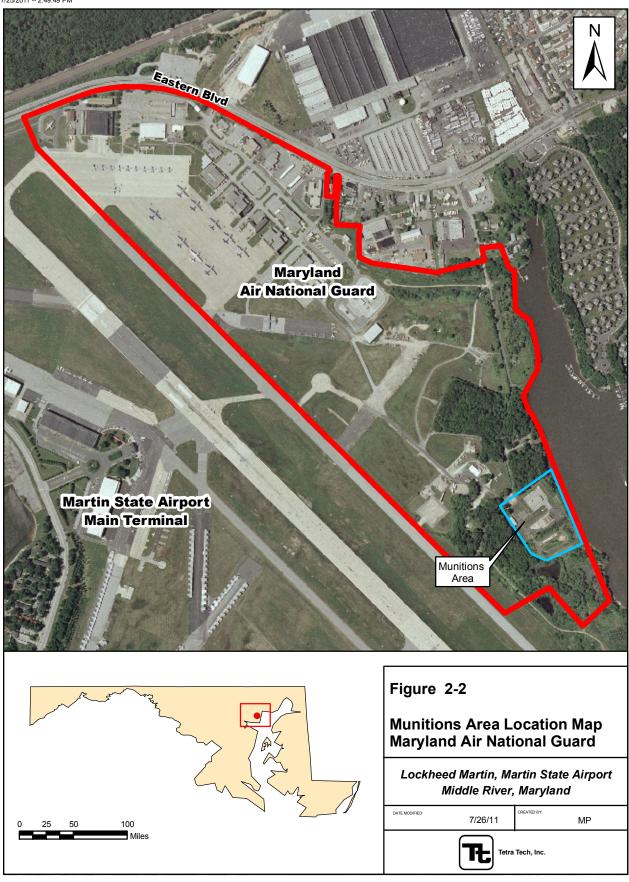
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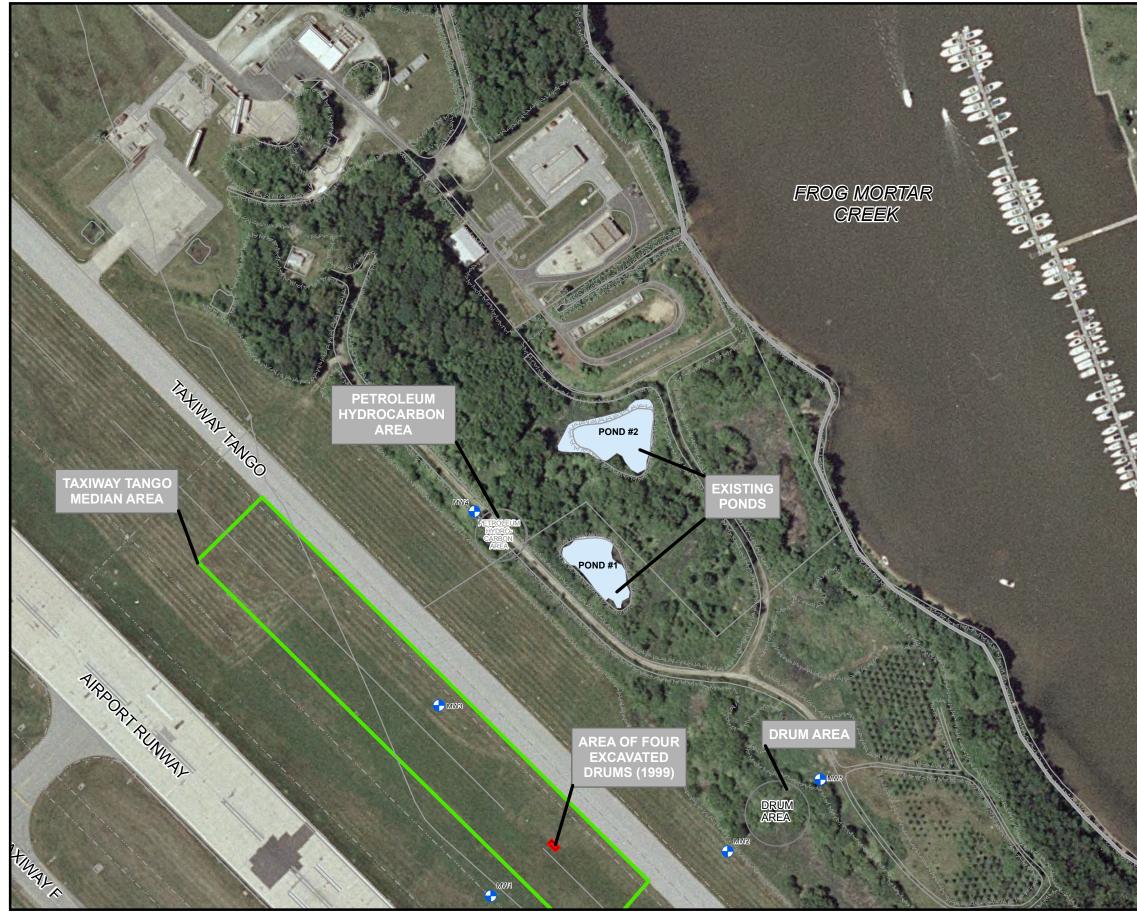
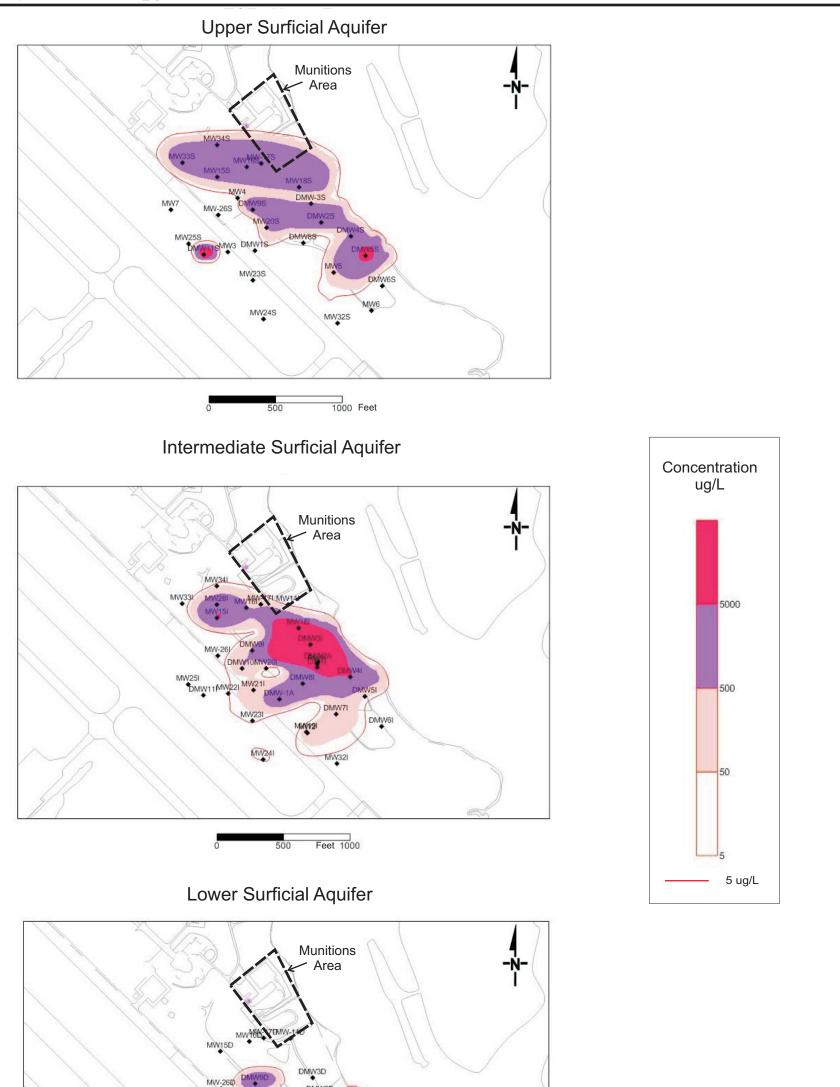
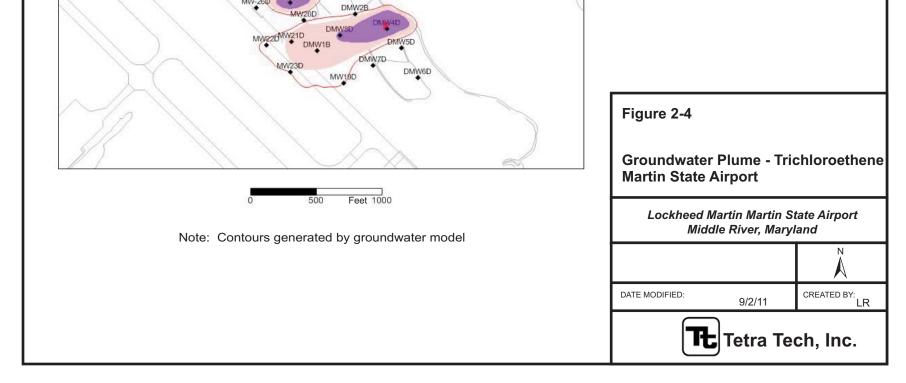


	Figure 2-3	
	Areas of Previous Investi Dump Road, Martin State	-
	Legend	
	Monitoring Wells     Pond	
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#### FIGURE 2-5

### **GROUNDWATER MONITORING** WELL LOCATIONS

#### LEGEND

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	POND					
		ND AIR NATIONA BOUNDARY	L			
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Ð		ONFINED AQUIFE STALLED 2008	R			
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		AL AQUIFER GRO RING WELL INST/ )08	••••			
e		AL AQUIFER GRC RING WELL INST/ )03				

# Section 3 Investigation Approach and Methodology

This investigation included an indoor air investigation within Maryland Air National Guard (MDANG) facilities and a soil vapor investigation in the Munitions Area to evaluate whether volatile organic compounds (VOCs) are present. The overall objectives of this investigation are presented in Section 1. Site activities for this investigation included the following:

- obtaining site access, necessary permits, and utility clearance
- active soil vapor sampling
- indoor air sampling
- reporting results

As stated in Section 1, the objectives of this investigation were to perform a soil vapor investigation of shallow subsurface soils in the Munitions Area and to monitor indoor air quality (IAQ) in the MDANG facilities. The goal was to evaluate the potential presence of VOCs in soil vapor in the Munitions Area and indoor air in the MDANG facilities. The soil vapor monitoring grid was also designed to help assess whether the northern extent of the Dump Road VOC plume extends beneath the Munitions Area.

# 3.1 FIELD METHODOLOGY

# 3.1.1 Mobilization/Demobilization

Following Lockheed Martin Corporation (Lockheed Martin) approval of the *Maryland Air National Guard Soil Vapor and Indoor Air Quality Investigation Work Plan* (Tetra Tech Inc. [Tetra Tech], 2011), Tetra Tech conducted the following mobilization/demobilization activities:

- coordination with Lockheed Martin Corporation (Lockheed Martin), Martin State Airport (MSA) Facilities and MDANG personnel
- obtained utility clearance in the proposed soil vapor boring locations using Miss Utility and a private firm as described in the following section

- mobilized subcontractors, equipment, and materials to the site
- implemented the following:
  - o a site-specific health and safety plan (HASP)
  - o an emergency response plan
  - o a sampling and analysis plan
  - a waste management plan conforming to *Energy, Environment, Safety, and Health* (*EESH*) *Remediation Waste Management Procedure No: EROP-03, Revision 4* (effective April 17, 2009)
  - o a data management plan
- arranged a decontamination area
- demobilized equipment and materials from the site (at work completion)
- performed general site cleanup and trash removal (at work completion)
- restored surfaces and repaired landscaping as necessary (at work completion)

Tetra Tech's field operations leader coordinated mobilization and demobilization of personnel and resources, including purchasing, leasing, and staging of equipment for efficient loading and transport to and from the site before and after each field activity. Before field operations began, appropriate Tetra Tech personnel reviewed the site-specific HASP and the respective Safe Work permits included in the HASP. Tetra Tech conducted mandatory daily health and safety tailgate meetings before all field events. Subcontractors present for that day's field activities were included in these meetings.

## 3.1.2 Site Access, Permits, and Utility Clearance

Tetra Tech obtained the required access and permits and completed required utility clearance activities before beginning fieldwork. Tetra Tech secured Digging Permit AF IMT 103 from the MDANG before beginning any intrusive field activities. Consultation with the Maryland Aviation Administration (MAA) determined that because the soil vapor sampling locations were away from the active runway, taxiways, and airport "critical zone," no additional permits (e.g., Airport Zoning Permit, Building Permit, Digging Authorization) through MAA would be required. A copy of Digging Permit AF IMT 103 and the utility clearance report are in Appendix A.

The following activities were performed before any soil vapor sampling was conducted:

- notified the Miss Utility underground utility location center (1-800-257-7777; <u>www.missutility.net</u>)
- reviewed facility/site utility maps
- conducted a permitting meeting and performed a site walk with appropriate MDANG personnel
- completed the Corporate Staff Procedure CS-28 Digging Project form and obtained the required signatures
- contacted MDANG and received approval with respect to current military air operations
- obtained an approved Digging Permit AF IMT 103 through MDANG Base Civil Engineering
- marked each soil vapor sampling location with a painted wooden stake
- contracted a private utility locating firm (Enviroscan, Inc. of Lancaster, Pennsylvania) to identify and mark any subsurface utilities/anomalies

Tetra Tech worked closely with MDANG, MSA, MAA, and their tenants to make all parties aware of the field schedule. The project team conducted a site walk to observe current operations (including active munitions operations), structures, and ground conditions, including topography, vegetation, and ground surface anomalies that could represent possible constraints on the field activities. Each soil vapor probe location was marked with a painted wooden stake and cleared for subsurface utilities before any field activities were undertaken.

In addition to calling in a Miss Utility ticket, a private utility locating service, Enviroscan, Inc. (Enviroscan), was contracted to mark any underground utilities and anomalies. Enviroscan used typical utility locating equipment representing the best available technology, including a Fisher TW-6 electromagnetic pipe and cable locator/tracer, a Radiodetection C.A.T. and Genny pipe and cable locator/tracer, a Radiodetection model RD4000 multi-frequency pipe and cable tracer, and a GSSI SIR-2000 ground penetrating radar (GPR) system. Any utilities found within a 30-foot radius of a designated investigation location were identified and marked with the corresponding color of paint on the ground. In addition, Tetra Tech also had additional areas cleared as alternate locations in the event some of the original locations were inaccessible due to standing water and difficult terrain.

All electromagnetic emitting devices (such as ground penetrating radars, terrain conductivity meters, borehole loggers, and metal detectors) met the safety requirements related to the hazards of electromagnetic (EM) radiation posed to ordnance (HERO). This certification was a requirement for any electromagnetic transmitting device operated close to explosive ordnance. All equipment used for this project was United States Army Corps of Engineers (USACE)-approved for use in unexploded ordnance investigations. Select soil vapor probe locations were offset slightly in the field as necessary to avoid subsurface utilities, based on the subsurface utility mark out.

## 3.1.3 Installation of Soil Vapor Points

Twenty-two temporary soil vapor points were located in key areas of the Munitions Area and installed using a mobile all-terrain direct push technology (DPT) drill rig and standard 1.5-inch DPT drill rods. Soil vapor sampling locations were strategically placed based on topography, site conditions, and current structures. For example, no soil vapor points were on the berms/bunkers of the Munitions Area. In addition, no soil vapor monitoring locations were within 15 feet of monitoring wells, utility trenches, or other potential conduits, as these features can act as preferential pathways for soil vapor migration.

Installation of the temporary soil vapor points complied with American Society for Testing and Materials (ASTM) methods, United States Environmental Protection Agency (USEPA) methods, and, in general, to the guidelines in *Direct Push Installation for Active Soil Vapor Sampling and Monitoring (Post-Run Tubing Method) Technical Bulletin MK 3098* (Geoprobe<sup>®</sup> Systems, May 2006). Vapor sampling points were advanced to a depth of approximately five feet below grade and adjusted appropriately, depending on the depth to groundwater. Once the drill rods were installed to the desired sampling interval, they were retracted six inches; a metal rod was then used to push out the expendable drive point and extract the stainless steel screen. Tubing fitted with an adaptor and an O-ring was inserted into the probe rods and rotated counterclockwise to engage the adapter threads with the expendable point holder.

Once the tubing was secured to the point holder, the sampling train was connected to a pump and the sampling point was purged before collecting the soil vapor sample for laboratory analysis. The locations of each soil vapor point were recorded using a handheld global positioning system (GPS) device and entered into the field documentation. Tetra Tech ensured that the sampling

points were not placed within 15 feet of any non-potable water wells, monitoring wells, utility trenches, or other conduits that could act as preferential pathways for soil vapor migration.

## 3.1.4 Active Soil Vapor Sampling

On January 19–20, 2012, Tetra Tech oversaw the sampling of 22 temporary soil vapor probes aligned in north–south transects in key areas of the Munitions Area using direct push technology (DPT). Three (SG5, SG6, and SG16) of the original 25 proposed soil vapor sampling locations were not sampled due to both the steep terrain behind the munitions bunkers and the presence of standing surface water. These points were along the southern boundary of the Munitions Area. Soil vapor sampling complied with ASTM methods, USEPA methods, and generally with the guidelines in *Direct Push Installation for Active Soil Vapor Sampling and Monitoring (Post Run Tubing Method) Technical Bulletin MK 3098* (Geoprobe<sup>®</sup> Systems, May 2006). Soil vapor sample field sheets are in Appendix B.

Shallow groundwater was expected to be encountered in the area of the proposed sampling locations due to the close proximity of a surface water body (Frog Mortar Creek [FMC]), however, only one location (SG12-011912) was sampled shallower than five feet below ground surface (bgs) due to the presence of groundwater. After pulling water during the attempted sampling for location SG12-011912 at five feet bgs, an offset boring (approximately one foot away from the original boring location) was drilled to a depth of four feet bgs where the soil vapor sample was successfully collected. Munitions Area soil vapor sampling point locations are shown in Figure 3-1.

Soil vapor samples were collected in Summa<sup>®</sup> canisters in conformance with USEPA *Method TO-15: Determination of Volatile Organic Compounds in Air Collected in Specially Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS).* Before collecting each sample, a pump was connected to the tubing to draw the air out of the tubing, to check for moisture in the soil and to establish a continuous flow of soil vapor from beneath the ground. Following this initial purging, samples were collected at each location by attaching a certified clean one-liter Summa<sup>®</sup> canister to the Teflon<sup>®</sup> tubing and opening the valve on the canister's flow controller to allow soil vapor to be drawn into the evacuated canister.

Before sampling, the controllers were pre-calibrated by the laboratory to a specified flow rate and shipped to the field. Soil vapor samples were collected at a low flow-rate no greater than 200 milliliters per minute for 30 minutes, to avoid high negative pressure that could mobilize subsurface vapor. Soil vapor samples were submitted to an off-site laboratory (Centek Laboratories, Syracuse, New York) for VOC analysis using USEPA Method TO-15.

One soil vapor sample was collected from each of the 22 soil vapor sampling locations. No duplicate samples were collected during this investigation. All canisters were closed, secured, and shipped overnight to the laboratory for VOC analysis. Tetra Tech recorded the canister vacuum at the beginning and at the completion of sampling at each location. Canister vacuum readings are included on the soil vapor sample field sheets in Appendix B.

All Summa<sup>®</sup> canisters arrived at the laboratory safely and securely without issue. The laboratory confirmed that the canisters had been received at a requisite pressure for chemical analysis and that pressures were consistent with those measured in the field at the time of sampling. One trip blank (TB-011912) was analyzed as part of this investigation.

At the end of each field day, the DPT rig, field vehicles, and associated equipment were relocated away from airport and munitions operations to a secure location inside the main office building within the Munitions Area. After sampling, drill rods were extracted from the ground and each boring was filled to the ground surface with granular bentonite. No surface restoration was required, as all of the borings were in grassy areas.

## 3.1.5 Indoor Air Sampling

In addition to the soil vapor samples, three IAQ samples were collected five days later on January 25, 2012 inside two MDANG buildings within the Munitions Area. Potential interior sampling locations were identified during a previous site walk with MDANG personnel. Indoor air was collected over an eight-hour sampling period in conformance with USEPA Method TO-15. Samples were collected in certified clean six-liter Summa<sup>®</sup> canisters by opening the valve on the canister's flow controller to allow ambient indoor air to be drawn into the evacuated canister at the pre-set flow rate. The controllers had been pre-calibrated by the laboratory to collect an eight-hour sample before shipment to the field. Building heating, ventilation, and air conditioning (HVAC) operating and barometric conditions were noted during sampling.

The three indoor air quality sampling locations were as follows:

- 1. In the main office building in the northwestern portion of the secured Munitions Area. Sample IAQ1-012512 was placed in an occupied office toward the west/southwestern portion of the building. This office and building are continuously occupied during normal business hours.
- 2. In the main office building in the northwestern portion of the secured Munitions Area. Sample IAQ2-012512 was placed on a desk in a large conference room in the central portion of the building. This room is almost continuously occupied for training and meetings.
- 3. In the active munitions/maintenance annex building in the north/northeastern portion of the secured Munitions Area. Sample IAQ3-012512 was placed on top of a tool storage cabinet in the western portion of the building. This portion of the building is used to maintain munitions trailers and other equipment. Solvents, paints, and lubricants are both stored and used in this part of the building. The eastern part of the building is used for active munitions work and loading. The building is periodically occupied for maintenance and active munitions activities.

During sampling, Tetra Tech recorded the canister vacuum before and after sample collection. The canister vacuum readings are included on the soil vapor sample field sheets in Appendix B. All Summa<sup>®</sup> canisters arrived at the laboratory safely and securely without issue. The laboratory confirmed that the canisters had been received at a requisite pressure for chemical analysis and that pressures were consistent with those measured in the field at the time of sampling.

# 3.1.6 Laboratory Analysis and Data Validation

Laboratory analysis of samples included the following:

- analysis of soil vapor samples using USEPA Method TO-15
- analysis of indoor air samples using USEPA Method TO-15
- data usability review (data validation)

One trip blank (TB-01912) was analyzed for this investigation; no other quality assurance/quality control samples were collected. All samples were analyzed by a state accredited laboratory (Centek Laboratories, Syracuse, New York) for VOCs using USEPA Method TO-15. All analytical results were thoroughly checked by qualified chemists for quality and usability. All data from the laboratory were validated for all quality assurance (QA)/quality control (QC) parameters, including accuracy, precision, completeness, and comparability, in accordance with USEPA Region 3 Level M2 protocols. Results of the data usability reviews were transmitted to project personnel as they were received.

Tetra Tech closely monitored the laboratory analysis via electronic data deliverables and data validation of the samples to ensure that the analysis and reporting were generated as per the procedures prescribed in the work plan. Samples were analyzed on a standard turnaround time of 21 calendar days. Data validation reports are in Appendix C.

## 3.2 DOCUMENTATION

A master site logbook was maintained for the site as an overall record of field activities. Sample documentation consisted of chain of custody (COC) reports and matrix specific sample log sheets. The COC report is a standardized form summarizing and documenting pertinent sample information, such as sample identification and type, matrix, date and time of collection, and requested analysis. Sample custody procedures document sample acquisition and integrity. Soil vapor and indoor air sample field sheets are in Appendix B.

## 3.3 SAMPLE HANDLING

Sample handling includes field related considerations concerning the proper use of sampling equipment, allowable holding times, and analyses requested. Proper custody procedures were followed throughout all phases of sample collection and handling. COC protocols were used throughout sample handling to establish the evidentiary integrity of sample containers. These protocols were used to demonstrate that the samples were handled and transferred in a manner that would eliminate (or detect) possible tampering.

Sample containers were released under signature from the laboratory and were accepted under signature by the samplers or other individual responsible for maintaining custody until the sample containers were transferred to the samplers. Transport containers returning to the laboratory were sealed with strapping tape and a tamper proof custody seal. The custody seal contains the signature of the individual releasing the transport container, along with the date and time.

## 3.4 EQUIPMENT DECONTAMINATION

The soil vapor sampling methods used in this investigation did not require a decontamination pad. All downhole drilling equipment (including the rear of the DPT rig) and other equipment were high-pressure steam cleaned before arriving on-site. Dedicated and/or disposable equipment (i.e., tubing) was used whenever possible. Reusable equipment (i.e., samplers, DPT

drill rods) was decontaminated before and after each use in a small bucket using a phosphate-free detergent (i.e., Alconox<sup>®</sup>) and a potable water rinse.

## 3.5 WASTE MANAGEMENT

No investigation derived waste (IDW) was collected for disposal during this investigation. All personal protective equipment (i.e., gloves) and disposable sampling equipment (i.e., tubing) were placed in a trash bag and disposed of in an approved facility trash receptacle. The extremely low volume of decontamination water generated by this project allowed for the decontamination water to evaporate from the collection bucket at the site.

## 3.6 SITE RESTORATION

Site restoration was minimal following soil vapor sampling. Vehicles were parked on the asphalt and not taken into the grass. No ruts or tire marks were created as the mobile all-terrain rubber track DPT rig was maneuvered carefully to avoid disturbing any of the grassy areas. Soil vapor borings were backfilled with granular bentonite and soil was placed at the ground surface to top off each hole to match the existing surface. No borings were made in asphalt or concrete.

## 3.7 DATA MANAGEMENT

Data handling procedures followed by the laboratory met the requirements set forth in the laboratory subcontract. All analytical and field data are maintained in the project files. The project files contain copies of the COC forms, sample log forms, sampling location maps, and quality assurance documentation of data manipulation.

## 3.7.1 Data Tracking and Control

A cradle to grave sample tracking system was used from the beginning to the end of sampling. Before field mobilization, the field operations leader coordinated/initiated sample tracking. Sample labels were handwritten in the field. Labels were reviewed for adherence to work plan requirements and for accuracy. The project manager (PM) coordinated with the analytical laboratory to ensure that they were aware of the number and type of samples and analyses to anticipate.

Once sampling was underway, the field operations leader forwarded COC forms to the PM or their designee and to the laboratory on each day samples were collected. The PM or their designee then confirmed that the COC forms provided the information required by the work plan. After completing all requested analyses, the laboratory submitted an electronic deliverable for every sample delivery group.

After successful completion of all requested analyses, the laboratory submitted an electronic deliverable for every sample delivery group (SDG). When all electronic deliverables had been received from the laboratory, the PM or their designee ensured that the laboratory had performed all the analyses requested, and had noted discrepancies early, so that all samples could be analyzed within the prescribed holding times.

### 3.7.2 Data Verification

Reducing laboratory data entails manipulating raw data instrument output into reportable results. Laboratory data were verified by the group supervisor and then by the laboratory's Quality Control/Documentation Department.

### 3.7.3 Project Data Compilation

The analytical laboratory generated an Adobe<sup>®</sup> portable document file (PDF) of the analytical data packages, as well as electronic database deliverables. The electronic database was checked against the PDF file from the laboratory and updated as required, based on data qualifier flags applied during data validation. Sampling data were incorporated into the MSA environmental geographic information system (EGIS) database. All data, such as units of measure and chemical nomenclature, were organized to assure consistency across the project database.

### 3.7.4 Geographical Information System

MSA environmental data are managed using a relational database and a geographic information system (GIS). The relational database stores chemical, geological, hydrogeologic, and other environmental data collected during environmental investigations. The GIS is built from the relational database and contains subsets of the larger data pool. The GIS allows environmental data to be posted onto base maps to represent the information graphically. Sampling, chemical, and positional data were compiled and incorporated into the MSA EGIS. The EGIS system generated various maps from the MSA data as needed, including site location maps, sampling location maps, and contaminant tag maps.

### 3.7.5 Data Validation

Data validation involves a party independent of the analytical laboratory reviewing 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. Data validation (consisting of data completeness, holding time, calibrations, laboratory and field blank contamination, field duplicate precision, and detection limits) was completed concurrent with the data evaluation. Data from this sampling event consisted of soil vapor and indoor air samples intended to better delineate the nature and extent of possible subsurface soil VOC-impacts at the Munitions area of the MDANG property.

Following the investigation, chemical data were validated in accordance with established 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, Region III, 1993 and 1994) and the specifics of the analytical method employed. Data validation reports that include complete COC forms are in Appendix C.

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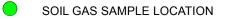
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#### SOIL GAS AND INDOOR AIR SAMPLE LOCATIONS MUNITIONS AREA, MDANG

#### LEGEND







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Lockheed Martin Martin State Airport Middle River, Maryland

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## Section 4 Results

The following section presents the results of the soil vapor and indoor air quality (IAQ) investigation of the Munitions Area of the Maryland Air National Guard (MDANG) installation at Martin State Airport (MSA) in Baltimore County, Maryland. The investigation evaluated possible volatile organic compounds (VOCs) in soil vapor and indoor air. The project established and sampled a soil vapor monitoring grid that included north–south transects of sampling locations in the Munitions Area (to help assess whether the northern extent of the Dump Road Area [DRA] plume of volatile organic compounds extends beneath the Munitions Area) and which sampled indoor air inside Munitions Area buildings.

Analytical results of IAQ samples for all compounds except trichloroethene (TCE) and perchloroethene (PCE) were compared to screening levels for industrial air set forth in the United States Environmental Protection Agency's (USEPA) *Regional Screening Levels for Chemical Contaminants at Superfund Sites* (USEPA, 2011a). The lowest of the carcinogenic (*ca*) or noncarcinogenic (*nc*) values for each contaminant of concern were used for the screening. Carcinogenic risk was evaluated at the  $1 \times 10^{-5}$  (one in 100,000) risk level, in accordance with Maryland Department of the Environment (MDE) requirements.

In September 2011, USEPA updated its toxicological review for TCE and, as part of this document, new toxicity criteria were published on USEPA's *Integrated Risk Information System* (IRIS) electronic database. The new USEPA toxicity criterion for TCE results in a screening value of 8.8 micorgrams per cubic meter ( $\mu$ g/m<sup>3</sup>) for industrial air (USEPA, 2011b). This value is the lowest of the carcinogenic/noncarcinogenic values for TCE, and is based on noncarcinogenic effects. This value was used to screen the IAQ results in anticipation of Maryland Department of the Environment (MDE) adoption of the updated USEPA guidance.

In February 2012, USEPA updated its toxicological review for PCE and, as part of this document, new toxicity criteria were published on USEPA's IRIS database. The new USEPA toxicity criterion for PCE results in a screening value of  $175 \,\mu g/m^3$  for industrial air

(USEPA, 2012). This value is the lowest of the carcinogenic/noncarcinogenic values for PCE, and is based on noncarcinogenic effects. This value was used to screen the IAQ results in anticipation of MDE adopting the updated USEPA guidance.

Soil vapor sampling results were compared to screening values derived in accordance with methods discussed in Appendix D of USEPA's guidance for evaluating vapor intrusion (USEPA, 2002). Soil vapor screening values were calculated by dividing the indoor air screening levels referenced above by a conservative attenuation factor of 0.1 (methodology obtained from USEPA 2002). The attenuation factor represents the factor by which subsurface vapor concentrations migrating into indoor air spaces are reduced due to diffusive, advective, and/or other attenuating mechanisms. Simply stated, the attenuation factor is the ratio of the indoor air concentration of a constituent to its subsurface vapor concentration under a conservative vapor intrusion scenario.

## 4.1 ACTIVE SOIL VAPOR SAMPLING RESULTS

Twenty-two soil vapor samples were collected and chemically analyzed for VOCs by USEPA Method TO-15 (Figure 4-1). Table 4-1 summarizes the analytes detected in soil vapor samples. Tables of active soil vapor sampling results and statistics are in Appendix D. Comparing these results with soil vapor screening values indicates the following:

- chloroform was detected in soil vapor sample SG1-012012 at 350  $\mu$ g/m<sup>3</sup>, which exceeds the screening criterion of 53  $\mu$ g/m<sup>3</sup>; however, it does not appear to be associated with the VOC plume south of the Munitions Area.
- no other samples exceeded applicable soil vapor screening values.

## 4.2 INDOOR AIR QUALITY SAMPLING RESULTS

Three indoor air quality samples were collected and chemically analyzed for volatile organic compounds by USEPA Method TO-15 (Figure 4-2). Table 4-2 summarizes positive detects for indoor air. A table of indoor air sampling results and statistics are in Appendix D. Comparing these results with the indoor air screening values indicates the following:

- naphthalene was detected in samples IAQ1-012512 and IAQ3-012512 at concentrations of  $5.1 \ \mu g/m^3$  and  $6.9 \ \mu g/m^3$ , respectively, which exceed the industrial air screening level of  $3.6 \ \mu g/m^3$ .
- no other samples exceeded applicable indoor air screening values.

#### Maryland Air National Guard Munitions Area Summary of Positive Detects for Soil Vapor Lockheed Martin, Martin State Airport, Middle River, Maryland Page 1 of 5

SAMPLE ID: LABORATORY ID: SAMPLE DATE: LOCATION:	Target Shallow Soil Gas Concentration <sup>(1)</sup> (µg/m <sup>3</sup> )	KEY	SG1-012012 C1201051-015A 1/20/2012 SG1	SG2-012012 C1201051-013A 1/20/2012 SG2	SG3-012012 C1201051-014A 1/20/2012 SG3	SG4-012012 C1201051-017A 1/20/2012 SG4	SG07-012012 C1201051-022A 1/20/2012 SG07
VOLATILES(µg/m³)							
1,2,4-TRIMETHYLBENZENE	310	nc	31 K	16 K	14	9.9	17 K
1,2-DICHLOROETHANE	47	са					
2-BUTANONE	NA	NA	470 K	72 K	38	61 K	22 K
BENZENE	160	ca	39	27	18	22	24
CARBON DISULFIDE	31,000	nc	13	14	15		4
CHLOROFORM	53	ca	350				
CHLOROMETHANE	3,900	nc			0.55 L		
CIS-1,2-DICHLOROETHENE	NA	NA				3.7	4.1
DICHLORODIFLUOROMETHANE	4,400	nc	1.8	2.1	1.8	0.9	2
ETHYLBENZENE	490	ca	8.8	6.8	5.2 K	4.9	4.2
METHYLENE CHLORIDE	26,000	ca	0.46 J	0.46 J			0.71 K
NAPHTHALENE	36	ca	5.6 L	5.6 L	4.5 J		5.6 L
TOTAL XYLENES	4,400	nc	54 K	27.7 K	24.3 K	24.4	23
TETRACHLOROETHENE	1,750	са					
TOLUENE	220,000	nc	76	51	32	36	41
TRICHLOROETHENE	88 <sup>M</sup>	са				1.3	
VINYL CHLORIDE	280	ca				2.8	77

#### Maryland Air National Guard Munitions Area Summary of Positive Detects for Soil Vapor Lockheed Martin, Martin State Airport, Middle River, Maryland Page 2 of 5

	D: Target Shallow Soil Gas E: Concentration <sup>(1)</sup> (μg/m <sup>3</sup> )	KEY	SG08-012012 C1201051-018A 1/20/2012 SG08	SG09-012012 C1201051-012A 1/20/2012 SG09	SG10-011912 C1201051-002A 1/19/2012 SG10	SG11-011912 C1201051-001A 1/19/2012 SG11	SG12-011912 C1201051-003A 1/19/2012 SG12
VOLATILES(μg/m³)							
1,2,4-TRIMETHYLBENZENE	310	nc	32 K	8.5 K	11	11	15
1,2-DICHLOROETHANE	47	са					
2-BUTANONE	NA	NA	51 K	51 K	8.7 J	5.4	18
BENZENE	160	са	21	24	2.5	2.7	4.6
CARBON DISULFIDE	31,000	nc	4.9	7.3	0.79	1.2	1.8
CHLOROFORM	53	ca					
CHLOROMETHANE	3,900	nc			0.78 L	0.73 L	
CIS-1,2-DICHLOROETHENE	NA	NA	0.6				
DICHLORODIFLUOROMETHANE	4,400	nc	2.2	2.1	2.6	2.1	2.1
ETHYLBENZENE	490	са	5.8	4.4	3.4	3.7	4
METHYLENE CHLORIDE	26,000	са	0.74 K	0.64 K	0.46 J		0.6 K
NAPHTHALENE	36	са	11 L	2.8 L	3.6 L	2.7 L	3 L
TOTAL XYLENES	4,400	nc	39 K	21.7	16.9	19	20.5
TETRACHLOROETHENE	1,750	са	1.8				
TOLUENE	220,000	nc	32	22	26	16	22
TRICHLOROETHENE	88 <sup>M</sup>	са					
VINYL CHLORIDE	280	са					

#### Maryland Air National Guard Munitions Area Summary of Positive Detects for Soil Vapor Lockheed Martin, Martin State Airport, Middle River, Maryland Page 3 of 5

SAMPLE DATE	Target Shallow Soil Gas Concentration <sup>(1)</sup> (µg/m <sup>3</sup> )	KEY	SG13-012012 C1201051-011A 1/20/2012 SG13	SG14-012012 C1201051-019A 1/20/2012 SG14	SG15-012012 C1201051-021A 1/20/2012 SG15	SG17-012012 C1201051-020A 1/20/2012 SG17	SG18-011912 C1201051-009A 1/19/2012 SG18
VOLATILES(µg/m³)						-	
1,2,4-TRIMETHYLBENZENE	310	nc	19 K	25 K	30 K	25 K	23 K
1,2-DICHLOROETHANE	47	ca					
2-BUTANONE	NA	NA	220 K	55 K	110 K	130 K	400 K
BENZENE	160	ca	11	10	14	22	10
CARBON DISULFIDE	31,000	nc	4.1	2.1	5.3		13
CHLOROFORM	53	са					
CHLOROMETHANE	3,900	nc					
CIS-1,2-DICHLOROETHENE	NA	NA					
DICHLORODIFLUOROMETHANE	4,400	nc	2	2.1	2	1.8	2.1
ETHYLBENZENE	490	са	4.9	5.3	4.9	4.9	4.6
METHYLENE CHLORIDE	26,000	са		2.6 K	0.42 J	0.71 K	0.67 K
NAPHTHALENE	36	са	4.7 L	11 L	7.2 L	3.9 L	4.4 L
TOTAL XYLENES	4,400	nc	25.4	29 K	31 K	33 K	27 K
TETRACHLOROETHENE	1,750	са					
TOLUENE	220,000	nc	33	22	28	34	23
TRICHLOROETHENE	88 <sup>M</sup>	са		0.66			
VINYL CHLORIDE	280	ca					

#### Maryland Air National Guard Munitions Area Summary of Positive Detects for Soil Vapor Lockheed Martin, Martin State Airport, Middle River, Maryland Page 4 of 5

SAMPLE DAT	D: Target Shallow Soil Gas E: Concentration <sup>(1)</sup> (μg/m <sup>3</sup> )	KEY	SG19-012012 C1201051-010A 1/20/2012 SG19	SG20-011912 C1201051-004A 1/19/2012 SG20	SG21-011912 C1201051-005A 1/19/2012 SG21	SG22-012012 C1201051-016A 1/20/2012 SG22	SG23-011912 C1201051-006A 1/19/2012 SG23
VOLATILES(μg/m³)							
1,2,4-TRIMETHYLBENZENE	310	nc	22 K	18	27	26 K	25
1,2-DICHLOROETHANE	47	са					
2-BUTANONE	NA	NA	240 K	11	57	270 K	30
BENZENE	160	са	24	4.5	6.3	39	4.1
CARBON DISULFIDE	31,000	nc	27	2	3.9	33	1.8
CHLOROFORM	53	са					
CHLOROMETHANE	3,900	nc				0.67 L	
CIS-1,2-DICHLOROETHENE	NA	NA					
DICHLORODIFLUOROMETHANE	4,400	nc	1.8	1.7	2.1	61	1.8
ETHYLBENZENE	490	са	4.2	5.1	5.1	6.9	4.8
METHYLENE CHLORIDE	26,000	са	1.3 K	0.39 J	0.39 J	0.49 J	0.46 J
NAPHTHALENE	36	са	3.5 L	6 L	7.9 L	7.7 L	11 L
TOTAL XYLENES	4,400	nc	22.2	25.2	26.4	46 K	27
TETRACHLOROETHENE	1,750	са					
TOLUENE	220,000	nc	36	29	35	60	22
TRICHLOROETHENE	88 <sup>M</sup>	са					
VINYL CHLORIDE	280	ca					

#### Maryland Air National Guard Munitions Area Summary of Positive Detects for Soil Vapor Lockheed Martin, Martin State Airport, Middle River, Maryland Page 5 of 5

SAMPLE ID: LABORATORY ID: SAMPLE DATE: LOCATION:	Target Shallow Soil Gas	KEY	SG24-011912 C1201051-007A 1/19/2012 SG24	SG25-011912 C1201051-008A 1/19/2012 SG25
VOLATILES(µg/m³)				
1,2,4-TRIMETHYLBENZENE	310	nc	19 K	2.4
1,2-DICHLOROETHANE	47	са		0.7
2-BUTANONE	NA	NA	40 K	22 K
BENZENE	160	са	10	1.4
CARBON DISULFIDE	31,000	nc	1.3	0.6
CHLOROFORM	53	са		0.5 J
CHLOROMETHANE	3,900	nc		
CIS-1,2-DICHLOROETHENE	NA	NA		
DICHLORODIFLUOROMETHANE	4,400	nc	2	2.3
ETHYLBENZENE	490	са	6.9	2.3
METHYLENE CHLORIDE	26,000	са	0.56 K	5.7 K
NAPHTHALENE	36	са	3.9 L	1 L
TOTAL XYLENES	4,400	nc	36 K	7
TETRACHLOROETHENE	1,750	са		
TOLUENE	220,000	nc	34	270
TRICHLOROETHENE	88 <sup>M</sup>	са		
VINYL CHLORIDE	280	са		

#### Maryland Air National Guard Munitions Area Summary of Postive Detects for Indoor Air Lockheed Martin, Martin State Airport, Middle River, Maryland

SAMPLE ID: LABORATORY ID: SAMPLE DATE: LOCATION:	Industrial Air Screening Level (µg/m <sup>3</sup> )	KEY	IA1-012512 C1201063-001A 1/25/2012 IA1	IA2-012512 C1201063-002A 1/25/2012 IA2	IA3-012512 C1201063-003A 1/25/2012 IA3
VOLATILES(UG/M3)					
1,2,4-TRIMETHYLBENZENE	31	nc	1.6	1	1.8
2-BUTANONE	NA	NA	26 K	4.3	3
BENZENE	16	са	1.3	1.3	1.3
CHLOROFORM	5.3	са	0.65 J	0.6 J	
CHLOROMETHANE	390	nc		0.97 L	0.73 L
DICHLORODIFLUOROMETHANE	440	nc	2.3	2.4	
ETHYLBENZENE	49	са	0.75	0.71	0.84
METHYLENE CHLORIDE	2,600	nc	0.99 K	0.46 J	
NAPHTHALENE	3.6	са	5.1 L	2.1 L	6.9 L
TOTAL XYLENES	440	nc	2.61	2.32	6
TOLUENE	22,000	nc	3.5	3.2	3.1

Notes: All sample concentrations in micrograms per cubic meter (µg/m<sup>3</sup>)

Shaded cells indicate a concentration greater than the risk -based screening level

IA = indoor air

- = not detected

- J = estimated value
- K = result biased high
- L = result biased low

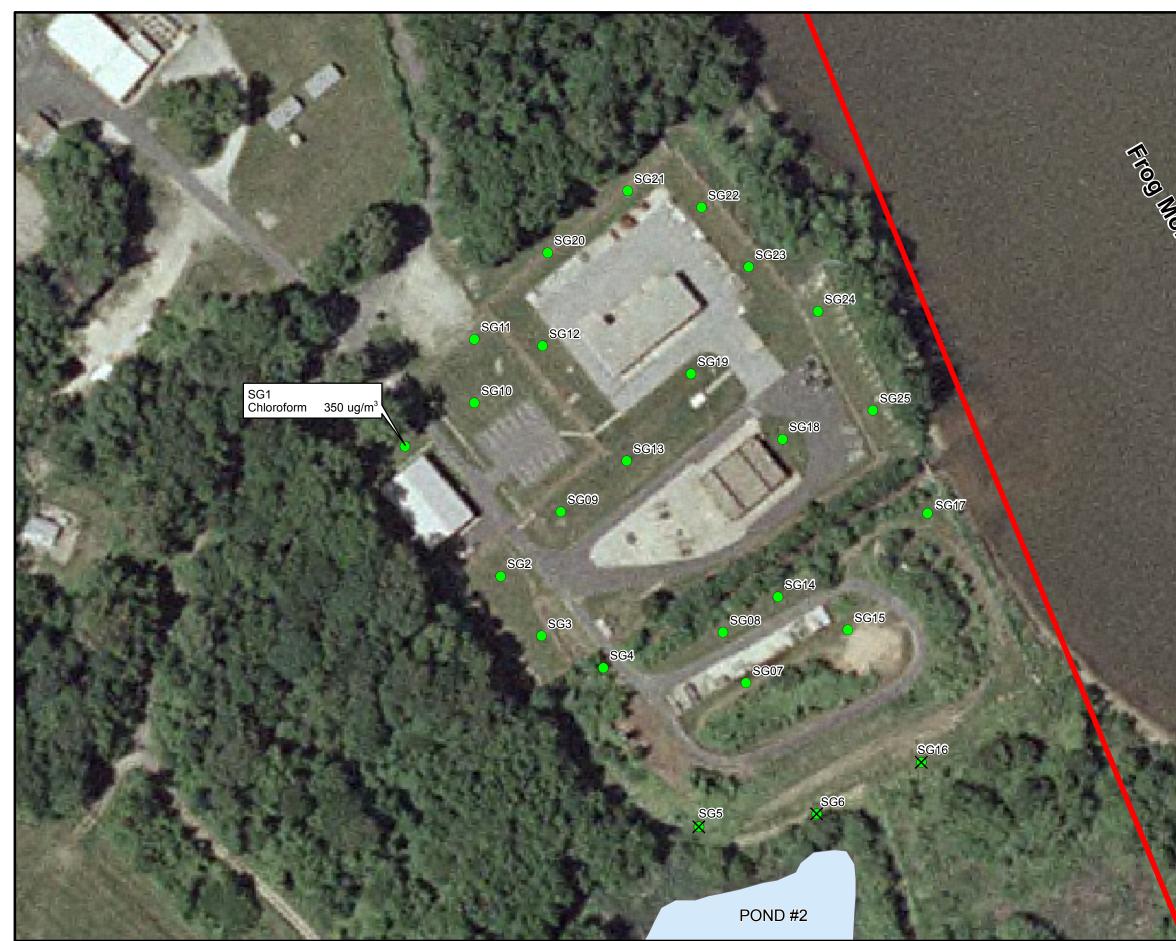
NA = not available

nc = screening value based on noncarcinogenic hazard index = 1

ca = screening value based on  $1 \times 10^{-5}$  carcinogenic risk

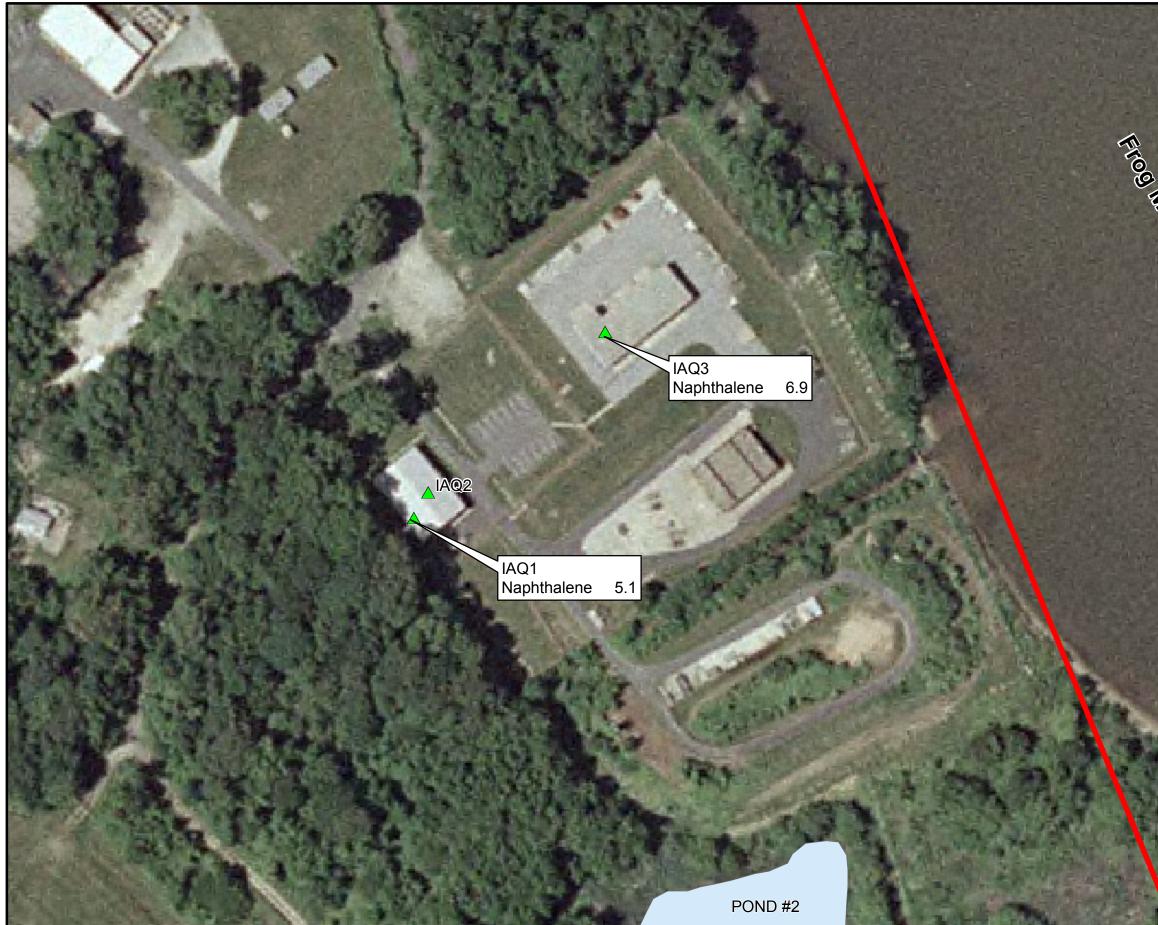
M = Maryland Department of the Environment's screening level for trichloroethene

Industrial Air Screening Levels from USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites Nov-2011



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# Section 5 Summary and Recommendations

## 5.1 SUMMARY

On January 19–20, 2012, Tetra Tech oversaw sampling of 22 temporary soil vapor probes aligned in north–south transects in key areas of the Munitions Area using direct push technology (DPT). Three locations (SG5, SG6, and SG16) of the original proposed 25 soil vapor sampling locations were not sampled due both to the steep terrain behind the munitions bunkers and the presence of standing surface water. In addition to the soil vapor samples, three indoor air quality (IAQ) samples were collected on January 25, 2012 inside two Maryland Air National Guard (MDANG) buildings in the Munitions Area. Potential interior sampling locations were identified during a previous site walk with MDANG personnel. The three indoor air sampling locations include an office, a conference room, and inside a maintenance building in the MDANG Munitions Area.

Here is a summary of the soil vapor and indoor air quality sampling:

- utility clearances were obtained from Miss Utility and through use of a private utility locating firm
- obtained Digging Permit AF IMT 103 for intrusive investigations from MDANG
- installed 22 temporary soil vapor probes in key areas of the Munitions Area using direct push technology to a depth of approximately five feet below grade, adjusted appropriately depending on the depth to groundwater
- collected 22 soil vapor samples (one sample per temporary vapor sampling point) to characterize volatile organic compounds in the shallow subsurface soil of the Munitions Area
- collected three indoor air quality samples from inside MDANG buildings in the Munitions Area using Summa<sup>®</sup> canisters over an eight hour sampling period, in conformance with United States Environmental Protection Agency (USEPA) Method TO-15

- analyzed soil vapor and indoor air samples for volatile organic compounds (VOCs) using USEPA Method TO-15 and conducted chemical data validation on all soil vapor and indoor air quality samples
- compared the analytical results to risk-based screening values to evaluate the potential for sub-slab vapor intrusion

## 5.2 FINDINGS AND RECOMMENDATIONS

The results of the soil vapor and indoor air quality investigation at the Munitions Area of the MDANG installation at Martin State Airport did not identify any regulatorily unacceptable human health risks posed to site workers by exposure to volatile organic compounds detected in soil vapor. Naphthalene did exceed its indoor air screening level at two locations, with concentrations of  $5.1 \,\mu\text{g/m}^3$  and  $6.9 \,\mu\text{g/m}^3$ . In the absence of a USEPA promulgated risk-based concentration for naphthalene, the default screening level for naphthalene is USEPA's Regional Screening Level, a value used to interpret the indoor air quality and sub-slab vapor results. The default value of  $3.6 \,\mu\text{g/m}^3$  corresponds to a carcinogenic endpoint at the  $1 \times 10^{-5}$  risk level. This value was developed by the California Environmental Protection Agency, the only state that has developed an inhalation-unit risk value for naphthalene. EPA typically evaluates potential carcinogenic risks from the  $1 \times 10^{-4}$  to  $1 \times 10^{-6}$  level which for naphthalene would mean a concentration range of  $36 \,\mu\text{g/m}^3$  to  $0.36 \,\mu\text{g/m}^3$ . As the concentrations detected fall within this range, unacceptable risks are not anticipated for site personnel.

Chloroform was detected in soil gas above the screening criterion at Munitions Area location SG1 only. Investigations at the Dump Road Area detected chloroform only in samples collected in the lower surficial aquifer, at monitoring wells DMW-9 and DMW-11 (Tetra Tech, 2012). DMW-9 is close to Pond 1, more than 400 feet southwest of the Munitions Area, and DMW-11 is more than 900 feet southwest of the Munitions Area, at the MSA runway (Figure 2-5). Both of these locations are up and slightly side-gradient of the Munitions Area. SG1 in the Munitions Area is more side-gradient than downgradient of DMW-9 and DMW-11. Thick clay layers located at monitoring wells along the southern perimeter (40-56 feet below grade in MW-14) and western perimeter (10-37 and 50-67 feet below grade in MW-17) of the Munitions Area should help attenuate any vertical vapor migration (Tetra Tech, 2010). Consequently, the chloroform detection at the Munitions Area does not appear to be associated with the larger Dump Road contaminant plume.

The results of the Dump Road investigation indicate low levels of trichloroethene, dichloroethene, and vinyl chloride in the shallow monitoring wells nearest the Munitions Area, with somewhat higher concentrations in the intermediate wells. Recent groundwater source area evaluations indicate a possible large area of trichloroethene (concentrations  $\geq$ 10,000 µg/L) in the area of wells MW-18, DMW-3, and DMW-2, leading back toward Pond 2, and to the south of the Munitions Area. The Munitions Area is side-gradient of these locations (Tetra Tech, 2012).

Although a hydraulic connection could possibly exist between the intermediate aspects of MW-18 and the upper surficial aquifer zone at MW-14 on the southern boundary of the Munitions Area, thick clay between the intermediate and shallow depths probably mitigates vertical flow between these levels. In addition, MW-14 is hydraulically side-gradient to MW-18I and therefore would not be expected to affect the area of MW-14 (Tetra Tech, 2010). Dump Road Area wells MW-15, MW-16, MW-17, MW-28, MW-33 and MW-34 are most directly hydraulically upgradient of the Munitions Area. These wells yield groundwater concentrations of TCE between 500 and 5,000  $\mu$ g/L, however, soil gas samples from the Munitions Area, directly downgradient of these wells, show no TCE, DCE, or VC above their respective screening criteria.

As such, it is concluded that the trichloroethene (TCE) plume in the upper surficial aquifer along the southern portion of the Munitions Area has not led to elevated soil vapor or indoor air quality concentrations that would threaten human health. Groundwater concentrations in this area will continue to be monitored through the annual groundwater monitoring program. The results of the chemical analyses of the soil vapor and indoor air quality samples support our recommendation that no additional assessment of this area for vapor intrusion parameters is necessary. This page intentionally left blank.

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## APPENDIX A— PERMITS, MISS UTILITY CLEARANCE, AND UTILITY CLEARANCE REPORT



#### Final Report Geophysical Survey Utility/Structure Clearance for 25 Proposed Boring Locations Martin State Airport Maryland Air National Guard Munitions Storage Area Middle River, MD Enviroscan Project Number 101133

Prepared For: Tetra Tech NUS, Inc Prepared By: Enviroscan, Inc. December 7, 2011





December 7, 2011

Mr. Dev Murali **Tetra Tech NUS, Inc.** 20251 Century Boulevard Suite 200 Germantown, MD 20874-7114

> RE: Geophysical Survey Utility/Structure Clearance for 25 Proposed Boring Locations Martin State Airport Maryland Air National Guard Munitions Storage Area Middle River, MD Enviroscan Project Number 101133

Dear Mr. Murali:

Pursuant to the specifications of our proposal, dated October 25, 2011, Enviroscan, Inc. conducted a multi-technique geophysical survey at the above-referenced site November 8 and 9, 2011. The purpose of the survey was to perform utility clearance for 25 proposed soil borings.

## 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.

The principles of these techniques are detailed below.



Mr. Murali December 7, 2011 Page 2

#### 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  $\pm 10\%$  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.

#### <u>TW-6</u>

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.

Mr. Murali December 7, 2011 Page 3

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.

#### <u>GPR</u>

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 Figure 1 and the enclosed field notes, Appendix A. Several boring locations were moved (less than 20 feet) to avoid obstructions. These new locations are noted in Table 1. During the course of the survey, the client requested that Enviroscan clear several alternate locations for some of the borings. These alternate locations are noted on the map as purple triangles. Please note that the new coordinates of boring locations moved during geoprobing (by others) to avoid marked utilities or obstructions to drilling do not appear on Table 1. Mr. Murali December 7, 2011 Page 4

## 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.

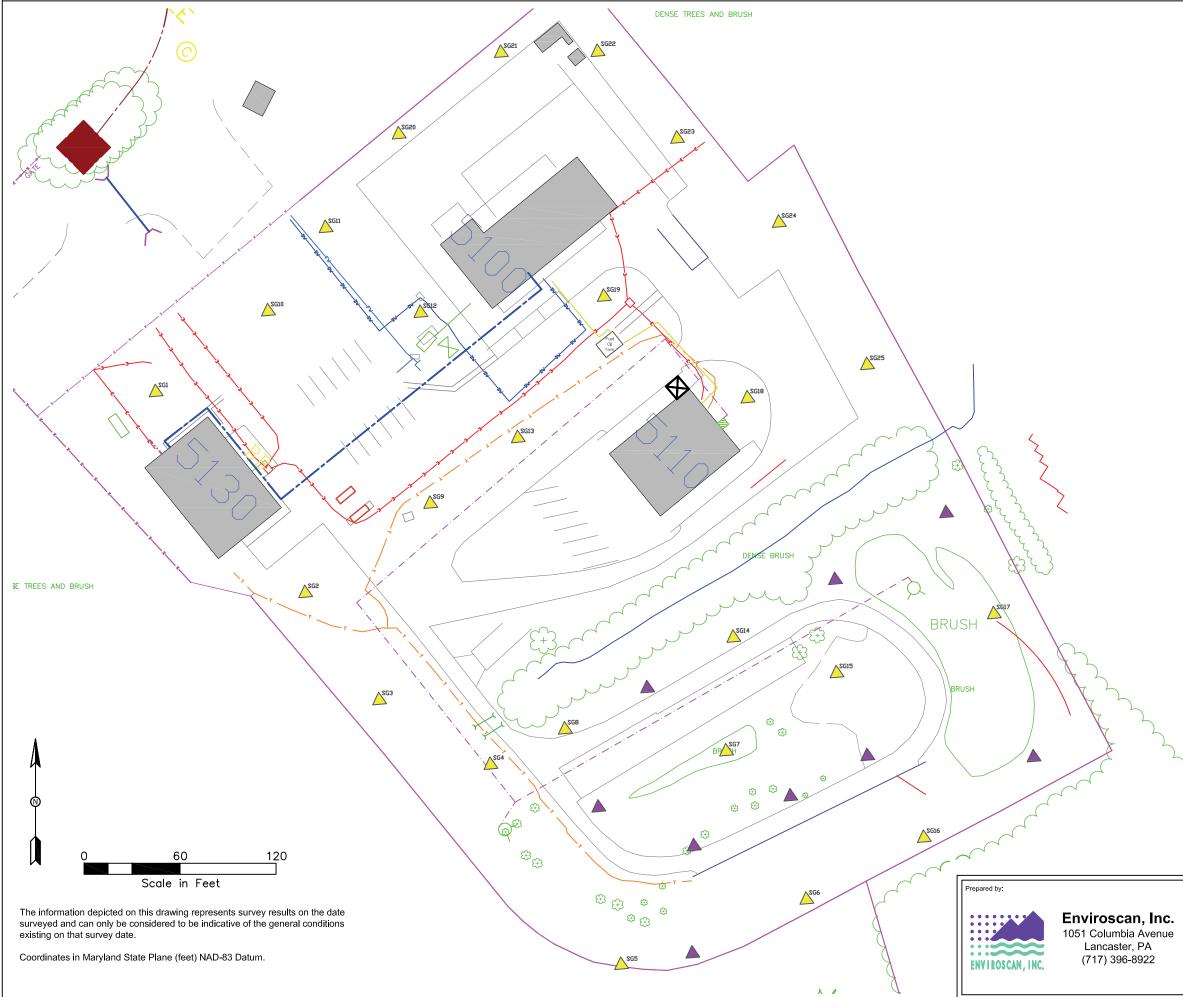
Sincerely, **Enviroscan, Inc.** 

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 Table 1: Utility Clearance Results Appendix A: Field Notes



Electrical Line	
—— Telecom Line	
Storm Line	
—— Domestic Water Line	
Fire Protection Line     Gas Line	
<ul> <li>Proposed Soil Boring</li> <li>Alternate Boring Location</li> </ul>	

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# Table 1Utility Clearance Results

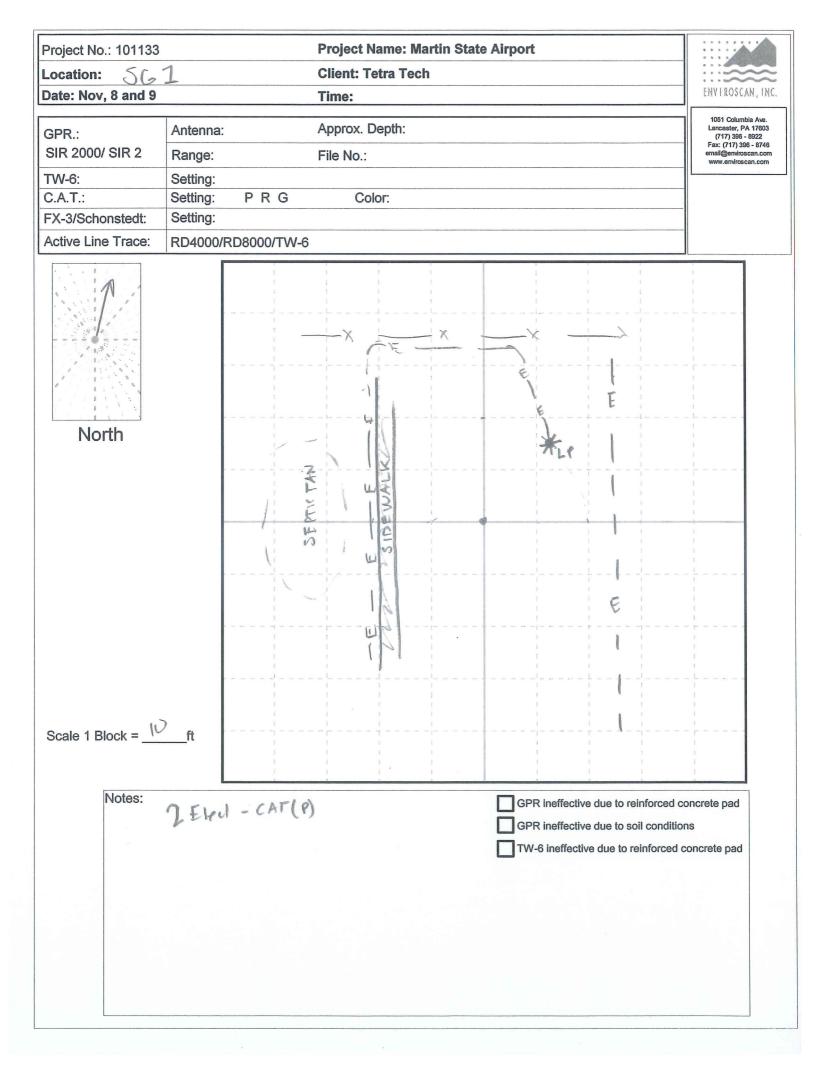
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SB_5	1479413.783	605100.502
SB_6	1479529.575	605141.305
SB_7	1479479.439	605234.044
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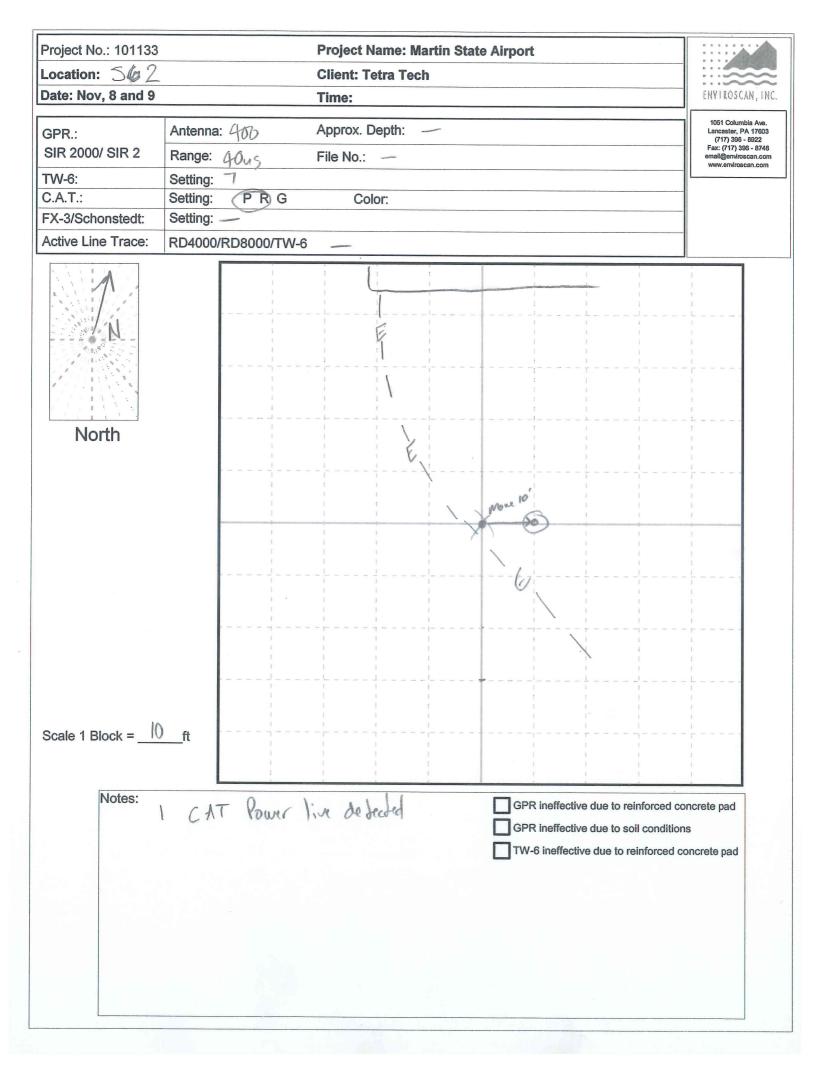
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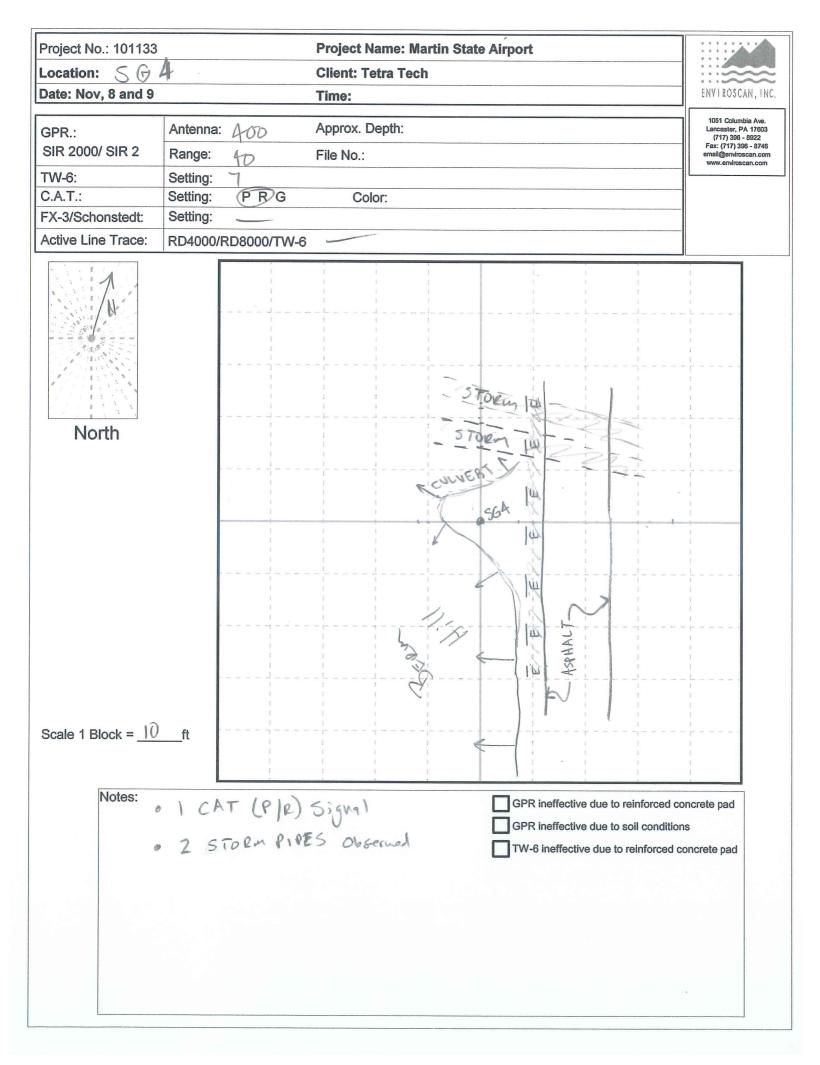
## Appendix A

**Field Notes** 

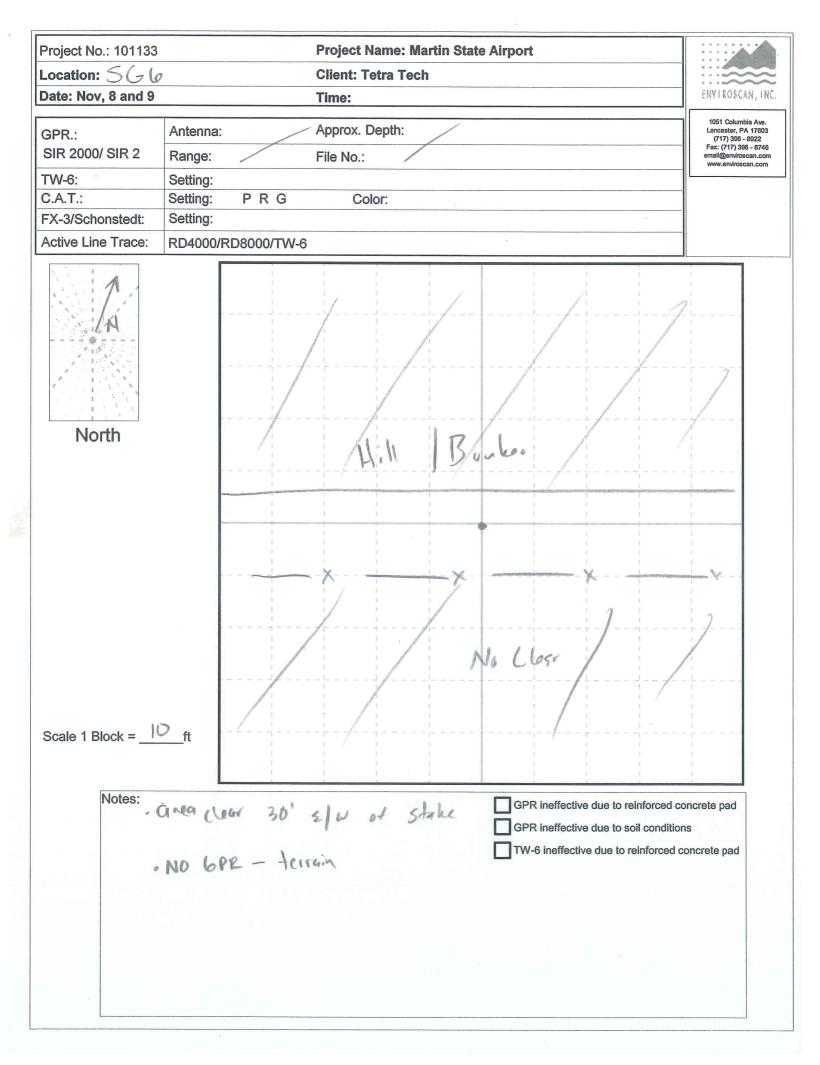






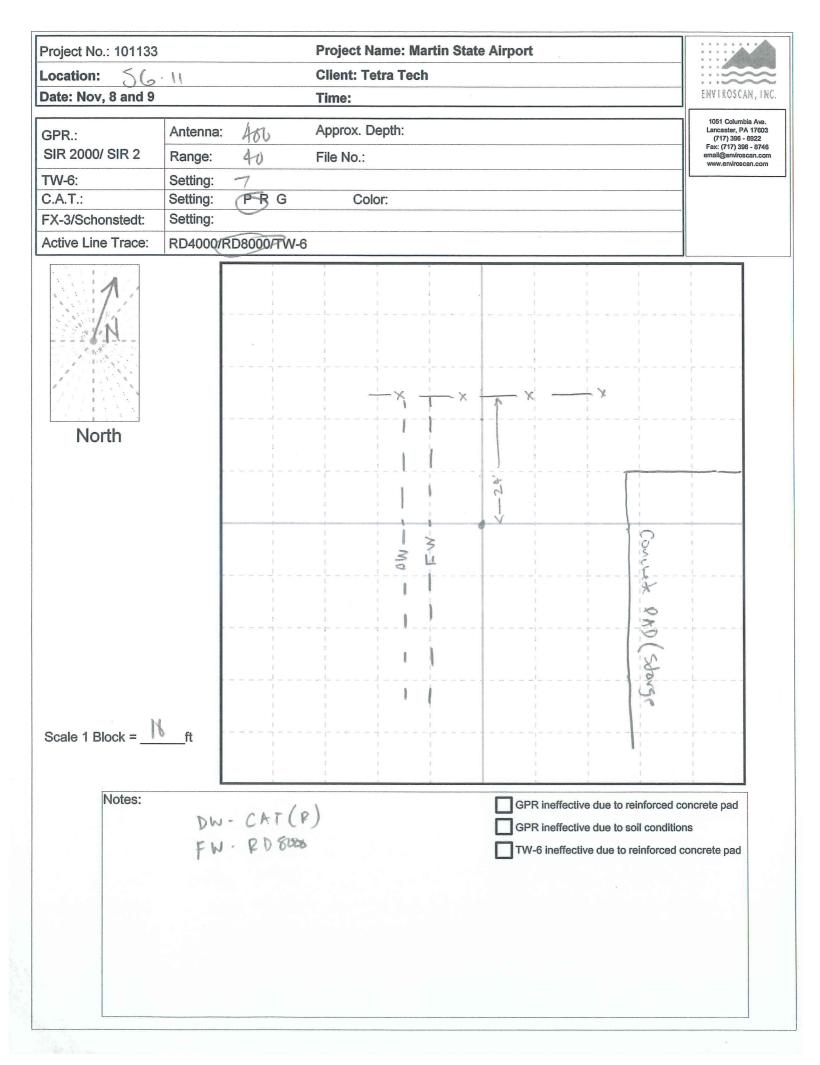


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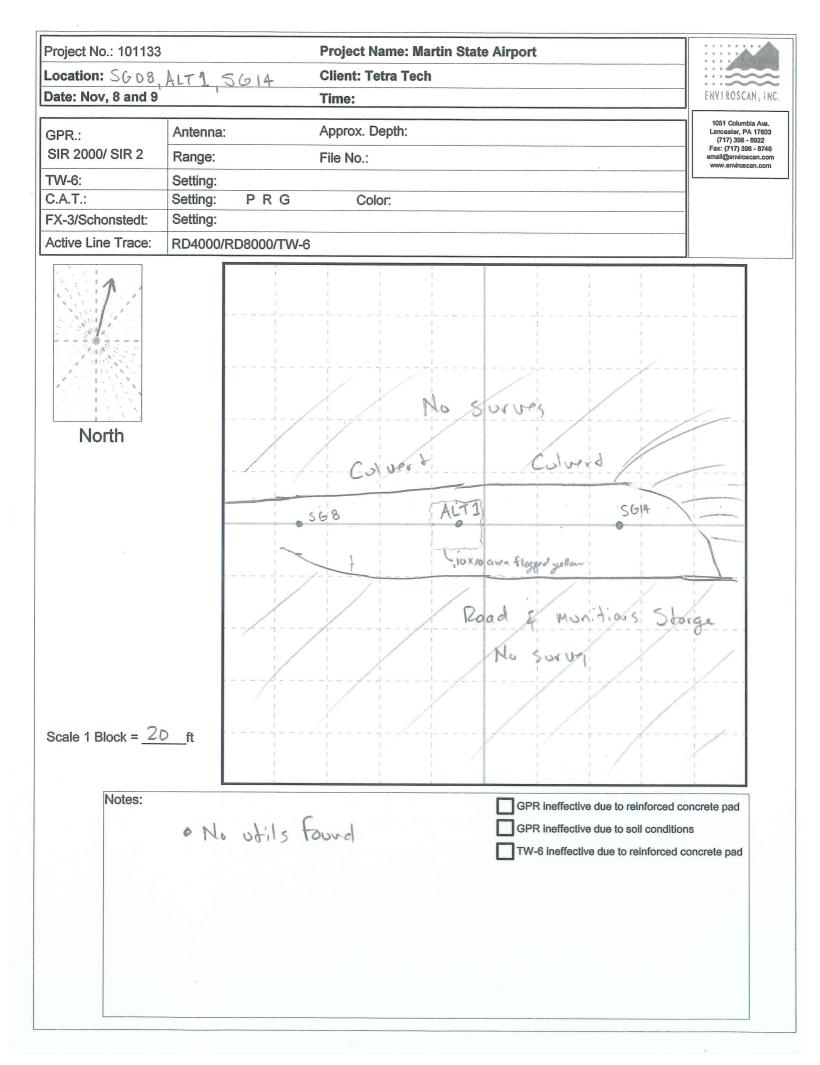
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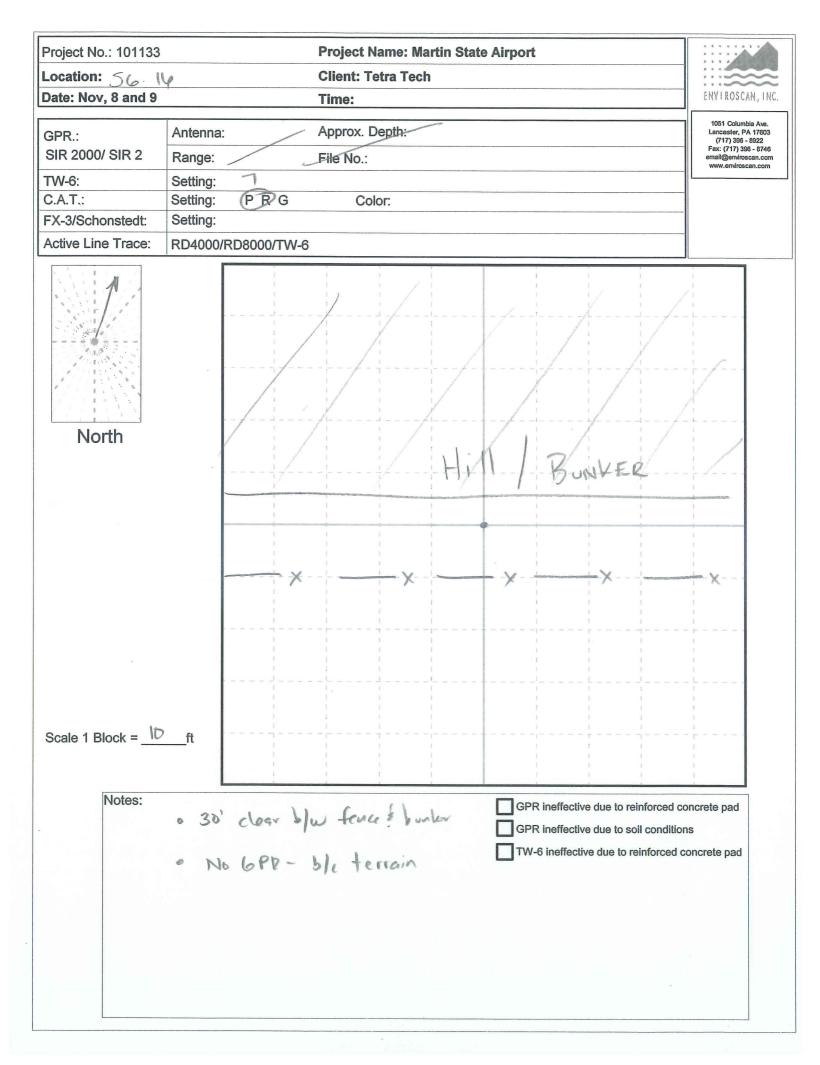
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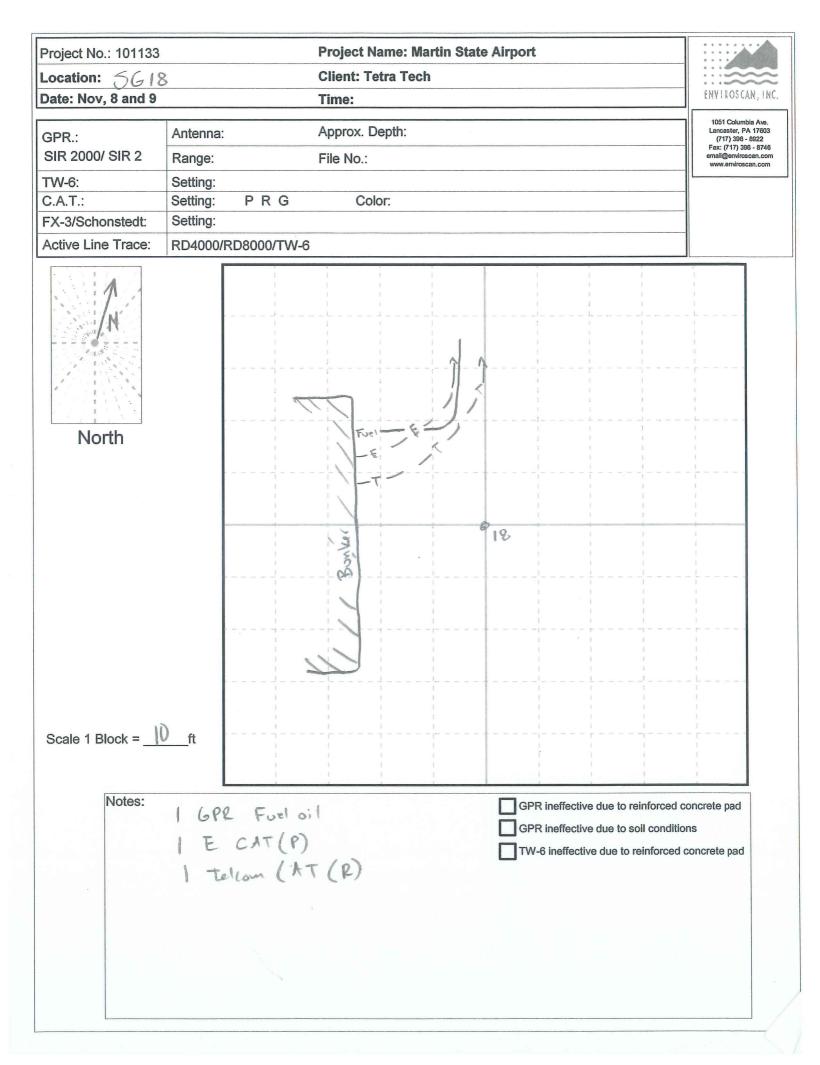


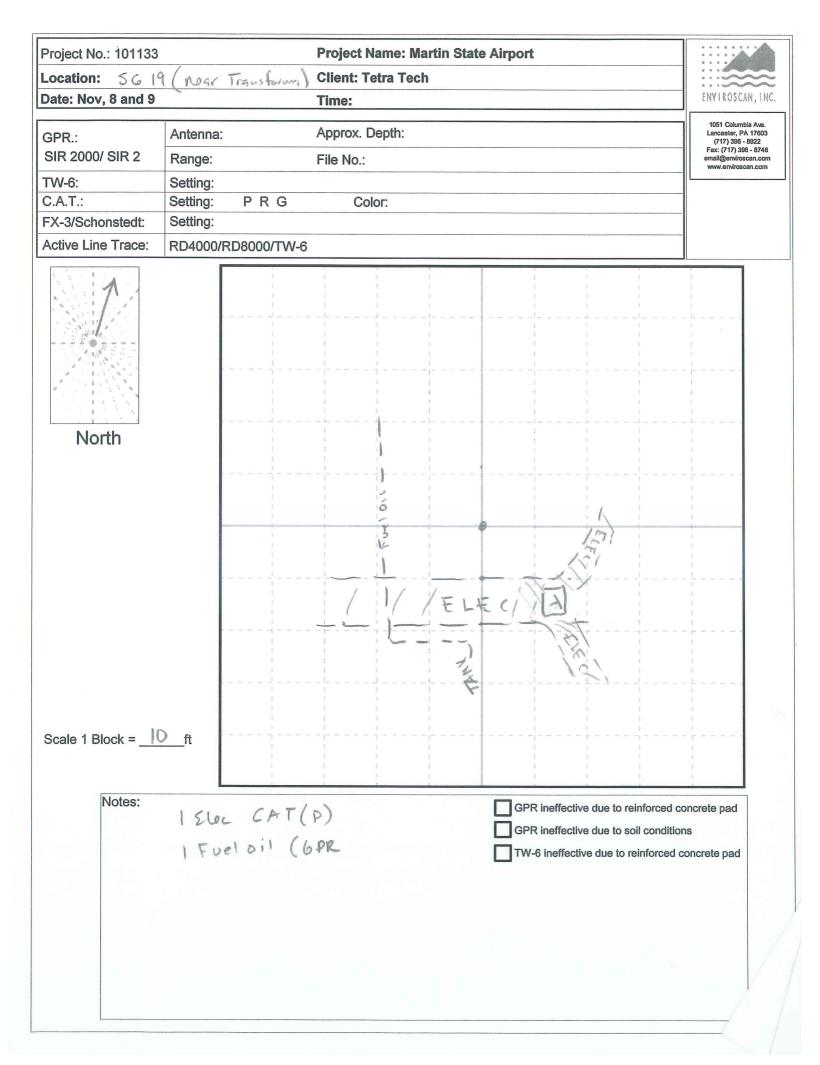
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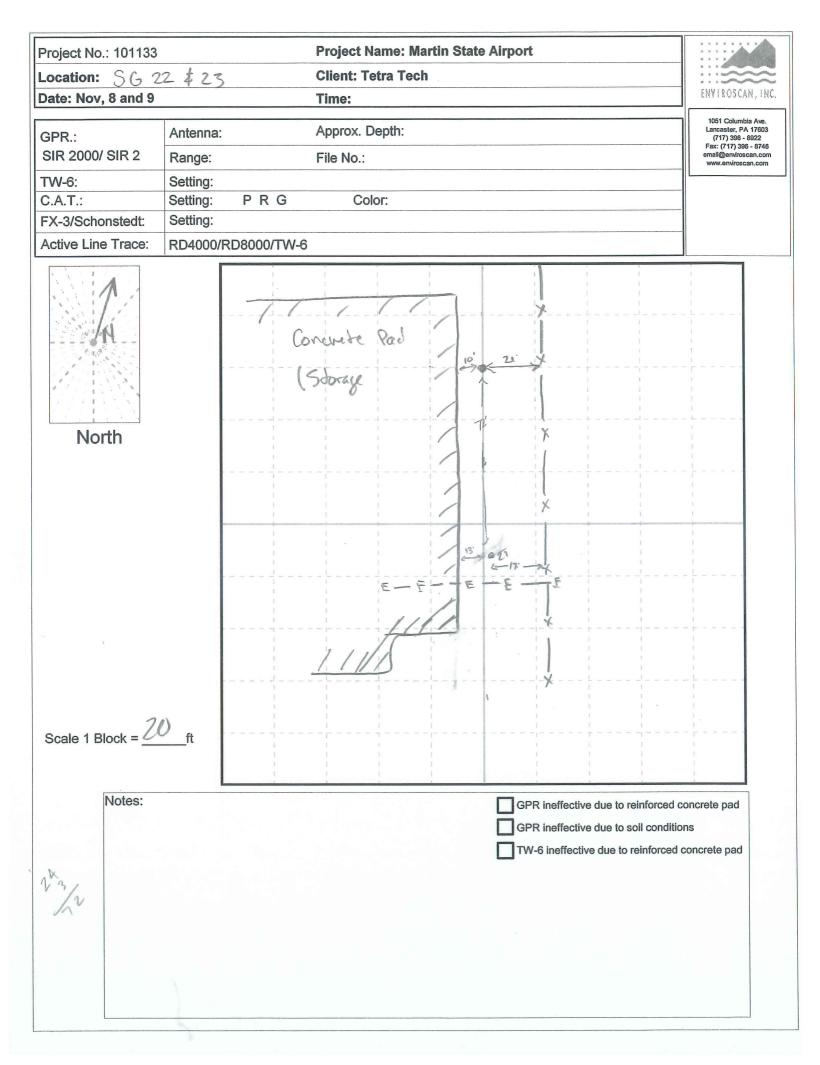








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#### APPENDIX B—SOIL VAPOR SAMPLE FIELD SHEETS



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SV Sample ID: <u>561-012012</u> SV Canister #: 558		IAQ Sample ID:				
	49	IAQ Regulator #:				
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SV Start Time:	13	07	IAQ Start Ti	me:		
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SV Canister #:	328	IAQ Canister #:	
SV Regulator #:	126	IAQ Regulator #:	
SV Start Time:	1508	IAQ Start Time:	
SV Start Pressure:	-30	IAQ Start Pressure:	
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SV Re	gulator #: 78		IAQ Regulat	or #:	
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SV Reg	ulator #: 65		IAQ Reg	ulator #:	
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SV Star	t Pressure:	30	IAQ Star	t Pressure:	
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<u>SV Car</u>	nister #: 163	3		Canister #:	
SV Rec	gulator #: 177	<u>ا</u> ا	<u>IAQ F</u>	Regulator #:	
SV Sta	rt Time: 104	<u>t.3</u>	IAQ S	Start Time:	
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<u>SV San</u>	nple ID: 5615 -	-012012	IAQ Sample	; ID:	
SV Can	ister #: 35	53	IAQ Caniste	er #:	
SV Reg	ulator #: 4C	22	IAQ Regula	tor #:	
SV Star	t Time: 14	40	IAQ Start Ti	me:	
SV Star	t Pressure: - a	29	IAQ Start Pr	essure:	
SV Stop	SV Stop Time: 1510		IAQ Stop Time:		
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			INDOOR AIR QUALIT	Y SAMPLE
SV Sampl	le ID: 5617	-012012	IAQ Sample ID:	
SV Canist	ter #: 56		IAQ Canister #:	
SV Regula	ator #:	8	IAQ Regulator #:	
SV Start T	ime:	130	IAQ Start Time:	
SV Start P	Pressure:	27	IAQ Start Pressure:	
SV Stop T SV Stop P		<u> </u>	IAQ Stop Time: IAQ Stop Pressure:	
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SV Canister	#: 16	5	IAQ Canister	#:		
SV Regulato	or#: 6	0	IAQ Regulato	or #:		
SV Start Tim	ie: Č	1825	IAQ Start Tin	ne:		
SV Start Pre	ssure:	30	IAQ Start Pre	essure:		
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SOIL	APOR SA	MPLE	INDOOR AIR QU	ALITY SAMPLE
SV Sample ID: 50	<u>520</u> 240	·	IAQ Sample ID:	
SV Regulator #:	123		IAQ Canister #:	
SV Start Time:	120	8	IAQ Start Time:	
SV Start Pressure:	-3	0	IAQ Start Pressure:	
SV Stop Time: SV Stop Pressure:	123	<u>8</u>	IAQ Stop Time: IAQ Stop Pressure:	
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	SOIL VAPOR SA	MPLE		INDOOR AIR Q	UALITY SA	MPLE
SV Sample ID: SG22-012012 SV Canister #: 232 SV Regulator #: 179 SV Start Time: 1224 SV Start Pressure: -30		INDOOR AIR QUALITY SAMPLE         IAQ Sample ID:				
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SV Stop	SV Stop Pressure:		IAQ Stop Pressure:			
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SOIL VAPOR	SAMPLE		INDOOR AIR Q	UALITY SAMPLE	
<u>SV Sample ID: 5623-011912</u> <u>SV Canister #: 463</u> SV Regulator #: 69		IAQ Samp IAQ Canis IAQ Regul	ter #:		
SV Start Time: 3	31	IAQ Start	· · · · · · · · · · · · · · · · · · ·		
SV Start Pressure: -30			AQ Start Pressure:		
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<u>SV Sam</u>	ple ID: 562L	1-011912	IAQ Sa	mple ID:	<u> </u>	<b></b>	
<u>SV Cani</u>	ister #: 36	+	IAQ Ca	nister #:			
SV Regi	ulator #:		IAQ Regulator #:				
SV Start	Time: 413	3	IAQ Start Time:				
SV Start	Pressure: -3	0	IAQ Sta	IAQ Start Pressure:			
SV Stop Time: 1443 SV Stop Pressure: -5		IAQ Stop Time: IAQ Stop Pressure:					
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**TETRATECH** SOIL VAPOR AND INDOOR AIR QUALITY SAMPLE LOG SHEET

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SAMPLIN	IG DATA:			
	SOIL VAPOR	SAMPLE	INDOOR AIR C	QUALITY SAMPLE
<u>SV Car</u> <u>SV Reg</u> <u>SV Star</u>	nple ID: $5625$ nister #: $42$ gulator #: $30$ t Time: 14 t Pressure: $-3$	5-011912 1	IAQ Sample ID: IAQ Canister #: IAQ Regulator #: IAQ Start Time: IAQ Start Pressure:	
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# **APPENDIX C—DATA VALIDATION REPORTS**



Tetra Tech

TO:	A. APANAVAGE	DATE:	MARCH 1, 2012
FROM:	A. COGNETTI	COPIES:	DV FILE

#### SUBJECT: ORGANIC DATA VALIDATION – VOC MARTIN STATE AIRPORT SAMPLE DELIVERY GROUPS (SDGs) – C1201051 and C1201063

#### SAMPLES: 26/Air/VOC

IA1-012512	IA2-012512	IA3-012512	SG07-012012
SG08-012012	SG09-012012	SG1-012012	SG10-011912
SG11-011912	SG12-011912	SG13-012012	SG14-012012
SG15-012012	SG17-012012	SG18-011912	SG19-012012
SG2-012012	SG20-011912	SG21-011912	SG22-012012
SG23-011912	SG24-011912	SG25-011912	SG3-012012
SG4-012012	TB-012012		

#### <u>Overview</u>

The sample set for Martin State Airport, SDGs C1201051 and C1201063 consisted of twenty five (25) air samples and a trip blank. All samples were analyzed for volatile organic compounds (VOC). No field duplicate pairs were included in this SDG.

The samples were collected on January 19, 20 and 25, 2012 and analyzed by Centek Laboratories, LLC. All analyses were conducted in accordance with EPA Method TO-15 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 results, internal standard recoveries, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

#### <u>Major</u>

• Tentatively Identified Compounds (TICs), containing siloxanes, are indicative of analytical column bleed and were qualified as rejected, R.

#### <u>Minor</u>

 Several laboratory control sample/laboratory control sample duplicate (LCS/LCSD) percent recoveries (%Rs) and/or relative percent differences (RPDs) of compounds were outside quality control limits. Samples were associated with the LCS according to the sample identification number and the injection logbook sequence. The table on page 2 outlines the LCS/LCSD noncompliances and the resulting data qualification. TO: A. Apanavage FROM: A. Cognetti SDG: C1201051 and C1201063 DATE: March 1, 2012

LCS Sample ID	Compound	LCS %R	LCSD %R	RPD	Qualification
ALCS1UG-012712	Methylene chloride	>UL	>UL	Ok	K
	1,1-dichloroethene	Ok	<ll< td=""><td>&gt;UL</td><td>UL</td></ll<>	>UL	UL
	Carbon tetrachloride	Ok	<ll< td=""><td>Ok</td><td>No action</td></ll<>	Ok	No action
	Chloromethane	Ok	<ll< td=""><td>&gt;UL</td><td>L, UL</td></ll<>	>UL	L, UL
	dichlorodifluoromethane	Ok	<ll< td=""><td>Ok</td><td>No action</td></ll<>	Ok	No action
	Naphthalene	Ok	<ll< td=""><td>&gt;UL</td><td>L, J, UL</td></ll<>	>UL	L, J, UL
	Vinyl chloride	Ok	<ll< td=""><td>Ok</td><td>No action</td></ll<>	Ok	No action
ALCS1UG-012812 *	1,1,2-trichloroethane	>UL	>UL	Ok	No action
	1,2,4-trimethylbenzene	>UL	>UL	Ok	No action
	Ethylbenzene	>UL	>UL	Ok	No action
	m&p xylenes	>UL	>UL	Ok	K
	Naphthalene	>UL	Ok	Ok	No action
	o-xylene	>UL	>UL	Ok	K
	1,2-dichloroethane	Ok	>UL	Ok	No action
	Benzene	Ok	>UL	Ok	No action
	Chlorobenzene	Ok	>UL	Ok	No action
	Chloroform	Ok	>UL	Ok	No action
	Cis-1,2-dichloroethene	Ok	>UL	Ok	No action
	Methyl ethyl ketone	Ok	>UL	>UL	K
	Toluene	Ok	>UL	Ok	No action

\*LCS, ALCS1UG-012812, affects samples analyzed after 12 pm on January 28, 2012 and all samples analyzed on January 29, 2012.

• Several compounds had matrix spike/ matrix spike duplicate (MS/MSD) %Rs outside quality control limits in sample SG3-012012. The following table outlines the MS/MSD noncompliances and the resulting data qualification in sample SG3-012012.

Compound	MS %R	MSD %R	RPD	Sample conc. >4X spike conc.	Qualification
1,2,4-trimethylbenzene	>UL	>UL	Ok	Yes	No action
Carbon disulfide	<ll< td=""><td><ll< td=""><td>Ok</td><td>Yes</td><td>No action</td></ll<></td></ll<>	<ll< td=""><td>Ok</td><td>Yes</td><td>No action</td></ll<>	Ok	Yes	No action
Ethylbenzene	>UL	>UL	Ok	No	K
m&p xylenes	>UL	>UL	Ok	No	K
Methyl ethyl ketone	>UL	>UL	Ok	Yes	No action
Methylene chloride	>UL	>UL	Ok	No	No action
Naphthalene	>UL	Ok	>UL	No	J, conflicting bias
o-xylene	>UL	>UL	Ok	No	К
1,2,4-trichlorobenzene	Ok	<ll< td=""><td>&gt;UL</td><td>No</td><td>UL</td></ll<>	>UL	No	UL
Chloromethane	Ok	<ll< td=""><td>&gt;UL</td><td>No</td><td>L</td></ll<>	>UL	No	L
Toluene	Ok	>UL	Ok	Yes	No action

• TICs were reported for each sample. TICs, not related to column bleed, are considered presumptively present and were qualified as estimated (NJ).

PAGE 2

TO: A. Apanavage FROM: A. Cognetti SDG: C1201051 and C1201063 DATE: March 1, 2012

<u>Notes</u>

Nondetected results were reported to the reporting limit.

Target compounds were reported in ug/m<sup>3</sup> units.

TICs were reported in ppbv units by the laboratory. TIC results were not converted to ug/m<sup>3</sup> units by the laboratory.

#### Executive Summary

**Laboratory Performance:** Several LCS/LCSD percent recoveries %Rs and/or RPDs of compounds were outside quality control limits.

**Other Factors Affecting Data Quality:** Several compounds had MS/MSD %Rs outside quality control limits in sample SG3-012012. TICs were qualified as estimated (NJ).

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 EPA Method TO-15. The text of this report has been formulated to address only those problem areas affecting data quality.

2

For

/Tetra Tech Ann Cognetti Chemist/Data Validator

Fetra 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 PAGE 3

## 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

								011010	
PROJ_NO: 03634	NSAMPLE	IA1-012512			IA2-012512			IA3-012512	
SDG: C1201063	LAB_ID	C1201063-001A	IA		C1201063-002A	ZA		C1201063-003A	
FRACTION: OV	SAMP_DATE	1/25/2012			1/25/2012			1/25/2012	
MEDIA: AIR	QC_TYPE	MN			MN			MN	
	UNITS	UG/M3			UG/M3			UG/M3	
	PCT_SOLIDS								
	DUP_OF								
PARAMETER		RESULT	Val	QLCD	RESULT	٨۵٢	alcd	RESULT VQL	QLCD
1,1,1-TRICHLOROETHANE		0.83 U	n		0.83 U	D		0.83 U	
1,1,2-TRICHLOROETHANE		0.83 U	n		0.83 U	D		0.83 U	
1,1-DICHLOROETHANE		0.62 U	D		0.62 U	n		0.62 U	
1,1-DICHLOROETHENE		9.0	0.6 UL	Ш	0.6	0.6 UL	Е	0.6 UL	ш
1,2,4-TRICHLOROBENZENE	Ш	1.1	∍		1.1	1.1 U		1.1 U	
1,2,4-TRIMETHYLBENZENE	ш	1.6			1			1.8	
1,2-DICHLOROBENZENE		0.92	∍		0.92 U	n		0.92 U	
1,2-DICHLOROETHANE		0.62 U	U		0.62 U	n		0.62 U	
1,3-DICHLOROBENZENE		0.92 U	n		0.92 U	D		0.92 U	
1,4-DICHLOROBENZENE		0.92 U	D		0.92 U	∍	1	0.92 U	
2-BUTANONE		26 K	¥	Е	4.3			e	
BENZENE		1.3			1.3	-		1.3	
CARBON DISULFIDE		0.47 U	n		0.47 U	∍		0.47 U	
CARBON TETRACHLORIDE	Щ	0.26 U	n		0.26 U	D		0.26 U	
CHLOROBENZENE		0.7 U	D		0.7 U	<u> </u>		0.7 U	
CHLOROFORM		0.65 J	ſ	Р	0.6 J	ſ	Ъ	0.74 U	
<b>CHLOROMETHANE</b>		0.31 UI	Ч	ш	0.97	_	ш	0.73 L	ш
<b>CIS-1,2-DICHLOROETHENE</b>	LE L	0.6	<u>р</u>		0.6	D		0.6 U	
DICHLORODIFLUOROMETHANE	THANE	2.3			2.4			0.75 U	
ETHYLBENZENE		0.75			0.71			0.84	
M+P-XYLENES		1.9			1.7			4.1	
METHYL TERT-BUTYL ETHER	HER	0.55	N		0.55	D		0.55 U	
METHYLENE CHLORIDE		0.99 K	¥	ш	0.46 J	ſ	EP	0.53 U	
NAPHTHALENE		5.1	<b>ب</b> ـ	ш	2.1 L	<u>ب</u>	ш	6.9 L	ш
O-XYLENE		0.71			0.62	<b>ر</b>	4	1.9	
TETRACHLOROETHENE		-	<u> </u>		-	Ъ		1 C	
TOLUENE		3.5			3.2			3.1	
TRANS-1,2-DICHLOROETHENE	HENE	0.6 U	5		0.6	0.6 U		0.6 U	
TRICHLOROETHENE		0.22 U	5		0.22 U	D		0.22 U	
VINYL CHLORIDE		0.1 U	Э		0.	0.1 U		0.1 U	

PROJ NO: 03634	NSAMPLE	SG07-012012		SG08-012012		SG09-012012		SG10-011912	
SDG: C1201051	LAB_ID	C1201051-022A		C1201051-018A		C1201051-012A		C1201051-002A	
FRACTION: OV	SAMP_DATE	1/20/2012		1/20/2012		1/20/2012		1/19/2012	
MEDIA: AIR	QC_TYPE	WN		WN		MN		NM	
	UNITS	UG/M3		UG/M3		UG/M3		UG/M3	
	PCT_SOLIDS								
	DUP_OF		-	-	-				
PARAMETER		RESULT VQL	L QLCD	RESULT VQL	arcd	Å	QLCD	RESULT VQL	alcd
1,1,1-TRICHLOROETHANE		0.83 U		0.83 U		0.83 U		0.83 U	
1,1,2-TRICHLOROETHANE		0.83 U		0.83 U		0.83 U		0.83 U	
1,1-DICHLOROETHANE		0.62 U		0.62 U		0.62 U		0.62 U	
1,1-DICHLOROETHENE		0.6 UL	Ш	0.6 UL	Е	0.6 UL E	ш	0.6 UL	ш
1,2,4-TRICHLOROBENZENE	Ш	1.1 U		1.1 U		1.1 U		1.1 U	
1,2,4-TRIMETHYLBENZENE	ш	17 K	Ш	32 K	Ш	_	ш	11	
1,2-DICHLOROBENZENE		0.92 U		0.92 U		0.92 U		0.92 U	
1,2-DICHLOROETHANE		0.62 U		0.62 U		0.62 U		0.62 U	
1,3-DICHLOROBENZENE		0.92 U		0.92 U		0.92 U		0.92 U	
1,4-DICHLOROBENZENE		0.92 U		0.92 U		0.92 U		0.92 U	
2-BUTANONE		22 K	Ш	51 K	ш	51 K	ш	8.7 J	4
BENZENE		24		21		24		2.5	
CARBON DISULFIDE		4		4.9		7.3		0.79	
CARBON TETRACHLORIDE	Ш	0.26 U		0.26 U		0.26 U		0.26 U	
CHLOROBENZENE		0.7 U		0.7 U		0.7 U		0.7 U	
CHLOROFORM		0.74 U		0.74 U		0.74 U		0.74 U	
<b>CHLOROMETHANE</b>		0.31 UL	ш	0.31 UL	ш	0.31 UL E	ш	0.78 L	ш
<b>CIS-1,2-DICHLOROETHENE</b>	E	4.1		9.0		0.6 U		0.6 U	
DICHLORODIFLUOROMETHANE	HANE	2		2.2		2.1		2.6	
ETHYLBENZENE		4.2		5.8		4.4		3.4	
M+P-XYLENES		14		24 K	ш	14		1	
METHYL TERT-BUTYL ETHER	łER	0.55 U		0.55 U		0.55 U		0.55 U	
METHYLENE CHLORIDE		0.71 K	ш	0.74 K	ш	×	ш	0.46 J	Ъ
NAPHTHALENE		5.6 L	ш	11 L	ш	_	ш	3.6 L	ш
O-XYLENE		6		15 K	ш	7.7		5.9	
<b>TETRACHLOROETHENE</b>		1 U		1.8		1 U	1	1 U	
TOLUENE		41		32		22		26	
TRANS-1,2-DICHLOROETHENE	HENE	0.6 U		0.6 U		0.6 U		0.6 U	
TRICHLOROETHENE		0.22 U		0.22 U		0.22 U		0.22 U	
VINYL CHLORIDE		77		0.1 U		0.1 U	i	0.1 U	

		210210-196		21911-01190		SG12-011912		210210-0100	
SDG: C1201051	LAB_ID	C1201051-015A		C1201051-001A		C1201051-003A		C1201051-011A	
FRACTION: OV	SAMP_DATE	1/20/2012		1/19/2012		1/19/2012		1/20/2012	
MEDIA: AIR	QC_TYPE	MN		MN		MN		MN	
	UNITS	UG/M3		UG/M3		UG/M3		UG/M3	
	PCT_SOLIDS								
	DUP_OF								
PARAMETER		RESULT VOL	arcd	RESULT VQL	arcp	RESULT VQL	arcp	RESULT VQL	alcd
1,1,1-TRICHLOROETHANE	-	0.83 U		0.83 U		0.83 U		0.83 U	
1,1,2-TRICHLOROETHANE	:	0.83 U		0.83 U		0.83 U		0.83 U	
1,1-DICHLOROETHANE		0.62 U		0.62 U		0.62 U		0.62 U	
1,1-DICHLOROETHENE		0.6 UL	Е	0.6 UL	Е	0.6 UL	ш	0.6 UL	ш
1,2,4-TRICHLOROBENZENE	ų	1.1 U		1.1 U		1.1 U		1.1 U	
1,2,4-TRIMETHYLBENZENE	ш	31 K	Ш	11		15		19 K	ш
1,2-DICHLOROBENZENE		0.92 U		0.92 U		0.92 U		0.92 U	
1,2-DICHLOROETHANE		0.62 U		0.62 U		0.62 U		0.62 U	
1,3-DICHLOROBENZENE		0.92 U		0.92 U		0.92 U		0.92 U	
1,4-DICHLOROBENZENE		0.92 U		0.92 U		0.92 U		0.92 U	
2-BUTANONE		470 K	Е	5.4		18		220 K	ш
BENZENE		39		2.7		4.6		11	
CARBON DISULFIDE		13		1.2		1.8		4.1	
CARBON TETRACHLORIDE	E	0.26 U		0.26 U		0.26 U		0.26 U	
CHLOROBENZENE		0.7 U		0.7 U		0.7 U		0.7 U	
CHLOROFORM		350		0.74 U		0.74 U		0.74 U	
<b>CHLOROMETHANE</b>		0.31 UL	E	0.73 L	ш	0.31 UL	ш	0.31 UL	ш
<b>CIS-1,2-DICHLOROETHENE</b>	IE	0.6 U		0.6 U		0.6 U		0.6 U	
DICHLORODIFLUOROMETHANE	THANE	1.8		2.1		2.1		2	
ETHYLBENZENE		8.8		3.7		4		4.9	
M+P-XYLENES		35 K	ш	12		13		16	
METHYL TERT-BUTYL ETHER	HER	0.55 U		0.55 U		0.55 U		0.55 U	_
METHYLENE CHLORIDE		0.46 J	EP	0.53 U		0.6 K	ш	0.53 U	
NAPHTHALENE		5.6 L	E	2.7 L	ш	3 L	ш	4.7 L	ш
O-XYLENE		19 K	Ш	7		7.5		9.4	
TETRACHLOROETHENE		- U		- U		1 U		1 U	
TOLUENE		76		16		22		33	
<b>TRANS-1,2-DICHLOROETHENE</b>	HENE	0.6 U		0.6 U		0.6 U		0.6 U	
<b>TRICHLOROETHENE</b>		0.22 U		0.22 U		0.22 U		0.22 U	
VINYL CHLORIDE		0.1 U		0.1 U		0.1 U		0.1 U	

PROJ_NO: 03634	NSAMPLE	SG14-012012		SG15-012012		SG17-012012		SG18-011912	
SDG: C1201051		C1201051-019A		C1201051-021A		C1201051-020A		C1201051-009A	
FRACTION: OV	SAMP_DATE	1/20/2012		1/20/2012		1/20/2012		1/19/2012	
MEDIA: AIR	QC_TYPE	MN		WN		WN		WN	
	UNITS	UG/M3		UG/M3		UG/M3		UG/M3	
	PCT_SOLIDS							-	
	DUP_OF			-	-				
PARAMETER		RESULT V	Val alcd	RESULT VQL	al alco	RESULT VQL	alcd	RESULT VQL	arcd
1,1,1-TRICHLOROETHANE		0.83 U		0.83 U		0.83 U		0.83 U	
1,1,2-TRICHLOROETHANE		0.83 U		0.83 U		0.83 U		0.83 U	
1,1-DICHLOROETHANE		0.62 U		0.62 U		0.62 U		0.62 U	
1,1-DICHLOROETHENE		0.6 UL	L	0.6 UL	Ш	0.6 UL	Ε	0.6 UL	Е
1,2,4-TRICHLOROBENZENE	Щ	1.1 U		1.1 U		1.1 U		1.1 U	
1,2,4-TRIMETHYLBENZENE	ш	25 K	ш	30 K	Ŧ	25 K	E	23 K	Е
1,2-DICHLOROBENZENE		0.92 U		0.92 U		0.92 U		0.92 U	
1,2-DICHLOROETHANE		0.62 U		0.62 U		0.62 U		0.62 U	
1,3-DICHLOROBENZENE		0.92 U		0.92 U		0.92 U		0.92 U	
1,4-DICHLOROBENZENE		0.92 U		0.92 U		0.92 U		0.92 U	
2-BUTANONE		55 K	Е	110 K	ш	130 K	ш	400 K	ш
BENZENE		10		14		22		10	
CARBON DISULFIDE		2.1		5.3		0.47 U		13	
<b>CARBON TETRACHLORIDE</b>	ш	0.26 U		0.26 U		0.26 U		0.26 U	
CHLOROBENZENE		0.7 U		0.7 U		0.7 U		0.7 U	
CHLOROFORM		0.74 U		0.74 U		0.74 U		0.74 U	
CHLOROMETHANE		0.31 UI	LE	0.31 UI	E E	0.31 UL	ш	0.31 UL	E
<b>CIS-1,2-DICHLOROETHENE</b>	Ξ	0.6 0		0.6 U		0.6 U		0.6 U	
DICHLORODIFLUOROMETHANE	THANE	2.1		2		1.8		2.1	
ETHYLBENZENE		5.3		4.9		4.9		4.6	
M+P-XYLENES		18 K	Ш	17		17		16	
METHYL TERT-BUTYL ETHER	HER	0.55 U		0.55 U		0.55 U		0.55 U	
METHYLENE CHLORIDE		2.6 K	ш	0.42 J	EP	0.71 K	ш	0.67 K	ш
NAPHTHALENE		11 L	ш	7.2 L	ш	3.9 L	ш	4.4 L	ш
O-XYLENE		11 K	Ш	14 K	ш	16 K	ш	5 7	Ш
TETRACHLOROETHENE		1 U		1 1		- U		1 U	
TOLUENE		22		28		34		23	
TRANS-1,2-DICHLOROETHENE	HENE	0.6 U		0.6 U		0.6 U		0.6 U	
TRICHLOROETHENE		0.66		0.22 U		0.22 U		0.22 U	
VINYL CHLORIDE		0.1 U		0.1 U		0.1 U		0.1 U	

PROJ_NO: 03634	NSAMPLE	SG19-012012			SG20-011912		SG2-012012		SG21-011912	
SDG: C1201051		C1201051-010A	A		C1201051-004A		C1201051-013A		C1201051-005A	
FRACTION: OV	SAMP_DATE	1/20/2012			1/19/2012		1/20/2012		1/19/2012	
MEDIA: AIR	QC_TYPE	MN			MN		NN		MN	
	UNITS	UG/M3			UG/M3		UG/M3		UG/M3	
	PCT_SOLIDS									
	DUP_OF								-	
PARAMETER		RESULT	٨۵۲	arcd	RESULT VQL	arcD	RESULT VQL	alcd	RESULT VQL	arcp
1,1,1-TRICHLOROETHANE		0.83	U		0.83 U		0.83 U		0.83 U	
1,1,2-TRICHLOROETHANE		0.83 U	n		0.83 U		0.83 U		0.83 U	
1,1-DICHLOROETHANE		0.62 U	D		0.62 U		0.62 U		0.62 U	
1,1-DICHLOROETHENE		0.6 UL	٦L	E	0.6 UL	ш	0.6 UL	ш	0.6 UL	ш
1,2,4-TRICHLOROBENZENE	ш	1.1 U	D		1.1 U		1.1 U		1.1 U	
1,2,4-TRIMETHYLBENZENE	ш	22 K	×	ш	18		16 K	E	27	
1,2-DICHLOROBENZENE		0.92	n		0.92 U		0.92 U		0.92 U	
1,2-DICHLOROETHANE		0.62	n		0.62 U		0.62 U		0.62 U	
1,3-DICHLOROBENZENE		0.92	U		0.92 U		0.92 U		0.92 U	
1,4-DICHLOROBENZENE		0.92	D		0.92 U		0.92 U		0.92 U	
2-BUTANONE		240 K	¥	Ш	11		72 K	ш	57	
BENZENE		24			4.5		27		6.3	
CARBON DISULFIDE		27			2		14		3.9	
CARBON TETRACHLORIDE	Е	0.26	5		0.26 U		0.26 U		0.26 U	
CHLOROBENZENE		0.7 U	D		0.7 U		0.7 U		0.7 U	
CHLOROFORM		0.74 U	<b>D</b>		0.74 U		0.74 U		0.74 U	
<b>CHLOROMETHANE</b>		0.31 UL	n٢	Ш	0.31 UL	ш	0.31 UL	ш	0.31 UL	ш
<b>CIS-1,2-DICHLOROETHENE</b>	Е	0.6	D		0.6 U		0.6 U		0.6 U	
DICHLORODIFLUOROMETHANE	THANE	1.8			1.7		2.1		2.1	
ETHYLBENZENE		4.2			5.1		6.8		5.1	
M+P-XYLENES		14			16		18 X	ш	17	
METHYL TERT-BUTYL ETHER	HER	0.55	n		0.55 U		0.55 U		0.55 U	
METHYLENE CHLORIDE		1.3	×	Е	0.39 J	Ð	0.46 J	EP	0.39 J	Ð
NAPHTHALENE		3.5	L	Е	6 L	ш	5.6 L	ш	7.9 L	ш
O-XYLENE		8.2			9.2		9.7 K	ш	9.4	
TETRACHLOROETHENE		-	_		1 U		- U		- -	
TOLUENE		36			29		51		35	
TRANS-1,2-DICHLOROETHENE	HENE	0.6 U	_		0.6 U		0.6 U		0.6 U	
TRICHLOROETHENE		0.22 U	5		0.22 U		0.22 U		0.22 U	
<b>VINYL CHLORIDE</b>		0.1 U	5		0.1 U		0.1 U		0.1 U	

PROJ NO: 03634	NSAMPLE	SG22-012012		SG23-011912		SG24-011912	:	SG25-011912		
SDG: C1201051		C1201051-016A		C1201051-006A		C1201051-007A		C1201051-008A	T	
FRACTION: OV	SAMP_DATE	1/20/2012		1/19/2012		1/19/2012		1/19/2012		
MEDIA: AIR	QC_TYPE	MN		MN		MM		MM		
	UNITS	UG/M3		UG/M3		UG/M3		UG/M3		
	PCT_SOLIDS									
	DUP_OF		-						ſ	
PARAMETER		RESULT VQL	arcd	RESULT VQL	arcD	RESULT VQL	QLCD	RESULT	Val alcd	Q
1,1,1-TRICHLOROETHANE		0.83 U		0.83 U		0.83 U		0.83 U		
1,1,2-TRICHLOROETHANE		0.83 U		0.83 U		0.83 U		0.83 U		
1,1-DICHLOROETHANE		0.62 U		0.62 U		0.62 U		0.62	n	
1,1-DICHLOROETHENE		0.6 UL	Е	0.6 UL	Е	0.6 UL	ш	0.6 UL	UL UL	
1,2,4-TRICHLOROBENZENE	щ	1.1 U		1.1 U		1.1 U		1.1 U		
1,2,4-TRIMETHYLBENZENE	ш	26 K	Ш	25		19 K	ш	2.4		
1,2-DICHLOROBENZENE		0.92 U		0.92 U		0.92 U			<u>р</u>	
1,2-DICHLOROETHANE		0.62 U		0.62 U		0.62 U		0.7		
1,3-DICHLOROBENZENE		0.92 U		0.92 U		0.92 U		0.92 U		
1,4-DICHLOROBENZENE		0.92 U		0.92 U		0.92 U		0.92 U		
2-BUTANONE		270 K	E	30		40 K	ш	22 K	ш	
BENZENE		39		4.1		10		1.4		
CARBON DISULFIDE		33		1.8		1.3		0.6		
CARBON TETRACHLORIDE	ų	0.26 U		0.26 U		0.26 U		0.26 U	_	
CHLOROBENZENE		0.7 U		0.7 U		0.7 U		0.7 U		
CHLOROFORM		0.74 U		0.74 U		0.74 U		0.5		
CHLOROMETHANE		0.67 L	Е	0.31 UL	ш	0.31 UL	ш	0.31 UL		
<b>CIS-1,2-DICHLOROETHENE</b>	Ε	0.6 U		0.6 U		0.6 U			D	
DICHLORODIFLUOROMETHANE	THANE	61		1.8		2		2.3		
ETHYLBENZENE		6.9		4.8		6.9		2.3		
M+P-XYLENES		30 K	ш	17		23 K	ш	5		
METHYL TERT-BUTYL ETHER	HER	0.55 U		0.55 U		0.55 U		0.55 U		
METHYLENE CHLORIDE		0.49 J	EP	0.46 J	EP	0.56 K	ш	5.7 K		
NAPHTHALENE		7.7 L	ш	11 L	ш	3.9 L	ш		ш	
O-XYLENE		16 K	Е	10		13 K	ш	2		
TETRACHLOROETHENE		1 U		- U		- 1		1 U		
TOLUENE		60		22		34		270		
TRANS-1,2-DICHLOROETHENE	HENE	0.6 U		0.6 U		0.6 U	-	0.6 U		
TRICHLOROETHENE		0.22 U		0.22 U		0.22 U		0.22	<b>→</b>	
VINYL CHLORIDE		0.1 U		0.1 U		0.1 U		0.1	5	

PROJ NO: 03634	NSAMPLE	SG3-012012		SG4-012012		TB-012012	
SDG: C1201051	LAB_ID	C1201051-014A		C1201051-017A		C1201051-023A	
FRACTION: OV	SAMP_DATE	1/20/2012		1/20/2012	-	1/20/2012	
MEDIA: AIR	QC_TYPE	MN		MN	~	MM	
	UNITS	UG/M3		UG/M3		UG/M3	
	PCT_SOLIDS						
	DUP_OF						
PARAMETER		RESULT VQL	arcd	RESULT VOL QLCD		RESULT VQL	QLCD
1,1,1-TRICHLOROETHANE	ш	0.83 U		0.83 U		0.83 U	
1,1,2-TRICHLOROETHANE	Ш	0.83 U		0.83 U		0.83 U	
1,1-DICHLOROETHANE		0.62 U		0.62 U		0.62 U	
<b>1,1-DICHLOROETHENE</b>		0.6 UL	Ξ	0.6 UL E		0.6 UL	E
1,2,4-TRICHLOROBENZENE	Щ	1.1 UL	D	1.1 U		1.1 U	
1,2,4-TRIMETHYLBENZENE	μ	14		9.9		0.75 U	
1,2-DICHLOROBENZENE		0.92 U		0.92 U		0.92 U	
1,2-DICHLOROETHANE		0.62 U		0.62 U		0.62 U	
1,3-DICHLOROBENZENE		0.92 U		0.92 U		0.92 U	
1,4-DICHLOROBENZENE		0.92 U		0.92 U		0.92 U	
2-BUTANONE		38		61 K E		0.9 U	
BENZENE		18		22		0.49 U	
CARBON DISULFIDE		15		0.47 U		0.47 U	
CARBON TETRACHLORIDE	ЭE	0.26 U		0.26 U		0.26 U	
CHLOROBENZENE		0.7 U		0.7 U		0.7 U	
CHLOROFORM		0.74 U		0.74 U		0.74 U	
<b>CHLOROMETHANE</b>		0.55 L	DE	0.31 UL E	-	0.31 UL	ш
<b>CIS-1,2-DICHLOROETHENE</b>	٨E	0.6 U		3.7		0.6 U	
DICHLORODIFLUOROMETHANE	THANE	1.8		0.9	-	0.75 U	
ETHYLBENZENE		5.2 K	D	4.9		0.66 U	
M+P-XYLENES		16 K	۵	16	-	1.3 U	
METHYL TERT-BUTYL ETHER	HER	0.55 U		0.55 U		0.55 U	
METHYLENE CHLORIDE		0.53 U		0.53 U		0.53 U	
NAPHTHALENE		4.5 J	DE	0.8 UL E		0.8 UL	ш
O-XYLENE		8.3 K	٥	8.4		0.66 U	
<b>TETRACHLOROETHENE</b>		1 U		1 U		1 U	
TOLUENE		32		36		0.57 U	
TRANS-1,2-DICHLOROETHENE	HENE	0.6 U		0.6 U		0.6 U	
TRICHLOROETHENE		0.22 U		1.3		0.22 U	
VINYL CHLORIDE		0.1 U		2.8		0.1 U	

PRO.1 NO: 03634 NSAMPI F	IA1-012512			IA2-012512			IA3-012512		
	C1201063-001A	11A		C1201063-002A	02A		C1201063-003A	-003A	
FRACTION: TICOV SAMP_DATE	1/25/2012			1/25/2012			1/25/2012		
MEDIA: AIR QC_TYPE	MN			MN			NN		
UNITS	PPBV			РРВV			PPBV		
PCT_SOLIDS									
			-			-			
PARAMETER	RESULT	Val	arcd	RESULT	VaL	arcd	RESULT	VaL	alcd
1,4-PENTADIENE				0.92	2 NJ	Z1			
2-PENTANONE	0.92	2 NJ	Z1						
BENZALDEHYDE				0.27	۲N ک	Z1			
BENZENE, 1,2,3,4-TETRAMETHYL-							0	0.62 NJ	Z1
BENZENE, 1,2,4,5-TETRAMETHYL- (18.9)	()							1 NJ	Z1
BENZENE, 1,2,4-TRIMETHYL-							0	0.43 NJ	Z1
BENZENE, 1-ETHYL-2-METHYL-							0	0.44 NJ	Z1
BENZENE, 1-ETHYL-3,5-DIMETHYL-							-	0.39 NJ	Z1
BENZENE, 1-METHYL-2-(1- METHYLETHYL	1.4	LN 4.	<b>Z</b> 1				C	0.37 NJ	Z1
BENZENE, 1-METHYL-3-(1- METHYLETHYL	0.5	0.5 NJ	Z1						
BENZENE, 1-METHYL-4-(1- METHYLETHYL								1.5 NJ	<b>Z</b> 1
BENZENE, 2-ETHYL-1,4-DIMETHYL-	0.41	0.41 NJ	Z1	0.36	۶ NJ	Z1			
BENZENE, 4-ETHYL-1,2-DIMETHYL-	0.7	0.7 NJ	Z1						
BUTANE		1 NJ	Z1						
CYCLOTRISILOXANE, HEXAMETHYL-	6.3	6.3 NJ	Z1	10	10 NJ	Z1		3.2 R	Z2
ETHANE, 1,1,2-TRICHLORO-1,2,2-TRIF				0.2	0.25 NJ	Z1			
ETHANE, 1-CHLORO-1,1-DIFLUORO-	1.5	1.5 NJ	Z1						
ETHANOL, 2-{(TRIMETHYLSILYL)OXY]-				0.2	0.25 NJ	Z1			
HEXANAL	0.75	0.75 NJ	Z1						
LIMONENE	7.8	۲N	Z1						
METHALLYL CYANIDE		2 NJ	Z1		1				
PENTANAL	0.51	Z	Z1						
PENTATRIACONTANE								1.1 NJ	Z1
<b>TRICHLOROMONOFLUOROMETHANE</b>				0.2	0.24 NJ	Z1	-	0.44 NJ	Z1
TRISILOXANE, OCTAMETHYL-				0.2	0.24 R	Z2		_	
UNDECANE, 2,6-DIMETHYL-								NJ F	Z1
UNDECANE, 4,6-DIMETHYL-	0.55	0.59 NJ	Z1						
UNKNOWN (10.42)							-	0.43 NJ	Z1
UNKNOWN (10.53)	0.43	0.43 NJ	Z1						
UNKNOWN (12.63)				0.3	0.34 NJ	Z1			
UNKNOWN (16.43)	0.48	0.48 NJ	Z1	0.4	0.41 NJ	Z1			
UNKNOWN (16.71)	50	2.9 NJ	Z1	Q	5.1 NJ	Z1		11 NJ	Z1
UNKNOWN (17.83)					1.9 NJ	Z1			

SDG: C1201063 LAB FRACTION: TICOV SAM		A1-012512			IA2-012512			IA3-012512	
2	AB_ID	C1201063-001A	5		C1201063-002A	A		C1201063-003A	
	SAMP_DATE	1/25/2012			1/25/2012			1/25/2012	
MEDIA: AIR QC	ac_TYPE	MN			MN			MN	
NN	JNITS	PPBV			РРВV			PPBV	
PC	PCT_SOLIDS								
Ind	DUP_OF								
PARAMETER		RESULT	VQL	QLCD	RESULT	NQL	QLCD	RESULT VQL	QLCD
UNKNOWN (17.84)								0.45 NJ	Z1
UNKNOWN (18.06)					0.24 NJ	ſN	Z1		
UNKNOWN (18.52)					0.71 NJ	ſN	Z1		
UNKNOWN (19.7)								1.4 NJ	Z1
UNKNOWN (20.15)								5.1 NJ	Z1
UNKNOWN (3.16)		0.43 NJ	٦Z	Z1					
UNKNOWN (3.22)					1.3	ΓN	Z1		
UNKNOWN ALKANE		0.64 NJ	۲N	Z1	0.29 NJ	٢N	Z1		
<b>UNKNOWN ALKANE (19.08)</b>								0.86 NJ	Z1
UNKNOWN ALKANE (19.44)								0.65 NJ	Z1

PROJ NO: 03634 NSAMPLE	LE SG07-012012	12012		SG08-012012	12		SG09-012012	2		SG10-011912	2	
·		C1201051-022A		C1201051-018A	118A		C1201051-012A	12A		C1201051-002A	02A	
FRACTION: TICOV SAMP_DATE	DATE 1/20/2012	12		1/20/2012			1/20/2012			1/19/2012		
MEDIA: AIR QC_TYPE	NM			MN			MN			MN		
UNITS	PPBV			РРВV			PPBV			PPBV		
PCT_SOLIDS	OLIDS											
DUP_OF					.0, .							
PARAMETER	KESULI	Kar	arcn	RESULI	٨d٢	arcn	KESULI	λαΓ	arcn	RESULI	ş	arcd
(1R)-2,6,6-TRIMETHYLBICYCLO[3.1.1]	[.1]								1			
ALPHAPINENE							5.2	5 NJ	Z1			
1,3-BUTADIENE, 2-METHYL-											-	
1,3-CYCLOHEXADIENE												
1,3-CYCLOPENTADIENE					-		_					
1,3-CYCLOPENTADIENE, 1-METHYL- \$\$	'L- \$\$											
1,3-OCTADIENE												_
1-HEPTENE												
1H-INDENE, 2, 3-DIHYDRO-4-METHYL-												
1-OCTENE, 6-METHYL-												
1-PENTENE												
1-PENTENE, 2-METHYL-				2.	NJ NJ	Z1						
1-PENTENE, 4-METHYL-		:										
1-PROPENE, 2-METHYL-					11 NJ	Z1	1	5 NJ	Z1			
1-PROPENE, 2-METHYL- (3.17)												
2-BUTENE												
2-BUTENE, 2-METHYL-												
2-HEPTENE												
2-PENTENE, (Z)-												
3-CARENE												
3-HEPTENE				-								
4-CARENE											1 NJ	Z1
ACETALDEHYDE					12 NJ	Z1						
ARSENOUS ACID, TRIS (TRIMETHYLSILYL												
BENZENE, (2-METHYL-2-PROPENYL)-	(T)-											
BENZENE, 1,2,3-TRIMETHYL-				5	NN S	Z1						
BENZENE, 1,2,3-TRIMETHYL- (17.77)	(2)							. –				
BENZENE, 1,2,4-TRIMETHYL-												
BENZENE, 1,3,5-TRIMETHYL-												
BENZENE, 1-ETHYL-2, 3-DIMETHYL-												
BENZENE, 1-ETHYL-2,4-DIMETHYL-												
BENZENE, 1-ETHYL-2-METHYL-				2.	NJ 8	Z1	1.6	6 NJ	Z1	0.91	I NJ	Z1
BENZENE, 1-ETHYL-2-METHYL- (16.81)	6.81)									-		
BENZENE, 1-ETHYL-2-METHYL- (16.82)	6.82)		-									
BENZENE, 1-ETHYL-2-METHYL- (17.11)	7.11)											

$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$												
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		C1201051-015A		C1201051-00	1A		C1201051-003/	_		C1201051-011A	011A	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	J	1		1/19/2012			1/19/2012			1/20/2012		
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$				MN			MN			WN		
PCT_SOLDS         Acc         RESULT         VOL         CLD         CC           DUP_OF         RESULT         VOL         ALCD         RESULT         VOL         ALCD         RESULT         21           AMETHYL-         RESUL         NOL         ALCD         RESULT         VOL         ALCD         RESULT         21           AMETHYL-         NO         Z1         NO         Z1         NO         Z1         21           DIORIE, 1-METHYL-S         35 NU         Z1         NO         Z1         21         21           DIORIE, 1-METHYL-S         35 NU         Z1         NO         Z1         21         21           DIORIE, 1-METHYL-S         Z1         NU         Z1         NO         21         21           MHYL-         NU         Z1         NU         Z1         21         21         21           MHYL-         TITHYL-         TIT         Z1         Z1         21         21         21           MHYL-         TITHYL-         TIT         Z1         Z1         21         21         21           MHYL-         TITHYL-         TIT         Z1         21         21         21         21 </th <th></th> <th>PPBV</th> <th></th> <th>РРВИ</th> <th></th> <th></th> <th>PPBV</th> <th></th> <th></th> <th>PPBV</th> <th></th> <th></th>		PPBV		РРВИ			PPBV			PPBV		
IDUP_OF         RESULT         VOL         QLCD         RESULT         VOL         QLCD         RESULT         VOL         QLCD         RESULT         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21	PCT_SOLIDS											
IMMENCYCLO[3.11]         Meabuli												
AMETHYL-	6-TRIMETHYLBICYCLOI3.1.11	K K	מרכה		× K		21		GLCU Z1		K K	מרגר
ZMETHYL-	-PINENE											
DENE         DENE <thdene< th="">         DENE         DENE         <thd< td=""><td>ADIENE, 2-METHYL-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td></thd<></thdene<>	ADIENE, 2-METHYL-											-
ODENE         Implementation         Implementation </td <td>LOHEXADIENE</td> <td></td>	LOHEXADIENE											
ODENE: 1-METHYL-SS         3.5 NJ         21         0         21         0         21         0         21         0         21         0         21         0         21         0         21         0         21         0         21         0         21         0         12           IHYU-         THYL-         T         L         L         L         L         112         L         12         L         12         L         12         L         12         L         L         12         L         12         L         12         L         12         L         12         L         L         12         L         12         L         12         L         12         L         12         L         L         12         L         12         L         12         L         12         L         12         L         L         L         L         L         L         L         L         L         L         L         L         L         L         L         L         L         L         L         L         L         L         L         L         L         L         L         L         L </td <td>LOPENTADIENE</td> <td></td>	LOPENTADIENE											
74 NJ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$ $21$	LOPENTADIENE, 1-METHYL- \$\$		21									
IIPYDRO-4.METHYL-         IIPYDRO-4.METHYL-         IIP         IIP           TIPYL-         TIPYL-         12         12           TIPYL-         TIPYL-         17         NJ         Z1         12           TIPYL-         TIPYL-         17         NJ         Z1         12           TIPYL-         TIPYL-         17         NJ         Z1         12           TIPYL-         TIPYL-         TIPYL-         17         NJ         Z1         12           TIPYL-         TIPYL-         TIPYL-         TIPYL-         TIPYL-         TIPYL-         12           TIPYL-         TIPYL-         TIPYL-         TIPYL-         TIPYL-         TIPYL-         TIPYL-           TIPYL-         TIPYL-         TIPYL-<	ADIENE		21									
IHYDC0-4.METHYL-     IHYL-     12       THYL-     IHYL-     17     17       ETHYL-     17     17     10       ETHYL-     17     17     10       ETHYL-     17     17     11       ETHYL-     17     11     11       ETHYL-     17     11     11       ETHYL-     17     11     11       ETHYL-     36     21     16       FTHYL-     06     0     21       FTHYL-     17     12     17       FTHYL-     17     17     12       FTHYL-     17     17<	ENE											
THYL-     11     12       ETHYL-     17     11     11       ETHYL-     17     12     12       ETHYL-     17     12     12       FTHYL-     36     21     16       ETHYL-     36     21     16       ETHYL-     36     21     16       FTHYL-     16     16     17       L     17     12     17       L     17     17     17       L     17     17     17       L     17     17     17       L     17     17     12       L     17     17     12       L     17     17     12       L     17     17     12       L	ENE, 2,3-DIHYDRO-4-METHYL-											
FIHYL-         FIHYL-         FIHYL-         FI         FI <thf< th=""> <thf< th="">         FI</thf<></thf<>	NE, 6-METHYL-							NJ Z	Z1			
THYL-         THYL- <th< td=""><td>ENE</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1.9 NJ</td><td>Z1</td></th<>	ENE										1.9 NJ	Z1
THYL-         17         NJ         Z1         N         Z1	ENE, 2-METHYL-											
ETHYL-         17         21         21         21           ETHYL-(3.17)         ETHYL-(3.17)         1         1         1           HYL-         3.17         1         1         1         1           HYL-         3.6         NJ         2.1         1         1         1           HYL-         3.6         NJ         2.1         1.6         NJ         2.1           HYL-         3.6         NJ         2.1         1.6         NJ         2.1           HYL-         3.6         NJ         2.1         1.6         NJ         2.1           HYL-         NJ         2.1         1.6         NJ         2.1         1           HYL-         NJ         2.1         1.6         NJ         2.1         1           HYL-         NJ         1.6         NJ         2.1         1         1           HYL-2         NJ         NJ         1.1         NJ         2         1         1           ITRIA         NJ         NJ         NJ         2         1         1         1         1         1           ITRIA         NJL-2         NJL         NJ	ENE, 4-METHYL-											
ETHYL-(3.17)       ETHYL-(3.17)       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E       E <td>ENE, 2-METHYL-</td> <td></td> <td>21</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	ENE, 2-METHYL-		21									
THYL-         SIG         NJ         Z1         NJ         Z1         NJ         Z1           3.6         NJ         Z1         1.6         NJ         Z1         NJ         Z1           .         3.6         NJ         Z1         1.6         NJ         Z1         NJ           .         TRIS         0.6         NJ         Z1         NJ         Z1         NJ           .         TRIS         0.6         NJ         Z1         NJ         Z1         NJ           .         TRIS         0.6         NJ         Z1         NJ         Z1         NJ           .         TRIS         1.7         NJ         Z1         NJ         Z1         NJ           .         TRIMETHYL-         1.7         NJ         Z1         NJ         Z1         NJ           .         TRIMETHYL-         1.7         NJ         Z1         NJ         Z1         NJ           .         T.2.3-DIMETHYL-         1.7         NJ         Z1         NJ         Z1         NJ           .         T.2.3-DIMETHYL-         T.2.3-DIMETHYL-         T.2.3-DIMETHYL-         T.2.3-DIMETHYL-         T.2.3-DIMETHYL-         T.2.3	ENE, 2-METHYL- (3.17)										14 NJ	<b>Z</b> 1
THYL-     3.6 NJ     Z1     1.6 NJ     Z1       3.6 NJ     Z1     1.6 NJ     Z1       3.6 NJ     Z1     1.6 NJ     Z1       ., TRIS     0.6 NJ     Z1       ., TRIS     1.6 NJ     Z1       L     0.6 NJ     Z1       L     1.6 NJ     Z1       L     1.7 NJ     Z1       L     1.7 NJ     Z1       RIMETHYL-     1.7 NJ     Z1       RIMETHYL-     1.7 NJ     Z1       RIMETHYL-     1.7 NJ     Z1       YL-2-MIDHTHYL-     1.7 NJ     Z1	NE											
3.6 NJ     Z1     1.6 NJ     Z1       3.6 NJ     Z1     1.6 NJ     Z1       1.1 SL     0.6 NJ     Z1       L     0.6 NJ     Z1       L     1.7 NJ     Z1       RIMETHYL-     1.7 NJ     Z1       RIMETHYL-     1.7 NJ     Z1       RIMETHYL-     1.7 NJ     Z1       RIMETHYL-     1.7 NJ     Z1       YL-2.ADIMETHYL-     1.7 NJ     Z1       YL-2.METHYL-     1.7 NJ     Z1       YL-2.METHYL-     1.7 NJ     Z1	VE, 2-METHYL-											
3.6     NJ     Z1     1.6     NJ     Z1       1     1.6     NJ     Z1     21       1     1.6     NJ     Z1     21       1     1.6     NJ     Z1     21       1     1.7     NJ     Z1     1.2       1     1.7     NJ     2     1.2       1	ENE											
1.6 NJ       21         1.7 RIS       0.6 NJ       21         1.7 RIS       0.6 NJ       21         1.7 RIS       0.6 NJ       21         1.7 NJ       21       20         1.7 NJ       21       21         1.7 NJ       21       1.2         1.8 IMETHYL-       1.7 NJ       21         1.8 IMETHYL-       1.7 NJ       21         1.8 IMETHYL-       1.7 NJ       21         1.1.7 NJ       21       1.2         YL-2-METHYL-       1.1.7 NJ       21         YL-2-METHYL-       1.1.7 NJ       1.1.7 NJ         YL-2-METHYL-       1.1.7	ENE, (Z)-		21									
, TRIS L THYL-2-PROPENYL)- THYL-2-PROPENYL)- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL- FRIMETHYL	NE			1.6	۲ <b>۲</b>	Z1					_	
, TRIS L ITHL2-PROPENYL)- THYL-2-PROPENYL)- THYL-2-PROPENYL)- TRIMETHYL- TRIMETHYL- TRIMETHYL- TRIMETHYL- TRIMETHYL- TRIMETHYL- TRIMETHYL- TRIMETHYL- TRIMETHYL- TRIMETHYL- TL2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL-2-METHYL- YL	ENE											
, TRIS L THYL-2-PROPENYL)- THYL-2-PROPENYL)- FIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- RIMETHYL- R	NE					Z1						
:PROPENYL)-	DEHYDE											
1.7 NJ Z1	DUS ACID, TRIS THYLSILYL											
1.7 NJ Z1 1.7 NJ Z1 1.2 1.2 1.2 1.2 1.2 1.2	JE, (2-METHYL-2-PROPENYL)-											
1.7 NJ Z1 1.7 NJ Z1 1.6 1 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1	IE, 1,2,3-TRIMETHYL-											
	4E, 1,2,3-TRIMETHYL- (17.77)			1.7		Z1						
	↓E, 1,2,4-TRIMETHYL-											
	JE, 1,3,5-TRIMETHYL-			-				NJ Z	Z1		1.4 NJ	Z1
	JE, 1-ETHYL-2,3-DIMETHYL-											
	JE, 1-ETHYL-2,4-DIMETHYL-											
	JE, 1-ETHYL-2-METHYL-							NJ Z	Z1		2 NJ	Z1
	JE, 1-ETHYL-2-METHYL- (16.81)											
Z NU	BENZENE, 1-ETHYL-2-METHYL- (16.82)			2	R	Z1						
BENZENE, 1-ETHYL-2-METHYL- (17.11)	JE, 1-ETHYL-2-METHYL- (17.11)			_								

LAB_ID         C1201051- 1/20/2012           SAMP_DATE         1/20/2012           AC_TYPE         NM           UNITS         PPBV           PCT_SOLIDS         NM           DUP_OF         RESULT           CYCLO[3.1.1]         RESULT           HYL-         N           HYL-	2 - Val alcb 13 NJ 21	C1201051-021A 1/20/2012 NM PPBV RESULT VOL 0 12 NJ 2	C12 1/20 PPE PPE 21 Z1 Z1	C1201051-020A NM PPBV FESULT VQL 6.1 NJ 2.4 NJ 3.1 NJ 2.5 NJ	Z1 Z	C1201051-009A 1/19/2012 NM PPBV RESULT V	g	Z1
TICOV SAMP_DATE 1/20/2012 QC_TYPE NM UNITS PPBV UNITS PPBV PCT_SOLIDS	13 NJ	0/2012 3V 5ULT VQL 12 NJ		012 LT 2.4 18 18	21 Z1	012		IT DECO
OC_TYPE     NM       UNITS     PPBV       UNITS     PPBV       PCT_SOLIDS     PDLP_OF       RESULT     RESULT       RIMETHYLBICYCLO[3.1.1]     RESULT       ENE     RESULT       RIMETHYLBICYCLO[3.1.1]     RESULT       ENE     SADIENE       ENTADIENE     RESULT       ENTADIENE     RESULT       ENTADIENE     SADIENE       SADIENE     SADIENE       <	13 NU VOL	SULT VOL 12 NJ		66.1 66.1 18 3.1 18 18 19 19 19 19 19 19 19 19 19 19 19 19 19	Z1 Z1 Z1 Z1 Z1 Z1 Z1			
UNITS     PPBV       PCT_SOLIDS     PPBV       PCT_SOLIDS     PPBV       PDUP_OF     RESULT       RESULT     RESULT       RESULT     RESULT       RESULT     RESULT       RIMETHYLBICYCLO[3.1.1]     RESULT       ENE     SADIENE       ENTADIENE     RESULT       ENTADIENE     SADIENE       ENTADIENE     SADIENC       SADIETHYL-     SADIENE	13 NN	12 NJ		18 2.5 11 2.4 6.1 2.5 3.1 2.4 6.1	21 Z1	5		IT D D D D D D D D D D D D D D D D D D D
SS	13 NJ	12 NJ			QLCD 21 21 21 21 21 21			DICD
LESULT	13 NJ	VQL 12 NJ			QLCD Z1 Z1 Z1 Z1			JTCD
50 50 50 50 50 50 50 50 50 50 50 50 50 5		2		2.5 NJ NJ 2.5 NJ 18 NJ 19 NJ 1	z 12 12 12			
		72		18 NJ NJ NJ 18 NJ 19 NJ				Σ
92		72		6.1 NJ 3.1 NJ 18 NJ	Z1 Z1 Z1			5
47		72		6.1 NJ 2.4 NJ 3.1 NJ 2.5 NJ 18 NJ	Z1 Z1 Z1			5
92		7		6.1 NJ 3.1 NJ 18 NJ 18 NJ	z1 z1 z1			5
92		2	5	2.4 NJ 2.5 NJ 18 NJ	z1 z1 z1			5
				2.4 NJ 3.1 NJ 2.5 NJ 18 NJ	Z1 Z1 Z1			5
		2		2.4 NJ 3.1 NJ 2.5 NJ 18 NJ	Z1 Z1 Z1			5
		Z		3.1 NJ 2.5 NJ 18 NJ	Z1 Z1			5
			5	3.1 NJ 2.5 NJ 18 NJ	Z1 Z1			
		Z	5	3.1 NJ 2.5 NJ 18 NJ	Z1 Z1			5
		- R	5	2.5 NJ 18 NJ	Z1			5
		<b>F</b> Z	5	2.5 NJ 18 NJ	Z1			5
		z	2					5
1-PROPENE, 2-METHYL- (3.17) 2-BUTENE 2-BUTENE, 2-METHYL- 2-HEPTENE 2-HEPTENE 2-PENTENE 3-CARENE 3-HEPTENE 4-CARENE ACETALDEHYDE						12	ΓN	
2-BUTENE 2-BUTENE, 2-METHYL- 2-HEPTENE 2-PENTENE, (Z)- 3-CARENE 3-HEPTENE 4-CARENE ACETALDEHYDE ACETALDEHYDEA					Z1			
2-BUTENE, 2-METHYL- 2-HEPTENE 2-PENTENE, (Z)- 3-CARENE 3-HEPTENE 4-CARENE ACETALDEHYDE ACETALDEHYDE								
2-HEPTENE 2-PENTENE. (Z)- 3-CARENE 3-CARENE 3-HEPTENE 4-CARENE ACETALDEHYDE								
2-PENTENE. (Z)- 3-CARENE 3-HEPTENE 3-HEPTENE 4-CARENE ACETALDEHYDE								
3-CARENE 3-HEPTENE 4-CARENE ACETALDEHYDE ACETALDEHYDE								
3-HEPTENE 4-CARENE ACETALDEHYDE								
4-CARENE ACETALDEHYDE								
			-					
						44 NJ		Z1
BENZENE, (2-METHYL-2-PROPENYL)-								
BENZENE, 1,2,3-TRIMETHYL-		1.9 NJ Z	Z1					
BENZENE, 1,2,3-TRIMETHYL- (17.77)								
BENZENE, 1,2,4-TRIMETHYL-		1.8 NJ Z	Z1			1.6	ſ	Z1
BENZENE, 1,3,5-TRIMETHYL- 2.	2.1 NJ Z1					1.6	ſN	Z1
BENZENE, 1-ETHYL-2,3-DIMETHYL-								
BENZENE, 1-ETHYL-2,4-DIMETHYL-								
BENZENE, 1-ETHYL-2-METHYL-	2.7 NJ Z1			2.3 NJ	Z1	2	ſŊ	Z1
BENZENE, 1-ETHYL-2-METHYL- (16.81)		4.6 NJ	Z1					
BENZENE, 1-ETHYL-2-METHYL- (16.82)								
BENZENE, 1-ETHYL-2-METHYL- (17.11)		1.9 NJ	Z1					

PROJ NO: 03634 NSAMPLE	SG19-012012	12		SG20-011912			SG2-012012			SG21-011912		
	C1201051-010A	310A		C1201051-004A	14A		C1201051-013A	A		C1201051-005A	15A	
FRACTION: TICOV SAMP_DATE	VTE 1/20/2012			1/19/2012			1/20/2012			1/19/2012		
	MN			WN			MN			WN		
UNITS	PPBV			РРВV			PPBV			PPBV		
PCT_SOLIDS	IDS											
DUP_OF			, '									
PARAMETER	RESULT	ZaL	QLCD	RESULT	Z	arco	RESULT	Val	alcD	RESULT	Kar	alcd
(1R)-2,6,6-TRIMETHYLBICYCLO[3.1.1]			-									
.ALPHAPINENE										2.5	5 NJ	Z1
1,3-BUTADIENE, 2-METHYL-		3.7 NJ	Z1									
1,3-CYCLOHEXADIENE												
1,3-CYCLOPENTADIENE												
1,3-CYCLOPENTADIENE, 1-METHYL- \$\$	\$\$											
1, 3-OCTADIENE												
1-HEPTENE				,								
1H-INDENE, 2,3-DIHYDRO-4-METHYL-	-			20	N CN	Z1						
1-OCTENE, 6-METHYL-												
1-PENTENE	6	6.4 NJ	Z1									
1-PENTENE, 2-METHYL-												
1-PENTENE, 4-METHYL-												
1-PROPENE, 2-METHYL-					1 NJ	Z1	18	NJ	Z1			
1-PROPENE, 2-METHYL- (3.17)		24 NJ	Z1									
2-BUTENE							2.6	R	Z1			
2-BUTENE, 2-METHYL-												
2-HEPTENE												
2-PENTENE, (Z)-							3.2	ſ	Z1			
3-CARENE												
3-HEPTENE		3.3 NJ	Z1									
4-CARENE												
ACETALDEHYDE										 80	٦N	Z1
ARSENOUS ACID, TRIS (TRIMETHYLSILYL												
<b>BENZENE</b> , (2-METHYL-2-PROPENYL)-												
BENZENE, 1,2,3-TRIMETHYL-				1.1	ſŊ	Z1				1.5	5 NJ	Z1
BENZENE, 1,2,3-TRIMETHYL- (17.77)												
BENZENE, 1,2,4-TRIMETHYL-												
<b>BENZENE</b> , 1,3,5-TRIMETHYL-				0.99	ΓN 6	Z1				2.2	2 NJ	Z1
<b>BENZENE</b> , 1-ETHYL-2,3-DIMETHYL-										1.8	NJ 8	Z1
BENZENE, 1-ETHYL-2,4-DIMETHYL-										1.6	1.8 NJ	Z1
BENZENE, 1-ETHYL-2-METHYL-												
BENZENE, 1-ETHYL-2-METHYL- (16.81)	31)											
BENZENE, 1-ETHYL-2-METHYL- (16.82)	32)			5.4	A NJ	Z1						
BENZENE, 1-ETHYL-2-METHYL- (17.11)	1)										_	

PROJ_NO: 03634 NSAMPLE		SG22-012012			SG23-011912	5		SG24-011912	2		SG25-011912	2	
SDG: C1201051 LAB_ID	C120	C1201051-016A	_		C1201051-006A	06A		C1201051-007A	07A		C1201051-008A	08A	
FRACTION: TICOV SAMP_DATE	ATE 1/20/2012	2012			1/19/2012			1/19/2012			1/19/2012		
MEDIA: AIR QC_TYPE	MN				MZ			MZ			WN		
UNITS	PPBV	/			PPBV			PPBV			PPBV		
PCT_SOLIDS	SOL												
PARAMETER	RESULT		VQL	QLCD	RESULT	Val	QLCD	RESULT	VQL	QLCD	RESULT	VaL	arcd
(1R)-2,6,6-TRIMETHYLBICYCLO[3.1.1]						UN 8	Z1	-	ΓN 6	Z1			
.ALPHAPINENE											9.0	0.67 NJ	Z1
1,3-BUTADIENE, 2-METHYL-		2.8 NJ	F	Z1									
1,3-CYCLOHEXADIENE		3.1 NJ	F	Z1									
1,3-CYCLOPENTADIENE					-								
1,3-CYCLOPENTADIENE, 1-METHYL- \$\$	- \$\$												
1, 3-OCTADIENE													
1-HEPTENE													
1H-INDENE, 2,3-DIHYDRO-4-METHYL-	L-												
1-OCTENE, 6-METHYL-													
1-PENTENE													
1-PENTENE, 2-METHYL-		2.9 NJ	7	Z1									
1-PENTENE, 4-METHYL-													
1-PROPENE, 2-METHYL-		19 1	ΓN	Z1	9	N 8	Z1						
1-PROPENE, 2-METHYL- (3.17)													
2-BUTENE													
2-BUTENE, 2-METHYL-		4.8 NJ	۲ ۲	Z1									
2-HEPTENE		3 NJ	F	Z1									
2-PENTENE, (Z)-		3.5 NJ	۲,	Z1									
3-CARENE		[,											
3-HEPTENE													
4-CARENE					-								
ACETALDEHYDE											0.96	6 NJ	Z1
ARSENOUS ACID, TRIS (TRIMETHYLSILYL													
BENZENE, (2-METHYL-2-PROPENYL)-					-	1.8 NJ	Z1						
BENZENE, 1,2,3-TRIMETHYL-					2	4 NJ	Z1	2	A NJ	Z1			
BENZENE, 1,2,3-TRIMETHYL- (17.77)					1								
BENZENE, 1,2,4-TRIMETHYL-													
BENZENE, 1,3,5-TRIMETHYL-					-	<b>N</b> 10.	Z1	-	1.6 NJ	Z1			
BENZENE, 1-ETHYL-2,3-DIMETHYL-								ю 	LNJ	Z1			
BENZENE, 1-ETHYL-2,4-DIMETHYL-													
BENZENE, 1-ETHYL-2-METHYL-					1.	.5 NJ	Z1						
BENZENE, 1-ETHYL-2-METHYL- (16.81)	81)												
BENZENE, 1-ETHYL-2-METHYL- (16.82)	82)							ю́ Н	N 8	Z1			
BENZENE, 1-ETHYL-2-METHYL- (17.11)	11)										_		
2 26 74													211/2012

PROJ NO: 03634	NSAMPLE	SG4-012012			TB-012012		
SDG: C1201051	LAB_ID	C1201051-017A	7A		C1201051-023A	3A	
FRACTION: TICOV	SAMP_DATE	1/20/2012			1/20/2012		
MEDIA: AIR	ας_түре	MN			WN		
	UNITS	PPBV			PPBV		
	PCT_SOLIDS						
	DUP_OF						
PARAMETER		RESULT	۲aL	QLCD	RESULT	VaL	alcd
(1R)-2,6,6-TRIMETHYLBICYCLO[3 1.1]	YCL0[3.1.1]						
.ALPHAPINENE							
1,3-BUTADIENE, 2-METHYL-	Ļ						
1,3-CYCLOHEXADIENE							
1,3-CYCLOPENTADIENE							
1,3-CYCLOPENTADIENE, 1-METHYL- \$\$	1-METHYL- \$\$						
1,3-OCTADIENE							
1-HEPTENE							
1H-INDENE, 2,3-DIHYDRO-4-METHYL-	-4-METHYL-						
1-OCTENE, 6-METHYL-							
1-PENTENE							
1-PENTENE, 2-METHYL-							
1-PENTENE, 4-METHYL-			:				
1-PROPENE, 2-METHYL-							
1-PROPENE, 2-METHYL- (3.17)	3.17)						
2-BUTENE							
2-BUTENE, 2-METHYL-							
2-HEPTENE				_			
2-PENTENE, (Z)-							
3-CARENE							
3-HEPTENE							
4-CARENE							
ACETALDEHYDE							
ARSENOUS ACID, TRIS (TRIMETHYLSILYL							
BENZENE, (2-METHYL-2-PROPENYL)-	PROPENYL)-						
<b>BENZENE</b> , 1,2,3-TRIMETHYL	YL-						
BENZENE, 1,2,3-TRIMETHYL- (17.77)	IYL- (17.77)						
BENZENE, 1,2,4-TRIMETHYL-	-TY						
<b>BENZENE</b> , 1,3,5-TRIMETHYL-	IYL-						
BENZENE, 1-ETHYL-2,3-DIMETHYL-	IMETHYL-						
BENZENE, 1-ETHYL-2,4-DIMETHYL-	ІМЕТНҮС-						
BENZENE, 1-ETHYL-2-METHYL-	тнүс-						
BENZENE, 1-ETHYL-2-METHYL- (16.81)	ТНҮL- (16.81)						Ĩ
BENZENE, 1-ETHYL-2-METHYL- (16.82)	THYL- (16.82)						
BENZENE, 1-ETHYL-2-METHYL- (17.11)	ТНҮL- (17.11)						
6 of 24							

PROJ NO: 03634	NSAMPLE	SG07-012012	5		SG08-012012	~		SG09-012012	2		SG10-011912	5	
SDG: C1201051		C1201051-022A	22A		C1201051-018A	8A		C1201051-012A	2A		C1201051-002A	)2A	
FRACTION: TICOV	SAMP_DATE	1/20/2012			1/20/2012			1/20/2012			1/19/2012		
MEDIA: AIR	QC_TYPE	WN			MN			MN			MN		
	UNITS	PPBV			PPBV			PPBV			PPBV		
	PCT_SOLIDS												
DAMETED					DECLIIT			DESI II T	07		DECI II T		
BENZENE 1-ETHYL-2-METHYL- (17 12)	HYL- (17.12)		4 K			4 4			1 X X			4 4 4	
BENZENE, 1-ETHYL-3-METHYL-	HYL-												
BENZENE, 1-METHYL-2-(1-						3 NJ	Z1						
BENZENE 1-METHYL-3-(1-													
МЕТНУLETHYL								_			_		
BENZËNE, 1-METHYL-4-(1- METHYLETHYL					ĉ	ZNJ	Z1						
BENZENE, 1-METHYL-4-(1- METHYLPROPY													
BENZENE, 2-ETHYL-1,4-DIMETHYL-	ИЕТНҮL-	-	1.6 NJ	Z1									
BENZENE, 4-ETHYL-1,2-DIMETHYL-	ИЕТНҮС-	2	2.2 NJ	Z1							0.78	8 NJ	Z1
BENZOIC ACID, 2-[(TRIMETHYLSILYL)O	HYLSILYL)O				ñ	3.5 NJ	Z1	: 					
BUTANAL, 3-METHYL-						3 NJ	Z1	2.8	RJ 8	Z1			
BUTANE		5	5.2 NJ	Z1	5.7	۲N	Z1	4	4.1 NJ	Z1	6.0	.94 NJ	Z1
BUTANE, 2,2,3,3-TETRAMETHYL	тнуг-							7.1	NJ	Z1			
BUTANE, 2,2,3,3-TETRAMETHYL- \$\$ ET	THYL- \$\$ ET												
BUTANE, 2,3-DIMETHYL-													
BUTANE, 2-METHYL-		5	2.5 NJ	Z1		4 NJ	Z1	1.6	۶ NJ	Z1		-	
BUTANE, 2-METHYL- (4.26)													
COBALT, (2-METHYLETA3-PROPENYL	-3-PROPENYL												
CYCLOHEXANE, 1,1,3-TRIMETHYL-	ЛЕТНҮС-												
CYCLOHEXANE, 1,1-DIMETHYL-	гнүс-												
CYCLOHEXANE, 1,2,3-TRIMETHYL-, (1.	ЛЕТНҮL-, (1.												
CYCLOHEXANE, 1,2,4-TRIMETHYL-, (1.	ЛЕТНҮL-, (1.										_		
CYCLOHEXANE, 1,3-DIMETHYL-, CIS-	THYL-, CIS-		_				-						
CYCLOHEXANE, 1,3-DIMETHYL-, TRANS-	THYL-, TRANS-												
CYCLOHEXANE, 1-ETHYL-4-METHYL-, TR	4-METHYL-, TR	~											_
CYCLOHEXANE, METHYL-		9	6.7 NJ	Z1	0	RJ 8	Z1		5 NJ	Z1	<b>~</b>	1.9 NJ	Z1
CYCLOPENTANE, 1,3-DIMETHYL-, CIS-	ETHYL-, CIS-										0.7	0.78 NJ	Z1
CYCLOPENTANE, METHYL-	-										0.75	5 NJ	Z1
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	ETHYL-, CIS-								RJ 8	Z1			
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS	ETHYL-,												
CYCLOPROPANE, ETHYLIDENE-	DENE-		. 										
CYCLOTRISILOXANE, HEXAMETHYL-	AMETHYL-	4	4.7 R	Z2				6	7 R	Z2		5 R	Z2
D-LIMONENE													

PROJ NO: 03634	NSAMPLE	SG1-012012			SG11-011912	~		SG12-011912	2		SG13-012012	2	
SDG: C1201051	LAB_ID	C1201051-015A	15A		C1201051-001A	11A		C1201051-003A	<b>J3A</b>		C1201051-011A	11A	
5	SAMP_DATE	1/20/2012			1/19/2012			1/19/2012			1/20/2012		
	QC_TYPE	WN			MN			MN			MN		
	UNITS	PPBV			PPBV			PPBV			PPBV		
<u></u>	PCT_SOLIDS												
DARAMETER		RESULT	ion	OICD	RESULT		O CD	RESULT	ΪÖΛ	0101	RESULT	ION	OI CD
BENZENE, 1-ETHYL-2-METHYL- (17.12)			1			1							
BENZENE, 1-ETHYL-3-METHYL-	HL-												
BENZENE, 1-METHYL-2-(1- METHYI FTHYI											-	5 NJ	Z1
BENZENE, 1-METHYL-3-(1-													
BENZENE, 1-METHYL-4-(1-					0.83	NJ NJ	Z1						
METHYLPROPY													
BENZENE, 2-ETHYL-1,4-DIMETHYL-	IETHYL-							1	1.3 NJ	Z1			
BENZENE, 4-ETHYL-1,2-DIMETHYL-	IETHYL-				0.75	5 NJ	Z1						
BENZOIC ACID, 2-{(TRIMETHYLSILYL)O	HYLSILYL)O								_				
BUTANAL, 3-METHYL-													
BUTANE		7.	7.6 NJ	Z1							4	4.7 NJ	Z1
BUTANE, 2,2,3,3-TETRAMETHYL-	гнуц-				36.0	CN 86	Z1	9	NN S NJ	Z1			
BUTANE, 2,2,3,3-TETRAMETHYL- \$\$ ET	ТНҮL- \$\$ ET										-		
BUTANE, 2,3-DIMETHYL-													
BUTANE, 2-METHYL-		6	2.5 NJ	Z1									
BUTANE, 2-METHYL- (4.26)											-		
COBALT, (2-METHYLETA3-PROPENYL	3-PROPENYL				_								
CYCLOHEXANE, 1,1,3-TRIMETHYL-	ETHYL-												
CYCLOHEXANE, 1, 1-DIMETHYL-	HYL-												
CYCLOHEXANE, 1,2,3-TRIMETHYL-, (1.	ЕТНҮL-, (1.				0.55	2 NJ	Z1						
CYCLOHEXANE, 1,2,4-I RIMETHYL-, (1. CYCLOHEXANE, 1.3-DIMETHYL-, CIS-	етить-, (т. НҮг-, CIS-												
CYCLOHEXANE, 1,3-DIMETHYL-, TRANS-	HYL-, TRANS-							1.	A NJ	Z1			
CYCLOHEXANE, 1-ETHYL-4-METHYL-, TR	-METHYL-, TF	~			0.51	0.58 NJ	Z1						
CYCLOHEXANE, METHYL-					0.7(	0.76 NJ	Z1	2	.3 NJ	Z1	1.	1.7 NJ	Z1
CYCLOPENTANE, 1,3-DIMETHYL-, CIS-	THYL-, CIS-												
CYCLOPENTANE, METHYL-	_												
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	THYL-, CIS-					_				-			
CYCLOPROPANE, 1,2-DIMETHYL-,	THYL-,												
CVCI OPROPANE ETHYI IDENE-	ENF.	6	2 6 N.I	71	-								
CYCLOTRISILOXANE, HEXAMETHYL-	METHYL-	i 7	2.6 R	Z2	3.6	9 R	Z2	8	7 R	Z2	7.	<u>е</u> Я	Z2
D-LIMONENE													

PROJ NO: 03634 NSAMPLE	PLE	SG14-012012	2		SG15-012012	5		SG17-012012			SG18-011912	5	
SDG: C1201051 [AB_ID	0	C1201051-019A	19A		C1201051-021A	21A		C1201051-020A	A0		C1201051-009A	A90	
FRACTION: TICOV SAMP_DATE	DATE	1/20/2012			1/20/2012			1/20/2012			1/19/2012		
	ΥPE	MN			ΨN			MN			WN		
UNITS		PPBV			PPBV			PPBV			PPBV		
PCT_SO	PCT_SOLIDS												
PARAMETER	5	RESULT	Vol	OLCD	RESULT	VaL	OLCD	RESULT	٨٥٢	QLCD	RESULT	VQL	OLCD
BENZENE, 1-ETHYL-2-METHYL- (17.12)	17.12)					-							
BENZENE, 1-ETHYL-3-METHYL-													
BENZENE, 1-METHYL-2-(1- METUVI ETUVI		e E	3.1 NJ	Z1									
BENZENE 1-METHYL -3-(1-													
METHYLETHYL										_	_	_	
BENZENE, 1-METHYL-4-(1- METHYLETHYL		e	3.8 NJ	Z1								1.5 NJ	Z1
BENZENE, 1-METHYL-4-(1- METHYLPROPY													
BENZENE, 2-ETHYL-1,4-DIMETHYL-	با												
BENZENE, 4-ETHYL-1,2-DIMETHYL-	'L-										1.8	RJ	Z1
BENZOIC ACID, 2-[(TRIMETHYLSILYL)O	ΓΥΙ)Ο					-		2.5	2.8 NJ	Z1			
BUTANAL, 3-METHYL-								4.2	4.2 NJ	Z1			
BUTANE		9	6.4 NJ	Z1	Э	3.8 NJ	Z1	5.{	5.8 NJ	Z1	2.6	6 NJ	Z1
BUTANE, 2,2,3,3-TETRAMETHYL-					9	6.4 NJ	Z1				6.6	۲N و N	Z1
BUTANE, 2,2,3,3-TETRAMETHYL- \$\$ ET	\$\$ ET												
BUTANE, 2,3-DIMETHYL-													
BUTANE, 2-METHYL-			2 NJ	Z1									
BUTANE, 2-METHYL- (4.26)											-		
COBALT, (2-METHYLETA3-PROPENYL	DPENYL			-					_				
CYCLOHEXANE, 1,1,3-TRIMETHYL-	Ŀ												
CYCLOHEXANE, 1,1-DIMETHYL-													
CYCLOHEXANE, 1,2,3-TRIMETHYL-, (1.	(1.												
CYCLOHEXANE, 1,2,4-I RIME I HYL-, (1. CYCLOHEXANE 13-DIMETHYL - CIS-	L-, (1.												
CYCLOHEXANE 1.3-DIMETHYL-, TRANS-	TRANS-												
CYCLOHEXANE, 1-ETHYL-4-METHYL-, TR	HYL-, TR												
CYCLOHEXANE, METHYL-			2.2 NJ	Z1		S NJ	Z1	2.7	LN 7	Z1	1.9	FN 6	Z1
CYCLOPENTANE, 1,3-DIMETHYL-, CIS-	, CIS-												
CYCLOPENTANE, METHYL-													
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	-, CIS-									_			
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS	ŗ								_				
CYCLOPROPANE, ETHYLIDENE-													
CYCLOTRISILOXANE, HEXAMETHYL-			11 R	Z2	4	2 R	Z2	6.2	R	Z2			
D-LIMONENE	1							2.4	2.4 NJ	Z1			

PROJ NO: 03634 NS/	NSAMPLE	SG19-012012			SG20-011912	2		SG2-012012			SG21-011912	2	
		C1201051-010A	0A		C1201051-004A	J4A		C1201051-013A	3A		C1201051-005A	05A	
FRACTION: TICOV SAN	SAMP_DATE	1/20/2012		:	1/19/2012			1/20/2012			1/19/2012		
MEDIA: AIR	QC_TYPE	MN			WN			NM			WN		
UN	UNITS	PPBV			PPBV			PPBV			PPBV		
	PCT_SOLIDS												
PARAMETER	5	RESULT	VQL	arcd	RESULT	VaL	alcd	RESULT	VQL	QLCD	RESULT	VaL	alcd
BENZENE, 1-ETHYL-2-METHYL- (17.12)	L- (17.12)											4	Z1
<b>BENZENE</b> , 1-ETHYL-3-METHYL-													
BENZENE, 1-METHYL-2-(1- METHYI FTHYI						NN F.	Z1						
BENZENE, 1-METHYL-3-(1- METHYL ETHYL													
BENZENE, 1-METHYL-4-(1-													
BENZENE, 1-METHYL-4-(1- METHYL BDODY													
BENZENE 2-ETHYL-1 4-DIMETHYL-	LHVI -				12	2 N.J	21						
BENZENE, 4-ETHYL-1,2-DIMETHYL-	THYL-									-			
BENZOIC ACID, 2-[(TRIMETHYLSILYL)O	LSILYL)O												
BUTANAL, 3-METHYL-													
BUTANE		1	10 NJ	Z1				8.6	۲ <mark>۷</mark>	Z1	-	.3 NJ	Z1
BUTANE, 2,2,3,3-TETRAMETHYL	۲Ļ	14	14 NJ	Z1									
BUTANE, 2,2,3,3-TETRAMETHYL- \$\$ ET	YL- \$\$ ET							3.7	۲Z	Z1			
BUTANE, 2,3-DIMETHYL-													
BUTANE, 2-METHYL-								5.6	2 2	21	-		
BUTANE, 2-METHYL- (4.26)			_									•	Ĩ
COBALT, (2-METHYLETA3-PROPENYL	PROPENYL										4	A NU	Z1
CYCLOHEXANE, 1,1,3-TRIMETHYL-	HYL-												
CYCLOHEXANE, 1, 1-DIMETHYL- CYCLOHEXANE 1 2 3-TRIMETHYL- (1	ЧЧ - (1 НУІ - (1												
CYCLOHEXANE. 1.2.4-TRIMETHYL (1.	HYL-, (1.					_							
CYCLOHEXANE, 1,3-DIMETHYL-, CIS-	L-, CIS-												
CYCLOHEXANE, 1, 3-DIMETHYL-, TRANS-	L-, TRANS-												
CYCLOHEXANE, 1-ETHYL-4-METHYL-, TR	ETHYL-, TR												
CYCLOHEXANE, METHYL-		4.5	4.3 NJ	Z1	1.	8 NJ	Z1					2 NJ	Z1
CYCLOPENTANE, 1,3-DIMETHYL-, CIS-	YL-, CIS-												
<b>CYCLOPENTANE, METHYL-</b>													
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	IYL-, CIS-												
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS	\. ۲۲-,												
CYCLOPROPANE, ETHYLIDENE-	ц												
CYCLOTRISILOXANE, HEXAMETHYL-	ETHYL-	16	R	Z2	3	3.1 R	Z2	4.2	R	Z2	5	3 R	Z2
D-LIMONENE													

PROJ NO: 03634 NSAMPLE		SG22-012012			SG23-011912	2		SG24-011912	2		SG25-011912	2	
SDG: C1201051 LAB_ID		C1201051-016A	3A		C1201051-006A	J6A		C1201051-007A	77A		C1201051-008A	18A	
FRACTION: TICOV SAMP_DATE		1/20/2012			1/19/2012			1/19/2012			1/19/2012		
MEDIA: AIR QC_TYPE		NN			MN			WN			WN		
UNITS		PPBV			PPBV			PPBV			PPBV		
PARAMETER		RESULT	ION	OI CD	RESULT	IOV	olcD	RESULT	NOT	OLCD	RESULT	NO	OLCD
BENZENE, 1-ETHYL-2-METHYL- (17.12)			1						!				
BENZENE, 1-ETHYL-3-METHYL-					5	2 NJ	Z1						
BENZENE, 1-METHYL-2-(1-					1.1	1 N	Z1		N 9	Z1			
METHYLETHYL RENZENE 1-METHYL-3-(1-					-	1 8 N.I	71						
METHYLETHYL	-							_	-				
BENZENE, 1-METHYL-4-(1- METHYLETHYL													
BENZENE, 1-METHYL-4-(1- METHYLPROPY									Z NJ	Z1			
BENZENE, 2-ETHYL-1,4-DIMETHYL-													
BENZENE, 4-ETHYL-1,2-DIMETHYL-						2 NJ	Z1						
BENZOIC ACID, 2-[(TRIMETHYLSILYL)O	YL)O										1.1	Ŋ	<b>z</b> 1
BUTANAL, 3-METHYL-								~	NJ .2	Z1			
BUTANE		8.4	8.4 NJ	Z1	-	11 NJ	Z1		_		2.2	2 N	Z1
BUTANE, 2,2,3,3-TETRAMETHYL-											0.62	Z Z	Z1
BUTANE, 2,2,3,3-TETRAMETHYL- \$\$ ET	\$ ET												
BUTANE, 2,3-DIMETHYL-					-				-			۲ ۲	Z1
BUTANE, 2-METHYL-	-	3	3 NJ	Z1	5	L L	Z1		_		9:9	3 NJ	Z1
BUTANE, 2-METHYL- (4.26)											_		
COBALT, (2-METHYLETA3-PROPENYL	ENYL												
CYCLOHEXANE, 1,1,3-TRIMETHYL-													
CYCLOHEXANE, 1,1-DIMETHYL-													
CYCLOHEXANE, 1,2,3-TRIMETHYL-, (1.	- - -					_							
CYCLOHEXANE, 1,2,4-TRIMETHYL-, (1.	() ()										0.72	Z	7
CYCLOHEXANE 13-DIMETHYL- TRANS-	RANS-												
CYCLOHEXANE 1-ETHYL-4-METHYL TR	YL TR		_	 									
CYCLOHEXANE, METHYL-					-	NJ 10	Z1	-	RN 8	Z1	0.7	UN 77.0	Z1
CYCLOPENTANE, 1,3-DIMETHYL-, CIS-	CIS-												
CYCLOPENTANE, METHYL-													
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	CIS-												
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS	1-												
CYCLOPROPANE. ETHYLIDENE-													
CYCLOTRISILOXANE, HEXAMETHYL-	Ŀ.	3.5	Ж	Z2	5.	2 R	Z2	3.	6 R	Z2	3.6	8 R	Z2
D-LIMONENE													

V         LAB_ID SAMP_DATE         C1201051-017A           SAMP_DATE         1/20/2012           QC_TYPE         NM           UNITS         PPBV           QC_TYPE         NM           UNITS         PPBV           CL-2-METHYL-(17.12)         RESULT           TL-3-METHYL-(17.12)         RESULT           TL-3-METHYL-(17.12)         RESULT           TL-3-METHYL-(17.12)         RESUL           TL-3-METHYL-(17.12)         RESUL           TL-3-METHYL-(17.12)         RESUL           TL-4(1-         NL-4(1-           TL-4(1-         SI           TL-4(1-	PROJ NO: 03634	NSAMPLE	SG4-012012			TB-012012		
E 1/20/2012 NM PPBV S FESULT VOL QLCD RESULT VOL QLCD 1 1 NJ Z1 1 NJ Z1 1 NJ Z1 1 NJ Z1 1 NJ Z1 1 NJ Z1 1 NJ Z1 3.6 NJ Z1 2.1 Z1 3.6 NJ Z1 2.1 Z1 2. Z	G: C1201051	LAB_ID	C1201051-017	A7		C1201051-023A	A	
NM           PPBV           RESULT         VOL         QLD           RESULT         21         Z1           R         N         Z1           R         X1         Z1	ACTION: TICOV	SAMP_DATE	1/20/2012			1/20/2012		
PPBV         RESULT         VOL         QLCD           RESULT         VOL         QLCD         1           1         1         N         21           1         1         1         21           1         1         1         21           1         1         1         21           1         1         21         21           3.6         N         21         21           3.6         N         21         21	EDIA: AIR	QC_TYPE	MN			MN		
S         RESULT         VOL         QLCD           RESULT         VOL         QLCD            RESULT         VOL         QLCD            RESULT         VOL         QLCD            RESULT         VOL         QLCD            RESULT         VOL         QLCD            RESULT         VOL         QLCD            RESULT         VOL         QLCD            RESULT         VOL         QLCD            RESULT         VOL         QLCD            RESULT         VOL         QLCD            RESULT         VOL         QLCD            RESULT         21         NU         Z1           R         NU         Z1         Z1           R         Z1         Z1         Z1           R         Z1         Z1         Z1 <t< td=""><td></td><td>UNITS</td><td>PPBV</td><td></td><td></td><td>РРВV</td><td></td><td></td></t<>		UNITS	PPBV			РРВV		
RESULT         VOL         QL         QL           RESULT         VOL         QLCD         QLCD           11         1         1         1         21           11         1         1         21         21           11         1         1         21         21           11         1         1         21         21           11         1         1         21         21           11         1         1         21         21           11         1         1         21         21           11         1         1         21         21           11         1         21         21         21           36         N         21         21         21		PCT_SOLIDS						
RESULT         VOL         QLCD           1         1         1         1         1           1         1         1         1         1         1           1         1         1         1         21         21           1         1         1         1         21         21           1         1         1         1         21         21           1         1         1         1         21         21           1         1         1         1         21         21           3.6         NJ         21         21         21         21           3.6         NJ         21         21         21         21		DUP_OF						
66     336     N1     N1     N1     N1     N1	RAMETER		RESULT	VaL	arcd	RESULT	VaL	alcd
36     5.5     1     1     2     2     3       36     N     N     N     N     N     N	NZENE, 1-ETHYL-2-MET	THYL- (17.12)						
66.5         3.6         NJ         1         2         1         4         9.5         NJ           8         1         1         NJ         NJ         NJ         NJ         NJ         NJ	NZENE, 1-ETHYL-3-MET	-НУЦ-						
1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1 <td>NZENE, 1-METHYL-2-(1- THYLETHYL</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	NZENE, 1-METHYL-2-(1- THYLETHYL							
1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1 <td>NZENE, 1-METHYL-3-(1- THYI FTHYI</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	NZENE, 1-METHYL-3-(1- THYI FTHYI							
36     31     1     1     1     1     1       33     8     1     1     1     1     1	NZENE, 1-METHYL-4-(1- THYI FTHYI							
1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1 <td>NZENE, 1-METHYL-4-(1- THYLPROPY</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	NZENE, 1-METHYL-4-(1- THYLPROPY							
11     11     11     11     12     12     13       11     11     11     11     11     12     13       11     11     11     11     11     14     14       11     11     11     11     11     11       11     11     11     11     11     11       11     11     11     11     11     11       11     11     11     11     11     11       11     11     11     11     11     11       11     11     11     11     11     11       11     11     11     11     11     11       11     11     11     11     11     11       11     11     11     11     11     11       11     11     11     11     11     11       11     11     11     11     11     11       11     11     11     11     11     11       11     11     11     11     11     11       11     11     11     11     11     11       11     11     11     11     11     11 <td>NZENE, 2-ETHYL-1,4-DII</td> <td>МЕТНУL-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	NZENE, 2-ETHYL-1,4-DII	МЕТНУL-						
9.5 NJ 9.5 NJ 9.5 NJ 9.5 NJ 9.5 NJ 9.6 NJ 9.5 NJ 9.6 NJ 9.	NZENE, 4-ETHYL-1,2-DII	МЕТНҮL-						
9.5 NJ 9.5 NJ	NZOIC ACID, 2-[(TRIME1	LHYLSILYL)O						
9.5 NJ 9.5 NJ 9.6 NJ 9.6 NJ 9.6 NJ 9.6 NJ 9.6 NJ 9.7 NJ 9.7 NJ 9.6 NJ 9.6 NJ 9.6 NJ 9.6 NJ 9.6 NJ 9.6 NJ 9.7 NJ 9.7 NJ 9.6 NJ 9.7 NJ 9.6 NJ 9.6 NJ 9.6 NJ 9.6 NJ 9.6 NJ 9.6 NJ 9.6 NJ 9.7 NJ 9.6 NJ	TANAL, 3-METHYL-							
11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11<	TANE		9.5		Z1			
48 NJ 11 NJ 12 NJ 12 NJ 13 6 NJ 13 6 NJ 13 6 NJ 14 8 NJ 15 1 NJ 17 NJ 18 NJ 18 NJ 19 NJ 19 NJ 19 NJ 19 NJ 19 NJ 19 NJ 10 NJ	TANE, 2,2,3,3-TETRAME	тнуг-						
4.8 NJ 4.8 NJ 1.1 NJ	TANE, 2,2,3,3-TETRAME	ЕТНҮL- \$\$ ET						
1. 1 1. 1	TANE, 2,3-DIMETHYL-		4.8		Z1			
11 NJ 11 NJ 11 NJ 11 NJ 11 NJ 11 NJ 11 NJ 11 NJ 12 NJ 12 NJ 13 NJ 13 NJ 14 NJ 14 NJ 15 NJ 17 NJ 18 NJ 19 NJ 10	TANE, 2-METHYL-							
1         2         2         2         2         2         1         2         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1 <th1< th=""> <th1< th=""> <th1< th=""> <th1< th=""></th1<></th1<></th1<></th1<>	TANE, 2-METHYL- (4.26		11	ĩ	Z1			
5:1         NJ           17R         4.4         4.8         NJ           3:6         NJ         NJ         NJ	BALT, (2-METHYLETA.	-3-PROPENYL						
4.8 NJ 4.8 NJ 3.6 NJ 3.6 NJ 3.6 NJ 1.7 NJ 1.	CLOHEXANE, 1,1,3-TRIN	ИЕТНҮL-	5.1	Z	Z1			
S- 77 4.4 3.6 5.5 8 0 1 1 1 2 5 8 1 2 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	CLOHEXANE, 1,1-DIME	гнуг-	4.8	ſ	Z1			
VL-, (1.         4.4         NJ           CIS-         4.4         NJ           CIS-         4.4         NJ           HYL-, TR         4.2         NJ           -, CIS-         4.2         NJ           -, CIS-         3.6         NJ           -, Sister         3.6         NJ           -, HYL-         6.5         R	CLOHEXANE, 1,2,3-TRIN	ИЕТНҮL-, (1.						
CIS- 4.4 NJ TRANS- 4.4 NJ HYL-, TR 4.2 NJ -, CIS- 4.2 NJ -, CIS- 3.6 NJ	CLOHEXANE, 1,2,4-TRIN	ИЕТНҮL-, (1.						
HYL-, TR -, CIS- -, CIS- -, CIS- -, CIS- -, 3.6 NJ	CLOHEXANE, 1,3-DIME	THYL-, CIS- THVI - TRANS-	4.4		Z1			
	CLOHEXANE, 1-ETHYL-	4-METHYL-, TR						
-, CIS- -, CIS- -, CIS- -, CIS- -, A-2 NJ -, -, -, -, -, -, -, -, -, -, -, -, -,	CLOHEXANE, METHYL-							
, CIS- , CIS- , , HYL- 6.5 R	<b>CLOPENTANE</b> , 1,3-DIME	ETHYL-, CIS-						
-, CIS- -, 3.6 NJ -, 8.5 R	<b>CLOPENTANE, METHYL</b>		4.2		Z1			
, 3.6 NJ HYL- 6.5 R	CLOPROPANE, 1,2-DIM	ETHYL-, CIS-						
HYL- 6.5 R	CLOPROPANE, 1,2-DIMI ANS	ЕТНҮL-,	3.6	ĩ	Z1			
OXANE, HEXAMETHYL- 6.5 R	CLOPROPANE, ETHYLII	DENE-						
D-LIMONENE	<b>CLOTRISILOXANE, HEX</b>	AMETHYL-			<b>Z</b> 2	0.24	ድ	Z2
	IMONENE							

SDS:         C1201051 G2A Ligent2         C1201051 G2A Ligent2 <thc1201051 g2a<br="">Ligent2         C1201051 G2A Ligent2</thc1201051>	PROJ_NO: 03634	NSAMPLE	SG07-012012	2		SG08-012012	5		SG09-012012	12		SG10-011912	12	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		LAB ID	C1201051-0	22A		C1201051-0	18A		C1201051-	012A		C1201051-0	02A	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	5	SAMP_DATE	1/20/2012			1/20/2012			1/20/2012			1/19/2012		
PEBV         PEBV         PEBV           RESULT         Vol.         RESULT         Vol.         RESULT         Vol.         RESULT         Vol.         NOL           77         N         Z1         Z4         Z1         Z4         Z1         Z1         Vol.         Z1		QC_TYPE	WN			MN			MN			WN		
No.         RESULT         Vol.         RESULT	·	UNITS	PPBV			PPBV			PPBV			PPBV		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		PCT_SOLIDS												
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			RESULT	VaL	QLCD	RESULT	VQL	arcp	RESULT	VaL	QLCD	RESULT	VaL	arcp
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	HEXANAL													
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	HEXANE, 2,2-DIMETHYL-		2	LN 7.	21	7.	A N	Z1						
36 Nu $Z1$	HEXANE, 2,3,4-TRIMETHYL													
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	HEXANE, 2,4-DIMETHYL-						_							
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	HEXANE, 3-METHYL-		e	ΓN 9.	Z1					2.4 NJ	Z1	Ö	68 NJ	Z1
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	INDAN, 1-METHYL-			-										-
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	SOBUTANE			2 NJ	Z1									
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	IMONENE										Z1			Z1
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	<b>AETHALLYL CYANIDE</b>			4 NJ	Z1									
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	PENTANAL													
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	PENTANE					5	Z NJ	Z1		1.6 NJ	Z1			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	PENTANE, 2,2,4-TRIMETHY	Ĺ.												
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	ENTANE, 2,3,3-TRIMETHY	л Л				4	2	Z1		5.3 NJ	<b>Z</b> 1			
NNE.23.3-TENMETHYL-         2.7 NJ         2.7 NJ         2.1         3.1 NJ         2.1         4.2 NJ           NNE.23.3DMETHYL-         19 NJ         21         21         3.1 NJ         21         4.2 NJ           NNE.23.3DMETHYL-         17 NJ         21         1         21         21         21         21           NNE.3.3DMETHYL-         1         1         21         1         21         21         21           NNE.3.3DMETHYL-         21         1         21         21         21         21         21           NAL.2.METHYL-         3.0         21         1         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21 <td< td=""><td>ENTANE, 2,3,3-TRIMETHY</td><td>rL- \$\$ 2,3,3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	ENTANE, 2,3,3-TRIMETHY	rL- \$\$ 2,3,3												
NRE.23-DIMETHYL-         19 Nu         Z1         42 Nu           NRE.2-SIMETHYL-         2.4 Nu         Z1         4.2 Nu           NRE.2-SIMETHYL-         2.4 Nu         Z1         0.81 Nu           NRE.3-METHYL-         1.7 Nu         Z1         0.81 Nu           NRE.12-METHYL-         1.7 Nu         Z1         0.81 Nu           STMALTSULYLOXYPHENYL-         1.7 Nu         1.7 Nu         0.81 Nu           STMALTSULYLOXYPHENYL-         1.7 Nu         1.7 Nu         0.81 Nu           STMALTSULYLOXYPHENYL-         1.7 Nu         1.7 Nu         0.87 Nu           STMALTSULYLOXYPHENYL-         1.7 Nu         1.7 Nu         0.87 Nu           SUN (10.9)         1.7 Nu         1.7 Nu         1.7 Nu           SUN (10.4)         3.3 Nu         2.1 Nu         1.9 Nu         2.1 Nu           SUN (10.4)         3.3 Nu         2.1 Nu         2.1 Nu         2.1 Nu           SUN (10.4)         3.3 Nu         2.1 Nu         2.1 Nu         2.1 Nu	ENTANE, 2,3,4-TRIMETHY	۲- ۱				5		Z1		3.1 NJ	Z1	-		
NIE.2.METHYL- 24 NJ Z1 0.01 NJ 221 0.01 NJ	ENTANE, 2,3-DIMETHYL-		-	<b>N</b>	Z1							<b>v</b>		zı
NG. 3.METHYL- NAKL. 2.METHYL- ANAKL. 2.METHYL- ANAKL. 2.METHYL- ANAKL. 2.METHYL- AND NI VLX PHENYL- ITH ETHYLSLYLOXYPHENYL-BIS ETHYLSLYLOXYPHENYL- ITH ETHYLSLYLOXYPHENYL- ITH ETHYLSLYLOXYPHENYL- ITH ETHYLSLYLOXYPHENYL- ITH ETHYLSLYLOXYPHENYL- ITH ETHYLSLYLOXYPHENYL- ITH ETHYLSLYLOXYPHENYL- ITH ETHYLSLYLOXYPHENYL- ITH ETHYLSLYLOXYPHENYL- ITH ETHYLSLYLOXYPHENYL- ITH ETHYLSLYLOXYPHENYL- ITH ITHYLSLYLOXYPHENYL- ITH ITHYLSLYLOXYPHENYL- ITH ITHYLSLYLOXYPHENYL- ITH ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITHYLSLYLOXYPHENYL- ITH	'ENTANE, 2-METHYL-		2	LN 4	Z1							Ö	81 NJ	Z1
NAL, 2-METHYL-     NAL, 2-METHYL-     Image: Control of the state of the s	ENTANE, 3-METHYL-		-	LN 7	Z1						-			
NeNTRLE, 3.METHOXY-         Nentral.         Nentral.         Neutral.         Neutral. </td <td>ROPANAL, 2-METHYL-</td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td>	ROPANAL, 2-METHYL-			_					-					
THYLSILYLOXYPHENYL-       ETHYLSILYLOXYPHENYL-       0.87 NJ         ETHYLSILYLOXYPHENYL-BIS       ETHYLSILYLOXYPHENYL-BIS       0.87 NJ         ÖL, TRIMETHYL-       0.1       1       0.87 NJ         ÖL, TRIMETHYL-       1       1       0.87 NJ         ÖL, TRIMETHYL-       1       1       0.87 NJ         ÖNN (10.99)       1       1       1       0.87 NJ         ÖNN (10.41)       3.3 NJ       Z1       1       1       1         ÖNN (10.41)       3.3 NJ       Z1       1       1       1       1         ÖNN (10.41)       3.3 NJ       Z1       1       1       1       1       1       1       1         ÖNN (10.41)       3.3 NJ       Z1       21       Z1       21       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1	ROPANENITRILE, 3-METH	-үхон												
METHYLSILYLOXYPHENYL-BIS       0.67 NJ         OL, TRIMETHYL-       0.1, TRIMETHYL-         ON       0.1, TRIMETHYL-         OWN (10.09)       119 NJ         OWN (10.41)       33 NJ         OWN (10.41)       27 NJ         OWN (10.41)       27 NJ         OWN (10.41)       19 NJ         OWN (10.41)       27 NJ         OWN (10.41)       19 NJ         OWN (10.41)       27 NJ         OWN (10.41)       19 NJ         OWN (10.41)       19 NJ         OWN (10.41)       19 NJ         OWN (10.42)       10 NJ         OWN (10.43)       10 NJ         OWN (10.43)       10 NJ         OWN (10.72)       10 NJ         OWN (10.72)       10 NJ	TRIMETHYLSILYLOXYPH TRIMETH	HENYL-												
01, TRIMETHYL-       01, TRIMETHYL-       01, TRIMETHYL-         0NN       0NN       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01	OF TRIMETHYLSILYLOXYPH	HENYL-BIS										o	87 NJ	Z1
	SILANOL, TRIMETHYL-				-									
1.9       N       Z1         3.3       N       Z1         3.3       N       Z1         2.7       N       Z1         1       N       Z1         1       N       Z1         2.1       N       Z1         1       N       Z1       Z1         1       N       Z1       Z1         1       N       Z1       Z1       Z1 </td <td>JNKNOWN</td> <td></td>	JNKNOWN													
3.3 NJ       21       21       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1<	JNKNOWN (10.09)									ი	Z1			
3.3 NJ       Z1       2         3.3 NJ       Z1         2.7 NJ       Z1         2.7 NJ       Z1         1       2.7 NJ         2.7 NJ       Z1         1       21         1       21         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1         1       1	JNKNOWN (10.4)													
27 NJ       Z1	JNKNOWN (10.41)		e	NN S.	Z1									
62 NJ Z1 6.3 NJ Z1 21 NJ	JNKNOWN (12.25)		2	LN 7	Z1									
6.2 NJ Z1 6.3 NJ Z1 21 NJ	JNKNOWN (12.88)													
6.3 NJ Z1 6.3 NJ Z1 21 NJ	UNKNOWN (16.43)												_	_
6.2 NJ Z1 6.3 NJ Z1 21 NJ	UNKNOWN (16.44)				_									ļ
JNKNOWN (16.72)	UNKNOWN (16.71)					<u>ن</u>	N	Z1		6.3 NJ	<b>Z</b> 1			5
	<b>JNKNOWN (16.72)</b>			_			_							

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PROJ NO: 03634 N	NSAMPLE	SG1-012012			SG11-011912	2		SG12-011912			SG13-012012		
	LAB_ID	C1201051-015A	5 <b>A</b>		C1201051-001A	01 <b>A</b>		C1201051-003A	13A		C1201051-011A	1A	
FRACTION: TICOV SI	SAMP_DATE	1/20/2012			1/19/2012			1/19/2012			1/20/2012		
	QC_TYPE	WN			NN			MM			NM		
	UNITS	РРВИ			PPBV			PPBV			PPBV		
	PCT_SOLIDS												
DARAMETER	5	RESULT	ION	OI CD	RESULT	ION		RESULT	IOV	0100	RESULT		
HEXANAL			2.9 NJ	Z1								;	
HEXANE, 2,2-DIMETHYL-											5.5	5 NJ	Z1
HEXANE, 2,3,4-TRIMETHYL-													
HEXANE, 2,4-DIMETHYL-								1.2	2 NJ	Z1			
HEXANE, 3-METHYL-													
INDAN, 1-METHYL-													
ISOBUTANE		2.7	2.7 NJ	Z1							1.9	<b>FN</b>	Z1
LIMONENE													
METHALLYL CYANIDE													
PENTANAL													
PENTANE													
PENTANE, 2,2,4-TRIMETHYL-													
PENTANE, 2,3,3-TRIMETHYL-													
PENTANE, 2,3,3-TRIMETHYL- \$\$ 2,3,3	- \$\$ 2,3,3												
PENTANE, 2,3,4-TRIMETHYL-	-							-	1.8 NJ	Z1	2.1	ſ	Z1
PENTANE, 2,3-DIMETHYL-								с. С	3.1 NJ	Z1			
PENTANE, 2-METHYL-		2.5	2.5 NJ	Z1					1.2 NJ	Z1			
PENTANE, 3-METHYL-													
<b>PROPANAL, 2-METHYL-</b>		3.7	3.7 NJ	Z1									
<b>PROPANENITRILE, 3-METHOXY-</b>	-XX				0.6	.61 NJ	Z1						
P-TRIMETHYLSILYLOXYPHENYL- TRIMETH	'NYL-							1.	5 NJ	Z1			
P-TRIMETHYLSILYLOXYPHENYL-BIS	NYL-BIS												
					-	1 2 0	7.7				-		
SILANOL, I KIIVIE I HTL-					-   u		7 [						
UNKNOWN (10 00)							1						
LINKNOWN (10.4)		4	ΓN ∠	Z1									
UNKNOWN (10.41)											2	Γ <b>Ζ</b>	Z1
UNKNOWN (12.25)													
UNKNOWN (12.88)													
UNKNOWN (16.43)											2.8	8 NJ	Z1
UNKNOWN (16.44)													
<b>UNKNOWN (16.71)</b>		3.4	3.4 NJ	Z1				6.3	N S	Z1	12	ΓN 0	Z1
UNKNOWN (16.72)									_				
UNKNOWN (18.64)											5.0	5.3 NJ	Z1

PROJ NO: 03634	NSAMPLE	SG14-012012			SG15-012012			SG17-012012			SG18-011912		
SDG: C1201051		C1201051-019A	A6		C1201051-021A	1A		C1201051-020A	A		C1201051-009A	9A	
FRACTION: TICOV	SAMP_DATE	1/20/2012			1/20/2012			1/20/2012			1/19/2012		
MEDIA: AIR	QC_TYPE	WN			WN			MN			MN		
	UNITS	РРВИ			PPBV			PPBV			PPBV		
	PCT_SOLIDS			:									
DADAMETED		DECLIIT	1011		DECIIIT	07		DECLIT	10/1		DECLIIT		
HEXANAL		NESOLI	K K K	α κ κ κ κ κ κ κ κ κ κ κ κ κ κ κ κ κ κ κ		K K			K K			ž	
HEXANE, 2,2-DIMETHYL-													
HEXANE, 2,3,4-TRIMETHYL-								3.9	ſz	Z1			
HEXANE, 2,4-DIMETHYL-													
HEXANE, 3-METHYL-					2	R	Z1						
INDAN, 1-METHYL-		2.4	2.4 NJ	Z1									
ISOBUTANE		2.3	2.3 NJ	Z1				2.6	ſz	Z1			
LIMONENE													
METHALLYL CYANIDE					2.4	R	Z1						
PENTANAL											2.7	Z NJ	Z1
PENTANE		2.7	2.7 NJ	Z1	1.9	Z	Z1	-				-	
PENTANE, 2,2,4-TRIMETHYL-	۲۲-	5.5	5.5 NJ	Z1						i			
PENTANE, 2,3,3-TRIMETHYL-	۲L-				3	ĩ	Z1						
PENTANE, 2,3,3-TRIMETHYL- \$\$ 2,3,3	YL- \$\$ 2,3,3												
PENTANE, 2,3,4-TRIMETHYL-	۲L-	2.3	ſ	Z1	2.5	Z	Z1						
PENTANE, 2, 3-DIMETHYL-											1.5	Z	Z1
PENTANE, 2-METHYL-								2.5	z	Z1			
PENTANE, 3-METHYL-													
PROPANAL, 2-METHYL-													
PROPANENITRILE, 3-METHOXY-	нохү-												
P-TRIMETHYLSILYLOXYPHENYL- (TRIMETH	HENYL-												
P-TRIMETHYLSILYLOXYPHENYL-BIS /TRIM	HENYL-BIS												
SILANOL, TRIMETHYL-													
UNKNOWN											4.6	۲N	Z1
<b>UNKNOWN (10.09)</b>													
UNKNOWN (10.4)													
<b>UNKNOWN (10.41)</b>		2.6	2.6 NJ	Z1									
UNKNOWN (12.25)								2.5	ĩ	Z1		_	
<b>UNKNOWN (12.88)</b>													
<b>UNKNOWN (16.43)</b>		-			2	Z	Z1						
UNKNOWN (16.44)											_		
UNKNOWN (16.71)		8.7	8.7 NJ	Z1	4.6	Z	Z1	23	Z	Z1			
UNKNOWN (16.72)													
UNKNOWN (18.64)												_	

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PROJ NO: 03634	NSAMPLE	SG19-012012			SG20-011912			SG2-012012			SG21-011912		
SDG: C1201051	LAB_ID	C1201051-010A	0A		C1201051-004A	14A		C1201051-013A	A		C1201051-005A	5A	
FRACTION: TICOV	SAMP_DATE	1/20/2012			1/19/2012			1/20/2012			1/19/2012		
MEDIA: AIR	QC_TYPE	MN			ŴN			MN			WN		
	UNITS	PPBV			PPBV			PPBV			PPBV		
	PCT_SOLIDS						•						
	DUP_OF				DECULT			DECILIT					
HEXANAL			۲ ۲	מרכם	RESULI	A CL	ALCU	A 4	V. NJ	arcu Z1	RESOL	ν ζ ζ	ALVU
HEXANE, 2,2-DIMETHYL-					4.8	N N	Z1				5.6	R	Z1
HEXANE, 2,3,4-TRIMETHYL-													
HEXANE, 2,4-DIMETHYL-													
HEXANE, 3-METHYL-					0.83	3 NJ	Z1						
INDAN, 1-METHYL-											1.8	ſN	Z1
ISOBUTANE			3 NJ	Z1				3	ſN	Z1			
LIMONENE													
<b>METHALLYL CYANIDE</b>													
PENTANAL								3.4	ſz	Z1			
PENTANE													
PENTANE, 2,2,4-TRIMETHYL-	۲- ۲-												
PENTANE, 2,3,3-TRIMETHYL-	۲- ۲-				2.	2.5 NJ	Z1				e	R	Z1
PENTANE, 2,3,3-TRIMETHYL- \$\$ 2,3,3	YL- \$\$ 2,3,3												
PENTANE, 2,3,4-TRIMETHYL-	ר- ל	4.5	4.9 NJ	Z1	'n	2.1 NJ	Z1						_
PENTANE, 2,3-DIMETHYL-					0.8	0.82 NJ	Z1						
PENTANE, 2-METHYL-		3.6	3.6 NJ	Z1	1.1	1.8 NJ	Z1	2.4	Z	Z1			
PENTANE, 3-METHYL-					-								
PROPANAL, 2-METHYL-								2.3	ſZ	Z1			
PROPANENITRILE, 3-METHOXY-	-УХО-					-					-		
P-TRIMETHYLSILYLOXYPHENYL- (TRIMETH	HENYL-												
P-TRIMETHYLSILYLOXYPHENYL-BIS (TRIM	HENYL-BIS												
SILANOL, TRIMETHYL-													
UNKNOWN													
<b>UNKNOWN (10.09)</b>													
UNKNOWN (10.4)													
<b>UNKNOWN (10.41)</b>											1.2	ſ	Z1
UNKNOWN (12.25)													
<b>UNKNOWN (12.88)</b>								1.9	ſZ	Z1			
UNKNOWN (16.43)		2.9	ΓN	Z1									
UNKNOWN (16.44)					2.2	2 NJ	Z1						
UNKNOWN (16.71)								5.6	Z	Z1			
UNKNOWN (16.72)					3.6	3.8 NJ	Z1 -						
UNKNOWN (18.64)								_					

PROJ_NO: 03634	NSAMPLE	SG22-012012			SG23-011912			SG24-011912			SG25-011912	2	
SDG: C1201051	LAB_ID	C1201051-016A	A		C1201051-006A	6A		C1201051-007A	7A		C1201051-008A	38A	
FRACTION: TICOV	SAMP_DATE	1/20/2012			1/19/2012			1/19/2012			1/19/2012		
MEDIA: AIR	QC_TYPE	MN			MN			MN			WN		
	UNITS	PPBV			PPBV			PPBV			PPBV		
	PCT_SOLIDS												
DADANCTED		DECLIIT					0,0	DECIIIT			DECLIIT		
HEXANAL			۲ ۲		INCOOL I	K K						× < <	
HEXANE, 2,2-DIMETHYL-													
HEXANE, 2,3,4-TRIMETHYL-	Ļ												
HEXANE, 2,4-DIMETHYL-													
HEXANE, 3-METHYL-													
INDAN, 1-METHYL-								1.6	٢N	Z1			
ISOBUTANE					-							3 NJ	Z1
LIMONENE												3 NJ	Z1
METHALLYL CYANIDE		9.2	9.2 NJ	Z1									
PENTANAL													
PENTANE		3.1	3.1 NJ	Z1									
PENTANE, 2,2,4-TRIMETHYL-	۲L-				3.4		Z1	4.0	4.9 NJ	Z1			
PENTANE, 2,3,3-TRIMETHYL-	۲L-				2.5	Z	Z1	50	2.9 NJ	Z1			
PENTANE, 2,3,3-TRIMETHYL- \$\$ 2,3,3	YL- \$\$ 2,3,3				1								
PENTANE, 2,3,4-TRIMETHYL-	۲L-				1.8	Ñ	Z1	2.1	ĩ	Z1			
PENTANE, 2,3-DIMETHYL-													
PENTANE, 2-METHYL-					5.1	2.1 NJ	Z1	1.5	<u>r</u>	Z1			
PENTANE, 3-METHYL-											1.1	1 N	Z1
PROPANAL, 2-METHYL-													
PROPANENITRILE, 3-METHOXY-	нохү-										-		
P-TRIMETHYLSILYLOXYPHENYL- (TRIMETH	HENYL-												
P-TRIMETHYLSILYLOXYPHENYL-BIS (TRIM	HENYL-BIS												
SILANOL, TRIMETHYL-													
UNKNOWN													
UNKNOWN (10.09)													
UNKNOWN (10.4)													
UNKNOWN (10.41)		4.8	ſN	Z1									
UNKNOWN (12.25)													
<b>UNKNOWN (12.88)</b>		-			3		_						
<b>UNKNOWN (16.43)</b>												_	
UNKNOWN (16.44)	·											1	
<b>UNKNOWN (16.71)</b>					-			3.2	Z	Z1	4	NJ 8	Z1
UNKNOWN (16.72)													
UNKNOWN (18.64)									_				

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DROLI NO: 03634	NSAMPI F	SG4-012012			TR-012012		
SDG: C1201051	LAB_ID	C1201051-017A	A'		C1201051-023A	3A	
FRACTION: TICOV	SAMP_DATE	1/20/2012			1/20/2012		
MEDIA: AIR	<b>ac_TYPE</b>	NN			MN		:
	UNITS	PPBV			PPBV		
	PCT_SOLIDS						
	DUP_OF		-	-			
PARAMETER		RESULT	Val	QLCD	RESULT	VQL	QLCD
HEXANAL							
HEXANE, 2,2-DIMETHYL-		5	ſz	Z1			
HEXANE, 2,3,4-TRIMETHYL-	-		-				
HEXANE, 2,4-DIMETHYL-							
HEXANE, 3-METHYL-							
INDAN, 1-METHYL-							
ISOBUTANE		9.8	ſN	Z1			
LIMONENE							
METHALLYL CYANIDE							
PENTANAL							
PENTANE		4.9	4.9 NJ	Z1			
PENTANE, 2,2,4-TRIMETHYL	YL-						
PENTANE, 2,3,3-TRIMETHYL-	YL-						
PENTANE, 2,3,3-TRIMETHYL- \$\$ 2,3,3	IYL- \$\$ 2,3,3	8.5	R	Z1			
PENTANE, 2,3,4-TRIMETHYL-	YL-						
PENTANE, 2,3-DIMETHYL-							
PENTANE, 2-METHYL-		13	ĩ	Z1			
PENTANE, 3-METHYL-		6.8	6.8 NJ	Z1			
PROPANAL, 2-METHYL-							
PROPANENITRILE, 3-METHOXY-	-Ухон						
P-TRIMETHYLSILYLOXYPHENYL- /TRIMETH	HENYL-						
P-TRIMETHYLSILYLOXYPHENYL-BIS	HENYL-BIS						
SILANOL, TRIMETHYL-							
UNKNOWN							
UNKNOWN (10.09)							
UNKNOWN (10.4)							
UNKNOWN (10.41)							
UNKNOWN (12.25)							
UNKNOWN (12.88)							
UNKNOWN (16.43)							
UNKNOWN (16.44)							
UNKNOWN (16.71)							
UNKNOWN (16.72)							
<b>UNKNOWN (18.64)</b>							

PROJ NO: 03634	NSAMPLE	SG07-012012			SG08-012012	0		SG09-012012			SG10-011912		
SDG: C1201051	LAB_ID	C1201051-022A	2A		C1201051-018A	8A		C1201051-012A	2A		C1201051-002A	12A	
FRACTION: TICOV	SAMP_DATE	1/20/2012			1/20/2012			1/20/2012			1/19/2012		
MEDIA: AIR	QC_TYPE	MN			WN			MN			NN		
	UNITS	PPBV			РРВV			PPBV			PPBV		
	PCT_SOLIDS												
	DUP_OF			-						-	-		
PARAMETER		RESULT	۲a۲	alcd	RESULT	۲QL	arcd	RESULT	ЧġГ	alcd	RESULT	VaL	alcd
<b>UNKNOWN (18.68)</b>													
<b>UNKNOWN</b> (18.69)													
UNKNOWN (2.92)													
UNKNOWN (2.93)		4.2	4.2 NJ	Z1	4.3	S NJ	Z1						
UNKNOWN (3.17)													
UNKNOWN (3.18)					-						1.4	4 NJ	Z1
UNKNOWN (3.22)													
UNKNOWN (3.39)													
UNKNOWN (3.87)													
UNKNOWN (3.91)													
UNKNOWN (4.19)					2.1	5 NJ	Z1						
UNKNOWN (4.2)													
UNKNOWN (4.23)													
UNKNOWN (5.08)													
UNKNOWN (8.21)													
UNKNOWN (9.12)		4.1	4.1 NJ	Z1									
UNKNOWN (9.13)								2.5	5 NJ	Z1			
UNKNOWN (9.96)													
<b>UNKNOWN ALKANE</b>								4	NJ 8	Z1			
<b>UNKNOWN ALKANE (10)</b>											4.1	۲N ۲	Z1
<b>UNKNOWN ALKANE (12.25)</b>	5)		_										
<b>UNKNOWN ALKANE (12.26)</b>	5)										2.3	3 NJ	Z1
<b>UNKNOWN ALKANE (12.47)</b>	7)	2.9	2.9 NJ	Z1									
<b>UNKNOWN ALKANE (12.48)</b>	8)										2.4	4 NJ	Z1
UNKNOWN ALKANE (16.43)	3)												
<b>UNKNOWN ALKANE (16.71)</b>	1)												
UNKNOWN ALKANE (18.63)	3)												
<b>UNKNOWN ALKANE (2.93)</b>				_									
<b>UNKNOWN ALKANE (4.24)</b>		2.2	2.2 NJ	Z1									
<b>UNKNOWN ALKANE (5.76)</b>													
UNKNOWN ALKANE (9.99)													

PROJ NO: 03634	NSAMPLE	SG1-012012			SG11-011912	12		SG12-011912	2		SG13-012012	2	
SDG: C1201051	LAB_ID	C1201051-015A	5A		C1201051-001A	01A		C1201051-003A	03A		C1201051-011A	11A	
FRACTION: TICOV	SAMP_DATE	1/20/2012			1/19/2012			1/19/2012			1/20/2012		
MEDIA: AIR	QC_TYPE	MN			Σz			MN			ΣN		
	UNITS	PPBV			PPBV			PPBV			PPBV		
	PCT_SOLIDS												
PARAMETER	5	RESULT	VoL	QLCD	RESULT	VQL	QLCD	RESULT	VoL	QLCD	RESULT	VQL	glcd
UNKNOWN (18.68)													
UNKNOWN (18.69)													
UNKNOWN (2.92)		-	11 NJ	Z1									
UNKNOWN (2.93)													
UNKNOWN (3.17)								4.9	NJ 6	Z1			
UNKNOWN (3.18)													
UNKNOWN (3.22)								4	4.1 NJ	Z1			
UNKNOWN (3.39)													
UNKNOWN (3.87)													
UNKNOWN (3.91)													
UNKNOWN (4.19)													
UNKNOWN (4.2)		8.6	۲Z	Z1									
UNKNOWN (4.23)													
UNKNOWN (5.08)													
UNKNOWN (8.21)		3.9	ſV	Z1									
UNKNOWN (9.12)													
UNKNOWN (9.13)													
UNKNOWN (9.96)		5.5	5.5 NJ	Z1									
<b>UNKNOWN ALKANE</b>								4.6	۲N و	Z1		3 NJ	Z1
<b>UNKNOWN ALKANE (10)</b>													
UNKNOWN ALKANE (12.25)	5)												
UNKNOWN ALKANE (12.26)	(9)					LNJ	Z1						
<b>UNKNOWN ALKANE (12.47)</b>	(2)												
<b>UNKNOWN ALKANE (12.48)</b>	(8)					۲N ۲	Z1						
UNKNOWN ALKANE (16.43)	(3)			-							-		
<b>UNKNOWN ALKANE (16.71)</b>	(1)												
UNKNOWN ALKANE (18.63)	(2)					1.1 NJ	Z1						
<b>UNKNOWN ALKANE (2.93)</b>	()												
<b>UNKNOWN ALKANE (4.24)</b>	()												
<b>UNKNOWN ALKANE (5.76)</b>	()								_				
<b>UNKNOWN ALKANE (9.99)</b>	()							_				_	

PROJ NO: 03634	NSAMPLE	SG14-012012			SG15-012012	0		SG17-012012	0		SG18-011912		
SDG: C1201051	LAB_ID	C1201051-019A			C1201051-021A	21A		C1201051-020A	20A		C1201051-009A	9A	
FRACTION: TICOV	SAMP_DATE	1/20/2012			1/20/2012			1/20/2012			1/19/2012		
MEDIA: AIR	ας_түре	WN			WN			MN			MN		
	UNITS	PPBV			PPBV			PPBV			PPBV		
	PCT_SOLIDS											-	
	DUP_OF								1				
PARAMETER		RESULT	٨۵۲	QLCD	RESULT	۲a۲	alcd	RESULT	۲ø۲	alcd	RESULT	٨۵٢	QLCD
UNKNOWN (18.68)		2 NJ	5	Z1					_				
<b>UNKNOWN (18.69)</b>													
UNKNOWN (2.92)													
UNKNOWN (2.93)		5 NJ	5	Z1	5.4	4 NJ	Z1						
UNKNOWN (3.17)													
UNKNOWN (3.18)													
UNKNOWN (3.22)	:											_	
UNKNOWN (3.39)													
UNKNOWN (3.87)													
UNKNOWN (3.91)													
UNKNOWN (4.19)													
UNKNOWN (4.2)													
UNKNOWN (4.23)													
UNKNOWN (5.08)									_				
UNKNOWN (8.21)													
UNKNOWN (9.12)									_				
UNKNOWN (9.13)													
UNKNOWN (9.96)													
<b>UNKNOWN ALKANE</b>		3.2 NJ	F	Z1	Ň	NJ 9	Z1		Z NJ	Z1			
<b>UNKNOWN ALKANE (10)</b>												-	
<b>UNKNOWN ALKANE (12.25)</b>	5)										κ̈́	I NJ	Z1
UNKNOWN ALKANE (12.26)	5)								-				
UNKNOWN ALKANE (12.47)	2)											3 NJ	Z1
<b>UNKNOWN ALKANE (12.48)</b>	8)											,	
UNKNOWN ALKANE (16.43)	3)										3.5	3.2 NJ	Z1
<b>UNKNOWN ALKANE (16.71)</b>	1)										<b>4</b>	16 NJ	Z1
UNKNOWN ALKANE (18.63)	3)												
<b>UNKNOWN ALKANE (2.93)</b>													
<b>UNKNOWN ALKANE (4.24)</b>													
<b>UNKNOWN ALKANE (5.76)</b>									_				
UNKNOWN ALKANE (9.99)													

PROJ NO: 03634	NSAMPLE	SG19-012012			SG20-011912	12		SG2-012012			SG21-011912	5	
SDG: C1201051		C1201051-010A	0A		C1201051-004A	04A		C1201051-013A	3A		C1201051-005A	)5A	
FRACTION: TICOV	SAMP_DATE	1/20/2012			1/19/2012			1/20/2012			1/19/2012		
MEDIA: AIR	QC_TYPE	MN			MN			MN			MN		
	UNITS	PPBV			PPBV			PPBV			PPBV		
	PCT_SOLIDS							_					
PARAMETER		RESULT	VOL	OLCD	RESULT	VoL	OLCD	RESULT	VaL	OLCD	RESULT	VoL	OLCD
UNKNOWN (18.68)													
UNKNOWN (18.69)			ļ								1.3	LN E.	Z1
UNKNOWN (2.92)		6	9.2 NJ	Z1									
UNKNOWN (2.93)													
UNKNOWN (3.17)													
UNKNOWN (3.18)													
UNKNOWN (3.22)													
UNKNOWN (3.39)													
UNKNOWN (3.87)			3 NJ	Z1	_								
UNKNOWN (3.91)					-								
UNKNOWN (4.19)													
UNKNOWN (4.2)								4.	4.2 NJ	Z1			
UNKNOWN (4.23)								4 .	4.4 NJ	Z1	-		-
UNKNOWN (5.08)													
UNKNOWN (8.21)												- +	
UNKNOWN (9.12)										_		_	
UNKNOWN (9.13)													
UNKNOWN (9.96)													-
UNKNOWN ALKANE		-									2.5	5 NJ	Z1
<b>UNKNOWN ALKANE (10)</b>										_			
UNKNOWN ALKANE (12.25)	5)												
<b>UNKNOWN ALKANE (12.26)</b>	6)												
UNKNOWN ALKANE (12.47)	7)					_		57	LN LN	Z1			
<b>UNKNOWN ALKANE (12.48)</b>	8)		8 N	Z1									
UNKNOWN ALKANE (16.43)	3)												
<b>UNKNOWN ALKANE (16.71)</b>	1)		17 NJ	Z1									
<b>UNKNOWN ALKANE (18.63)</b>	3)												
<b>UNKNOWN ALKANE (2.93)</b>								5.0	N 6	Z1			
<b>UNKNOWN ALKANE (4.24)</b>	(												
<b>UNKNOWN ALKANE (5.76)</b>	(												
<b>UNKNOWN ALKANE (9.99)</b>													

PROJ NO: 03634	NSAMPLE	SG22-012012			SG23-011912	2		SG24-011912			SG25-011912	0	
SDG: C1201051	LAB_ID	C1201051-016A	5A	1	C1201051-006A	D6A		C1201051-007A	17A		C1201051-008A	08A	
FRACTION: TICOV	SAMP_DATE	1/20/2012			1/19/2012			1/19/2012			1/19/2012		
MEDIA: AIR	QC_TYPE	ΝX			MN			ΨN			NN		
	UNITS	PPBV			PPBV			PPBV			PPBV		
	PCT_SOLIDS									-			
	DUP_OF					-							
PARAMETER		RESULT	٨d	QLCD	RESULT	۲aL	QLCD	RESULT	۲a۲	alcd	RESULT	۲a۲	QLCD
<b>UNKNOWN (18.68)</b>													
<b>UNKNOWN (18.69)</b>								÷.	LN L	Z1			
UNKNOWN (2.92)													
UNKNOWN (2.93)													
UNKNOWN (3.17)								5.9	ΓN 6	Z1			
UNKNOWN (3.18)													
UNKNOWN (3.22)													
UNKNOWN (3.39)		e	3 NJ	Z1									
UNKNOWN (3.87)													
UNKNOWN (3.91)													
UNKNOWN (4.19)										-			
UNKNOWN (4.2)													
UNKNOWN (4.23)									-				
UNKNOWN (5.08)												_	
UNKNOWN (8.21)		3.3	Z	Z1						_			
UNKNOWN (9.12)													
UNKNOWN (9.13)											0.5	.59 NJ	Z1
UNKNOWN (9.96)													
<b>UNKNOWN ALKANE</b>				-	<u>.</u> 2	NJ 9	Z1					۲ N	Z1
<b>UNKNOWN ALKANE (10)</b>													
UNKNOWN ALKANE (12.25)	25)					-							
UNKNOWN ALKANE (12.26)	26)												
<b>UNKNOWN ALKANE (12.47)</b>	47)												
<b>UNKNOWN ALKANE (12.48)</b>	48)												
UNKNOWN ALKANE (16.43)	43)												
UNKNOWN ALKANE (16.71)	71)								_			_	
UNKNOWN ALKANE (18.63)	63)												
<b>UNKNOWN ALKANE (2.93)</b>	3)	8.4	8.4 NJ	Z1									
<b>UNKNOWN ALKANE (4.24)</b>	4)						-						
UNKNOWN ALKANE (5.76)	6)	2.9	2.9 NJ	Z1		-							
UNKNOWN ALKANE (9.99)	6)	5.9	5.9 NJ	Z1									

PROJ_NO: 03634	NSAMPLE	SG4-012012			TB-012012		
SDG: C1201051	LAB_ID	C1201051-017A	۲		C1201051-023A	3A	
FRACTION: TICOV	SAMP_DATE	1/20/2012			1/20/2012		
MEDIA: AIR	QC_TYPE	MN			WN		
	UNITS	PPBV			PPBV		
	PCT_SOLIDS	_					
	DUP_OF						
PARAMETER		RESULT	VaL	alcd	RESULT	۲aL	alcd
<b>UNKNOWN (18.68)</b>							
UNKNOWN (18.69)							
UNKNOWN (2.92)							
UNKNOWN (2.93)							
UNKNOWN (3.17)							
UNKNOWN (3.18)							
UNKNOWN (3.22)							
UNKNOWN (3.39)							
UNKNOWN (3.87)							
UNKNOWN (3.91)		3.5	5 NJ	Z1			
UNKNOWN (4.19)							
UNKNOWN (4.2)	:						
UNKNOWN (4.23)							
UNKNOWN (5.08)		4.3	R	Z1			
UNKNOWN (8.21)							
UNKNOWN (9.12)							
UNKNOWN (9.13)							
UNKNOWN (9.96)							
<b>UNKNOWN ALKANE</b>		-					
<b>UNKNOWN ALKANE (10)</b>							
UNKNOWN ALKANE (12.25)	5)						
UNKNOWN ALKANE (12.26)	(9)						
<b>UNKNOWN ALKANE (12.47)</b>	(2)						
UNKNOWN ALKANE (12.48)	8)						
UNKNOWN ALKANE (16.43)	3)						
<b>UNKNOWN ALKANE (16.71)</b>	(1,						
UNKNOWN ALKANE (18.63)	(5)						
<b>UNKNOWN ALKANE (2.93)</b>	()						
<b>UNKNOWN ALKANE (4.24)</b>	(						
<b>UNKNOWN ALKANE (5.76)</b>							
UNKNOWN ALKANE (9.99)	()						

#### Appendix B

Results as Reported by the Laboratory

Date: 03-Feb-12

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CLIENT:	Tetra Tech			0	Client Sample ID:	IA1-0	12512
Lab Order:	C1201063				Tag Number:	368,20	66
Project:	Maryland MartinAi	r Middle River 1	12IC0634		<b>Collection Date:</b>	1/25/2	2012
Lab ID:	C1201063-001A				Matrix:	AIR	
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 W/ NA	PHTHALENE BY MET	HOD TO15	тс	)-15			Analyst: RJF
1,1,1-Trichloroe	thane	ND	0.83		ug/m3	1	1/28/2012 5:28:00 AM
1,1,2-Trichlaroe	thane	ND	0.83		ug/m3	1	1/28/2012 5:28:00 AM
1,1-Dichloroetha	ane	ND	0.62		ug/m3	1	1/28/2012 5:28:00 AM
1,1-Dichloroethe	ene	ND	0.60		ug/m3	1	1/28/2012 5:28:00 AM
1,2,4-Trichlorob	enzene	ND	1.1		ug/m3	1	1/28/2012 5:28:00 AM
1,2,4-Trimethylt	penzene	1.6	0.75		ug/m3	1	1/28/2012 5:28:00 AM
1,2-Dichloroben	zene	ND	0.92		ug/m3	1	1/28/2012 5:28:00 AM
1,2-Dichloroetha	ane	ND	0.62		ug/m3	1	1/28/2012 5:28:00 AM
1,3-Dichloroben	zene	ND	0.92		ug/m3	1	1/28/2012 5:28:00 AM
1,4-Dichloroben	zene	ND	0.92		ug/m3	1	1/28/2012 5:28:00 AM
Benzene		1.3	0.49		ug/m3	1	1/28/2012 5:28:00 AM
Carbon disulfide	•	ND	0.47		ug/m3	1	1/28/2012 5:28:00 AM
Carbon tetrachle	oride	ND	0.26		ug/m3	1	1/28/2012 5:28:00 AM
Chlorobenzene		ND	0.70		ug/m3	1	1/28/2012 5:28:00 AM
Chloroform		0.65	0.74	J	ug/m3	1	1/28/2012 5:28:00 AM
Chloromethane		ND	0.31		ug/m3	1	1/28/2012 5:28:00 AM
cis-1,2-Dichloro	ethene	ND	0.60		ug/m3	1	1/28/2012 5:28:00 AM
Ethylbenzene		0.75	0.66		ug/m3	1	1/28/2012 5:28:00 AM
Freon 12		2.3	0.75		ug/m3	1	1/28/2012 5:28:00 AM
m&p-Xylene		1.9	1.3		ug/m3	1	1/28/2012 5:28:00 AM
Methyl Ethyl Kei	tone	26	9,0		ug/m3	10	1/29/2012 8:55:00 AM
Methyl tert-butyl	ether	ND	0.55		ug/m3	1	1/28/2012 5:28:00 AM
Methylene chlor	ide	0.99	0.53		ug/m3	1	1/28/2012 5:28:00 AM
Naphthalene		5.1	0.80		ug/m3	1	1/28/2012 5:28:00 AM
o-Xylene		0.71	0.66		ug/m3	1	1/28/2012 5:28:00 AM
Tetrachloroethyl	lene	ND	1.0		ug/m3	1	1/28/2012 5:28:00 AM
Toluene		3.5	0.57		ug/m3	1	1/28/2012 5:28:00 AM
trans-1,2-Dichlo	roethene	ND	0.60		ug/m3	1	1/28/2012 5:28:00 AM
Trichloroethene		ND	0.22		ug/m3	1	1/28/2012 5:28:00 AM
Vinyl chloride		ND	0.10		ug/m3	1	1/28/2012 5:28:00 AM

Qualifiers:	**	Reporting Limit	•	Results reported are not blank corrected
	В	Analyte detected in the associated Method Blank	E	Value above quantitation range
	н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
	S	Spike Recovery outside accepted recovery limits		Page 1 of 3

Date: 03-Feb-12

CLIENT:	Tetra Tech			C	lient Sample ID:	IA1-0	12512
Lab Order:	C1201063				Tag Number:	368,20	66
Project:	Maryland MartinAi	r Middle River	112IC0634		<b>Collection Date:</b>	1/25/2	2012
Lab ID:	C1201063-001A				Matrix:	AIR	
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed
FIELD PARAM	ETERS		F	LD			Analyst:
Lab Vacuum In		-1			"Hg		1/27/2012
Lab Vacuum Ou	ut	-30			"Hg		1/27/2012
1UG/M3 W/ NA	PHTHALENE BY MET	HOD TO15	то	-15			Analyst: RJF
1,1,1-Trichloroe	thane	ND	0.15		ppbV	1	1/28/2012 5:28:00 AM
1,1,2-Trichloroe	thane	ND	0.15		ppbV	1	1/28/2012 5:28:00 AM
1,1-Dichloroetha	ane	ND	0.15		ppbV	1	1/28/2012 5:28:00 AM
1,1-Dichloroethe	ene	ND	0.15		ppbV	1	1/28/2012 5:28:00 AM
1,2,4-Trichlorob	enzene	ND	0.15		ppbV	1	1/28/2012 5:28:00 AM
1,2,4-Trimethylb	enzene	0.32	0.15		ppbV	1	1/28/2012 5:28:00 AM
1,2-Dichloroben	zene	ND	0.15		ppbV	1	1/28/2012 5:28:00 AM
1,2-Dichloroetha	ane	ND	0.15		ppbV	1	1/28/2012 5:28:00 AM
1,3-Dichloroben	zene	ND	0.15		ppbV	1	1/28/2012 5:28:00 AM
1,4-Dichloroben	zene	ND	0.15		ppbV	1	1/28/2012 5:28:00 AM
Benzene		0.39	0.15		ppbV	1	1/28/2012 5:28:00 AM
Carbon disulfide	1	ND	0.15		ppbV	1	1/28/2012 5:28:00 AM
Carbon tetrachle	oride	ND	0.040		ppbV	1	1/28/2012 5:28:00 AM
Chlorobenzene		ND	0.15		ppbV	1	1/28/2012 5:28:00 AM
Chloroform		0.13	0.15	J	ppbV	1	1/28/2012 5:28:00 AM
Chloromethane		ND	0.15		ppbV	1	1/28/2012 5:28:00 AM
cis-1,2-Dichloro	ethene	ND	0.15		ppbV	1	1/28/2012 5:28:00 AM
Ethylbenzene		0.17	0.15		ppbV	1	1/28/2012 5:28:00 AM
Freon 12		0.45	0.15		ppbV	1	1/28/2012 5:28:00 AM
m&p-Xylene		0.42	0.30		ppbV	1	1/28/2012 5:28:00 AM
Methyl Ethyl Ke	lone	8.8	3.0		ppbV	10	1/29/2012 8:55:00 AM
Methyl tert-butyl		ND	0.15		ppbV	1	1/28/2012 5:28:00 AM
Methylene chlor		0.28	0.15		ppbV	1	1/28/2012 5:28:00 AM
Naphthalene		0.95	0.15		ppbV	1	1/28/2012 5:28:00 AM
o-Xylene		0.16	0.15		ppbV	1	1/28/2012 5:28:00 AM
Tetrachloroethy	lene	ND	0.15		ppbV	1	1/28/2012 5:28:00 AM
Toluene		0.91	0.15		ppbV	1	1/28/2012 5:28:00 AM
trans-1,2-Dichlo	roethene	ND	0.15		ppbV	1	1/28/2012 5:28:00 AM
Trichloroethene		ND	0.040		ppbV	1	1/28/2012 5:28:00 AM
Vinyi chloride		ND	0.040		ppbV	1	1/28/2012 5:28:00 AM
Surr: Bromofi	uorobenzene	97.0	70-130		%REC	1	1/28/2012 5:28:00 AM
TIC: 2-Pentar		0.92	-0	JN	ppbV	1	1/28/2012 5:28:00 AM
	e, 1-methyl-2-(1-	1.4	0	JN	ppbV	1	1/28/2012 5:28:00 AM
	e, 1-methyl-3-(1-	0.50	0	JN	ppbV	1	1/28/2012 5:28:00 AM

Qualifiers:

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

- S Spike Recovery outside accepted recovery limits
- Results reported are not blank corrected
- E Value above quantitation range

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J Analyte detected at or below quantitation limits

<sup>\*\*</sup> Reporting Limit

B Analyte detected in the associated Method Blank

TIC: Unknown (3.16)

TIC: Unknown alkane

Date: 03-Feb-12

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1/28/2012 5:28:00 AM

1/28/2012 5:28:00 AM

CLIENT: Lab Order: Project: Lab ID:	•	Air Middle River 11 IAI - 0125/2			Client Sample ID: Tag Number: Collection Date: Matrix:	; 36 <b>8,2</b> ; 1/25/2	66
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 W/ NA	PHTHALENE BY ME	THOD TO15	тс	)-15			Analyst: RJP
TIC: Benzene dimethyl-	e, 2-ethyl-1,4-	0.41	0	JN	ppbV	1	1/28/2012 5:28:00 AM
TIC: Benzene dimethyl-	e, 4-ethyl-1,2-	0.70	0	JN	ppbV	1	1/28/2012 5:28:00 AM
TIC: Butane		1.0	0	JN	ppbV	1	1/28/2012 5:28:00 AM
TIC: Cyclotris	illoxane, hexamethyl	6.3	0	JN	ppbV	1	1/28/2012 5:28:00 AM
TIC: Ethane,	1-chloro-1,1-difluoro	1.5	0	JN	ppbV	1	1/28/2012 5:28:00 AM
TIC: Hexanal		0.75	0	JN	ppbV	1	1/28/2012 5:28:00 AM
TIC: Limoner	10	7.8	0	JN	ppbV	1	1/28/2012 5:28:00 AM
TIC: Methally	l cyanide	2.0	0	JN	ppbV	1	1/28/2012 5:28:00 AM
TIC: Pentana	1	0.51	0	JN	ppbV	1	1/28/2012 5:28:00 AM
TIC: Undecar	ne, 4,6-dimethyl-	0.59	0	JN	ррьV	1	1/28/2012 5:28:00 AM
TIC: Unknow	n (10.53)	0.43	0	JN	ppbV	1	1/28/2012 5:28:00 AM
TIC: Unknow	n (16.43)	0.48	0	JN	ppbV	1	1/28/2012 5:28:00 AM
TIC: Unknow	n (16.71)	2.9	0	JN	ppbV	1	1/28/2012 5:28:00 AM

0 JN

0 JN

ppbV

ppbV

0.43

0.64

Qualifiers:

- \*\* Reporting Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- JN Non-routine analyte. Quantitation estimated.
- S Spike Recovery outside accepted recovery limits
- . Results reported are not blank corrected
- E Value above quantitation range
- J Analyte detected at or below quantitation limits
- ND Not Detected at the Reporting Limit

Date: 03-Feb-12

CLIENT:	Tetra Tech			(	Client Sampl	e ID:	IA2-0	12512
Lab Order:	C1201063				Tag Nun	iber:	159,31	74
Project:	Maryland MartinAi	r Middle River	112IC0634		Collection ]	Date:	1/25/2	012
Lab ID:	C1201063-002A ]				Ma	trix:		
Analyses	······································	Result	**Limit	Qual			DF	Date Analyzed
1UG/M3 W/ NA	PHTHALENE BY MET	HOD TO15	тс	)-15			_	Analyst: RJF
1,1,1-Trichloroe	thane	ND	0.83		ug/m3		1	1/28/2012 6:02:00 AM
1,1,2-Trichloroe	thane	ND	0,83		ug/m3		1	1/28/2012 6:02:00 AM
1,1-Dichloroetha	ane	ND	0.62		ug/m3		1	1/28/2012 6:02:00 AM
1,1-Dichloroeth	еле	ND	0.60		ug/m3		1	1/28/2012 6:02:00 AM
1,2,4-Trichlorob	enzene	ND	1.1		ug/m3		1	1/28/2012 6:02:00 AM
1,2,4-Trimethylt	penzene	1.0	0.75		ug/m3		1	1/28/2012 6:02:00 AM
1,2-Dichloroben	zene	ND	0.92		ug/m3		1	1/28/2012 6:02:00 AM
1,2-Dichloroetha	ane	ND	0.62		ug/m3		1	1/28/2012 6:02:00 AM
1,3-Dichloroben	zene	ND	0.92		ug/m3		1	1/28/2012 6:02:00 AM
1,4-Dichloroben	zene	ND	0.92		ug/m3		1	1/28/2012 6:02:00 AM
Benzene		1.3	0.49		ug/m3		1	1/28/2012 6:02:00 AM
Carbon disulfide	}	ND	0.47		ug/m3		1	1/28/2012 6:02:00 AM
Carbon tetrachi	oride	ND	0.26		ug/m3		1	1/28/2012 6:02:00 AM
Chlorobenzene		ND	0.70		ug/m3		1	1/28/2012 6:02:00 AM
Chloroform		0.60	0.74	J	ug/m3		1	1/28/2012 6:02:00 AM
Chloromethane		0.97	0.31		ug/m3		1	1/28/2012 6:02:00 AM
cis-1,2-Dichloro	ethene	ND	0.60		ug/m3		1	1/28/2012 6:02:00 AM
Ethylbenzene		0.71	0.66		ug/m3		1	1/28/2012 6:02:00 AM
Freon 12		2.4	0.75		ug/m3		1	1/28/2012 6:02:00 AM
m&p-Xylene		1.7	1.3		ug/m3		1	1/28/2012 6:02:00 AM
Methyl Ethyl Ke	lone	4.3	0.90		ug/m3		1	1/28/2012 6:02:00 AM
Methyl tert-butyl	ether	ND	0.55		ug/m3		1	1/28/2012 6:02:00 AM
Methylene chlor	ide	0.46	0.53	J	ug/m3		1	1/28/2012 6:02:00 AM
Naphthalene		2.1	0.80		ug/m3		1	1/28/2012 6:02:00 AM
o-Xylene		0.62	0.66	L	ug/m3		1	1/28/2012 6:02:00 AM
Tetrachloroethy	lene	ND	1.0		ug/m3		1	1/28/2012 6:02:00 AM
Toluene		3.2	0.57		ug/m3		1	1/28/2012 6:02:00 AM
trans-1,2-Dichlo	roethene	ND	0.60		ug/m3		1	1/28/2012 6:02:00 AM
Trichloroethene		ND	0.22		ug/m3		1	1/28/2012 6:02:00 AM
Vinyl chloride		ND	0.10		ug/m3		1	1/28/2012 6:02:00 AM

Qualifiers:	**	Reporting Limit	•	Results reported are not blank corrected	
	в	Analyte detected in the associated Method Blank	Е	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	ţ	Analyte detected at or below quantitation	limits
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit	<b>D O CO</b>
	S	Spike Recovery outside accepted recovery limits			Page 2 of 3

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CLIENT:	Tetra Tech			(	Client Sample	D:	IA2-01	2512
Lab Order:	C1201063				Tag Num	ber:	159,374	4
Project:	Maryland MartinAir	Middle River	112IC0634		<b>Collection D</b>	ate:	1/25/20	12
Lab ID:	C1201063-002A T				Mat	trix:	AIR	
Analyses		Result	**Limit	Qual	Units		DF	Date Analyzed
FIELD PARAM	ETERS	• • • • • • • • • • • • • • • • • • •	F	LD				Analyst:
Lab Vacuum In		-1	•		"Hg			1/27/2012
Lab Vacuum O	ut	-30			"Hg			1/27/2012
IUG/M3 W/ NA	PHTHALENE BY METH	IOD TO15	тс	D-15				Analyst: RJF
1,1,1-Trichloroe		ND	0.15	• -	ppbV		1	1/28/2012 6:02:00 AM
1,1,2-Trichloroe		ND	0.15		ppbV		1	1/28/2012 6:02:00 AM
1,1-Dichloroeth		ND	0.15		ppbV		1	1/28/2012 6:02:00 AM
1,1-Dichloroeth		ND	0.15		ppbV		1	1/28/2012 6:02:00 AM
1,2,4-Trichlorob		ND	0.15		ppbV		1	1/28/2012 6:02:00 AM
1,2,4-Trimethyll		0.20	0.15		ppbV		1	1/28/2012 6:02:00 AM
1.2-Dichloroben		ND	0.15		ppbV		1	1/28/2012 6:02:00 AM
1,2-Dichloroeth		ND	0.15		ppbV		1	1/28/2012 6:02:00 AM
1,3-Dichloroben		ND	0.15		ppbV		1	1/28/2012 5:02:00 AM
1,4-Dichloroben		ND	0.15		ppbV		1	1/28/2012 6:02:00 AM
Benzene	· -	0,39	0.15		ppbV		1	1/28/2012 6:02:00 AM
Carbon disulfide	B	ND	0.15		ppbV		1	1/28/2012 6:02:00 AM
Carbon tetrachi		ND	0.040		ppbV		1	1/28/2012 6:02:00 AM
Chlorobenzene		ND	0.15		ppbV		1	1/28/2012 6:02:00 AM
Chloroform		0.12	0.15	J	ppbV		1	1/28/2012 6:02:00 AM
Chloromethane		0.46	0.15		ppbV		1	1/28/2012 6:02:00 AM
cis-1,2-Dichloro		ND	0.15		ppbV		1	1/28/2012 6:02:00 AM
Ethylbenzene		0.16	0.15		ppbV		1	1/28/2012 6:02:00 AM
Freon 12		0.48	0.15		ppbV		1	1/28/2012 6:02:00 AM
m&p-Xylene		0.38	0.30		ppbV		1	1/28/2012 6:02:00 AM
Methyl Ethyl Ke	tone	1.4	0.30		ppbV		1	1/28/2012 6:02:00 AM
Methyl tert-buty		ND	0,15		ppbV		1	1/28/2012 6:02:00 AM
Methylene chlor		0.13	0.15	J	ppbV		1	1/28/2012 6:02:00 AM
Naphthalene		0.40	0.15		ppbV		1	1/28/2012 6:02:00 AM
o-Xylene		0.14	0.15	J	ppbV		1	1/28/2012 6:02:00 AM
Tetrachloroethy	lene	ND	0.15	-	ppbV		1	1/28/2012 6:02:00 AM
Toluene		0.84	0.15		ppbV		1	1/28/2012 6:02:00 AM
trans-1,2-Dichlo	proethene	ND	0,15		ppbV		1	1/28/2012 6:02:00 AM
Trichloroethene		ND	0.040		ppbV		1	1/28/2012 6:02:00 AM
Vinyl chloride		ND	0.040		ppbV		1	1/28/2012 6:02:00 AM
•	luorobenzene	96.0	70-130		%REC		1	1/28/2012 6:02:00 AM
TIC: 1,4-Peni		0.92	0	JN	ppbV		1	1/28/2012 6:02:00 AM
TIC: Benzald		0.27	0	JN	ppbV		1	1/28/2012 6:02:00 AM
TIC: Benzen	e, 2-ethyl-1,4-			JN			-1	
dimethyl-			-					
TIC: Cyclotris	siloxane, hexamethyl	10	0	JN	ррьV		1	1/28/2012 6:02:00 AM

Qualifiers:

\*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

ND Not Detected at the Reporting Limit

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Date: 03-Feb-12

CLIENT:	Tetra Tech			C	lient Sample ID:	IA2-0	12512
Lab Order:	C1201063				Tag Number:	159,3	74
Project:	Maryland MartinA	Air Middle River 1	12IC0634		<b>Collection Date:</b>	1/25/2	2012
Lab ID:	C1201063-002A				Matrix:	AIR	
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 W/ NA	PHTHALENE BY ME	THOD TO15	тс	)-15			Analyst: RJF
TIC: Ethane, trif	1,1,2-trichloro-1,2,2-	0.25	0	JN	ррbV	1	1/28/2012 6:02:00 AM
TIC: Ethanol,	2-[(trimethyisilyl)oxy	0.25	0	JN	ррbV	1	1/28/2012 6:02:00 AM
TIC: Trichlor	omonofluoromethane	0.24	0	JN	ppbV	1	1/28/2012 6:02:00 AM
TIC: Trisiloxa	ine, octamethyl-	0.24	0	JN	ррbV	1	1/28/2012 6:02:00 AM
TIC: Unknow	n (12.63)	0.34	0	JN	ррьV	1	1/28/2012 6:02:00 AM
TIC: Unknow	n (16.43)	0.41	0	JN	ppbV	1	1/28/2012 6:02:00 AM
TIC: Unknow	n (16.71)	5.1	0	JN	ppbV	1	1/28/2012 6:02:00 AM
TIC: Unknow	n (17.83)	1.9	0	JN	ppbV	1	1/28/2012 6:02:00 AM
TIC: Unknow	n (18.06)	0.24	0	JN	ppbV	1	1/28/2012 6:02:00 AM
TIC: Unknow	n (18.52)	0.71	0	JN	ppbV	1	1/28/2012 6:02:00 AM
TIC: Unknow	n (3.22)	1.3	0	JN	ppbV	1	1/28/2012 6:02:00 AM
TIC: Unknow	, ,	0.29	0	JN	ppbV	1	1/28/2012 6:02:00 AM

Qualifiers:

\*\* Reporting Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- JN Non-routine analyte. Quantitation estimated.
- S Spike Recovery outside accepted recovery limits
- Results reported are not blank corrected
- E Value above quantitation range
- J Analyte detected at or below quantitation limits

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Date: 03-Feb-12

CLIENT:	Tetra Tech			C	lient Sample ID:	IA3-0	12512
Lab Order:	C1201063				<b>Tag Number:</b>	430,26	57
Project:	Maryland MartinA	ir Middle River 1	12IC0634		<b>Collection Date:</b>	1/25/2	012
Lab ID:	C1201063-003A				Matrix:	AIR	
Analyses	<u> </u>	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 W/ NA	PHTHALENE BY ME	THOD TO15	TO	-15			Analyst: RJI
1,1,1-Trichloroe	thane	ND	0.83		ug/m3	1	1/28/2012 6:35:00 AM
1,1,2-Trichloroe	thane	ND	0.83		ug/m3	1	1/28/2012 6:35:00 AM
1,1-Dichloroetha	апе	ND	0.62		ug/m3	1	1/28/2012 6:35:00 AM
1,1-Dichloroethe	ene	ND	0.60		ug/m3	1	1/28/2012 6:35:00 AM
1,2,4-Trichlorob	enzene	ND	1.1		ug/m3	1	1/28/2012 6:35:00 AM
1,2,4-Trimethylt	penzene	1.8	0.75		ug/m3	1	1/28/2012 6:35:00 AM
1,2-Dichloroben	izene	ND	0.92		ug/m3	1	1/28/2012 6:35:00 AM
1,2-Dichloroetha	ane	ND	0.62		ug/m3	1	1/28/2012 6:35:00 AM
1,3-Dichloroben	zene	ND	0.92		ug/m3	1	1/28/2012 6:35:00 AM
1,4-Dichioroben	zene	ND	0.92		ug/m3	1	1/28/2012 6:35:00 AM
Benzene		1.3	0.49		ug/m3	1	1/28/2012 6:35:00 AM
Carbon disulfide	2	ND	0.47		ug/m3	1	1/28/2012 6:35:00 AM
Carbon tetrachle	oride	ND	0.26		ug/m3	1	1/28/2012 6:35:00 AM
Chlorobenzene		ND	0,70		ug/m3	1	1/28/2012 6:35:00 AM
Chloroform		ND	0.74		ug/m3	1	1/28/2012 6:35:00 AM
Chloromethane		0.73	0.31		ug/m3	1	1/28/2012 6:35:00 AM
cls-1,2-Dichloro	ethene	ND	0.60		ug/m3	1	1/28/2012 6:35:00 AM
Ethylbenzene		0.84	0.66		ug/m3	1	1/28/2012 6:35:00 AM
Freon 12		ND	0.75		ug/m3	1	1/28/2012 6:35:00 AM
m&p-Xylene		4.1	1.3		ug/m3	1	1/28/2012 6:35:00 AM
Methyl Ethyl Ke	tone	3.0	0.90		ug/m3	1	1/28/2012 6:35:00 AM
Methyl tert-butyl	lether	ND	0.55		ug/m3	1	1/28/2012 6:35:00 AM
Methylene chlor		ND	0.53		ug/m3	1	1/28/2012 6:35:00 AM
Naphthalene		6.9	0.80		ug/m3	1	1/28/2012 6:35:00 AM
o-Xylene		1.9	0.66		ug/m3	1	1/28/2012 6:35:00 AM
Tetrachloroethy	lene	ND	1.0		ug/m3	1	1/28/2012 6:35:00 AM
Toluene		3.1	0.57		ug/m3	1	1/28/2012 6:35:00 AM
trans-1,2-Dichlo	roethene	ND	0.60		ug/m3	1	1/28/2012 6:35:00 AM
Trichloroethene		ND	0.22		ug/m3	1	1/28/2012 6:35:00 AM
Vinyl chloride		ND	0.10		ug/m3	1	1/28/2012 6:35:00 AM

Qualifiers: *		Reporting Limit	•	Results reported are not blank corrected	
	в	Analyte detected in the associated Method Blank	Е	Value above quantitation range	
	н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation	limits
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit	
	S	Spike Recovery outside accepted recovery limits			Page 3 of 3

	boratories, LI		-		03-Feb-12		
CLIENT:	Tetra Tech			C	Client Sample ID:	IA3-0	12512
Lab Order:	C1201063				Tag Number:	430,20	67
Project:	Maryland Martin	Air Middle River i	121C0634		Collection Date:	1/25/2	2012
Lab ID:	C1201063-003A				Matrix:	AIR	
Analyses		Result	**Limit	Oual	Ilnits	DF	Date Analyzed
			·				
FIELD PARAMI	ETERS		F	LD			Analyst:
Lab Vacuum In		-1			"Hg		1/27/2012
Lab Vacuum Ou	It	-30			"Hg		1/27/2012
1UG/M3 W/ NA	PHTHALENE BY ME	THOD TO15	тс	)-15			Analyst: RJF
1,1,1-Trichloroe	thane	ND	0.15		ррbV	1	1/28/2012 6:35:00 AM
1,1,2-Trichloroe	thane	ND	0.15		ppbV	1	1/28/2012 6:35:00 AM
1,1-Dichloroetha		ND	0.15		ppbV	1	1/28/2012 6:35:00 AM
1,1-Dichloroethe	ene	ND	0.15		ppbV	1	1/28/2012 6:35:00 AM
1,2 4-Trichlorob	enzene	ND	0.15		ppbV	1	1/28/2012 6:35:00 AM
1,2,4-Trimethylb	enzene	0.37	0.15		ppbV	1	1/28/2012 6:35:00 AM
1,2-Dichloroben	zene	ND	0,15		ppbV	1	1/28/2012 6:35:00 AM
1,2-Dichloroetha	ane	ND	0.15		ppbV	1	1/28/2012 6:35:00 AM
1,3-Dichloroben	zene	ND	0.15		ppbV	1	1/28/2012 6:35:00 AM
1,4-Dichloroben	zene	ND	0.15		ppbV	1	1/28/2012 6:35:00 AM
Benzene		0.39	0.15		ppbV	1	1/28/2012 6:35:00 AM
Carbon disulfide	1	ND	0.15		ppbV	1	1/28/2012 6:35:00 AM
Carbon tetrachie	oride	ND	0.040		ppbV	1	1/28/2012 6:35:00 AM
Chlorobenzene		ND	0.15		ppbV	1	1/28/2012 6:35:00 AM
Chloroform		ND	0,15		ppbV	1	1/28/2012 6:35:00 AM
Chloromethane		0,35	0.15		ppbV	1	1/28/2012 6:35:00 AM
cis-1,2-Dichloro	ethene	ND	0.15		ppbV	1	1/28/2012 6:35:00 AM
Ethylbenzene		0.19	0.15		ppbV	1	1/28/2012 6:35:00 AM
Freon 12		ND	0.15		ppbV	1	1/28/2012 6:35:00 AM
m&p-Xylene		0.92	0.30		ppbV	1	1/28/2012 6:35:00 AM
Methyl Ethyl Kei	tone	0.99	0.30		ppbV	1	1/28/2012 6:35:00 AM
Methyl tert-butyl		ND	0.15		ppbV	1	1/28/2012 6:35:00 AM
Methylene chlori		ND	0.15		ppbV	1	1/28/2012 6:35:00 AM
Naphthalene		1.3	0.15		ppbV	1	1/28/2012 6:35:00 AM
o-Xylene		0.43	0.15		ppbV	1	1/28/2012 6:35:00 AM
Tetrachloroethyl	ene	ND	0.15		ppbV	1	1/28/2012 6:35:00 AM
Toluene		0.80	0.15		ppbV	1	1/28/2012 6:35:00 AM
trans-1,2-Dichio	roethene	ND	0.15		ppbV	1	1/28/2012 6:35:00 AM
Trichloroethene		ND	0.040		ppbV	1	1/28/2012 6:35:00 AM
Vinyl chloride		ND	0.040		ppbV	1	1/28/2012 6:35:00 AM
Surr: Bromofl	uorobenzene	94.0	70-130		%REC	1	1/28/2012 6:35:00 AM
	e, 1,2,3,4-tetramethy	0.52	0	JN	ppbV	1	1/28/2012 6:35:00 AM
TIC: Benzene tetramethyl- (18	, 1,2,4,5-	1.0	0	JN	ppbV	1	1/28/2012 6:35:00 AM
	, 1,2,4-trimethyl-	<u>0</u> ,43	0	JN	ррьV	1	1/28/2012 6:35:00 AM
	, 1-ethyl-2-methyl-	0.44	0	JN	ppbV	1	1/28/2012 6:35:00 AM

- Qualifiers:
- \*\* Reporting Limit
- B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

- JN Non-routine analyte. Quantitation estimated.
- S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

- E Value above quantitation range
- J Analyte detected at or below quantitation limits

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Date: 03-Feb-12

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CLIENT:	Tetra Tech			(	Client Sample ID:	LA3-0	12512
Lab Order:	C1201063				Tag Number:	430,20	67
Project:	Maryland MartinAir	Middle River	112IC0634		<b>Collection Date:</b>	1/25/2	2012
Lab ID:	C1201063-003A J	A3-012512	2		Matrix:	AIR	
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 W/ NA	PHTHALENE BY METH	OD TO15	тс	)-15			Analyst: RJI
TIC: Benzene dimethyl-	e, 1-ethyl-3,5-	0.39	0	JN	ppbV	1	1/28/2012 6:35:00 AM
TIC: Benzene methylethyl	e, 1-methyl-2-(1-	0.37	0	JN	ppbV	1	1/28/2012 6:35:00 AM
TIC: Benzene methylethyl	e, 1-methyl-4-(1-	1.5	D	JN	ppbV	1	1/28/2012 6:35:00 AM
TIC: Cyclotris	siloxane, hexamethyl	3.2	0	JN	ppbV	1	1/28/2012 6:35:00 AM
TIC: Pentatria	acontane	1.1	0	JN	ppbV	1	1/28/2012 6:35:00 AM
TIC: Trichlord	omonofluoromethane	0.44	0	JN	ppbV	1	1/28/2012 6:35:00 AM
TIC: Undecar	ne, 2,6-dimethyl-	1.0	0	JN	ppbV	1	1/28/2012 6:35:00 AM
TIC: Unknow	п (10.42)	0.43	0	JN	ppbV	1	1/28/2012 6:35:00 AM
TIC: Unknow	n (16.71)	11	0	JN	ppbV	1	1/28/2012 6:35:00 AM
TIC: Unknow	n (17.84)	0.45	0	JN	ppbV	1	1/28/2012 6:35:00 AM
TIC: Unknow	n (19.7)	1.4	0	JN	ppbV	1	1/28/2012 6:35:00 AM
TIC: Unknow	n (20.15)	5.1	0	JN	ppbV	1	1/28/2012 6:35:00 AM
TIC: Unknow	n aikane (19.08)	0.86	0	JN	ppbV	1	1/28/2012 6:35:00 AM
TIC: Unknow	n alkane (19.44)	0.65	0	JN	ppbV	1	1/28/2012 6:35:00 AM

Qualifiers: *		Reporting Limit		Results reported are not blank corrected	
	в	Analyte detected in the associated Method Blank	E	Value above quantitation range	
	н	Holding times for preparation or analysis exceeded	J	J Analyte detected at or below quantitation limits	
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit	
	S	Spike Recovery outside accepted recovery limits			Page 6 of 6

Date: 02-Feb-12

CLIENT:	Tetra Tech			Client Sample	e ID: So	G07-(	011012
Lab Order:	C1201051			Tag Nun	iber: 32	28,12	6
Project:	Maryland MartinAir	Middle River	112IC03634	Collection I	Date: 1/	20/20	012
Lab ID:	C1201051-022A	5607-0		Ma	trix: A	IR	
Analyses		Result	**Limit Qu	al Units	D	F	Date Analyzed
1UG/M3 W/ NAI	PHTHALENE BY METH	IOD TO15	TO-15				Analyst: RJF
1,1,1-Trichloroel	thane	ND	0.83	ug/m3	1		1/28/2012 4:55:00 AM
1,1,2-Trichloroel	thane	ND	0.83	ug/m3	1		1/28/2012 4:55:00 AM
1,1-Dichloroetha	ine	ND	0.62	ug/m3	1		1/28/2012 4:55:00 AM
1,1-Dichloroethe	ene	ND	0.60	ug/m3	1		1/28/2012 4:55:00 AM
1,2,4-Trichlorobe	enzene	ND	1.1	ug/m3	1		1/28/2012 4:55:00 AM
1,2,4-Trimethylb	enzene	17	15	ug/m3	20	1	1/29/2012 8:22:00 AM
1,2-Dichloroben	zene	ND	0.92	ug/m3	1		1/28/2012 4:55:00 AM
1,2-Dichloroetha	ine	ND	0.62	ug/m3	1		1/28/2012 4:55:00 AM
1,3-Dichloroben	zene	ND	0.92	ug/m3	1		1/28/2012 4:55:00 AM
1,4-Dichiorobena	zene	ND	0.92	ug/m3	1		1/28/2012 4:55:00 AM
Benzene		24	9.7	ug/m3	20	1	1/29/2012 8:22:00 AM
Carbon disulfide	l .	4.0	0.47	ug/m3	1		1/28/2012 4:55:00 AM
Carbon tetrachic	oride	ND	0.26	ug/m3	1		1/28/2012 4:55:00 AM
Chlorobenzene		ND	0.70	ug/m3	1		1/28/2012 4:55:00 AM
Chloroform		ND	0.74	ug/m3	1		1/28/2012 4:55:00 AM
Chloromethane		ND	0.31	ug/m3	1		1/28/2012 4:55:00 AM
cls-1,2-Dichioroe	ethene	4.1	0.60	ug/m3	1		1/28/2012 4:55:00 AM
Ethylbenzene		4.2	0.66	ug/m3	1		1/28/2012 4:55:00 AM
Freon 12		2.0	0.75	ug/m3	1		1/28/2012 4:55:00 AM
m&p-Xylene		14	1.3	ug/m3	1		1/28/2012 4:55:00 AM
Methyl Ethyl Ket	one	22	18	ug/m3	20	l	1/29/2012 8:22:00 AM
Methyl tert-butyl	ether	ND	0.55	ug/m3	1		1/28/2012 4:55:00 AM
Methylene chlori	de	0.71	0.53	ug/m3	1		1/28/2012 4:55:00 AM
Naphthalene		5.6	0.80	ug/m3	1		1/28/2012 4:55:00 AM
o-Xylene		9.0	0.66	ug/m3	1		1/28/2012 4:55:00 AM
Tetrachloroethyl	ene	ND	1.0	ug/m3	1		1/28/2012 4:55:00 AM
Toluene		41	11	ug/m3	20	l	1/29/2012 8:22:00 AM
trans-1,2-Dichlor	roethene	ND	0.60	ug/m3	1		1/28/2012 4:55:00 AM
Trichloroethene		ND	0.22	ug/m3	1		1/28/2012 4:55:00 AM
Vinyl chloride		77	2.1	ug/m3	20		1/29/2012 8:22:00 AM

Qualifiers:	**	Reporting Limit		Results reported are not blank corrected
	В	Analyte detected in the associated Method Blank	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
	S	Spike Recovery outside accepted recovery limits		Page 2

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Date: 03-Feb-12

CLIENT:	Tetra Tech			Client Sample ID:	SG07	-011012
Lab Order:	C1201051			Tag Number:	328,1	26
Project:	Maryland MartinAir	Middle River	112IC03634	<b>Collection Date:</b>	1/20/2	2012
Lab ID:	C1201051-022A	5G07-0	12012	Matrix:	AIR	
Analyses	/_ ''dd'' /	Result	**Limit Qua	l Units	DF	Date Analyzed
FIELD PARAME	ETERS		FLD			Analyst:
Lab Vacuum In		-1		"Hg		1/24/2012
Lab Vacuum Ou	t	-30		"Hg		1/24/2012
1UG/M3 W/ NAI	PHTHALENE BY METH	HOD TO15	TO-15			Analyst: RJF
1,1,1-Trichloroet	hane	ND	0.15	ppbV	1	1/28/2012 4:55:00 AM
1,1,2-Trichloroet	hane	ND	0.15	ppbV	1	1/28/2012 4:55:00 AM
1,1-Dichloroetha	ne	ND	0.15	ppbV	1	1/28/2012 4:55:00 AM
1,1-Dichloroethe	ne	ND	0.15	ppbV	1	1/28/2012 4:55:00 AM
1,2,4-Trichlorobe	enzene	ND	0.15	ppbV	1	1/28/2012 4:55:00 AM
1,2,4-Trimethylb	enzene	3.4	3.0	ppbV	20	1/29/2012 8:22:00 AM
1,2-Dichlorobenz	zene	ND	0.15	ppbV	1	1/28/2012 4:55:00 AM
1,2-Dichloroetha	ne	ND	0.15	ppbV	1	1/28/2012 4:55:00 AM
1,3-Dichlorobenz	геле	ND	0.15	ppbV	1	1/28/2012 4:55:00 AM
1,4-Dichlorobenz	zene	ND	0.15	ppbV	1	1/28/2012 4:55:00 AM
Benzene		7.4	3.0	ppbV	20	1/29/2012 8:22:00 AM
Carbon disulfide		1.3	0.15	ppbV	1	1/28/2012 4;55:00 AM
Carbon tetrachlo	ride	ND	0.040	ppbV	1	1/28/2012 4:55:00 AM
Chlorobenzene		ND	0.15	ррbV	1	1/28/2012 4:55:00 AM
Chloroform		ND	0.15	ppbV	1	1/28/2012 4:55:00 AM
Chloromethane		ND	0.15	ppbV	1	1/28/2012 4:55:00 AM
cis-1,2-Dichloroe	ethene	1.0	0.15	ppbV	1	1/28/2012 4:55:00 AM
Ethylbenzene		0.96	0.15	ppbV	1	1/28/2012 4:55:00 AM
Freon 12		0.40	0.15	ppbV	1	1/28/2012 4:55:00 AM
m&p-Xylene		3.3	0.30	ppbV	1	1/28/2012 4:55:00 AM
Methyl Ethyl Ket	one	7.4	6.0	ppbV	20	1/29/2012 8:22:00 AM
Methyl tert-butyl		ND	0.15	ppbV	1	1/28/2012 4:55:00 AM
Methylene chlori		0.20	0.15	ppbV	1	1/28/2012 4:55:00 AM
Naphthalene		1.1	0.15	ppbV	1	1/28/2012 4:55:00 AM
o-Xylene		2.0	0.15	ppbV	1	1/28/2012 4:55:00 AM
Tetrachloroethyle	ene	ND	0.15	ppbV	1	1/28/2012 4:55:00 AM
Toluene		11	3.0	ppbV	20	1/29/2012 8:22:00 AM
trans-1,2-Dichlor	oethene	ND	0.15	ppbV	1	1/28/2012 4:55:00 AM
Trichloroethene		ND	0.040	ppbV	1	1/28/2012 4:55:00 AM
Vinyl chloride		30	0.80	ppbV	20	1/29/2012 8:22:00 AM
Surr: Bromofiu	Jorobenzene	96.0	70-130	%REC	1	1/28/2012 4:55:00 AM
TIC: Benzene, dimethyl-	, 2-ethyl-1,4-	1.6	O JN	ррЪV	1	1/28/2012 4:55:00 AM
TIC: Benzene	, 4-ethyi-1,2-	2.2	0 JN	ppbV	1	1/28/2012 4:55:00 AM
dimethyl- TIC: Butane		5.2	0 JN	ppbV	1	1/28/2012 4:55:00 AM
TIO. DULANE	2-methyi-	IJ,Z	0 JN	hhna	1	1/20/2012 4,00.00 AM

Qualifiers: •

\*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

Results reported are not blank corrected

E Value above quantitation range

.

J Analyte detected at or below quantitation limits

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Date: 03-Feb-12

CLIENT:	Tetra Tech			C	Client Sample ID:	SG07	-011012
Lab Order:	C1201051				Tag Number:	<b>328,</b> 1	26
Project:	Maryland MartinAi	r Middle River	112IC03634	ļ	<b>Collection Date:</b>	1/20/2	2012
Lab ID:	C1201051-022A	5607-012	2012		Matrix:	AIR	
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 W/ NA	PHTHALENE BY MET	HOD TO15	то	-15			Analyst: RJF
TIC: Cyclohe	xane, methyl-	6.7	· 0	JN	ppbV	1	1/28/2012 4:55:00 AM
TIC: Cyclotris	siloxane, hexamethyl	4.7	0	JN	ppbV	1	1/28/2012 4:55:00 AM
TIC: Hexane,	2,2-dimethyl-	7.7	0	JN	ppbV	1	1/28/2012 4:55:00 AM
TIC: Hexane,	3-methyl-	3.6	0	JN	ppbV	1	1/28/2012 4:55:00 AM
TIC: isobutar	ne	2.0	0	JN	ppbV	1	1/28/2012 4:55:00 AM
TIC: Methally	i cyanide	4.0	0	JN	ppbV	1	1/28/2012 4:55:00 AM
TIC: Pentane	, 2,3-dimethyl-	1.9	0	JN	ppbV	1	1/28/2012 4:55:00 AM
TIC: Pentane	, 2-methyl-	2.4	0	JN	ррbV	1	1/28/2012 4:55:00 AM
TIC: Pentane	, 3-methyl-	1.7	0	JN	ppbV	1	1/28/2012 4:55:00 AM
TIC: Unknow	n (10.41)	3.3	0	JN	ppbV	1	1/28/2012 4:55:00 AM
TIC: Unknow	π (12.25)	2.7	0	JN	ppbV	1	1/28/2012 4:55:00 AM
TIC: Unknow	n (2.93)	4.2	0	JN	ppbV	1	1/28/2012 4:55:00 AM
TIC: Unknow	n (9.12)	4.1	0	JN	ppbV	1	1/28/2012 4:55:00 AM
TIC: Unknow	n alkane (12.47)	2.9	0	JN	ppbV	1	1/28/2012 4:55:00 AM
TIC: Unknow	n alkane (4.24)	2.2	0	JN	ррьV	1	1/28/2012 4:55:00 AM

Qualifiers:

\*\* Reporting Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- JN Non-routine analyte. Quantitation estimated.
- S Spike Recovery outside accepted recovery limits
- . Results reported are not blank corrected
- E Value above quantitation range
- J Analyte detected at or below quantitation limits

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Date: 02-Feb-12

Centek La	boratories, LL	Date	e; <i>UZ-F</i> e	<i>U2-Fe0-12</i>		
CLIENT:	Tetra Tech			Client Sample II	: SG08	-011012
Lab Order:	C1201051			Tag Number	r: 471.3	39
Project:	Maryland MartinA	ir Middle River	1121003634	Collection Date	-	
Lab ID:	C1201051-018A	5608-012			a AIR	
		00-012	-014			· · · · · · · · · · · · · · · · · · ·
Analyses		Result	**Limit Q	ual Units	DF	Date Analyzed
1UG/M3 W/ NAI	PHTHALENE BY MET	HOD TO15	TO-1	5		Analyst: RJP
1,1,1-Trichloroet	thane	ND	0.83	ug/m3	1	1/28/2012 2:41:00 AM
1,1,2-Trichloroet	thane	ND	0.83	ug/m3	1	1/28/2012 2:41:00 AM
1,1-Dichloroetha	ine	ND	0.62	ug/m3	1	1/28/2012 2:41:00 AM
1,1-Dichloroethe	ene	ND	0.60	ug/m3	1	1/28/2012 2:41:00 AM
1,2,4-Trichlorobe	enzene	ND	1.1	ug/m3	1	1/28/2012 2:41:00 AM
1,2,4-Trimethylb	enzene	32	7.5	ug/m3	10	1/29/2012 5:12:00 AM
1,2-Dichlorobenz	zene	ND	0.92	ug/m3	1	1/28/2012 2:41:00 AM
1,2-Dichloroetha	ine	ND	0.62	ug/m3	1	1/28/2012 2:41:00 AM
1,3-Dichlorobenz	zene	ND	0.92	ug/m3	1	1/28/2012 2:41:00 AM
1,4-Dichlorobenz	zene	ND	0.92	ug/m3	1	1/28/2012 2:41:00 AM
Benzene		21	4.9	ug/m3	10	1/29/2012 6:12:00 AM
Carbon disulfide		4.9	0.47	ug/m3	1	1/28/2012 2:41:00 AM
Carbon tetrachic	oride	ND	0.26	ug/m3	1	1/28/2012 2:41:00 AM
Chlorobenzene		ND	0.70	ug/m3	1	1/28/2012 2:41:00 AM
Chloroform		ND	0.74	ug/m3	1	1/28/2012 2:41:00 AM
Chloromethane		ND	0.31	ug/m3	1	1/28/2012 2:41:00 AM
cis-1,2-Dichloros	ethene	0.60	0.60	ug/m3	1	1/28/2012 2:41:00 AM
Ethylbenzene		、 5.8	0.66	ug/m3	1	1/28/2012 2:41:00 AM
Freon 12		2.2	0.75	ug/m3	1	1/28/2012 2:41:00 AM
m&p-Xylene		24	13	ug/m3	10	1/29/2012 6:12:00 AM
Methyl Ethyl Ket	one	51	9.0	ug/m3	10	1/29/2012 6:12:00 AM
Methyl tert-butyl	ether	ND	0.55	ug/m3	1	1/28/2012 2:41:00 AM
Methylene chlori	de	0.74	0.53	ug/m3	1	1/28/2012 2:41:00 AM
Naphthalene		11	0.80	ug/m3	1	1/28/2012 2:41:00 AM
o-Xylene		15	6.6	ug/m3	10	1/29/2012 6:12:00 AM
Tetrachloroethyle	ene	1.8	1.0	ug/m3	1	1/28/2012 2:41:00 AM
Toluene		32	5.7	ug/m3	10	1/29/2012 6:12:00 AM
trans-1,2-Dichlor	roethene	ND	0.60	ug/m3	1	1/28/2012 2:41:00 AM
Trichloroethene		ND	0.22	ug/m3	1	1/28/2012 2:41:00 AM
Vinyl chloride		ND	0.10	ug/m3	1	1/28/2012 2:41:00 AM

Qualifiers:	**	Reporting Limit		Results reported are not blank corrected	
	В	Analyte detected in the associated Method Blank	E	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded J Analyte detected at or below quantitation		n limits	
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit	
	S	Spike Recovery outside accepted recovery limits			Page 18 of 23

•	Centek Lal	boratories, LL	C			D	ate:	03-Fe	b-12
Project:         Maryland MartinAir Middle River 1121C03634         Collection Date:         1/20/2012           Lab ID:         C1201051-018A         5GO S - 0/20/2         Mattrix:         ATR           Analyses         Result         **Limit         Qual         Units         DF         Date Analyset           FIELD PARAMETERS         FLD         Analyset         Analyset         Analyset         1/24/2012           Lab Vacuum In         -1         "Hig         1/24/2012         1/24/2012           Lab Vacuum Out         -30         "Hig         1/24/2012         -4/100 AM           1,1_2-Trichloroethane         ND         0.15         ppbV         1         1/28/2012.24/100 AM           1,1_2-Trichloroethane         ND         0.15         ppbV         1         1/28/2012.24/100 AM           1,2_4-Trichloroethane         ND         0.15         ppbV         1         1/28/2012.24/100 AM	CLIENT:	Tetra Tech				Client Sample	D:	SG08-	011012
Project:         Maryland MartinAir Middle River 1121C03634         Collection Date:         1/20/2012           Lab ID:         C1201051-018A         SGO S - 0/2C (Z)         Matrix:         AIR           Analyses         Result         **Limit         Qual         Units         DF         Date Analyse           FELD         PARAMETERS         FLD         Analysi:         1/24/2012           Lab Vacuum In         -1         "Hg         1/24/2012           Lab Vacuum Out         -30         TO-15         Analysi:           UGGM3 WI NAPHTHALENE BY METHOD TO15         TO-15         Analysi:         1/28/2012 2:41:00 AM           1,1-2.Trichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,2-Dichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,2-ATinchoroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,2-Dichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,2-Dichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,2-Dichloroethane         ND         0.15         ppbV	Lab Order:	C1201051				Tag Num	ber:	471.3	39
Lab ID:         C1201051-018A <i>G_GO</i> 3 - 0/2/C/Z         Matrix: AIR           Lab ID:         C1201051-018A <i>G_GO</i> 3 - 0/2/C/Z         Matrix: AIR           Analyses         Result         **Limit Qual Units         DF         Date Analyzed           FIELD PARAMETERS         FLD         Analysit         Liab Vacuum in         -1         "Hig         1/24/2012           Lab Vacuum in         -1         "Hig         1/24/2012         Analysit <rjf< th="">           I,1,1-Tichtoroethane         ND         0.15         ppbV         1         1/28/2012 24:100 AM           1,1-Dichtoroethane         ND         0.15         ppbV         1         1/28/2012 24:100 AM           1,2-4 Trinchiptoethane         ND         0.15         ppbV         1         1/28/2012 24:100 AM           1,2-4 Trinchiptoethane         ND         0.15         ppbV         1         1/28/2012 24:100 AM           1,2-Dichtoroethane         ND         0.15         ppbV         1         1/28/2012 24:100 AM           1,2-2 Dichtoroethane         ND         0.15         ppbV         1         1/28/2012 24:100 AM           1,2-2 Dichtoroethane         ND         0.15         ppbV         1         1/28/2012 24:100 AM           <t< th=""><th></th><th></th><th>ir Middle River 1</th><th>121003634</th><th></th><th>•</th><th></th><th>-</th><th></th></t<></rjf<>			ir Middle River 1	121003634		•		-	
Analyses         Result         **Limit         Qual         Units         DF         Date Analysed           FIELD PARAMETERS         FLD         Analyse         Analyse           Lab Vacuum In         -1         "Hg         1/24/2012           Lab Vacuum Out         -30         "Hg         1/24/2012           1.1.1-Trichloroethane         ND         0.15         ppbV         1         1/28/2012 24/100 AM           1.1.2-Trichloroethane         ND         0.15         ppbV         1         1/28/2012 24/100 AM           1.1.2-Trichloroethane         ND         0.15         ppbV         1         1/28/2012 24/100 AM           1.2.4-Trichloroethane         ND         0.15         ppbV         1         1/28/2012 24/100 AM           1.2.4-Trichloroethane         ND         0.15         ppbV         1         1/28/2012 24/100 AM           1.2.4-Trichlorobenzene         6.5         1.5         ppbV         1         1/28/2012 24/100 AM           1.2-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 24/100 AM           1.3-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 24/100 AM           Carbon istachloride         ND	-	-							
FIELD PARAMETERS         FLD         Analysi:           Lab Vacuum In         -1         "Hg         1/24/2012           Lab Vacuum Out         -30         "Hg         1/24/2012           UG/M3 W/ NAPHTHALENE BY METHOD TO15         TO-15         Analysi: RJF           1,1.1-Trichioroethane         ND         0.15         ppbV         1         1/28/2012 241:00 AM           1,1.2-Trichioroethane         ND         0.15         ppbV         1         1/28/2012 241:00 AM           1,1-Dichioroethane         ND         0.15         ppbV         1         1/28/2012 241:00 AM           1,2-A-Trichioroethane         ND         0.15         ppbV         1         1/28/2012 241:00 AM           1,2-Dichioroethane         ND         0.15         ppbV         1         1/28/2012 241:00 AM <th>····</th> <th></th> <th></th> <th></th> <th></th> <th><u> </u></th> <th></th> <th></th> <th></th>	····					<u> </u>			
Lab Vacuum In         -1         "Hg         124/2012           Lab Vacuum Out         -30         "Hg         1/2/2012           1UG/M3 W/ NAPHTHALENE BY METHOD TOTS         TO-15         Analysi: RJF           1,1,1-Tichkioroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,1,2-Trichkoroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,1-Dichkoroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,2-Lichkoroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,2-Lichkoroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,2-Dichkoroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,2-Dichkoroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,3-Dichkoroenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Carbon tairscholtade         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Charoto taisufinde         1.5         0.15	Analyses		Kesult	**Limit	Qua			DF	Date Analyzed
Lab Vacuum Out         -30         ''Hg         1/24/2012           1UG/M3 W/ NAPHTHALENE BY METHOD TO15         TO-15         Analyst: RJF           1,1,1-Trichiorcethane         ND         0.15         ppbV         1         1/28/2012 2.41:00 AM           1,1,2-Trichiorcethane         ND         0.15         ppbV         1         1/28/2012 2.41:00 AM           1,1-Dichiorcethane         ND         0.15         ppbV         1         1/28/2012 2.41:00 AM           1,2-Trichiorcethane         ND         0.15         ppbV         1         1/28/2012 2.41:00 AM           1,2-A-Trintorthybenzene         6.5         1.5         ppbV         1         1/28/2012 2.41:00 AM           1,2-Dichiorobenzene         ND         0.15         ppbV         1         1/28/2012 2.41:00 AM           1,2-Dichiorobenzene         ND         0.15         ppbV         1         1/28/2012 2.41:00 AM           1,2-Dichiorobenzene         ND         0.15         ppbV         1         1/28/2012 2.41:00 AM           Garbon disulfide         1.5         0.15         ppbV         1         1/28/2012 2.41:00 AM           Garbon disulfide         1.5         0.15         ppbV         1         1/28/2012 2.41:00 AM           Chi	FIELD PARAME	ETERS		FL	D				-
Ludorika Wi NAPHTHALENE BY METHOD TO15         TO-15         Analyst: RJF           11,1,1-Trichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,1-Dichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,1-Dichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,1-Dichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,2-Dichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,2-Dichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,2-Dichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,3-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,4-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,4-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Carbon titrachloride         ND         0.15         ppbV         1         1/28/20	Lab Vacuum In					"Hg			1/24/2012
1,1,1-Trichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,1-Dichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,1-Dichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,1-Dichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,2-Lichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,2-Dichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,4-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Garbon disulfide         1.5         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloromethane         ND         0.15         ppbV	Lab Vacuum Ou	t	-30			"Hg			1/24/2012
1,1,2-Trichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,1-Dichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,1-Dichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,2,4-Trichlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,2-Dichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Carbon disulfide         1.5         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloroform         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloroform         ND         0.15         ppbV         <	1UG/M3 W/ NAF	PHTHALENE BY ME	THOD TO15	TO-	15				Analyst: RJF
1,1-Dichloroethane       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,1-Dichloroethene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,2,4-Trinchlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,2,4-Trinethylbenzene       6.5       1.5       ppbV       1       1/28/2012 2:41:00 AM         1,2-Dichloroethane       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,2-Dichloroethane       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,2-Dichloroethazene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,4-Dichlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         Carbon disulfide       1.5       0.15       ppbV       1       1/28/2012 2:41:00 AM         Chlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         Chloroform       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         Chloroform       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         Chloroform       ND       0.15	1,1,1-Trichloroet	hane	ND	0.15		ppbV		1	1/28/2012 2:41:00 AM
1,1-Dichloroethane       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,2,4-Trichloroethene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,2,4-Trichlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,2,4-Trinethylbenzene       6.5       1.5       ppbV       1       1/28/2012 2:41:00 AM         1,2-Dichloroethane       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,2-Dichloroethane       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,2-Dichloroethane       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,4-Dichlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         Carbon disulfide       1.5       0.15       ppbV       1       1/28/2012 2:41:00 AM         Carbon disulfide       1.5       0.15       ppbV       1       1/28/2012 2:41:00 AM         Chlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         Chlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         Chloroform       ND       0.1	•		ND	0.15		•		1	1/28/2012 2:41:00 AM
1,1-Dichlorosethene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,2,4-Trichlorobenzene         ND         0.15         ppbV         10         1/28/2012 2:41:00 AM           1,2-Dichlorobenzene         ND         0.15         ppbV         10         1/28/2012 2:41:00 AM           1,2-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,2-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,4-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,4-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Garbon disulfide         1.5         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloroform         ND         0.15         ppbV         1			ND	0.15				1	1/28/2012 2:41:00 AM
1,2,4-Trichlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,2-Dichlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,2-Dichlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,2-Dichlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,3-Dichlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,3-Dichlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,4-Dichlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         Carbon tetrachloride       ND       0.040       ppbV       1       1/28/2012 2:41:00 AM         Chloroform       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         Methylenzene       5.4       3.0			ND	0.15		-		1	1/28/2012 2:41:00 AM
1,2,4-Trimethylbenzene       6.5       1.5       ppbV       10       1/29/2012 6:12:00 AM         1,2-Dichlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,3-Dichlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,3-Dichlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,4-Dichlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         1,4-Dichlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         Carbon disulfide       1.5       0.15       ppbV       1       1/28/2012 2:41:00 AM         Carbon tetrachloride       ND       0.040       ppbV       1       1/28/2012 2:41:00 AM         Chlorobenzene       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         Chloroform       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         Chlorobenzene       0.15       0.15       ppbV       1       1/28/2012 2:41:00 AM         Chloroform       ND       0.15       ppbV       1       1/28/2012 2:41:00 AM         Chlororethane       0.15       0.15	•					••		1	1/28/2012 2:41:00 AM
1,2-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,3-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,4-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,4-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,4-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Carbon tetrachloride         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Chlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloroform         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chlorobenzene         0.15         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloroform         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Ethylbenzene         1.3         0.15         ppbV         1         1/28/2012 2:41:00 AM           Ethylbenzene         5.4         3.0         ppbV         1	• •					• •		10	
1,2-Dichloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,4-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,4-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Benzene         6.4         1.5         ppbV         1         1/28/2012 2:41:00 AM           Carbon tetrachloride         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Carbon tetrachloride         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Chlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloroform         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloroethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloroethane         0.15         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methylenzene         1.3         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methylene         5.4         3.0         ppbV         1         1/28/201	• •					• •			
1,3-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           1,4-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Benzene         6.4         1.5         ppbV         10         1/28/2012 2:41:00 AM           Carbon disulfide         1.5         0.16         ppbV         1         1/28/2012 2:41:00 AM           Carbon tetrachloride         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Chlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloroform         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloroform         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Cis-1,2-Dichloroethene         0.15         ppbV         1         1/28/2012 2:41:00 AM           Ethylbenzene         1.3         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methyl Ethyl Ketone         1.3         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methyl Ethyl Ketone         1.7         3.0         ppbV         10         1/28/2012 2:	•					••			
1,4-Dichlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Benzene         6.4         1.5         ppbV         10         1/29/2012 6:12:00 AM           Carbon disulfide         1.5         0.15         ppbV         1         1/28/2012 2:41:00 AM           Carbon tetrachloride         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Chlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloromethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloromethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloromethane         0.15         0.15         ppbV         1         1/28/2012 2:41:00 AM           Ethylbenzene         1.3         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methyl Ethyl Ketone         1.3         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methyl Ethyl Ketone         1.3         0.15         ppbV         10         1/28/2012 2:41:00 AM           Methyl eth-bulyl ether         ND         0.15         ppbV         1									
Benzene         6.4         1.5         ppbV         10         1/29/2012 6:12:00 AM           Carbon disulfide         1.5         0.15         ppbV         1         1/28/2012 2:41:00 AM           Carbon tetrachloride         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Chlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloroform         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloroform         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloromethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloromethane         0.15         0.15         ppbV         1         1/28/2012 2:41:00 AM           Ethylbenzene         1.3         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methyl Ethyl Ketone         1.7         3.0         ppbV         10         1/28/2012 2:41:00 AM           Methyl Ethyl Ketone         1.7         3.0         ppbV         10         1/28/2012 2:41:00 AM           Methyl Ethyl Ketone         0.21         0.15         ppbV         10         1/								-	
Carbon disulfide         1.5         0.15         ppbV         1         1/28/2012 2:41:00 AM           Carbon tetrachloride         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Chlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chlorobertene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloromethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Cis1_2-Dichloroethene         0.15         0.15         ppbV         1         1/28/2012 2:41:00 AM           Ethylbenzene         1.3         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methylbenzene         1.3         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methylbenzene         5.4         3.0         ppbV         10         1/28/2012 2:41:00 AM           Methylbenc chloride         0.21         0.15         ppbV         10         1/28/2012 2:41:00 AM           Methylbenc chloride         0.21         0.15         ppbV         1         1/28/2012 2:41:00 AM           Naphthalene         2.0         0.15         ppbV         1	•								
Carbon tetrachloride         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Chlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloroform         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloroform         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloromethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Cis-1,2-Dichloroethene         0.15         0.15         ppbV         1         1/28/2012 2:41:00 AM           Ethylbenzene         1.3         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methyl Ethyl Ketone         1.3         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methyl tert-butyl ether         ND         0.15         ppbV         10         1/29/2012 6:12:00 AM           Methyl tert-butyl ether         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methylene chloride         0.21         0.15         ppbV         1         1/28/2012 2:41:00 AM           Naphthalene         2.0         0.15         ppbV									
Chlorobenzene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloroform         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloromethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Cis-1,2-Dichloroethene         0.15         0.15         ppbV         1         1/28/2012 2:41:00 AM           Ethylbenzene         1.3         0.15         ppbV         1         1/28/2012 2:41:00 AM           Freon 12         0.44         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methyl Ethyl ketone         1.3         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methyl Ethyl Ketone         17         3.0         ppbV         10         1/29/2012 6:12:00 AM           Methyl tert-butyl ether         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Naphthalene         0.20         0.15         ppbV         1         1/28/2012 2:41:00 AM           Naphthalene         2.0         0.15         ppbV         1         1/28/2012 2:41:00 AM           retrachloroethylene         3.5         1.5         ppbV         1									
Chloroform         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Chloromethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           cis-1,2-Dichioroethene         0.15         0.15         ppbV         1         1/28/2012 2:41:00 AM           Ethylbenzene         1.3         0.15         ppbV         1         1/28/2012 2:41:00 AM           Freen 12         0.44         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methyl Ethyl Ketone         5.4         3.0         ppbV         10         1/28/2012 2:41:00 AM           Methyl Ethyl Ketone         17         3.0         ppbV         10         1/28/2012 2:41:00 AM           Methyl tert-butyl ether         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methylene chloride         0.21         0.15         ppbV         1         1/28/2012 2:41:00 AM           Naphthalene         0.20         0.15         ppbV         1         1/28/2012 2:41:00 AM           retrachloroethylene         3.5         1.5         ppbV         1         1/28/2012 2:41:00 AM           Toluene         8.3         1.5         ppbV         1									
Chloromethane         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           cis-1,2-Dichloroethene         0.15         0.15         ppbV         1         1/28/2012 2:41:00 AM           Ethylbenzene         1.3         0.15         ppbV         1         1/28/2012 2:41:00 AM           Freon 12         0.44         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methyl Ethyl Ketone         5.4         3.0         ppbV         10         1/29/2012 6:12:00 AM           Methyl Ethyl Ketone         17         3.0         ppbV         10         1/29/2012 6:12:00 AM           Methyl tert-butyl ether         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methylene chloride         0.21         0.15         ppbV         1         1/28/2012 2:41:00 AM           Naphthalene         2.0         0.15         ppbV         1         1/28/2012 2:41:00 AM           o-Xylene         3.5         1.5         ppbV         1         1/28/2012 2:41:00 AM           retarchloroethylene         0.26         0.15         ppbV         10         1/28/2012 2:41:00 AM           roluene         8.3         1.5         ppbV         10								-	
cis-1,2-Dichloroethene         0.15         0.15         ppbV         1         1/28/2012 2:41:00 AM           Ethylbenzene         1.3         0.15         ppbV         1         1/28/2012 2:41:00 AM           Freon 12         0.44         0.15         ppbV         1         1/28/2012 2:41:00 AM           m&p-Xylene         5.4         3.0         ppbV         10         1/29/2012 6:12:00 AM           Methyl Ethyl Ketone         17         3.0         ppbV         10         1/28/2012 2:41:00 AM           Methyl tert-butyl ether         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methyl tert-butyl ether         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Naphthalene         2.0         0.15         ppbV         1         1/28/2012 2:41:00 AM           o-Xylene         3.5         1.5         ppbV         10         1/29/2012 6:12:00 AM           retrackloroethylene         0.26         0.15         ppbV         10         1/28/2012 2:41:00 AM           trans-1,2-Dichloroethene         ND         0.16         ppbV         1         1/28/2012 2:41:00 AM           Vinyl chloride         ND         0.040         ppbV <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td></t<>								-	
Ethylbenzene         1.3         0.15         ppbV         1         1/28/2012 2:41:00 AM           Freon 12         0.44         0.15         ppbV         1         1/28/2012 2:41:00 AM           m&p-Xylene         5.4         3.0         ppbV         10         1/29/2012 6:12:00 AM           Methyl Ethyl Ketone         17         3.0         ppbV         10         1/29/2012 6:12:00 AM           Methyl tert-butyl ether         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methyl tert-butyl ether         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methylene chloride         0.21         0.15         ppbV         1         1/28/2012 2:41:00 AM           Naphthalene         2.0         0.15         ppbV         1         1/28/2012 2:41:00 AM           o-Xylene         3.5         1.5         ppbV         1         1/28/2012 2:41:00 AM           Tetrachloroethylene         0.26         0.15         ppbV         1         1/28/2012 2:41:00 AM           Toluene         8.3         1.5         ppbV         1         1/28/2012 2:41:00 AM           Trichloroethene         ND         0.040         ppbV         1         1		those							
Freen 12         0.44         0.15         ppbV         1         1/28/2012 2:41:00 AM           m&p-Xylene         5.4         3.0         ppbV         10         1/29/2012 6:12:00 AM           Methyl Ethyl Ketone         17         3.0         ppbV         10         1/29/2012 6:12:00 AM           Methyl tert-butyl ether         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methyl tert-butyl ether         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methylene chloride         0.21         0.15         ppbV         1         1/28/2012 2:41:00 AM           Naphthalene         2.0         0.15         ppbV         1         1/28/2012 2:41:00 AM           o-Xylene         3.5         1.5         ppbV         10         1/29/2012 6:12:00 AM           Tetrachloroethylene         0.26         0.15         ppbV         10         1/29/2012 6:12:00 AM           Toluene         8.3         1.5         ppbV         10         1/28/2012 2:41:00 AM           Trichloroethene         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Vinyl chloride         ND         0.040         ppbV         1		suiene				• •			
m&p-Xylene         5.4         3.0         ppbV         10         1/29/2012 6:12:00 AM           Methyl Ethyl Ketone         17         3.0         ppbV         10         1/29/2012 6:12:00 AM           Methyl tert-butyl ether         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methylene chloride         0.21         0.15         ppbV         1         1/28/2012 2:41:00 AM           Naphthalene         2.0         0.15         ppbV         1         1/28/2012 2:41:00 AM           o-Xylene         3.5         1.5         ppbV         1         1/28/2012 2:41:00 AM           o-Xylene         3.5         1.5         ppbV         10         1/29/2012 6:12:00 AM           Tetrachloroethylene         0.26         0.15         ppbV         1         1/28/2012 2:41:00 AM           Toluene         8.3         1.5         ppbV         1         1/28/2012 2:41:00 AM           trans-1,2-Dichloroethene         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Trichloroethene         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Surr: Bromofluorobenzene         96.0         70-130         %REC         1 <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td>	-							-	
Methyl Ethyl Ketone         17         3.0         ppbV         10         1/29/2012 6:12:00 AM           Methyl tert-butyl ether         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methylene chloride         0.21         0.15         ppbV         1         1/28/2012 2:41:00 AM           Naphthalene         0.20         0.15         ppbV         1         1/28/2012 2:41:00 AM           o-Xylene         3.5         1.5         ppbV         10         1/29/2012 6:12:00 AM           o-Xylene         3.5         1.5         ppbV         10         1/29/2012 6:12:00 AM           Tetrachloroethylene         0.26         0.15         ppbV         1         1/28/2012 2:41:00 AM           Toluene         8.3         1.5         ppbV         10         1/29/2012 6:12:00 AM           trans-1,2-Dichloroethene         ND         0.15         ppbV         10         1/28/2012 2:41:00 AM           Trichloroethene         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Surr: Bromofluorobenzene         96.0         70-130         %REC         1         1/28/2012 2:41:00 AM           TiC: 1-Pentene, 2-methyl-         2.3         0         JN								-	
Methyl tert-butyl ether         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Methylene chloride         0.21         0.15         ppbV         1         1/28/2012 2:41:00 AM           Naphthalene         2.0         0.15         ppbV         1         1/28/2012 2:41:00 AM           o-Xylene         3.5         1.5         ppbV         10         1/29/2012 6:12:00 AM           Tetrachloroethylene         0.26         0.15         ppbV         1         1/28/2012 2:41:00 AM           Toluene         8.3         1.5         ppbV         10         1/29/2012 6:12:00 AM           trans-1,2-Dichloroethene         ND         0.15         ppbV         10         1/28/2012 2:41:00 AM           Trichloroethene         ND         0.15         ppbV         10         1/28/2012 2:41:00 AM           Vinyl chloride         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Surr: Bromofluorobenzene         96.0         70-130         %REC         1         1/28/2012 2:41:00 AM           TIC: 1-Pentene, 2-methyl-         2.3         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: 1-Propene, 2-methyl-         11         0<									
Methylene chloride         0.21         0.15         ppbV         1         1/28/2012 2:41:00 AM           Naphthalene         2.0         0.15         ppbV         1         1/28/2012 2:41:00 AM           o-Xylene         3.5         1.5         ppbV         10         1/29/2012 6:12:00 AM           Tetrachloroethylene         0.26         0.15         ppbV         1         1/28/2012 2:41:00 AM           Toluene         8.3         1.5         ppbV         1         1/28/2012 2:41:00 AM           trans-1,2-Dichloroethene         ND         0.15         ppbV         10         1/29/2012 6:12:00 AM           trans-1,2-Dichloroethene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Trichloroethene         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Vinyl chloride         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Surr: Bromofluorobenzene         96.0         70-130         %REC         1         1/28/2012 2:41:00 AM           TIC: 1-Pentene, 2-methyl-         2.3         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: Acetaldehyde         12         0									
Naphthalene         2.0         0.15         ppbV         1         1/28/2012 2:41:00 AM           o-Xylene         3.5         1.5         ppbV         10         1/29/2012 6:12:00 AM           Tetrachloroethylene         0.26         0.15         ppbV         1         1/28/2012 2:41:00 AM           Toluene         8.3         1.5         ppbV         10         1/29/2012 6:12:00 AM           trans-1,2-Dichloroethene         ND         0.15         ppbV         10         1/28/2012 2:41:00 AM           Trichloroethene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Vinyl chloride         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Surr: Bromofluorobenzene         96.0         70-130         %REC         1         1/28/2012 2:41:00 AM           TIC: 1-Pentene, 2-methyl-         2.3         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: 1-Propene, 2-methyl-         11         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: Acetaldehyde         12         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: Benzene, 1,2,3-trimethyl- <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td>								-	
o-Xylene         3.5         1.5         ppbV         10         1/29/2012 6:12:00 AM           Tetrachloroethylene         0.26         0.15         ppbV         1         1/28/2012 2:41:00 AM           Toluene         8.3         1.5         ppbV         10         1/29/2012 6:12:00 AM           trans-1,2-Dichloroethene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           trans-1,2-Dichloroethene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Trichloroethene         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Vinyl chloride         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Surr: Bromofluorobenzene         96.0         70-130         %REC         1         1/28/2012 2:41:00 AM           TIC: 1-Pentene, 2-methyl-         2.3         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: 1-Propene, 2-methyl-         11         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: Acetaldehyde         12         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: Benzene, 1,2,3-t		oe							
Tetrachloroethylene         0.26         0.15         ppbV         1         1/28/2012 2:41:00 AM           Toluene         8.3         1.5         ppbV         10         1/29/2012 6:12:00 AM           trans-1,2-Dichloroethene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Trichloroethene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Trichloroethene         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Vinyl chloride         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Surr: Bromofluorobenzene         96.0         70-130         %REC         1         1/28/2012 2:41:00 AM           TIC: 1-Pentene, 2-methyl-         2.3         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: 1-Propene, 2-methyl-         11         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: 1-Propene, 2-methyl-         11         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: Acetaldehyde         12         0         JN         ppbV         1         1/28/2012 2:41:00 AM           <	•					••			
Toluene         8.3         1.5         ppbV         10         1/29/2012 6:12:00 AM           trans-1,2-Dichloroethene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Trichloroethene         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Vinyl chloride         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Surr: Bromofluorobenzene         96.0         70-130         %REC         1         1/28/2012 2:41:00 AM           TIC: 1-Pentene, 2-methyl-         2.3         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: 1-Propene, 2-methyl-         11         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: 1-Propene, 2-methyl-         11         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: Acetaldehyde         12         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: Benzene, 1,2,3-trimethyl-         2.3         0         JN         ppbV         1         1/28/2012 2:41:00 AM	•								
trans-1,2-Dichloroethene         ND         0.15         ppbV         1         1/28/2012 2:41:00 AM           Trichloroethene         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Vinyl chloride         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Surr: Bromofluorobenzene         96.0         70-130         %REC         1         1/28/2012 2:41:00 AM           TIC: 1-Pentene, 2-methyl-         2.3         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: 1-Propene, 2-methyl-         11         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: 1-Propene, 2-methyl-         11         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: Acetaldehyde         12         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: Benzene, 1,2,3-trimethyl-         2.3         0         JN         ppbV         1         1/28/2012 2:41:00 AM		ene							
Trichloroethene         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Vinyl chloride         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Surr: Bromofluorobenzene         96.0         70-130         %REC         1         1/28/2012 2:41:00 AM           TIC: 1-Pentene, 2-methyl-         2.3         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: 1-Propene, 2-methyl-         11         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: 1-Propene, 2-methyl-         11         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: Acetaldehyde         12         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: Benzene, 1,2,3-trimethyl-         2.3         0         JN         ppbV         1         1/28/2012 2:41:00 AM								10	
Vinyl chloride         ND         0.040         ppbV         1         1/28/2012 2:41:00 AM           Surr: Bromofluorobenzene         96.0         70-130         %REC         1         1/28/2012 2:41:00 AM           TIC: 1-Pentene, 2-methyl-         2.3         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: 1-Propene, 2-methyl-         11         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: Acetaldehyde         12         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: Benzene, 1,2,3-trimethyl-         2.3         0         JN         ppbV         1         1/28/2012 2:41:00 AM		roethene						1	
Surr: Bromofluorobenzene         96.0         70-130         %REC         1         1/28/2012 2:41:00 AM           TIC: 1-Pentene, 2-methyl-         2.3         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: 1-Propene, 2-methyl-         11         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: 1-Propene, 2-methyl-         11         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: Acetaldehyde         12         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: Benzene, 1,2,3-trimethyl-         2.3         0         JN         ppbV         1         1/28/2012 2:41:00 AM								1	
TIC: 1-Pentene, 2-methyl-       2.3       0       JN       ppbV       1       1/28/2012 2:41:00 AM         TIC: 1-Propene, 2-methyl-       11       0       JN       ppbV       1       1/28/2012 2:41:00 AM         TIC: Acetaldehyde       12       0       JN       ppbV       1       1/28/2012 2:41:00 AM         TIC: Benzene, 1,2,3-trimethyl-       2.3       0       JN       ppbV       1       1/28/2012 2:41:00 AM	-							1	
TIC: 1-Propene, 2-methyl-         11         0         JN         ppbV         1         1/28/2012 2:41:00 AM          TIC: Acetaldehyde         12         0         JN         ppbV         1         1/28/2012 2:41:00 AM           TIC: Benzene, 1,2,3-trimethyl-         2.3         0         JN         ppbV         1         1/28/2012 2:41:00 AM								1	
TIC: Acetaldehyde         12         0         JN         ppbV         1         1/28/2012-2:41:00 AM           TIC: Benzene, 1,2,3-trimethyl-         2.3         0         JN         ppbV         1         1/28/2012 2:41:00 AM		•			JN	• •		1	
TIC: Benzene, 1,2,3-trimethyl- 2.3 0 JN ppbV 1 1/28/2012 2:41:00 AM				0				1	1/28/2012 2:41:00 AM
		-		0	-JN-	••		-1	
TIC: Benzene, 1-ethyl-2-methyl- 2.8 0 JN ppbV 1 1/28/2012 2:41:00 AM	TIC: Benzene	, 1,2,3-trimethyl-	2.3	0	JN	ppbV		1	1/28/2012 2:41:00 AM
	TIC: Benzene	, 1-ethyl-2-methyl-	2.8	0	JN	ppbV		1	1/28/2012 2:41:00 AM

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

ND Not Detected at the Reporting Limit Page 34 of 44

<sup>\*\*</sup> Reporting Limit

CLIENT:	Tetra Tech			C	Client Sample ID:	SG08	-011012
Lab Order:	C1201051				Tag Number:	471,3	39
Project:	Maryland MartinA	ir Middle River	112IC03634	1	<b>Collection Date:</b>	1/20/2	2012
Lab ID:	C1201051-018A	5608-012	012		Matrix:	AIR	
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 W/ NA	PHTHALENE BY ME	THOD TO15	тс	-15			Analyst: RJP
TIC: Benzene methylethyl	e, 1-methyl-2-(1-	3.0	0	JN	ppbV	1	1/28/2012 2:41:00 AM
-	e, 1-methyl-4-(1-	3.2	0	ЛL	ррbV	1	1/28/2012 2:41:00 AM
TIC: Benzoic [(trimethylsilyl)o		3.5	0	JN	ppbV	1	1/28/2012 2:41:00 AM
TIC: Butanal,	3-methyl-	3,0	0	JN	ppb∨	1	1/28/2012 2:41:00 AM
TIC: Butane		5.7	0	JN	ppbV	1	1/28/2012 2:41:00 AM
TIC: Butane,	2-methyl-	2.4	0	JN	ppbV	1.	1/28/2012 2:41:00 AM
	xane, methyl-	2.8	0	JN	ppbV	1	1/28/2012 2:41:00 AM
TIC: Hexane,	2,2-dimethyl-	7.4	0	JN	ppbV	1	1/28/2012 2:41:00 AM
TIC: Pentane	-	2.7	0	JN	ppbV	1	1/28/2012 2:41:00 AM
TIC: Pentane	, 2,3,3-trimethyl-	4.2	0	JN	ррьV	1	1/28/2012 2:41:00 AM
TIC: Pentane	, 2,3,4-trimethyl-	2.7	0	JN	ррьV	1	1/28/2012 2:41:00 AM
TIC: Unknow	n (16.71)	6.2	0	JN	ppbV	1	1/28/2012 2:41:00 AM
TIC: Unknow	n (2.93)	4.3	0	JN	ppbV	1	1/28/2012 2:41:00 AM
TIC: Unknow	n (4.19)	2.5	0	JN	ppbV	1	1/28/2012 2:41:00 AM

Qualifiers:	**	Reporting Limit		Results reported are not blank corrected
	в	Analyte detected in the associated Method Blank	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit

S Spike Recovery outside accepted recovery limits

titation limits

it

Date: 02-Feb-12

CLIENT:	Tetra Tech	Client Sample ID:	SG09-011012
Lab Order:	C1201051	Tag Number:	332,78
Project:	Maryland MartinAir Middle River 112IC03634	<b>Collection Date:</b>	1/20/2012
Lab ID:	C1201051-012A 5609-012012	Matrix:	AIR

Analyses	Result	**Limit	Qual Units	DF	Date Analyzed
1UG/M3 W/ NAPHTHALENE BY I	METHOD TO15	тс	)-15	. = =	Analyst: RJP
1,1,1-Trichloroethane	ND	0.83	ug/m3	1	1/27/2012 11:19:00 PM
1,1,2-Trichloroethane	ND	0.83	ug/m3	1	1/27/2012 11:19:00 PN
1,1-Dichloroethane	ND	0.62	ug/m3	1	1/27/2012 11:19:00 PN
1,1-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 11:19:00 PN
1,2,4-Trichlorobenzene	ND	1.1	ug/m3	1	1/27/2012 11:19:00 PN
1,2,4-Trimethylbenzene	8.5	7.5	ug/m3	10	1/29/2012 1:50:00 AM
1,2-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 11:19:00 PN
1,2-Dichloroethane	ND	0.62	ug/m3	1	1/27/2012 11:19:00 PN
1,3-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 11:19:00 PN
1,4-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 11:19:00 PN
Benzene	24	4.9	ug/m3	10	1/29/2012 1:50:00 AM
Carbon disulfide	7.3	4.7	ug/m3	10	1/29/2012 1:50:00 AM
Carbon tetrachloride	ND	0.26	ug/m3	1	1/27/2012 11:19:00 PN
Chlorobenzene	ND	0.70	ug/m3	1	1/27/2012 11:19:00 PM
Chloroform	ND	0.74	ug/m3	1	1/27/2012 11:19:00 PM
Chloromethane	ND	0.31	ug/m3	1	1/27/2012 11:19:00 PM
cis-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 11:19:00 PM
Ethylbenzene	4.4	0.66	ug/m3	1	1/27/2012 11:19:00 PM
Freon 12	2.1	0.75	ug/m3	1	1/27/2012 11:19:00 PM
-m&p-Xylene	14	1-3	ug/m3	1	1/27/2012-11:19:00 PM
Methyl Ethyl Ketone	51	9.0	ug/m3	10	1/29/2012 1:50:00 AM
Methyl tert-butyl ether	ND	0.55	ug/m3	1	1/27/2012 11:19:00 PN
Methylene chloride	0.64	0.53	ug/m3	1	1/27/2012 11:19:00 PN
Naphthalene	2.8	0.80	ug/m3	1	1/27/2012 11:19:00 PM
o-Xylene	7.7	0.66	ug/m3	1	1/27/2012 11:19:00 PM
Tetrachloroethylene	ND	1.0	ug/m3	1	1/27/2012 11:19:00 PM
Toluene	22	5.7	ug/m3	10	1/29/2012 1:50:00 AM
trans-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 11:19:00 PM
Trichloroethene	ND	0.22	ug/m3		1/27/2012 11:19:00 PM
Vinyl chloride		0.10	ug/m3		1/27/2012 11:19:00 PM

Qualifiers:	**	Reporting Limit		Results reported are not blank corrected
	В	Analyte detected in the associated Method Blank	Е	Value above quantitation range
H Holding times for preparation or analysis exceeded		J	Analyte detected at or below quantitation limits	
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
	S	Spike Recovery outside accepted recovery limits		Page 12 of 23

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#### Date: 03-Feb-12

	tra Tech 201051			C	lient Sample l Tag Numb		
		ir Middle River	1121003624		Collection Da		
•	-					ix: AIR	
Lab ID: C1	201051-012A	5609-01	2012				
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETER	S		FL	D			Analyst:
Lab Vacuum In		-10			"Hg	•	1/24/2012
Lab Vacuum Out		-30			"Hg		1/24/2012
IUG/M3 W/ NAPHTH	ALENE BY ME	THOD TO15	TO	15			Analyst: RJP
1,1,1-Trichloroethane		ND	0.15		ppbV	1	1/27/2012 11:19:00 PM
1,1,2-Trichioroethane		ND	0.15		ррbV	1	1/27/2012 11:19:00 PM
1,1-Dichloroethane		ND	0.15		ррbV	1	1/27/2012 11:19:00 PM
1,1-Dichloroethene		ND	0.15		ррbV	1	1/27/2012 11:19:00 PM
1,2,4-Trichlorobenzen		ND	0.15		ppbV	1	1/27/2012 11:19:00 PM
1,2,4-Trimethylbenzer	e	1.7	1.5		ppbV	10	1/29/2012 1:50:00 AM
1,2-Dichiorobenzene		ND	0.15		ppbV	1	1/27/2012 11:19:00 PM
1,2-Dichloroethane		ND	0.15		ppbV	1	1/27/2012 11:19:00 PM
1,3-Dichlorobenzene		ND	0.15		ppbV	1	1/27/2012 11:19:00 PM
1,4-Dichlorobenzene		ND	0.15		ppbV	1	1/27/2012 11:19:00 PM
Benzene		7.3	1.5		ppbV	10	1/29/2012 1:50:00 AM
Carbon disulfide		2.3	1.5		ppbV	10	1/29/2012 1:50:00 AM
Carbon tetrachloride		ND	0.040		ppbV	1	1/27/2012 11:19:00 PM
Chlorobenzene		ND	0.15		ppbV ppbV	1	1/27/2012 11:19:00 PM
Chloroform		ND	0.15		ppbV ppbV	1 1	1/27/2012 11:19:00 PM 1/27/2012 11:19:00 PM
Chloromethane		ND ND	0.15		ppbV ppbV	1	1/27/2012 11:19:00 PM
cis-1,2-Dichloroethene	ſ	UN 0.99	0.15 0.15		ppbV ppbV	1	1/27/2012 11:19:00 PM
Ethylbenzene Freon 12		0.99	0.15		ppbV	1	1/27/2012 11:19:00 PM
m&p-Xylene		3.1	0.19		ppbV	1	1/27/2012 11:19:00 PM
Methyl Ethyl Ketone		5.1 17	3.0		ppbV	10	1/29/2012 1:50:00 AM
Methyl tert-butyl ether		ND	0.15		ppbV	10	1/27/2012 11:19:00 PM
Methylene chloride		0.18	0.15		ppbV	1	1/27/2012 11:19:00 PM
Naphthalene		0.53	0.15		ppbV	1	1/27/2012 11:19:00 PM
o-Xylene		1.7	0.15		ppbV	1	1/27/2012 11:19:00 PM
Tetrachloroethylene		ND	0.15		ppbV	1	1/27/2012 11:19:00 PM
Toluene		5.7	1.5		ppbV	10	1/29/2012 1:50:00 AM
trans-1,2-Dichloroethe	ne	ND	0,15		ppbV	1	1/27/2012 11:19:00 PM
Trichloroethene		ND	0.040		ppbV	1	1/27/2012 11:19:00 PM
Vinyl chloride		ND	0.040		ppbV	1	1/27/2012 11:19:00 PM
Surr: Bromofluorob	enzene	97.0	70-130		%REC	1	1/27/2012 11:19:00 PM
TIC: .alphaPinene		2.5	0	JN	ppbV .	1	1/27/2012 11:19:00 PM
TIC: 1-Propene, 2-r	nethyl-	15	0	JN	ppbV	1	1/27/2012 11:19:00 PM
TIC: Benzene, 1-eti	yi-2-methyl-	1.6	0	JN	ppbV	1	1/27/2012 11:19:00 PM
TIC: Butanal, 3-mel	hyl-	2.8	0	JN	ppbV	1	1/27/2012 11:19:00 PM
TIC: Butane		4.1	0	JN	ppbV	1	1/27/2012 11:19:00 PM

Qualifiers:

\*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

Results reported are not blank corrected

E Value above quantitation range

•

J Analyte detected at or below quantitation limits

#### Date: 03-Feb-12

 CLIENT:
 Tetra Tech
 Client Sample ID:
 SG09-011012

 Lab Order:
 C1201051
 Tag Number:
 332,78

 Project:
 Maryland MartinAir Middle River 112IC03634
 Collection Date:
 1/20/2012

 Lab ID:
 C1201051-012A
 SG09-012012
 Matrix: AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 W/ NAPHTHALENE BY METH	IOD TO15	тс	)-15			Analyst: RJP
TIC: Butane, 2,2,3,3-tetramethyl-	7.1	0	JN	ppb∨	1	1/27/2012 11:19:00 PM
TIC: Butane, 2-methyl-	1.6	0	JN	ppbV	1	1/27/2012 11:19:00 PM
TIC: Cyclohexane, methyl-	2.5	0	JN	ppbV	1	1/27/2012 11:19:00 PM
TIC: Cyclopropane, 1,2-dimethyl-, cis-	1.8	0	JN	ppbV	1	1/27/2012 11:19:00 PM
TIC: Cyclotrisiloxane, hexamethyl	9.7	0	JN	ppbV	1	1/27/2012 11:19:00 PM
TIC: Hexane, 3-methyl-	2.4	0	JN	ppbV	1	1/27/2012 11:19:00 PM
TIC: Limonene	1.8	0	JN	ppbV	1	1/27/2012 11:19:00 PM
TIC: Pentane	1.6	0	JN	ppbV	1	1/27/2012 11:19:00 PM
TIC: Pentane, 2,3,3-trimethyl-	5.3	0	JN	ppbV	1	1/27/2012 11:19:00 PM
TIC: Pentane, 2,3,4-trimethyl-	3.1	0	JN	ppbV	1	1/27/2012 11:19:00 PM
TIC: Unknown (10.09)	1.9	0	JN	ppbV	1	1/27/2012 11:19:00 PM
TIC: Unknown (16.71)	6.3	0	JN	ppbV	1	1/27/2012 11:19:00 PM
TIC: Unknown (9.13)	2.5	0	JN	ppbV	1	1/27/2012 11:19:00 PM
TIC: Unknown alkane	4.8	0	JN	ppbV	1	1/27/2012 11:19:00 PM

Qualifiers:	**	Reporting Limit		Results reported are not blank corrected		
	В	Analyte detected in the associated Method Blank	E	Value above quantitation range		
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation	stected at or below quantitation limits	
	ЛN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit		
	S	Spike Recovery outside accepted recovery limits			Page 24 of 44	

Date: 02-Feb-12

CLIENT:	Tetra Tech			<b>Client Sample</b>	D: SG1-(	011012
Lab Order:	C1201051			-	ber: 558,2	
Project:	Maryland MartinA	ir Middle River	112IC03634	Collection I		
Lab ID:	C1201051-015A	561-01201		Ма	trix: AIR	
Analyses		Result	**Limit	Qual Units	DF	Date Analyzed
1UG/M3 W/ NA	PHTHALENE BY ME	THOD TO15	TO-	15		Analyst: RJP
1,1,1-Trichioroe	ethane	ND	0.83	ug/m3	1	1/28/2012 12:26:00 AM
1,1,2-Trichloroe	ethane	ND	0.83	ug/m3	1	1/28/2012 12:26:00 AN
1,1-Dichloroeth	ane	ND	0.62	ug/m3	1	1/28/2012 12:26:00 AN
1,1-Dichloroeth	ene	ND	0.60	ug/m3	1	1/28/2012 12:26:00 AN
1,2,4-Trichlorob	benzene	ND	1.1	ug/m3	1	1/28/2012 12:26:00 AN
1,2,4-Trimethyl	benzene	31	7.5	ug/m3	10	1/29/2012 2:56:00 AM
1,2-Dichlorober		ND	0.92	ug/m3	1	1/28/2012 12:26:00 AN
1,2-Dichloroeth	ane	ND	0.62	ug/m3	1	1/28/2012 12:26:00 AM
1,3-Dichlorober	zene	ND	0.92	ug/m3	1	1/28/2012 12:26:00 AM
1,4-Dichlorober	zene	ND	0.92	ug/m3	1	1/28/2012 12:26:00 AM
Benzene		39	4.9	ug/m3	10	1/29/2012 2:56:00 AM
Carbon disulfide	B	13	4.7	ug/m3	10	1/29/2012 2:56:00 AM
Carbon tetrachl	loride	ND	0.26	ug/m3	<b>,1</b>	1/28/2012 12:26:00 AN
Chlorobenzene		ND	0.70	ug/m3	1	1/28/2012 12:26:00 AN
Chloroform		350	30	ug/m3	40	1/29/2012 3:28:00 AM

		0.20	ugnito	. •	1/20/2012 12.20.00 / W
Chlorobenzene	ND	0.70	ug/m3	1	1/28/2012 12:26:00 AM
Chloroform	350	30	ug/m3	40	1/29/2012 3:28:00 AM
Chloromethane	ND	0.31	ug/m3	1	1/28/2012 12:26:00 AM
cis-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/28/2012 12:26:00 AM
Ethylbenzene	8.8	0.66	ug/m3	1	1/28/2012 12:26:00 AM
Freon 12	1.8	0.75	ug/m3	1	1/28/2012 12:26:00 AM
m&p-Xylene	35	13	ug/m3	10	1/29/2012 2:55:00 AM
Methyl Ethyl Ketone	470	36	ug/m3	40	1/29/2012 3:28:00 AM
Methyl tert-butyl ether	ND	0.55	ug/m3	1	1/28/2012 12:26:00 AM
Methylene chloride	0.46	0.53	J ug/m3	1	1/28/2012 12:26:00 AM
Naphthalene	5.6	0.80	ug/m3	1	1/28/2012 12:26:00 AM
o-Xylene	19	6.6	ug/m3	10	1/29/2012 2:56:00 AM
Tetrachloroethylene	ND	1.0	ug/m3	1	1/28/2012 12:26:00 AM
Toluene	76	5.7	ug/m3	10	1/29/2012 2:56:00 AM
trans-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/28/2012 12:26:00 AM
Trichloroethene	ND	0.22	ug/m3	1	1/28/2012 12:26:00 AM
Vinyl chloride	ND	0,10	ug/m3	1	1/28/2012 12:26:00 AM

Qualifiers:	**	Reporting Limit		Results reported are not blank corrected		
	В	Analyte detected in the associated Method Blank	E	E Value above quantitation range		
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits		
	JN	Non-routine analyte. Quantitation estimated.	ND Not Detected at the Reporting Limit		D 15 - 502	
	S	Spike Recovery outside accepted recovery limits	ery limits		Page 15 of 23	

Date: 03-Feb-12

CLIENT:	Tetra Tech				<b>Client Sample</b>	ID: SG1-0	11012
Lab Order:	C1201051				Tag Numb	er: 558,24	49
Project:	Maryland MartinAi	Middle River	112IC03634	L	Collection Da	ate: 1/20/2	2012
Lab ID:	C1201051-015A	56 h-012				rix: AIR	
Analyses		Result	**Limit	Qua	l Units	DF	Date Analyzed
FIELD PARAM	ETEDS		 Fl	n			Analyst:
Lab Vacuum In		-2			"Hg		1/24/2012
Lab Vacuum O		-30			"Hg		1/24/2012
	 PHTHALENE BY METI		то	-15			Analyst: RJP
1,1,1-Trichloroe		ND	0.15	-19	ppbV	1	1/28/2012 12:26:00 AM
1,1,2-Trichloroe		ND	0.15		ppbV	1	1/28/2012 12:26:00 AM
1,1-Dichloroeth		ND	0.15		ppbV	1	1/28/2012 12:26:00 AN
1,1-Dichloroeth		ND	0.15		ppbV	י 1	1/28/2012 12:26:00 AN
1,2,4-Trichlorob		ND	0.15		ppbV	1	1/28/2012 12:26:00 AN
1,2,4-Trimethyll		6.2	1.5		ppbV	10	1/29/2012 2:56:00 AM
1,2-Dichlorober		ND	0.15		ppbV	1	1/28/2012 12:26:00 AN
1,2-Dichloroeth		ND	0.15		ppbV	1	1/28/2012 12:26:00 AN
1,3-Dichlorober		ND	0.15		ppbV	1	1/28/2012 12:26:00 AN
1,4-Dichlorober		ND	0.15		ppbV	1	1/28/2012 12:26:00 AN
Benzene		12	1.5		ppbV	10	1/29/2012 2:56:00 AM
Carbon disulfide	e	4.1	1.5		ppbV	10	1/29/2012 2:56:00 AM
Carbon tetrachi		ND	0.040		ppbV	1	1/28/2012 12:26:00 AN
Chlorobenzene		ND	0.15		ppbV	1	1/28/2012 12:26:00 AN
Chloroform		70	6.0		ppbV	40	1/29/2012 3:28:00 AM
Chloromethane		ND	0.15		ppbV	1	1/28/2012 12:26:00 AM
cis-1,2-Dichloro	ethene	ND	0.15		ppbV	1	1/28/2012 12:26:00 AM
Ethylbenzene		2.0	0.15		ppbV	1	1/28/2012 12:26:00 AM
Freon 12		0.36	0.15		ppbV	1	1/28/2012 12:26:00 AN
m&p-Xylene		7.9	3.0		ppbV	10	1/29/2012 2:56:00 AM
Methyl Ethyl Ke	tone	160	12		ppbV	40	1/29/2012 3:28:00 AM
Methyl tert-buty		ND	0.15		ppbV	1	1/28/2012 12:26:00 AN
Methylene chlor	ride	0.13	0.15	L	ppbV	<b>1</b>	1/28/2012 12:26:00 AN
Naphthalene		1.0	0.15		ppbV	1	1/28/2012 12:26:00 AN
o-Xylene		4.2	1.5		ppbV	10	1/29/2012 2:56:00 AM
Tetrachloroethy	lene	ND	0.15		ppbV	1	1/28/2012 12:26:00 AN
Toluene		20	1.5		ppbV	10	1/29/2012 2:56:00 AM
trans-1,2-Dichlo	proethene	ND	0.15		ppbV	1	1/28/2012 12:26:00 AN
Trichloroethene	•	ND	0.040		ppbV	1	1/28/2012 12:26:00 AM
Vinyl chloride		ND	0.040		ppbV	1	1/28/2012 12:26:00 AM
Surr: Bromof	luorobenzene	92.0	70-130		%REC	1	1/28/2012 12:26:00 AN
TIC: 1,3-Cycl methyl- \$\$	lopentadiene, 1-	3.5	0	JN	ppbV	1	1/28/2012 12:26:00 AN
TIC: 1,3-Octa		7.4	0	JN	ppbV	1	1/28/2012 12:26:00 AN
•	ne, 2-methyl-	17	0	JN	ppbV	1	1/28/2012 12:26:00 AN
TIC: 2-Penter	ne, (Z)-	3.6	0	JN	ppbV	1	1/28/2012 12:26:00 AN
TIC: Butane		7.6	0	JN	ppbV	1	1/28/2012 12:26:00 AM

Qualifiers: \*\* Re

\*\* Reporting LimitB Analyte detected in the associated

B Analyte detected in the associated Method BlankH Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

ND Not Detected at the Reporting Limit Page 28 of 44

CLIENT: Lab Order: Project: Lab ID:	Tetra Tech C1201051 Maryland MartinA C1201051-015A				Client Sample ID: Tag Number: Collection Date: Matrix:	<b>558,2</b> 1/20/2	4 <b>9</b>
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed
UG/M3 W/ NA	PHTHALENE BY ME	THOD TO15	тс	-15			Analyst: RJP
TIC: Butane,	2-methyl-	2.5	0	JN	ppbV	1	1/28/2012 12:26:00 AM
TIC: Cyclopre	opane, ethylidene-	2.6	0	JN	ppbV	1	1/28/2012 12:26:00 AM
TIC: Cyclotris	siloxane, hexamethyl	2.6	0	JN	ppbV	1	1/28/2012 12:26:00 AM
TIC: Hexanal		2.9	0	JN	ppbV	1	1/28/2012 12:26:00 AM
TIC: Isobutar	ıe	2.7	0	JN	ppbV	1	1/28/2012 12:26:00 AM
TIC: Pentane	, 2-methyl-	2.5	0	JN	ppbV	1	1/28/2012 12:26:00 AM
TIC: Propana	il, 2-methyl-	3.7	0	JN	ppbV	1	1/28/2012 12:26:00 AM
TIC: Unknow	n (10.4)	7.0	0	JN	ppbV	1	1/28/2012 12:26:00 AM
TIC: Unknow	π (16.71)	3.4	0	JN	ppbV	1	1/28/2012 12:26:00 AM
TIC: Unknow	n (2.92)	11	0	JN	ppbV	1	1/28/2012 12:26:00 AM
TIC: Unknow	n (4.2)	8.6	0	JN	ppbV	1	1/28/2012 12:26:00 AM
TIC: Unknow		3.9	0	JN	ppbV	1	1/28/2012 12:26:00 AM
TIC: Unknow	n (9.96)	5.5	0	JN	ppbV	1	1/28/2012 12:26:00 AM

Qualifiers:

\*\* Reporting Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- JN Non-routine analyte. Quantitation estimated.
- S Spike Recovery outside accepted recovery limits
- . Results reported are not blank corrected
- E Value above quantitation range
- J Analyte detected at or below quantitation limits

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Centek La	boratories, LL(	С			Date:	02-F	eb-12
CLIENT:	Tetra Tech			Client S	Sample ID:	SG10	)-011912
Lab Order:	C1201051			Ta	g Number:	554,8	10
Project:	Maryland MartinAi	r Middle River	112IC03634	Collec	tion Date:	1/19/	2012
Lab ID:	C1201051-002A	5610-01			Matrix:	AIR	
nalyses		Result	**Limit (	Qual Units		DF	Date Analyzed
1UG/M3 W/ NAI	PHTHALENE BY MET	HOD TO15	TO-'	.5			Analyst: RJF
1,1,1-Trichloroet	thane	ND	0.83	ug/m3	1	1	1/27/2012 5:41:00 PM
1,1,2-Trichloroet	thane	ND	0.83	ug/m3	1	1	1/27/2012 5:41:00 PM
1,1-Dichloroetha	ane	ND	0.62	ug/m3	,	1	1/27/2012 5:41:00 PM
1,1-Dichloroethe	ene	ND	0.60	ug/m3		1	1/27/2012 5:41:00 PM
1,2,4-Trichlorobe	enzene	ND	1.1	ug/m3		1	1/27/2012 5:41:00 PM
1,2,4-Trimethyib	enzene	11	0.75	ug/m3		1	1/27/2012 5:41:00 PM
1,2-Dichlorobena	zene	ND	0.92	ug/m3		1	1/27/2012 5:41:00 PM
1,2-Dichloroetha	ine	ND	0.62	ug/m3		1	1/27/2012 5:41:00 PM
1,3-Dichlorobenz	zene	ND	0.92	ug/m3		1	1/27/2012 5:41:00 PM
1,4-Dichlorobena	zene	ND	0.92	ug/m3		1	1/27/2012 5:41:00 PM
Benzene		2.5	0.49	ug/m3		1	1/27/2012 5:41:00 PM
Carbon disulfide	ł	0.79	0.47	ug/m3		1	1/27/2012 5:41:00 PM
Carbon tetrachlo	oride	ND	0.26	ug/m3		1	1/27/2012 5:41:00 PM
Chlorobenzene		ND	0.70	ug/m3		1	1/27/2012 5:41:00 PM
Chloroform		ND	0.74	ug/m3		1	1/27/2012 5:41:00 PM
Chloromethane		0.78	0.31	ug/m3		1	1/27/2012 5:41:00 PM
cis-1,2-Dichloroe	ethene	ND	0.60	ug/m3		1	1/27/2012 5:41:00 PM
Ethylbenzene		3.4	0.66	ug/m3		1	1/27/2012 5:41:00 PM
Freon 12		2.6	0.75	ug/m3		1	1/27/2012 5:41:00 PM
m&p-Xylene		11	1.3	ug/m3		1	1/27/2012 5:41:00 PM
Methyl Ethyl Ket	one	8.7	9.0	J ug/m3		10	1/28/2012 7:40:00 AM
Methyl tert-butyl	ether	ND	0.55	ug/m3		1	1/27/2012 5:41:00 PM
Methylene chlori	ide	0.46	0.53	J ug/m3		1	1/27/2012 5:41:00 PM
Naphthalene		3.6	0.80	ug/m3		1	1/27/2012 5:41:00 PM
o-Xylene		5.9	0.66	ug/m3		1	1/27/2012 5:41:00 PM
Tetrachloroethyle	ene	ND	1.0	ug/m3		1	1/27/2012 5:41:00 PM
Toluene		26	5.7	ug/m3		10	1/28/2012 7:40:00 AM
trans-1,2-Dichlor	roethene	ND	0.60	ug/m3		1	1/27/2012 5:41:00 PM
~Trichioroethene	na farina na manéhan téhénangan angéh téhén angéh ta na manéh kén na kén angéh perja keun	ND	0.22	ug/m3	. W a di sen a ban ana di sen annon a margi <b>a</b> margina ana g <b>u</b> na ana g <b>u</b> na	1	1/27/2012 5:41:00 PM
Vinyl chloride		ND	0.10	ug/m3		1	1/27/2012 5:41:00 PM

- Qualifiers: \*\* **Reporting Limit** . В Analyte detected in the associated Method Blank Е Н Holding times for preparation or analysis exceeded J
  - JN Non-routine analyte. Quantitation estimated.
  - Spike Recovery outside accepted recovery limits S
- Results reported are not blank corrected
- Value above quantitation range
- Analyte detected at or below quantitation limits

LIENT:	Tetra Tech			(	Client Sample ID:	SG10-	-011912		
b Order:	C1201051				Tag Number: 554,80				
					Collection Date:	•			
b ID:	C1201051-002A	5610-011	912		Matrix:	AIR			
alyses		Result	**Limit	Qual	Units	DF	Date Analyzed		
D PARAMET	ERS		FL	D			Analyst:		
ab Vacuum In		-3			"Hg		1/24/2012		
Vacuum Out		-30			"Hg		1/24/2012		
M3 W/ NAPH	ITHALENE BY MET	HOD TO15	то	-15			Analyst: RJ		
1,1-Trichloroetha	ine	ND	0.15		ppbV	1	1/27/2012 5:41:00 PM		
,2-Trichloroetha	ine	ND	0.15		ppbV	1	1/27/2012 5:41:00 PM		
-Dichioroethane	9	ND	0.15		ppbV	1	1/27/2012 5:41:00 PN		
1-Dichloroethene		ND	0.15		ppbV	1	1/27/2012 5:41:00 PN		
,2,4-Trichloroben		ND	0.15		ppbV	1	1/27/2012 5:41:00 PM		
2,4-Trimethylber		2.1	0.15		ppbV	1	1/27/2012 5:41:00 PM		
2-Dichlorobenze		ND	0.15		ppbV	1	1/27/2012 5:41:00 PM		
2-Dichloroethane		ND	0.15		ppbV	1	1/27/2012 5:41:00 PM		
3-Dichlorobenze		ND	0.15		ppbV	1	1/27/2012 5:41:00 PN		
4-Dichlorobenze		ND	0,15		ppbV	1	1/27/2012 5:41:00 PM		
nzene		0.76	0.15		ppbV	1	1/27/2012 5:41:00 PM		
bon disulfide		0.25	0.15		ppbV	1	1/27/2012 5:41:00 PM		
bon tetrachlorid	le .	ND	0.040		ppbV	1	1/27/2012 5:41:00 PM		
orobenzene	-	ND	0.040		ppbV ppbV	1	1/27/2012 5:41:00 PM		
roform		ND	0.15		ppbV ppbV	1	1/27/2012 5:41:00 PM		
romethane		0.37	0.15			1	1/27/2012 5:41:00 PM		
.2-Dichloroeth	000	ND	0.15		ppbV ppbV	4			
•	CIIC				ppbV	। न	1/27/2012 5:41:00 PN		
ibenzene		0.77	0.15		ppbV	4	1/27/2012 5:41:00 PN		
on 12 - Vuleza		0.51	0.15		ppbV	4	1/27/2012 5:41:00 PM		
p-Xylene	-	2.4	0.30		ppbV	1	1/27/2012 5:41:00 PM		
thyl Ethyl Keton		2.9	3.0	J	ppbV	10	1/28/2012 7:40:00 AN		
thyl tert-butyl et		ND	0.15		ppbV	1	1/27/2012 5:41:00 PM		
thylene chloride		0.13	0.15	J	ppbV	1	1/27/2012 5:41:00 PN		
phthalene		0.67	0,15		ppbV	1	1/27/2012 5:41:00 PM		
Kylene		1.3	0.15		ppbV	1	1/27/2012 5:41:00 PN		
trachloroethylen	e .	ND	0.15		ppbV	1	1/27/2012 5:41:00 PN		
luene		6.7	1.5		ppbV	10	1/28/2012 7:40:00 AN		
ns-1,2-Dichloroe	thene	ND	0.15		ppbV	1	1/27/2012 5:41:00 PN		
chloroethene		ND	0.040		ppbV	1	1/27/2012 5:41:00 PN		
yl chloride		ND	0.040		ppbV	1	1/27/2012 5:41:00 PN		
Surr: Bromofluo	robenzene	93.0	70-130		%REC	1	1/27/2012 5:41:00 PN		
TIC: 4-Carene		1.0	0	JN	ррbV	1	1/27/2012 5:41:00 PN		
TIC: Benzene, 1	-ethyl-2-methyl-	0.91	O	JN	ppbV	1	1/27/2012 5:41:00 PN		
TIC: Benzene, 4		0.78	0	—JN—	ppbV	-1			
nethyl-	-								
TIC: Butane		0.94	0	JN	ppbV	1	1/27/2012 5:41:00 PN		
IC: Cyclohexar	ie, methyl-	1.9	Ð	JN	ppbV	1	1/27/2012 5:41:00 PM		

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits E Value above quantitation range

J Analyte detected at or below quantitation limits

TIC: Cyclotrisiloxane, hexamethyl

TIC: p-Trimethylsilyloxyphenyl-

TIC: Pentane, 2,3-dimethyl-

TIC: Pentane, 2-methyl-

TIC: Unknown alkane (10)

TIC: Unknown alkane (12.26)

TIC: Unknown alkane (12.48)

TIC: Unknown (16.71)

TIC: Unknown (3.18)

TIC: Hexane, 3-methyl-

TIC: Limonene

bis(trim

Date: 03-Feb-12

1

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1

1

1

1

1

1

1

1

1/27/2012 5:41:00 PM

CLIENT:	Tetra Tech			C	Client Sampl	e ID:	SG10-	011912
Lab Order: C1201051				Tag Nun	iber:	554,80		
Project: Maryland MartinAir		r Middle River 112IC03634			<b>Collection Date:</b>		1/19/2012	
Lab ID:	C1201051-002A	5610-011°	112		Ma	trix:	AIR	
Analyses		Result	**Limit	Qual	Units		DF	Date Analyzed
1UG/M3 W/ NA	PHTHALENE BY ME	THOD TO15	то	-15				Analyst: RJi
TIC: Cyclope cis-	ntane, 1,3-dimethyl-,	0.78	O	JN	ppbV		1	1/27/2012 5:41:00 PM
	entane, methyl-	0.75	٥	JN	Vdqq			1/27/2012 5:41:00 PM

0 JN

0 JN

0

0 JN

JN

ppbV

5.0

0.89

1.0

4.2

0.81

0.87

21

1.4

4.1

2.3

2.4

Oualifiers:	**	Reporting Limit		Results reported are not blank corrected	
•	В	Analyte detected in the associated Method Blank	Е	Value above quantitation range	
	н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits	
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit	~
	S	Spike Recovery outside accepted recovery limits		Page 4 o	of 44

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# Centek Laboratories, LLC

Date: 02-Feb-12

CLIENT:	Tetra Tech			C	lient Sample ID:		
Lab Order:	C1201051				Tag Number:	•	
Project:	Maryland MartinAi	Middle River	12IC03634	ł	<b>Collection Date:</b>	1/19/2	2012
Lab ID:	C1201051-001A	5611-011	912		Matrix:	AIR	<u></u>
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 W/ NAP	HTHALENE BY MET	HOD TO15	то	-15			Analyst: RJP
1,1,1-Trichloroeth	ane	ND	0.83		ug/m3	1	1/27/2012 5:08:00 PM
1,1,2-Trichloroeth		ND	0.83		ug/m3	1	1/27/2012 5:08:00 PM
1,1-Dichloroethan		ND	0.62		ug/m3	1	1/27/2012 5:08:00 PM
1,1-Dichloroethen	e	ND	0.60		ug/m3	1	1/27/2012 5:08:00 PM
1,2,4-Trichlorober		ND	1.1		ug/m3	1	1/27/2012 5:08:00 PM
1,2,4-Trimethylbe		11	7.5		ug/m3	10	1/28/2012 7:07:00 AM
1,2-Dichlorobenze		ND	0.92		ug/m3	1	1/27/2012 5:08:00 PM
1,2-Dichloroethan	e	ND	0.62		ug/m3	1	1/27/2012 5:08:00 PM
1,3-Dichlorobenze	ene	ND	0.92		ug/m3	1	1/27/2012 5:08:00 PM
1,4-Dichlorobenze	ene	ND	0.92		ug/m3	1	1/27/2012 5:08:00 PM
Benzene		2.7	0.49		ug/m3	1	1/27/2012 5:08:00 PM
Carbon disulfide		1.2	0,47		ug/m3	1	1/27/2012 5:08:00 PM
Carbon tetrachlori	ide	ND	0.26		ug/m3	1	1/27/2012 5:08:00 PM
Chlorobenzene		ND	0.70		ug/m3	1	1/27/2012 5:08:00 PM
Chloroform		ND	0.74		ug/m3	1	1/27/2012 5:08:00 PM
Chloromethane		0.73	0.31		ug/m3	1	1/27/2012 5:08:00 PM
cis-1,2-Dichloroet	hene	ND	0.60		ug/m3	1	1/27/2012 5:08:00 PM
Ethylbenzene		3.7	0.66		ug/m3	1	1/27/2012 5:08:00 PM
Freon 12		2.1	0.75		ug/m3	1	1/27/2012 5:08:00 PM
m&p-Xylene		12	1.3		ug/m3	1	1/27/2012 5:08:00 PM
Methyl Ethyl Keto	ne	5.4	0.90		ug/m3	1	1/27/2012 5:08:00 PM
Methyi tert-butyi e	ther	ND	0.55		ug/m3	1	1/27/2012 5:08:00 PM
Methylene chlorid	e	ND	0.53		ug/m3	1	1/27/2012 5:08:00 PM
Naphthalene		2.7	0.80		ug/m3	1	1/27/2012 5:08:00 PM
o-Xylene		7.0	0.66		ug/m3	1	1/27/2012 5:08:00 PM
Tetrachloroethyle	ne	ND	1.0		ug/m3	1	1/27/2012 5:08:00 PM
Toluene		16	5.7		ug/m3	10	1/28/2012 7:07:00 AM
trans-1,2-Dichloro	ethene	ND	0.60		ug/m3	1	1/27/2012 5:08:00 PM
Trichloroethene		ND	0.22		ug/m3	1	1/27/2012 5:08:00 PM
Vinyl chloride		ND	0.10		ug/m3	1	1/27/2012 5:08:00 PM

Qualifiers:	**	Reporting Limit	•	Results reported are not blank corrected	· · · · · · · · · · · · · · · · · · ·
	В	Analyte detected in the associated Method Blank	Е	Value above quantitation range	
	н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation	limits
	JN	Non-routine analyte. Quantitation estimated,	ND	Not Detected at the Reporting Limit	
	S	Spike Recovery outside accepted recovery limits			Page 1 of 23

LIENT: Tetra	a Tech			Client Sample	e ID:	SG11-	-011912
ab Order: C12	01051			Tag Nun	iber:	233,6	5
roject: Mar	vland Martin/	Air Middle River	121C03634	Collection I	Date:	1/19/2	012
-	01051-001A			Ma	trix:	AIR	
	A1001*001A	SG11-0119					
alyses		Result	**Limit Qu	al Units		DF	Date Analyzed
LD PARAMETERS			FLD				Analyst:
ab Vacuum In		-4		"Hg			1/24/2012
ab Vacuum Out		-30		"Hg			1/24/2012
S/M3 W/ NAPHTHA	LENE BY ME	THOD TO15	TO-15				Analyst: RJI
1,1-Trichloroethane		ND	0.15	ppbV		1	1/27/2012 5:08:00 PM
1,2-Trichloroethane		ND	0.15	ppbV		1	1/27/2012 5:08:00 PM
1-Dichloroethane		NĎ	0.15	ppbV		1	1/27/2012 5:08:00 PM
1-Dichloroethene		ND	0.15	ррь∨		1	1/27/2012 5:08:00 PM
2,4-Trichlorobenzene		ND	0.15	ppbV		1	1/27/2012 5:08:00 PM
2,4-Trimethylbenzene		2.3	1.5	ppbV		10	1/28/2012 7:07:00 AM
2-Dichlorobenzene		ND	0.15	ppbV		1	1/27/2012 5:08:00 PM
2-Dichloroethane		ND	0.15	ppbV		1	1/27/2012 5:08:00 PM
3-Dichlorobenzene		ND	0.15	ppbV		1	1/27/2012 5:08:00 PM
-Dichlorobenzene		ND	0.15	ppbV		1	1/27/2012 5:08:00 PM
nzene		0.84	0.15	ppbV		1	1/27/2012 5:08:00 PM
rbon disulfide		0.37	0.15	ppbV		1	1/27/2012 5:08:00 PM
rbon tetrachloride		ND	0.040	ppbV		1	1/27/2012 5:08:00 PM
lorobenzene		ND	0.15	ppbV		1	1/27/2012 5:08:00 PM
loroform		ND	0.15	ppbV		1	1/27/2012 5:08:00 PM
loromethane		0,35	0.15	ppbV		1	1/27/2012 5:08:00 PM
-1,2-Dichloroethene		ND	0.15	ppbV ppbV		1	1/27/2012 5:08:00 PM
nylbenzene		0.84	0.15	ppbV		1	1/27/2012 5:08:00 PM
reon 12		0.41	0.15	ppbV		1	1/27/2012 5:08:00 PM
&p-Xylene		2.7	0.30	ppbV		1	1/27/2012 5:08:00 PM
thyl Ethyl Ketone		1.8	0.30	ppbV		1	1/27/2012 5:08:00 PM
thyi tert-butyl ether		ND	0.30	ppbV		1	1/27/2012 5:08:00 PM
ethylene chloride		ND	0.15	ppbV		•	1/27/2012 5:08:00 PM
aphthalene		0.51	0.15	ppbV		1	1/27/2012 5:08:00 PM
Xylene		1.6	0.15 D.15	ppbv		1	1/27/2012 5:08:00 PM
etrachloroethylene		ND	0.15	ppbV		1	1/27/2012 5:08:00 PM
oluene		ND 4.1	1.5	ppbV ppbV		10	1/28/2012 7:07:00 AM
ins-1,2-Dichloroethene		4.1 ND	0,15	ppbV ppbV		10	1/27/2012 5:08:00 PM
ichloroethene	ī	ND	0.15			•	1/27/2012 5:08:00 PM
				ppbV opbV		1	
nyi chloride Sum Bramafiuarabari		ND	0.040	ppbV W DEC		1	1/27/2012 5:08:00 PM
Surr: Bromofluoroben:	Lelle	94.0	70-130	%REC		1	1/27/2012 5:08:00 PM
TIC: 3-Carene		1.5	1L O	• •		1	1/27/2012 5:08:00 PM
TIC: 4-Carene	المع معالم درا	0.60	1L 0	• •		1	1/27/2012 5:08:00 PM
TIC:-Benzene,1,2,3-ti 7.77)	imethyi-	1.7	0	↓ppbV		-7	1/27/2012-5:08:00-PM
TIC: Benzene, 1-ethyl (6.82)	-2-methyl-	2.0	1L O	i ppbV		1	1/27/2012 5:08:00 PM

> В Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

JN Non-routine analyte, Quantitation estimated,

S Spike Recovery outside accepted recovery limits Ε Value above quantitation range

J Analyte detected at or below quantitation limits

ND Not Detected at the Reporting Limit

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Centek ]	Labora	tories, L	LC	

Date: 03-Feb-12

CLIENT:	Tetra Tech			C	lient Sample ID	: SG11	-011912
Lab Order:	C1201051				Tag Number:	233,6	5
Project:	Maryland MartinA	Air Middle River 112IC03634			<b>Collection Date</b>	: 1/19/2	2012
Lab ID:	C1201051-001A	5611-011	912		Matrix	AIR	
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 W/ NA	PHTHALENE BY MET	HOD TO15	то	-15			Analyst: RJF
TIC: Benzene methylethyl	e, 1-methyl-4-(1-	0.83	٥	JN	ppbV	1	1/27/2012 5:08:00 PM
TIC: Benzene dimethyl-	a, 4-ethy -1,2-	0.75	0	JN	ppbV	1	1/27/2012 5:08:00 PM
TIC: Butane,	2,2,3,3-tetramethyl-	0.98	0	JN	ppb∨	1	1/27/2012 5:08:00 PM
TIC: Cyclohe: , (1.	xane, 1,2,3-trimethyl	0.55	0	JN	ppbV	1	1/27/2012 5:08:00 PM
	xane, 1-ethyl-4-	0.58	0	JN	ppbV	1	1/27/2012 5:08:00 PM
TIC: Cyclohe:	xane, methyl-	0.76	0	JN	ppbV	1	1/27/2012 5:08:00 PM
TIC: Cyclotris	iloxane, hexamethyl	3.9	0	JN	ppbV	1	1/27/2012 5:08:00 PM
TIC: Propane	nitrile, 3-methoxy-	0.61	0	JN	ppbV	1	1/27/2012 5:08:00 PM
TIC: Silanol, I	trimethyl-	1.2	0	JN	ррbV	1	1/27/2012 5:08:00 PM
TIC: Unknow	n	6.8	0	JN	ppbV	1	1/27/2012 5:08:00 PM
TIC: Unknow	n alkane (12.26)	1.0	0	JN	ppbV	1	1/27/2012 5:08:00 PM
TIC: Unknow	n alkane (12.48)	1.0	0	JN	ppbV	1	1/27/2012 5:08:00 PM
TIC: Unknow	n alkane (18.63)	1.1	0	JN	ppbV	1	1/27/2012 5:08:00 PM

Qualifiers:

\*\* Reporting Limit

B Analyte detected in the associated Method Blank

- H Holding times for preparation or analysis exceeded
- JN Non-routine analyte, Quantitation estimated.
- S Spike Recovery outside accepted recovery limits
- . Results reported are not blank corrected
- E Value above quantitation range
- J Analyte detected at or below quantitation limits

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Date: 02-Feb-12
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3 of 23

CLIENT:	Tetra Tech	<b>Client Sample ID:</b>	SG12-011912
Lab Order:	C1201051	Tag Number:	163,177
Project:	Maryland MartinAir Middle River 112IC03634	<b>Collection Date:</b>	1/19/2012
Lab ID:	C1201051-003A SG12-011912	Matrix:	AIR

Analyses	Result	**Limit	Qual Units	DF	Date Analyzed
1UG/M3 W/ NAPHTHALENE BY	METHOD TO15	то	-15		Analyst: RJP
1,1,1-Trichloroethane	ND	0.83	ug/m3	1	1/27/2012 6:15:00 PM
1,1,2-Trichloroethane	ND	0.83	ug/m3	1	1/27/2012 6:15:00 PM
1,1-Dichloroethane	ND	0.62	ug/m3	1	1/27/2012 6:15:00 PM
1,1-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 6:15:00 PM
1,2,4-Trichlorobenzene	ND	1.1	ug/m3	1	1/27/2012 6:15:00 PM
1,2,4-Trimethylbenzene	15	7.5	ug/m3	10	1/28/2012 8:12:00 AM
1,2-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 6:15:00 PM
1,2-Dichloroethane	ND	0.62	ug/m3	1	1/27/2012 6:15:00 PM
1,3-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 6:15:00 PM
1,4-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 6:15:00 PM
Benzene	4.6	0.49	ug/m3	1	1/27/2012 6:15:00 PM
Carbon disulfide	1.8	0.47	ug/m3	1	1/27/2012 6:15:00 PM
Carbon tetrachloride	ND	0.26	ug/m3	1	1/27/2012 6:15:00 PM
Chlorobenzene	ND	0.70	ug/m3	1	1/27/2012 6:15:00 PM
Chloroform	ND	0.74	ug/m3	1	1/27/2012 6:15:00 PM
Chloromethane	ND	0.31	ug/m3	1	1/27/2012 6:15:00 PM
cis-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 6:15:00 PM
Ethylbenzene	4.0	0.65	ug/m3	1	1/27/2012 6:15:00 PM
Freon 12	2.1	0.75	ug/m3	1	1/27/2012 6:15:00 PM
m&p-Xylene	13	1.3	ug/m3	1	1/27/2012 6:15:00 PM
Methyl Ethyl Ketone	18	9.0	ug/m3	10	1/28/2012 8:12:00 AM
Methyl tert-butyl ether	ND	0.55	ug/m3	1	1/27/2012 6:15:00 PM
Methylene chloride	0.60	0.53	ug/m3	1	1/27/2012 6:15:00 PM
Naphthalene	3.0	0.80	ug/m3	1	1/27/2012 6:15:00 PM
o-Xylene	7.5	0.66	ug/m3	1	1/27/2012 6:15:00 PM
Tetrachloroethylene	ND	1.0	ug/m3	1	1/27/2012 6:15:00 PM
Toluene	22	5.7	ug/m3	10	1/28/2012 8:12:00 AM
trans-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 6:15:00 PM
Trichloroethene	ND	0.22	ug/m3	1	1/27/2012 6:15:00 PM
Vinyl chloride	ND	0.10	ug/m3	1	1/27/2012 6:15:00 PM

**	Reporting Limit	•	Results reported are not blank corrected
В	Analyte detected in the associated Method Blank	E	Value above quantitation range
Н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		Page
	B H	<ul> <li>B Analyte detected in the associated Method Blank</li> <li>H Holding times for preparation or analysis exceeded</li> <li>JN Non-routine analyte. Quantitation estimated.</li> </ul>	BAnalyte detected in the associated Method BlankEHHolding times for preparation or analysis exceededJJNNon-routine analyte. Quantitation estimated.ND

CLIENT:	Tetra Tech				Client Sample			
Lab Order: C1201051					Tag Nun	iber:	163,17	17
Project:	oject: Maryland MartinAir Middle River 112IC03634				Collection I	Date:	1/19/2	012
Lab ID:	C1201051-003A	561Z- 01			Ma	trix:	AIR	
Analyses		Result	**Limit	Qua	l Units		DF	Date Analyzed
FIELD PARAM	ETERS		F	LD				Analyst:
Lab Vacuum In		-5			"Hg			1/24/2012
Lab Vacuum Ou	Jt	-30			"Hg			1/24/2012
1UG/M3 W/ NA	PHTHALENE BY MET	HOD TO15	тс	)-15				Analyst: RJF
1,1,1-Trichloroe	thane	ND	0.15		ppbV		1	1/27/2012 6:15:00 PM
1,1,2-Trichloroe	thane	ND	0.15		ррЬ∨		1	1/27/2012 6:15:00 PM
1,1-Dichloroetha	ane	ND	0.15		ppbV		1	1/27/2012 6:15:00 PM
1,1-Dichloroethe	ene	ND	0.15		ppbV		1	1/27/2012 6:15:00 PM
1,2,4-Trichlorob	enzene	. ND	0.15		ppbV		1	1/27/2012 6:15:00 PM
1,2,4-Trimethylt	benzene	3.0	1.5		ppbV		10	1/28/2012 8:12:00 AM
1,2-Dichloroben	zene	ND	0.15		ppbV		1	1/27/2012 6:15:00 PM
1,2-Dichloroetha	ane	ND	0,15		ppbV		1	1/27/2012 6:15:00 PM
1,3-Dichloroben	zene	ND	0.15		ppbV		1	1/27/2012 6:15:00 PM
1,4-Dichloroben		ND	0.15		ppbV		1	1/27/2012 6:15:00 PM
Benzene		1.4	0.15		ppbV		1	1/27/2012 6:15:00 PM
Carbon disulfide	•	0.57	0.15		ppbV		1	1/27/2012 6:15:00 PM
Carbon tetrachk	oride	ND	0.040		ppbV		1	1/27/2012 6:15:00 PM
Chlorobenzene		ND	0,15		ppbV		1	1/27/2012 6:15:00 PM
Chloroform		ND	0.15		ppbV		1	1/27/2012 6:15:00 PM
Chloromethane		ND	0.15		ppbV		1	1/27/2012 6:15:00 PM
cis-1,2-Dichloro	ethene	ND	0.15		ppbV		1	1/27/2012 6:15:00 PM
Ethylbenzene		0.91	0.15		ppbV		1	1/27/2012 6:15:00 PM
Freon 12		0.41	0.15		ppbV		1	1/27/2012 6:15:00 PM
m&p-Xylene		3.0	0.30		ppbV		1	1/27/2012 6:15:00 PM
Methyl Ethyl Kei	tone	6.1	3.0		ppbV		10	1/28/2012 8:12:00 AM
Methyl tert-butyl		ND	0,15		ppbV		1	1/27/2012 6:15:00 PM
Methylene chlor		0.17	0.15		ppbV		1	1/27/2012 6:15:00 PM
Naphthalene		0.57	0.15		ppbV		1	1/27/2012 6:15:00 PM
o-Xylene		1.7	0.15		ppbV		1	1/27/2012 6:15:00 PM
Tetrachloroethyl	lene	ND	0.15		ppb∨		1	1/27/2012 6:15:00 PM
Toluene		5.8	1.5		ppbV		10	1/28/2012 8:12:00 AM
trans-1,2-Dichlo	roethene	ND	0.15		ppbV		1	1/27/2012 6:15:00 PM
Trichloroethene		ND	0.040		ppbV		1	1/27/2012 6:15:00 PM
Vinyl chloride		ND	0.040		ppbV		1	1/27/2012 6:15:00 PM
Surr: Bromofi	uorobenzene	99.0	70-130		%REC		1	1/27/2012 6:15:00 PM
TIC: (1R)-2,6		2.1	0	JN	ppbV		1	1/27/2012 6:15:00 PM
Trimethylbicyclo			-					
TIC: 1-Octen	e, 6-methyl-	1.2	0	JN	ppbV		1	1/27/2012 6:15:00 PM
TIC: Benzene	e, 1,3,5-trimethyl-	1.2	0	JN	ppbV		1	1/27/2012 6:15:00 PM
TIC: Benzene	e, 1-ethyl-2-methyl-	1.6	0	JN	ppbV		1	1/27/2012 6:15:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- JN Non-routine analyte. Quantitation estimated.
- S Spike Recovery outside accepted recovery limits
- . Results reported are not blank corrected
- E Value above quantitation range
- J Analyte detected at or below quantitation limits
- ND Not Detected at the Reporting Limit

<sup>\*\*</sup> Reporting Limit

CLIENT:	Tetra Tech			C	lient Sar	mple ID:	SG12	-011912
Lab Order:	C1201051					- Number:		
Project:	Maryland MartinAi	r Middle River	12IC03634	ł	Collectio	on Date:	1/19/2	2012
Lab ID:	C1201051-003A	SG12-01				Matrix:	AIR	
Analyses		Result	**Limit	Qual	Units		DF	Date Analyzed
 1UG/M3 W/ NAPI	HTHALENE BY MET	HOD TO15	то	-15		, <u>-</u>		Analyst: RJF
TIC: Benzene, dimethyl-	2-ethyl-1,4-	1.3	0	JN	ppbV		1	1/27/2012 6:15:00 PM
•	2,3,3-tetramethyl-	6.3	0	JN	ppbV		1	1/27/2012 6:15:00 PM
TIC: Cyclohexa trans-	ine, 1,3-dimethyl-,	1.4	0	JN	ppbV		1	1/27/2012 6:15:00 PM
TIC: Cyclohexa	ine, methyl-	2.3	0	JN	ppbV		1	1/27/2012 6:15:00 PM
TIC: Cyclotrisile	oxane, hexamethyl	8.7	0	JN	ppbV		1	1/27/2012 6:15:00 PM
TIC: Hexane, 2	,4-dimethyl-	1.2	0	JN	ppbV		1	1/27/2012 6:15:00 PM
TIC: p-Trimethy (trimeth	yisilyloxyphenyl-	1.8	0	JN	ppbV		1	1/27/2012 6:15:00 PM
TIC: Pentane, 2	2,3,4-trimethyl-	<b>3</b> .1	0	JN	ppbV		1	1/27/2012 6:15:00 PM
TIC: Pentane, 2	2,3-dimethyl-	1.2	0	JN	ppbV		1	1/27/2012 6:15:00 PM
TIC: Pentane, 2	2-methyl-	1.5	0	JN	ppbV		1	1/27/2012 6:15:00 PM
TIC: Unknown (	(16.71)	6.3	0	JN	ppbV		1	1/27/2012 6:15:00 PM
TIC: Unknown (	(3.17)	4.9	0	JN	ppbV		1	1/27/2012 6:15:00 PM
TIC: Unknown (	(3.22)	4.1	0	JN	ppbV		1	1/27/2012 6:15:00 PM
TIC: Unknown a	alkane	4.6	0	JN	ppbV		1	1/27/2012 6:15:00 PM

Qualifiers:

\*\* Reporting Limit

B Analyte detected in the associated Method Blank

- H Holding times for preparation or analysis exceeded
- JN Non-routine analyte. Quantitation estimated.
- S Spike Recovery outside accepted recovery limits
- . Results reported are not blank corrected
- E Value above quantitation range
- J Analyte detected at or below quantitation limits

Date: 02-Feb-12

CLIENT:	Tetra Tech	Client Sample ID:	SG13-011012
Lab Order:	C1201051	Tag Number:	161,381
Project:	Maryland MartinAir Middle River 1121C03634	<b>Collection Date:</b>	1/20/2012
Lab ID:	C1201051-011A 5613-012012	Matrix:	AIR

Analyses	Result	**Limit	Qual Units	DF	Date Analyzed
1UG/M3 W/ NAPHTHALENE BY	METHOD TO15	то	-15		Analyst: RJP
1,1,1-Trichloroethane	ND	0.83	ug/m3	1	1/27/2012 10:45:00 PM
1,1,2-Trichloroethane	ND	0.83	ug/m3	1	1/27/2012 10:45:00 PM
1,1-Dichloroethane	ND	0.62	ug/m3	1	1/27/2012 10:45:00 PM
1,1-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 10:45:00 PM
1,2,4-Trichlorobenzene	ND	1.1	ug/m3	1	1/27/2012 10:45:00 PM
1,2,4-Trimethylbenzene	19	3.7	ug/m3	5	1/29/2012 12:45:00 AM
1,2-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 10:45:00 PM
1,2-Dichloroethane	ND	0.62	ug/m3	1	1/27/2012 10:45:00 PM
1,3-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 10:45:00 PM
1,4-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 10:45:00 PM
Benzene	11	2.4	ug/m3	5	1/29/2012 12:45:00 AM
Carbon disulfide	4.1	0.47	ug/m3	1	1/27/2012 10:45:00 PM
Carbon tetrachloride	ND	0.26	ug/m3	1	1/27/2012 10:45:00 PM
Chlorobenzene	ND	0.70	ug/m3	1	1/27/2012 10:45:00 PM
Chloroform	ND	0.74	ug/m3	1	1/27/2012 10:45:00 PM
Chloromethane	ND	0.31	ug/m3	1	1/27/2012 10:45:00 PM
cis-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 10:45:00 PM
Ethylbenzene	4.9	0.66	ug/m3	1	1/27/2012 10:45:00 PM
Freon 12	2.0	0.75	ug/m3	1	1/27/2012 10:45:00 PM
m&p-Xylene	16	1.3	ug/m3	1	1/27/2012 10:45:00 PM
Methyl Ethyl Ketone	220	36	ug/m3	40	1/29/2012 1:18:00 AM
Methyl tert-butyl ether	ND	0,55	ug/m3	1	1/27/2012 10:45:00 PM
Methylene chioride	ND	0.53	ug/m3	1	1/27/2012 10:45:00 PM
Naphthalene	4.7	0.80	ug/m3	1	1/27/2012 10:45:00 PM
o-Xylene	9.4	0.66	ug/m3	1	1/27/2012 10:45:00 PM
Tetrachloroethylene	ND	1.0	ug/m3	1	1/27/2012 10:45:00 PM
Toluene	33	2.9	ug/m3	5	1/29/2012 12:45:00 AM
trans-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 10:45:00 PM
Trichloroethene	ND	0.22	ug/m3	1	1/27/2012 10:45:00 PM
Vinyl chloride	ND	0.10	ug/m3	1	1/27/2012 10:45:00 PM

Qualifiers:	**	Reporting Limit		Results reported are not blank corrected		
	В	Analyte detected in the associated Method Blank	Е	Value above quantitation range		
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits		
	JN	Non-routine analyte, Quantitation estimated,	ND	Not Detected at the Reporting Limit	D 11 000	
	S	Spike Recovery outside accepted recovery limits			Page 11 of 23	

CLIENT:	Tetra Tech			C	lient Sample ID:	SG13	-011012
Lab Order:	C1201051				<b>Tag Number:</b>	161,3	81
Project:	Maryland MartinA	ir Middle River	1121C03634		Collection Date:	1/20/2	2012
Lab ID:	C1201051-011A	5G13-012			Matrix:	AIR	
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed
	ETERS		Fl	<u></u>			Analyst:
Lab Vacuum in		-4			"Hg		1/24/2012
Lab Vacuum Ou		-30			"Hg		1/24/2012
UG/M3 W/ NA	PHTHALENE BY MET	THOD TO15	то	-15			Analyst: RJP
1,1,1-Trichloroe	thane	ND	0.15		ррbV	1	1/27/2012 10:45:00 PM
1,1,2-Trichloroe	thane	ND	0.15		ppbV	1	1/27/2012 10:45:00 PM
1,1-Dichloroetha		ND	0.15		ppbV	1	1/27/2012 10:45:00 PM
1,1-Dichloroethe		ND	0.15		ppbV	1	1/27/2012 10:45:00 PM
1,2,4-Trichlorob	enzene	ND	0.15		ppbV	1	1/27/2012 10:45:00 PM
1,2,4-Trimethylt		3.9	0.75		ppbV	5	1/29/2012 12:45:00 AM
1,2-Dichloroben		ND	0.15		ppbV	1	1/27/2012 10:45:00 PM
1,2-Dichloroetha		ND	0,15		ppbV	1	1/27/2012 10:45:00 PM
1,3-Dichloroben		ND	0.15		ppbV	1	1/27/2012 10:45:00 PM
1,4-Dichloroben		ND	0.15		ppbV	1	1/27/2012 10:45:00 PM
Benzene		3.4	0.75		ppbV	5	1/29/2012 12:45:00 AM
Carbon disulfide	•	1.3	0.15		ppbV	1	1/27/2012 10:45:00 PM
Carbon tetrachi	oride	ND	0.040		ppbV	1	1/27/2012 10:45:00 PM
Chlorobenzene		ND	0.15		ppbV	1	1/27/2012 10:45:00 PM
Chloroform		ND	0.15		ppbV	1	1/27/2012 10:45:00 PM
Chioromethane		ND	0.15		ppbV	1	1/27/2012 10:45:00 PM
is-1,2-Dichloro	ethene	ND	0,15		ppbV	1	1/27/2012 10:45:00 PM
Ethylbenzene		1.1	0.15		ppbV	1	1/27/2012 10:45:00 PM
Freon 12		0.39	0.15		ppbV	1	1/27/2012 10:45:00 PM
m&p-Xylene		3.6	0.30		ppbV	1	1/27/2012 10:45:00 PM
Methyl Ethyl Kei	tone	74	12		ppbV	40	1/29/2012 1:18:00 AM
Methyl tert-butyl		ND	0.15		ppbV	1	1/27/2012 10:45:00 PM
Methylene chlor		ND	0.15		ppbV	1	1/27/2012 10:45:00 PM
Naphthalene		0.89	0.15		ppbV	1	1/27/2012 10:45:00 PM
o-Xylene		2.1	0.15		ppbV	1	1/27/2012 10:45:00 PM
Tetrachloroethy	lene	ND	0.15		ppbV	1	1/27/2012 10:45:00 PM
Toluene		8.6	0.75		ppbV	5	1/29/2012 12:45:00 AM
rans-1,2-Dichlo	roethene	ND	0.15		ppbV	1	1/27/2012 10:45:00 PM
Frichioroethene		ND	0.040		ppbV	1	1/27/2012 10:45:00 PM
/inyl chloride		ND	0.040		ppbV	1	1/27/2012 10:45:00 PM
Surr: Bromofi	uorobenzene	94.0	70-130		%REC	1	1/27/2012 10:45:00 PM
TIC: 1-Penter	ne	1.9	0	JN	ppbV	1	1/27/2012 10:45:00 PM
TIC: 1-Proper	ne, 2-methyl- (3.17)	14	0	JN	ppbV	1	1/27/2012 10:45:00 PM
	-1-3-5-trimethyl-		00000	_JN_	-ppbV	-1	1/27/2012-10:45:00-PM
	e, 1-ethyl-2-methyl-	2.0	0	JN	ppbV	1	1/27/2012 10:45:00 PM
	e, 1-methyl-2-(1-	1.5	0	JN	ppbV	1	1/27/2012 10:45:00 PM

B Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits Ε Value above quantitation range

J Analyte detected at or below quantitation limits

CLIENT:	Tetra Tech			C	lient Sample	ID: SG1	3-011012		
Lab Order:	C1201051				Tag Numb	er: 161,	161,381		
Project: Maryland MartinAir Middle River			112IC03634	1	<b>Collection Da</b>	ate: 1/20	1/20/2012		
Lab ID:	C1201051-011A	5613-01	2012		Mat	rix: AIR			
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed		
1UG/M3 W/ NAPHTHALENE BY METHOD TO15		TO-15				Analyst: RJP			
TIC: Butane		4.7	0	JN	ppbV	1	1/27/2012 10:45:00 PN		
TIC: Cyclohe	xane, methyl-	1.7	0	JN	ppbV	1	1/27/2012 10:45:00 PN		
TIC: Cyclotri:	siloxane, hexamethyl	7.9	0	JN	ppbV	1	1/27/2012 10:45:00 PN		
TIC: Hexane,	, 2,2-dimethyl-	5.6	0	JN	ppbV	1	1/27/2012 10:45:00 PN		
TIC: Isobutar	Ie	1.9	0	JN	рръV	1	1/27/2012 10:45:00 PN		
TIC: Pentane	, 2,3,4-trimethyl-	2.1	0	JN	ppbV	1	1/27/2012 10:45:00 PM		
TIC: Unknow	n (10.41)	2.0	0	JN	ppbV	1	1/27/2012 10:45:00 PN		
TIC: Unknow	π (16.43)	2.8	0	JN	ppbV	1	1/27/2012 10:45:00 PN		
TIC: Unknow	n (16.71)	12	0	JN	ppbV	1	1/27/2012 10:45:00 PM		
TIC: Unknow	n (18.64)	5.3	0	JN	ppbV	1	1/27/2012 10:45:00 PM		
TIC: Unknow	n alkana	3.0	O	JN	ppbV	4	1/27/2012 10:45:00 PM		

Qualifiers:	**	Reporting Limit	•	Results reported are not blank corrected				
	в	Analyte detected in the associated Method Blank	E	Value above quantitation range				
H Hol		Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits				
JN.	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit	Page 22 of 44			
	S	Spike Recovery outside accepted recovery limits						

Date: 02-Feb-12

CLIENT:	Tetra Tech			Client Sampl	e ID: SG14	-011012		
Lab Order:	C1201051			Tag Nun	aber: 547,5	57		
Project:	Maryland MartinA	ir Middle River	112IC03634	Collection	Date: 1/20/	1/20/2012		
Lab ID:	C1201051-019A	5614-01Z			atrix: AIR			
Anaiyses		Result	**Limit	Qual Units	DF	Date Analyzed		
1UG/M3 W/ NAP	HTHALENE BY MET	HOD TO15	тс	-15		Analyst: RJF		
1,1,1-Trichloraeth	апе	ND	0.83	ug/m3	1	1/28/2012 3:14:00 AM		
1,1,2-Trichloroeth	ane	ND	0.83	ug/m3	1	1/28/2012 3:14:00 AM		
1,1-Dichloroethar	le	ND	0.62	ug/m3	1	1/28/2012 3:14:00 AM		
1,1-Dichloroether	18	ND	0.60	ug/m3	1	1/28/2012 3:14:00 AM		
1,2,4-Trichlarobe	nzene	ND	1.1	ug/m3	1	1/28/2012 3:14:00 AM		
1,2,4-Trimethylbe	nzene	25	7.5	ug/m3	10	1/29/2012 6:45:00 AM		
1,2-Dichlorobenzo	ene	ND	0.92	ug/m3	1	1/28/2012 3:14:00 AM		
1,2-Dichloroethan	e	ND	0.62	ug/m3	1	1/28/2012 3:14:00 AM		
1,3-Dichlorobenze	еле	ND	0.92	ug/m3	1	1/28/2012 3:14:00 AM		
1,4-Dichlorobenze	ene	ND	0.92	ug/m3	1	1/28/2012 3:14:00 AM		
Benzene		10	4.9	ug/m3	10	1/29/2012 6:45:00 AM		
Carbon disulfide		2.1	0.47	ug/m3	1	1/28/2012 3:14:00 AM		
Carbon tetrachlor	ide	ND	0.26	ug/m3	1	1/28/2012 3:14:00 AM		
Chiorobenzene		ND	0.70	ug/m3	1	1/28/2012 3:14:00 AM		
Chloroform		ND	0.74	ug/m3	1	1/28/2012 3:14:00 AM		
Chloromethane		ND	0.31	ug/m3	1	1/28/2012 3:14:00 AM		
cis-1,2-Dichloroet	hene	ND	0.60	ug/m3	1	1/28/2012 3:14:00 AM		
Ethylbenzene		5.3	0.66	ug/m3	1	1/28/2012 3:14:00 AM		
Freon 12		2.1	0.75	ug/m3	1	1/28/2012 3:14:00 AM		
m&p-Xylene		18	13	ug/m3	10	1/29/2012 6:45:00 AM		
Methyl Ethyl Keto	ne	55	9.0	ug/m3	10	1/29/2012 6:45:00 AM		
Methyl tert-butyl e	ether	ND	0.55	ug/m3	1	1/28/2012 3:14:00 AM		
Methylene chlorid	e	2.6	0.53	ug/m3	1	1/28/2012 3:14:00 AM		
Naphthalene		11	0.80	ug/m3	1	1/28/2012 3:14:00 AM		
o-Xylene		11	6.6	ug/m3	10	1/29/2012 6:45:00 AM		
Tetrachloroethyle	пе	ND	1.0	ug/m3	1	1/28/2012 3:14:00 AM		
Toluene		22	5.7	ug/m3	10	1/29/2012 6:45:00 AM		
trans-1,2-Dichloro	ethene	ND	0.60	ug/m3	1	1/28/2012 3:14:00 AM		
Trichloroethene		0.66	0.22	ug/m3	1	1/28/2012 3:14:00 AM		
Vinyl chloride		ND	0.10	ug/m3	1	1/28/2012 3:14:00 AM		

Qualifiers:	**	Reporting Limit		Results reported are not blank corrected
	в	Analyte detected in the associated Method Blank	E	Value above quantitation range
	н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit

S Spike Recovery outside accepted recovery limits

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Date: 03-Feb-12

CLIENT:	Tetra Tech		•	Client Sample ID:		
Lab Order:	C1201051			Tag Number:	547,5	7
Project:	Maryland MartinA	ir Middle River	112IC03634	<b>Collection Date:</b>	1/20/2	2012
Lab ID:	C1201051-019A	5614-01Z		Matrix:	AIR	
Analyses		Result	**Limit Qua	l Units	DF	Date Analyzed
FIELD PARAMETERS			FLD			Analyst:
Lab Vacuum In		-1		"Hg		1/24/2012
Lab Vacuum O	⊔t	-30		"Hg		1/24/2012
1UG/M3 W/ NA	PHTHALENE BY MET	THOD TO15	TO-15			Analyst: RJF
1,1,1-Trichioroe	thane	ND	0.15	ppbV	1	1/28/2012 3:14:00 AM
1,1,2-Trichloroe	thane	ND	0.15	ppbV	1	1/28/2012 3:14:00 AM
1,1-Dichloroeth	апе	ND	0.15	ppbV	1	1/28/2012 3:14:00 AM
1,1-Dichloroeth	ene	ND	0.15	ppbV	1	1/28/2012 3:14:00 AM
1,2,4-Trichlorob	enzene	ND	0.15	ppbV	1	1/28/2012 3:14:00 AM
1,2,4-Trimethyll	penzene	5.1	1.5	ppbV	10	1/29/2012 6:45:00 AM
1,2-Dichloroben	izene	ND	0.15	ppbV	1	1/28/2012 3:14:00 AM
1,2-Dichloroetha	ane	ND	0.15	ppbV	1	1/28/2012 3:14:00 AM
1,3-Dichloroben	zene	ND	0.15	ppbV	1	1/28/2012 3:14:00 AM
1,4-Dichloroben	izene	ND	0.15	ppbV	1	1/28/2012 3:14:00 AM
Benzene		3,2	1.5	ppbV	10	1/29/2012 6:45:00 AM
Carbon disulfide	9	0.65	0.15	ppbV	1	1/28/2012 3:14:00 AM
Carbon tetrachi	oride	ND	0.040	ppbV	1	1/28/2012 3:14:00 AM
Chlorobenzene		ND	0.15	ppbV	1	1/28/2012 3:14:00 AM
Chloroform		ND	0.15	ppbV	1	1/28/2012 3:14:00 AM
Chloromethane		ND	0.15	ppbV	1	1/28/2012 3:14:00 AM
cis-1,2-Dichloro	ethene	ND	0.15	ppbV	1	1/28/2012 3:14:00 AM
Ethylbenzene		1.2	0.15	ppbV	1	1/28/2012 3:14:00 AM
Freon 12		0.42	0.15	ppbV	1	1/28/2012 3:14:00 AM
m&p-Xylene		4.1	3.0	ppbV	10	1/29/2012 6:45:00 AM
Methyl Ethyl Ke		18	3.0	ppbV	10	1/29/2012 6:45:00 AM
Methyl tert-buty		ND	0.15	ppbV	1	1/28/2012 3:14:00 AM
Methylene chlor	ide	0.73	0.15	ppbV	1	1/28/2012 3:14:00 AM
Naphthalene		2.0	0.15	ppbV	1	1/28/2012 3:14:00 AM
o-Xylene		2.5	1.5	ppbV	10	1/29/2012 6:45:00 AM
Tetrachloroethy	lene	ND	0.15	ppbV	1	1/28/2012 3:14:00 AM
Toluene		5.8	1.5	ppbV	10	1/29/2012 6:45:00 AM
trans-1,2-Dichlo		ND	0.15	ppbV	1	1/28/2012 3:14:00 AM
Trichloroethene		0.12	0.040	ppbV	1	1/28/2012 3:14:00 AM
Vinyl chloride		ND	0.040	ppbV	1	1/28/2012 3:14:00 AM
	luorobenzene	93.0	70-130	%REC	1	1/28/2012 3:14:00 AM
TIC: 1-Prope		13	O JN	ppbV	1	1/28/2012 3:14:00 AM
	e, 1,3,5-trimethyl-	2.1	O JN	ppbV	1	1/28/2012 3:14:00 AM
	e, 1-ethyl-2-methyl-	2.7	0JN			1/28/2012 3:14:00 AM
TIC: Benzene methylethyl	e, 1-methyl-2-(1-	3.1	O JN	ppbV	1	1/28/2012 3:14:00 AM

Qualifiers:

\*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

ND Not Detected at the Reporting Limit Page 36 of 44

Date: 03-Feb-12

CLIENT:	Tetra Tech			C	lient Sample ID:	SG14	-011012		
Lab Order:	C1201051				Tag Number:	547,5	7		
Project:	Maryland MartinA	ir Middle River 1	12IC03634	1/20/2	1/20/2012				
Lab ID:	C1201051-019A	5614-012012			Matrix:		AIR		
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed		
1UG/M3 W/ NAPHTHALENE BY METHOD TO15		HOD TO15	TO-15				Analyst: RJP		
TIC: Benzen methylethyl	e, 1-methyl-4-(1-	3.8	0	JN	ppbV	1	1/28/2012 3:14:00 AM		
TIC: Butane		6.4	0	JN	ppbV	1	1/28/2012 3:14:00 AM		
TIC: Butane,	2-methyl-	2.0	0	JN	ppbV	1	1/28/2012 3:14:00 AM		
TIC: Cyclohe	xane, methyl-	2.2	0	JN	ppbV	1	1/28/2012 3:14:00 AM		
TIC: Cyclotris	siloxane, hexamethyl	11	0	JN	ppbV	1	1/28/2012 3:14:00 AM		
TIC: Indan, 1	-methyl-	2.4	0	JN	ppbV	1	1/28/2012 3:14:00 AM		
TIC: Isobutar	ne	2.3	0	JN	ppbV	1	1/28/2012 3:14:00 AM		
TIC: Pentane	•	2.7	۵	JN	ppbV	1	1/28/2012 3:14:00 AM		
TIC: Pentane	e, 2,2,4-trimethyl-	5.5	0	JN	ppbV	1	1/28/2012 3:14:00 AM		
TIC: Pentane	e, 2,3,4-trimethyl-	2.3	0	JN	ppbV	1	1/28/2012 3:14:00 AM		
TIC: Unknow	n (10.41)	2.6	0	JN	ppbV	1	1/28/2012 3:14:00 AM		
TIC: Unknow	n (16.71)	8.7	0	JN	ppbV	1	1/28/2012 3:14:00 AM		
TIC: Unknow	m (18.68)	2.0	0	JN	ppbV	1	1/28/2012 3:14:00 AM		
TIC: Unknow	m (2.93)	5.0	0	JN	ррьV	1	1/28/2012 3:14:00 AM		
TIC: Unknow	n alkane	3.2	0	JN	ppbV	1	1/28/2012 3:14:00 AM		

Qualifiers:

\*\* Reporting Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- JN Non-routine analyte. Quantitation estimated.
- S Spike Recovery outside accepted recovery limits
- . Results reported are not blank corrected
- E Value above quantitation range
- J Analyte detected at or below quantitation limits
- ND Not Detected at the Reporting Limit

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Date: 02-Feb-12

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CLIENT:	Tetra Tech			C	lient Sample ID	: SG15	-011012
Lab Order:	C1201051				Tag Number:	; 353,4	02
Project:	Maryland MartinAi	r Middle River	112IC03634	1	<b>Collection Date</b>	: 1/20/2	2012
Lab ID:	C1201051-021A	5615-012	012		Matrix	AIR	
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 W/ NAF	PHTHALENE BY MET	HOD TO15	тс	)-15			Analyst: RJF
1,1,1-Trichloroet	thane	ND	0.83		ug/m3	1	1/28/2012 4:21:00 AM
1,1,2-Trichloroet	thane	ND	0.83		ug/m3	1	1/28/2012 4:21:00 AM
1,1-Dichloroetha	ine	ND	0,62		ug/m3	1	1/28/2012 4:21:00 AM
1,1-Dichloroethe	ene	ND	0.60		ug/m3	1	1/28/2012 4:21:00 AM
1,2,4-Trichlorobe	enzene	ND	1.1		ug/m3	1	1/28/2012 4:21:00 AM
1,2,4-Trimethylb	enzene	30	15		ug/m3	20	1/29/2012 7:50:00 AM
1,2-Dichlorobena	zene	ND	0.92		ug/m3	1	1/28/2012 4:21:00 AM
1,2-Dichloroetha	ine	ND	0.62		ug/m3	1	1/28/2012 4:21:00 AM
1,3-Dichlorobenz	zene	ND	0.92		ug/m3	1	1/28/2012 4:21:00 AM
1,4-Dichlorobenz	zene	ND	0.92		ug/m3	1 🖉	1/28/2012 4:21:00 AM
Benzene		14	9.7		ug/m3	20	1/29/2012 7:50:00 AM
Carbon disulfide		5.3	0.47		ug/m3	1	1/28/2012 4:21:00 AM
Carbon tetrachlo	ride	ND	0.26		ug/m3	1	1/28/2012 4:21:00 AM
Chlorobenzene		ND	0.70		ug/m3	1	1/28/2012 4:21:00 AM
Chloroform		ND	0.74		ug/m3	1	1/28/2012 4:21:00 AM
Chloromethane		ND	0.31		ug/m3	1	1/28/2012 4:21:00 AM
cis-1,2-Dichloroe	ethene	ND	0.60		ug/m3	1	1/28/2012 4:21:00 AM
Ethylbenzene		4.9	0.66		ug/m3	1	1/28/2012 4:21:00 AM
Freon 12		2.0	0.75		ug/m3	1	1/28/2012 4:21:00 AM
m&p-Xylene		17	1.3		ug/m3	1	1/28/2012 4:21:00 AM
Methyl Ethyl Ket	one	110	18		ug/m3	20	1/29/2012 7:50:00 AM
Methyl tert-butyl		ND	0.55		ug/m3	1	1/28/2012 4:21:00 AM
Methylene chlori		0.42	0.53	J	ug/m3	1	1/28/2012 4:21:00 AM
Naphthalene		7.2	0.80		ug/m3	1	1/28/2012 4:21:00 AM
o-Xylene		14	13		ug/m3	20	1/29/2012 7:50:00 AM
Tetrachloroethyl	ene	ND	1.0		ug/m3	1	1/28/2012 4:21:00 AM
Toluene		28	11		ug/m3	20	1/29/2012 7:50:00 AM
trans-1,2-Dichlor	roethene	ND	0.60		ug/m3	1	1/28/2012 4:21:00 AM
Trichloroethene		ND	0.22		ug/m3	1	1/28/2012 4:21:00 AM
Vinyl chloride		ND	0.10		ug/m3	1	1/28/2012 4:21:00 AM

Qualifiers:	**	Reporting Limit	•	Results reported are not blank corrected	
	в	Analyte detected in the associated Method Blank	E	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation	n limits
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit	D 01 600
	S	Spike Recovery outside accepted recovery limits			Page 21 of 23

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Date: 03-Feb-12

CLIENT:	Tetra Tech			1	Client Sample I	D: 5	SG15-	011012
Lab Order:	C1201051				Tag Numbe	er: 3	353,40	2
Project:	Maryland MartinA	ir Middle River I	12IC03634	ļ	<b>Collection Da</b>	te: 1	1/20/20	012
Lab ID:	C1201051-021A	5G15-01			Matr	ix: /	AIR	
Analyses		Result	**Limit	Qua	l Units	]	DF	Date Analyzed
	ETERS		FI	_D		·		Analyst:
Lab Vacuum in		-1			"Hg			1/24/2012
Lab Vacuum Ou	ıt	-30			"Hg			1/24/2012
UG/M3 W/ NAI	PHTHALENE BY MET	HOD TO15	то	-15				Analyst: RJF
1,1,1-Trichloroet	thane	ND	0.15		ppbV	1	l	1/28/2012 4:21:00 AM
1,1,2-Trichloroet	thane	ND	0.15		ppbV	1	l	1/28/2012 4:21:00 AM
1,1-Dichloroetha	ine	ND	0,15		ррьV	1	l	1/28/2012 4:21:00 AM
1,1-Dichloroethe	ene	ND	0,15		ppbV	1	l	1/28/2012 4:21:00 AM
1,2,4-Trichlorob	enzene	ND	0.15		ppbV	1	l	1/28/2012 4:21:00 AM
1,2,4-Trimethylb	епzеле	6.0	3.0		ppbV	2	20	1/29/2012 7:50:00 AM
1,2-Dichloroben	zene	ND	0.15		ppbV	1	l	1/28/2012 4:21:00 AM
1,2-Dichloroetha	ine	ND	0.15		ppbV	1	I	1/28/2012 4:21:00 AM
1,3-Dichloroben:	zene	ND	0.15		ppbV	1	I	1/28/2012 4:21:00 AM
1,4-Dichloroben:	zene	ND	0.15		ppbV	1		1/28/2012 4:21:00 AM
Benzene		4.2	3.0		ppbV	2	20	1/29/2012 7:50:00 AM
Carbon disulfide	1	1.7	0.15		ppbV	1		1/28/2012 4:21:00 AM
Carbon tetrachic	pride	ND	0.040		ppbV	1		1/28/2012 4:21:00 AM
Chlorobenzene		ND	0.15		ppbV	1	l	1/28/2012 4:21:00 AM
Chloroform		ND	0.15		ppbV	1	[	1/28/2012 4:21:00 AM
Chloromethane		ND	0.15		ppbV	1	ļ	1/28/2012 4:21:00 AM
cis-1,2-Dichloroe	ethene	ND	0.15		ppbV	1	1	1/28/2012 4:21:00 AM
Ethylbenzene		1.1	0.15		ppbV	1		1/28/2012 4:21:00 AM
Freon 12		0.40	0,15		ppbV	1		1/28/2012 4:21:00 AM
m&p-Xylene		3.8	0.30		ppbV	1		1/28/2012 4:21:00 AM
Methyl Ethyl Ket	one	37	6.0		ppbV	2	20	1/29/2012 7:50:00 AM
Methyl tert-butyl		ND	0.15		ppbV	1		1/28/2012 4:21:00 AM
Methylene chlori		0.12	0.15	J	ppbV	1		1/28/2012 4:21:00 AM
Naphthalene		1.4	0.15		ppbV	1		1/28/2012 4:21:00 AM
o-Xylene		3.2	3.0		ppbV		20	1/29/2012 7:50:00 AM
Tetrachloroethyl	ene	ND	0.15		ppbV	1		1/28/2012 4:21:00 AM
Toluene		7.4	3.0		ppbV		20	1/29/2012 7:50:00 AM
trans-1,2-Dichio	roethene	ND	0.15		ppbV	1		1/28/2012 4:21:00 AM
Trichloroethene		ND	0.040		ppbV	1		1/28/2012 4:21:00 AM
Vinyl chloride		ND	0.040		ppbV	1		1/28/2012 4:21:00 AM
Surr: Bromoflu	uorobenzene	103	70-130		%REC	1		1/28/2012 4:21:00 AM
TIC: 1-Proper		12	0	JN	ppbV	1		1/28/2012 4:21:00 AM
•	, 1,2,3-trimethyl-	1.9	0	JN	ppbV	1		1/28/2012 4:21:00 AM
	-1,2,4-trimethyl-	<u>1.</u> 8	0.	JN	ppbV			
	, 1-ethyl-2-methyl-	4.6	0	JN	ppbV	1		1/28/2012 4:21:00 AM

<sup>(16.81)</sup> 

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

Results reported are not blank corrected

E Value above quantitation range

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J Analyte detected at or below quantitation limits

ND Not Detected at the Reporting Limit Page 40 of 44

<sup>\*\*</sup> Reporting Limit

CLIENT: Lab Order: Project:	Tetra Tech C1201051 Maryland MartinAir			Client Sample ID: Tag Number: Collection Date: Matrix:	353,402 1/20/2012		
Lab ID: Analyses	C1201051-021A	S615-012012 Result **Limit		Qual Units		DF Date Analyzed	
	HTHALENE BY MET		то	-15			Analyst: RJP
TIC: Benzene, (17.11)	1-ethyl-2-methyl-	1.9	0	JN	ppbV	1	1/28/2012 4:21:00 AM
TIC: Butane		3,8	0	JN	ppbV	1	1/28/2012 4:21:00 AM
TIC: Butane, 2	,2,3,3-tetramethyl-	6.4	٥	JN	ppbV	1	1/28/2012 4:21:00 AM
TIC: Cyclohexa	ane, methyl-	3.0	0	JN	ppbV	1	1/28/2012 4:21:00 AM
TIC: Cyclotrisil	oxane, hexamethyl	4.2	0	JN	ppbV	1	1/28/2012 4:21:00 AM
TIC: Hexane, 3	B-methyl-	2.0	0	JN	ppbV	1	1/28/2012 4:21:00 AM
TIC: Methally	cyanide	2.4	0	JN	ppbV	1	1/28/2012 4:21:00 AM
TIC: Pentane		1.9	0	JN	ppbV	1	1/28/2012 4:21:00 AM
TIC: Pentane,	2,3,3-trimethyl-	3.0	0	JN	ppbV	1	1/28/2012 4:21:00 AM
TIC: Pentane,	2,3,4-trimethyl-	2.5	0	JN	ppbV	1	1/28/2012 4:21:00 AM
TIC: Unknown	(16.43)	2.0	0	JN	ppbV	1	1/28/2012 4:21:00 AM
TIC: Unknown	(16.71)	4.6	0	JN	рръV	1	1/28/2012 4:21:00 AM
TIC: Unknown	(2.93)	5.4	0	JN	ppbV	1	1/28/2012 4:21:00 AM
TIC: Unknown	alkane	2.6	0	JN	ppbV	1	1/28/2012 4:21:00 AM

Qualifiers:

\*\* Reporting Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- JN Non-routine analyte. Quantitation estimated.
- S Spike Recovery outside accepted recovery limits
- Results reported are not blank corrected
- E Value above quantitation range

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- J Analyte detected at or below quantitation limits
- ND Not Detected at the Reporting Limit

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1

1

20

1

20

1

1

1

1/28/2012 3:48:00 AM

1/28/2012 3:48:00 AM

1/28/2012 3:48:00 AM

1/29/2012 7:17:00 AM

1/28/2012 3:48:00 AM

1/29/2012 7:17:00 AM

1/28/2012 3:48:00 AM

1/28/2012 3:48:00 AM

1/28/2012 3:48:00 AM

Center La	idoratories, LL							
CLIENT:	Tetra Tech		<u>.</u>	Client Sample ID:	SG17	-011012		
Lab Order:	C1201051			Tag Number:	561,118			
Project: Maryland MartinAir		r Middle River	112IC03634	<b>Collection Date:</b>	1/20/2	2012		
Lab ID:	C1201051-020A	5617-0	2012	Matrix:	AIR	AIR		
Analyses		Result	**Limit Qu	al Units	DF	Date Analyzed		
1UG/M3 W/ NA	PHTHALENE BY MET	HOD TO15	TO-15			Analyst: RJP		
1,1,1-Trichloroe	ethane	ND	0.83	ug/m3	1	1/28/2012 3:48:00 AM		
1,1,2-Trichloroe	ethane	ND	0.83	ug/m3	1	1/28/2012 3:48:00 AM		
1,1-Dichloroeth	ane	ND	0.62	ug/m3	1	1/28/2012 3:48:00 AM		
1,1-Dichloroeth	епе	ND	0.60	ug/m3	1	1/28/2012 3:48:00 AM		
1,2,4-Trichiorob	benzene	ND	1.1	ug/m3	1	1/28/2012 3:48:00 AM		
1,2,4-Trimethylbenzene		25	15	ug/m3	20	1/29/2012 7:17:00 AM		
1,2-Dichlorober	izene	ND	0.92	ug/m3	1	1/28/2012 3:48:00 AM		
1,2-Dichloroeth	ane	ND	0.62	ug/m3	1	1/28/2012 3:48:00 AM		
1,3-Dichlorober	zene	ND	0.92	ug/m3	1	1/28/2012 3:48:00 AM		
1,4-Dichlorober	izene	ND	0.92	ug/m3	1	1/28/2012 3:48:00 AM		
Benzene		22	9.7	ug/m3	20	1/29/2012 7:17:00 AM		
Carbon disulfide	B	ND	0.47	ug/m3	1	1/28/2012 3:48:00 AM		
Carbon tetrachi	oride	ND	0.26	ug/m3	1	1/28/2012 3:48:00 AM		
Chlorobenzene		ND	0.70	ug/m3	1	1/28/2012 3:48:00 AM		
Chloroform		ND	0.74	ug/m3	1	1/28/2012 3:48:00 AM		
Chloromethane		ND	0.31	ug/m3	1	1/28/2012 3:48:00 AM		
cis-1,2-Dichloro	ethene	ND	0.60	ug/m3	1	1/28/2012 3:48:00 AM		
Ethylbenzene		4.9	0.66	ug/m3	1	1/28/2012 3:48:00 AM		
Freon 12		1.8	0.75	ug/m3	1	1/28/2012 3:48:00 AM		
m&p-Xylene		17	1.3	ug/m3	1	1/28/2012 3:48:00 AM		
Methyl Ethyl Ke	tone	130	18	ug/m3	20	1/29/2012 7:17:00 AM		
				-				

0.55

0.53

0.80

13

1.0

11

0.60

0.22

0.10

ug/m3

ug/m3

ug/m3

ug/m3

ug/m3

ug/m3

ug/m3

ug/m3

ug/m3

ND

0.71

3.9

16

ND

34

ND

ND

ND

Qualifiers:	**	Reporting Limit	•	Results reported are not blank corrected	l
	В	Analyte detected in the associated Method Blank	Е	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation	on limits
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit	D 00 000
	S	Spike Recovery outside accepted recovery limits			Page 20 of 23

Methyl tert-butyl ether

Methylene chloride

Tetrachloroethylene

Trichloroethene

Vinyl chloride

trans-1,2-Dichloroethene

Naphthalene

o-Xylene

Toluene

Centek I	Laboratories	, LLC
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Date: 03-Feb-12

CLIENT:	Tetra Tech			Client S	Sample ID:	SG17-	-011012
Lab Order:	C1201051			Та	g Number:	561,1	18
Project:	Maryland MartinA	ir Middle River	112IC03634	Colle	ction Date:	1/20/2	2012
Lab ID:	C1201051-020A	5617-0120			Matrix:	AIR	
Analyses		Result	**Limit Q	ual Units	<u> </u>	DF	Date Analyzed
	ETERS		FLD	)			Analyst:
Lab Vacuum In		-4		"Hg			1/24/2012
Lab Vacuum Ou	ıt	-30		"Hg			1/24/2012
UG/M3 W/ NAI	PHTHALENE BY ME	THOD TO15	TO-1	5			Analyst: RJP
1,1,1-Trichloroe		ND	0.15	ppbV		1	1/28/2012 3:48:00 AM
1,1,2-Trichloroe	thane	ND	0.15	ppbV		1	1/28/2012 3:48:00 AM
1,1-Dichloroetha		ND	0.15	ppbV		1	1/28/2012 3:48:00 AM
1,1-Dichloroethe		ND	0.15	ppbV		1	1/28/2012 3:48:00 AM
1,2,4-Trichlorob		ND	0.15	ppbV		1	1/28/2012 3:48:00 AM
1,2,4-Trimethylb	enzene	5.0	3.0	ppbV		20	1/29/2012 7:17:00 AM
1,2-Dichloroben		ND	0.15	ppbV		1	1/28/2012 3:48:00 AM
1,2-Dichloroetha	ine	ND	0.15	ppbV		1	1/28/2012 3:48:00 AM
1,3-Dichloroben	zene	ND	0.15	ppbV		1	1/28/2012 3:48:00 AM
1,4-Dichloroben		ND	0.15	ppbV		1	1/28/2012 3:48:00 AM
Benzene		6.8	3.0	ppbV		20	1/29/2012 7:17:00 AM
Carbon disulfide	I	ND	0.15	ppbV		1	1/28/2012 3:48:00 AM
Carbon tetrachio	oride	ND	0.040	ppbV		1	1/28/2012 3:48:00 AM
Chlorobenzene		ND	0.15	ppbV		1	1/28/2012 3:48:00 AM
Chloroform		ND	0.15	ppbV		1	1/28/2012 3:48:00 AM
Chloromethane		ND	0.15	ppbV		1	1/28/2012 3:48:00 AM
cis-1,2-Dichloroe	ethene	ND	0.15	ppbV		1	1/28/2012 3:48:00 AM
Ethylbenzene		1.1	0.15	ppbV		1	1/28/2012 3:48:00 AM
Freon 12		0.35	0.15	ppbV		1	1/28/2012 3:48:00 AM
m&p-Xylene		3.8	0,30	ppbV		1	1/28/2012 3:48:00 AM
Methyl Ethyl Ket	tone	44	6.0	 ppb∨		20	1/29/2012 7:17:00 AM
Methyl tert-butyl		ND	0.15	ppbV		1	1/28/2012 3:48:00 AM
Methylene chlori		0.20	0.15	ppbV		1	1/28/2012 3:48:00 AM
Naphthalene		0.74	0.15	ppbV		1	1/28/2012 3:48:00 AM
o-Xylene		3.6	3.0	ppbV		20	1/29/2012 7:17:00 AM
Tetrachloroethyl	ene	ND	0.15	ppbV		1	1/28/2012 3:48:00 AM
Toluene		9.0	3.0	ppbV		20	1/29/2012 7:17:00 AM
trans-1,2-Dichlo	roethene	ND	0.15	ppbV		1	1/28/2012 3:48:00 AM
Trichloroethene		ND	0.040	ppbV		1	1/28/2012 3:48:00 AM
Vinyl chloride		ND	0.040	ppbV		1	1/28/2012 3:48:00 AM
Surr: Bromofi	uorobenzene	95.0	70-130	%REC	;	1	1/28/2012 3:48:00 AM
TIC: 1,3-Cycle		6.1		JN ppbV		1	1/28/2012 3:48:00 AM
TIC: 1-Hepter	•	2.4		JN ppbV		1	1/28/2012 3:48:00 AM
TIC: 1-Penter				JN ppbV		1	1/28/2012 3:48:00 AM
TIC: 1-Penter		2.5	0	JN ppbV		1	1/28/2012 3:48:00 AM
	1e, 2-methyl- (3.17)	18		JN ppbV		1	1/28/2012 3:48:00 AM

Qualifiers: \*\*

\*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

Results reported are not blank corrected

E Value above quantitation range

.

J Analyte detected at or below quantitation limits

Date: 03-Feb-12

CLIENT:	Tetra Tech			C	lient Sample	D:	SG17	-011012
Lab Order:	C1201051				Tag Num	ber:	561,1	18
Project:	Maryland MartinAi	r Middle River	112IC03634	ł	Collection D	ate:	1/20/2	012
Lab ID:	C1201051-020A	56 17-01			Ma	trix:	AIR	
Analyses		Result	**Limit	Qual	Units		DF	Date Analyzed
1UG/M3 W/ NA	PHTHALENE BY MET	HOD TO15	то	-15				Analyst: RJP
TIC: Benzen	e, 1-ethyl-2-methyl-	2.3	0	JN	ppbV		1	1/28/2012 3:48:00 AM
TIC: Benzoic ((trimethylsilyl)o	•	2.8	0	JN	ppbV		1	1/28/2012 3:48:00 AM
TIC: Butanal	, 3-methyl-	4.2	0	JN	ppbV		1	1/28/2012 3:48:00 AM
TIC: Butane		5.8	0	JN	ppbV		1	1/28/2012 3:48:00 AM
TIC: Cyclohe	xane, methyl-	2.7	0	JN	ppbV		1	1/28/2012 3:48:00 AM
TIC: Cyclotris	siloxane, hexamethyl	6.2	0	JN	ppbV		1	1/28/2012 3:48:00 AM
TIC: D-Limor	nene	2.4	0	JN	ppbV		1	1/28/2012 3:48:00 AM
TIC: Hexane,	, 2,3,4-trimethyl-	3.9	0	JN	ppbV		1	1/28/2012 3:48:00 AM
TIC: Isobutar	18	2.6	0	JN	ppbV		1	1/28/2012 3:48:00 AM
TIC: Pentane	e, 2-methyl-	2.5	0	JN	ppbV		1	1/28/2012 3:48:00 AM
TIC: Unknow	n (12.25)	2.5	0	JN	ppbV		1	1/28/2012 3:48:00 AM
TIC: Unknow	n (16.71)	23	0	JN	ppbV		1	1/28/2012 3:48:00 AM
TIC: Unknow	n alkane	7.0	0	JN	ppbV		1	1/28/2012 3:48:00 AM

Qualifiers:	**	Reporting Limit		Results reported are not blank corrected
	в	Analyte detected in the associated Method Blank	Е	Value above quantitation range
	н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
	Л	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
	c	Spike Decovery outride accepted recovery limits		Page 39 of 44

S Spike Recovery outside accepted recovery limits

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Date: 02-Feb-12

CLIENT:	Tetra Tech	Client Sample ID: SG18-011912
Lab Order:	C1201051	Tag Number: 200,54
Project:	Maryland MartinAir Middle River 1121C03634	Collection Date: 1/19/2012
Lab ID:	C1201051-009A SG18-011912	Matrix: AIR

Analyses	Result	**Limit Qu	ual Units	DF	Date Analyzed
1UG/M3 W/ NAPHTHALENE BY I	METHOD TO15	TO-15			Analyst: RJP
1,1,1-Trichloroethane	ND	0.83	ug/m3	1	1/27/2012 9:35:00 PM
1,1,2-Trichloroethane	ND	0.83	ug/m3	1	1/27/2012 9:35:00 PM
1,1-Dichloroethane	ND	0.62	ug/m3	1	1/27/2012 9:35:00 PM
1,1-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 9:35:00 PM
1,2,4-Trichlorobenzene	ND	1.1	ug/m3	1	1/27/2012 9:35:00 PM
1,2,4-Trimethylbenzene	23	3.7	ug/m3	5	1/28/2012 9;59:00 PM
1,2-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 9:35:00 PM
1,2-Dichloroethane	ND	0.62	ug/m3	1	1/27/2012 9:35:00 PM
1,3-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 9:35:00 PM
1,4-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 9:35:00 PM
Benzene	10	2.4	ug/m3	5	1/28/2012 9:59:00 PM
Carbon disulfide	13	2.4	ug/m3	5	1/28/2012 9:59:00 PM
Carbon tetrachloride	ND	0,26	ug/m3	1	1/27/2012 9:35:00 PM
Chlorobenzene	ND	0.70	ug/m3	1	1/27/2012 9:35:00 PM
Chloroform	ND	0.74	ug/m3	1	1/27/2012 9:35:00 PM
Chloromethane	ND	0.31	ug/m3	1	1/27/2012 9:35:00 PM
cis-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 9:35:00 PM
Ethylbenzene	4.6	0.66	ug/m3	1	1/27/2012 9:35:00 PM
Freon 12	2.1	0.75	ug/m3	1	1/27/2012 9:35:00 PM
-m&p-Xylene	16	1.3	ug/m3	1	
Methyl Ethyl Ketone	400	36	ug/m3	40	1/28/2012 10:32:00 PM
Methyl tert-butyl ether	ND	0.55	ug/m3	1	1/27/2012 9:35:00 PM
Methylene chloride	0.67	0.53	ug/m3	1	1/27/2012 9;35:00 PM
Naphthalene	4.4	0.80	ug/m3	1	1/27/2012 9:35:00 PM
o-Xylene	11	3.3	ug/m3	5	1/28/2012 9:59:00 PM
Tetrachloroethylene	ND	1.0	ug/m3	1	1/27/2012 9:35:00 PM
Toluene	23	2.9	ug/m3	5	1/28/2012 9:59:00 PM
trans-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 9:35:00 PM
Trichloroethene	ND	0,22	ug/m3		1/27/2012 9:35:00 PM
Vinyl chloride		0.10	ug/m3		1/27/2012 9:35:00 PM

Qualifiers:	++	Reporting Limit		Results reported are not blank corrected	
	В	Analyte detected in the associated Method Blank	Е	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation	1 limits
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit	
	S	Spike Recovery outside accepted recovery limits			Page 9 of 23

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#### Date: 03-Feb-12

LIENT:	Tetra Tech			C	lient Sample ID:	SG18	-011912
ab Order:	C1201051				Tag Number:	200,54	4
roject:	Maryland MartinAi	r Middle River	112IC03634		<b>Collection Date:</b>	1/19/2	2012
ab D:	C1201051-009A				Matrix:	AIR	
nalyses		Result	**Limit	Qual	Units	DF	Date Analyzed
IELD PARAMI	ETERS		FL	D			Analyst:
Lab Vacuum In		-5			"Hg		1/24/2012
Lab Vacuum Ou	ıt	-30			"Hg		1/24/2012
UG/M3 W/ NA	PHTHALENE BY MET	HOD TO15	TO-	15			Analyst: RJP
1,1,1-Trichloroei	thane	ND	0.15		ppbV	1	1/27/2012 9:35:00 PM
1,1,2-Trichloroe	thane	ND	0,15		ppbV	1	1/27/2012 9:35:00 PM
1,1-Dichloroetha		ND	0.15		ppbV	1	1/27/2012 9:35:00 PM
1,1-Dichloroethe		ND	0.15		ppbV	1	1/27/2012 9:35:00 PM
1,2,4-Trichlorob		ND	0.15		ppbV	1	1/27/2012 9:35:00 PM
1,2,4-Trimethylb		4.7	0.75		ppbV	5	1/28/2012 9:59:00 PM
1,2-Dichloroben		ND	0.15		ppbV	1	1/27/2012 9:35:00 PM
1,2-Dichloroetha		ND	0.15		ppbV	1	1/27/2012 9:35:00 PM
1,3-Dichloroben		ND	0.15		ppbV	1	1/27/2012 9:35:00 PM
1.4-Dichloroben		ND	0.15		ppbV	1	1/27/2012 9:35:00 PM
Benzene		3.2	0.15			5	1/28/2012 9:59:00 PM
Benzene Carbon disulfide					ppbV		
		4.0	0.75		ppbV	5 1	1/28/2012 9:59:00 PM
Carbon tetrachic	JUGG	ND	0.040		ppbV	1	1/27/2012 9:35:00 PM
Chlorobenzene		ND	0.15		ppbV	1	1/27/2012 9:35:00 PM
Chloroform		ND	0.15		ppbV	1	1/27/2012 9:35:00 PM
Chloromethane	- 41	ND	0.15		ppbV	1	1/27/2012 9:35:00 PM
cis-1,2-Dichloro	ethene	ND	0.15		ppbV	1	1/27/2012 9:35:00 PM
Ethylbenzene		1.0	0.15		ppbV	1	1/27/2012 9:35:00 PM
Freon 12	:	0.41	0.15		ppbV	1	1/27/2012 9:35:00 PM
m&p-Xylene		3.5	0.30		ppbV	1	1/27/2012 9:35:00 PM
Methyl Ethyl Ket		130	12		ppbV	40	1/28/2012 10:32:00 PM
Methyl tert-butyl		ND	0.15		ppbV	1	1/27/2012 9:35:00 PM
Methylene chlori	ide	0.19	0.15		ppbV	1	1/27/2012 9:35:00 PM
Naphthalene		0.82	0.15		ppbV	1	1/27/2012 9:35:00 PM
o-Xylene		2,6	0.75		ppbV	5	1/28/2012 9:59:00 PM
Tetrachloroethyl	ene	ND	0.15		ppbV	1	1/27/2012 9:35:00 PM
Toluene		6.1	0.75		ppbV	5	1/28/2012 9:59:00 PM
trans-1,2-Dichlor	roethene	ND	0.15		ppbV	1	1/27/2012 9:35:00 PM
Trichloroethene		ND	0.040		ppbV	1	1/27/2012 9:35:00 PM
Vinyl chloride		ND	0.040		ppbV	1	1/27/2012 9:35:00 PM
Surr: Bromofi	uorobenzene	94.0	70-130		%REC	1	1/27/2012 9:35:00 PM
TIC: 1-Proper		12	0	JN	ppbV	1	1/27/2012 9:35:00 PM
TIC: Arsenous	•	44	0	JN	ppbV	1	1/27/2012 9:35:00 PM
tris(trimethylslly)	······				······		
	, 1,2,4-trimethyl-	1.6	0	JN	ppbV	1	1/27/2012 9:35:00 PM
	, 1,3,5-trimethyl-	1.6	0	JN	ppbV	1	1/27/2012 9:35:00 PM
TIC: Benzene	, 1-ethyl-2-methyl-	2.0	0	JN	ppbV	1	1/27/2012 9:35:00 PM

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated,

S Spike Recovery outside accepted recovery limits E Value above quantitation range

Analyte detected at or below quantitation limits J

ND Not Detected at the Reporting Limit

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Lab ID:	•	SG18-011912	Matrix:	AIR
Project:	Marvland MartinAi	Middle River 112IC03634	Collection Date:	1/19/2012
Lab Order:	C1201051		Tag Number:	200,54
CLIENT:	Tetra Tech		Client Sample ID:	SG18-011912

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 W/ NAPHTHALENE BY METH	OD TO15	то	-15			Analyst: RJP
TIC: Benzene, 1-methyl-4-(1- methylethyl	1.5	0	JN	ppbV	1	1/27/2012 9:35:00 PM
TIC: Benzene, 4-ethyl-1,2- dimethyl-	1.8	D	JN	ppbV	1	1/27/2012 9:35:00 PM
TIC: Butane	2.6	Ó	JN	ppbV	1	1/27/2012 9:35:00 PM
TIC: Butane, 2,2,3,3-tetramethyl-	6.6	0	JN	ppbV	1	1/27/2012 9:35:00 PM
TIC: Cyclohexane, methyl-	1.9	0	JN	ppbV	1	1/27/2012 9:35:00 PM
TIC: Pentanal	2.7	0	JN	ppbV	1	1/27/2012 9:35:00 PM
TIC: Pentane, 2,3-dimethyl-	1.5	0	JN	ppbV	1	1/27/2012 9:35:00 PM
TIC: Unknown	4.6	0	JN	ppbV	1	1/27/2012 9:35:00 PM
TIC: Unknown alkane (12.25)	3.1	0	JN	ppbV	1	1/27/2012 9:35:00 PM
TIC: Unknown alkane (12.47)	3.0	0	JN	ppbV	1	1/27/2012 9:35:00 PM
TIC: Unknown alkane (16.43)	3.2	0	JN	ppbV	1	1/27/2012 9:35:00 PM
TIC: Unknown alkane (16.71)	16	0	JN	ppbV	1	1/27/2012 9:35:00 PM

Qualifiers: \*\* Reporting Limit Results reported are not blank corrected . В Analyte detected in the associated Method Blank Ē Value above quantitation range Н Holding times for preparation or analysis exceeded Analyte detected at or below quantitation limits J JN Non-routine analyte. Quantitation estimated, ND Not Detected at the Reporting Limit Page 18 of 44 Spike Recovery outside accepted recovery limits S

Date: 02-Feb-12

CLIENT:	Tetra Tech			Client Sampl	e ID: S	G19-011012	2
ab Order:	C1201051			Tag Nun	a <b>ber:</b> 1	165,60	
Project:	Maryland MartinA	ir Middle River	112IC03634	-		•	
Lab ID:	C1201051-010A	5G19-01			ntrix: A	TR	
			2012				
Analyses		Result	**Limit	Qual Units	D	F Dat	e Analyzed
UG/M3 W/ NA	PHTHALENE BY ME	THOD TO15	то	-15			Analyst: RJP
1,1,1-Trichloroe	ethane	ND	0.83	ug/m3	1	1/27/	2012 10:12:00 PM
1,1,2-Trichlore	ethane	ND	0.83	ug/m3	1	1/27/	2012 10:12:00 PM
1,1-Dichloroeth	ane	ND	0.62	ug/m3	1	1/27/2	2012 10:12:00 PM
1,1-Dichloroeth	ene	ND	0.60	ug/m3	1	1/27/	2012 10:12:00 PM
1,2,4-Trichlorob	penzene	ND	1.1	ug/m3	1	1/27/	2012 10:12:00 PM
1,2,4-Trimethyll	benzene	22	3.7	ug/m3	5	1/28/3	2012 11:07:00 PM
1,2-Dichloroben	zene	ND	0.92	ug/m3	1	1/27/	2012 10:12:00 PM
1,2-Dichloroetha	ane	ND	0.62	ug/m3	1	1/27/2	2012 10:12:00 PM
1,3-Dichloroben	zene	ND	0.92	ug/m3	1	1/27/2	2012 10:12:00 PM
1,4-Dichloroben	zene	ND	0.92	ug/m3	1	1/27/2	2012 10:12:00 PM
Benzene		24	2.4	ug/m3	5	1/28/2	2012 11:07:00 PM
Carbon disulfide	8	27	2.4	ug/m3	5	1/28/2	2012 11:07:00 PM
Carbon tetrachl	oride	ND	0.26	ug/m3	1	1/27/2	2012 10:12:00 PM
Chlorobenzene		ND	0.70	ug/m3	1	1/27/2	2012 10:12:00 PM
Chloroform		ND	0.74	ug/m3	1	1/27/2	2012 10:12:00 PM
Chloromethane		ND	0.31	ug/m3	1	1/27/2	2012 10:12:00 PM
cis-1,2-Dichloro	ethene	ND	0.60	ug/m3	1	1/27/2	2012 10:12:00 PM
Ethylbenzene		4.2	0.66	ug/m3	1	1/27/2	2012 10:12:00 PM
Freon 12		1.8	0.75	ug/m3	1	1/27/2	2012 10:12:00 PM
-m&p-Xylene		14	1:3	ug/m3			2012-10:12:00 PM
Methyl Ethyl Ke	tone	240	36	ug/m3	40	) 1/28/2	2012 11:40:00 PM
Methyl tert-butyl	lether	ND	0.55	ug/m3	1	1/27/2	2012 10:12:00 PM
Methylene chlor	ride	1.3	0.53	ug/m3	1	1/27/2	2012 10:12:00 PM
Naphthalene		3.5	0.80	ug/m3	1	1/27/2	2012 10:12:00 PM
o-Xylene		8.2	0.66	ug/m3	1	1/27/2	2012 10:12:00 PM
Tetrachloroethy	lene	ND	1.0	ug/m3	1	1/27/2	2012 10:12:00 PM
Toluene		36	2.9	ug/m3	5	1/28/2	2012 11:07:00 PM
trans-1,2-Dichlo	roethene	ND	0.60	ug/m3	1	1/27/2	2012 10:12:00 PM
Trichloroethene		ND	0.22	ug/m3	1	1/27/2	2012 10:12:00 PM

				·	
Qualifiers:	**	Reporting Limit		Results reported are not blank corrected	i
	В	Analyte detected in the associated Method Blank	E	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation	on limits
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit	
	S	Spike Recovery outside accepted recovery limits			Page 10 of 23

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Date: 03-Feb-12

LIENT:	Tetra Tech			Client Sample ID:	SG19	-011012
ab Order:	C1201051			Tag Number:	1165,	60
roject:	Maryland Martin/	Air Middle River	112IC03634	<b>Collection Date:</b>	1/20/2	2012
ab ID:	C1201051-010A	5619-012		Matrix:	AIR	
nalyses		Result	**Limit Qua		DF	Date Analyzed
IELD PARAME	ETERS		FLD			Analyst:
Lab Vacuum In		-20		"Hg		1/24/2012
Lab Vacuum Ou	ıt	-30		"Hg		1/24/2012
UG/M3 W/ NAI	PHTHALENE BY ME	THOD TO15	TO-15			Analyst: RJP
1,1,1-Trichloroe	thane	ND	0.15	ppbV	1	1/27/2012 10:12:00 PM
1,1,2-Trichloroel	thane	ND	0.15	ppbV	1	1/27/2012 10:12:00 PN
1,1-Dichloroetha	ane	ND	0.15	ppbV	1	1/27/2012 10:12:00 PM
1,1-Dichloroethe	ene	ND	0.15	ppbV	1	1/27/2012 10:12:00 PM
1,2,4-Trichlorob	enzene	ND	0.15	ppbV	1	1/27/2012 10:12:00 PN
1,2,4-Trimethylb	benzene	4.4	0.75	ppbV	5	1/28/2012 11:07:00 PN
1,2-Dichloroben	zene	ND	0.15	ppbV	1	1/27/2012 10:12:00 PM
1,2-Dichloroetha	ine	ND	0.15	ppbV	1	1/27/2012 10:12:00 PN
1,3-Dichloroben:	zene	ND	0.15	ppbV	1	1/27/2012 10:12:00 PN
1,4-Dichloroben:	zene	ND	0.15	ppbV	1	1/27/2012 10:12:00 PM
Benzene		7.5	0.75	ppbV	5	1/28/2012 11:07:00 PN
Carbon disulfide	2	8.6	0.75	ppbV	5	1/28/2012 11:07:00 PN
Carbon tetrachic	oride	ND	0.040	ppbV	1	1/27/2012 10:12:00 PM
Chlorobenzene		ND	0.15	ppbV	1	1/27/2012 10:12:00 PN
Chloroform		ND	0.15	ppbV	1	1/27/2012 10:12:00 PM
hloromethane		ND	0.15	ppbV	1	1/27/2012 10:12:00 PM
is-1,2-Dichloroe	ethene	ND	0.15	ppbV	1	1/27/2012 10:12:00 PM
Ethylbenzene		0.96	0.15	ppbV	1	1/27/2012 10:12:00 PM
Freon 12		0.35	0.15	ppbV	1	1/27/2012 10:12:00 PM
m&p-Xylene		3.2	0.30	ppbV	1	1/27/2012 10:12:00 PM
Methyl Ethyl Ket	lone	78	12	ppbV	40	1/28/2012 11:40:00 PM
Methyl tert-butyl		ND	0.15	ppbV	1	1/27/2012 10:12:00 PM
Methylene chlori		0.37	0.15	ppbV	1	1/27/2012 10:12:00 PM
Naphthalene		0.66	0.15	ppbV	1	1/27/2012 10:12:00 PM
o-Xylene		1.8	0.15	ppbV	1	1/27/2012 10:12:00 PM
Tetrachloroethyl	ene	ND	0.15	ppbV	1	1/27/2012 10:12:00 PM
Toluene		9.3	0.75	ppbV	5	1/28/2012 11:07:00 PM
rans-1,2-Dichlor	roethene	ND	0.15	ppbV	1	1/27/2012 10:12:00 PM
richloroethene		ND	0.040	ppbV	1	1/27/2012 10:12:00 PN
/inyl chloride		ND	0.040	ppbV	1	1/27/2012 10:12:00 PM
Surr: Bromofil	uorobenzene	93.0	70-130	%REC	1	1/27/2012 10:12:00 PN
	diene, 2-methyl-	3.7	NL 0	ppbV	1	1/27/2012 10:12:00 PM
TIC: 1-Penter	•	6.4	0 JN	ppbV	1	1/27/2012 10:12:00 PM
	 1e,-2-methyl(3:17)	24	JN	ppbV	-1	
TIC: 3-Hepter		3.3	0 JN	ppbV	1	1/27/2012 10:12:00 PN
TIC: Butane		10	UL O	ppbV	1	1/27/2012 10:12:00 PM

Qualifiers:

\*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

CLIENT:	Tetra Tech	Client Sample ID:	SG19-011012
Lab Order:	C1201051	Tag Number:	1165,60
Project:	Maryland MartinAir Middle River 112IC03634	<b>Collection Date:</b>	1/20/2012
Lab ID:	C1201051-010A 5619-0120 12	Matrix:	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 W/ NAPHTHALENE BY METH	HOD TO15	то	)-15			Analyst: RJP
TIC: Butane, 2,2,3,3-tetramethyl-	14	0	JN	ppbV	1	1/27/2012 10:12:00 PM
TIC: Cyclohexane, methyl-	4.3	0	JN	ppbV	1	1/27/2012 10:12:00 PM
TIC: Cyclotrisiloxane, hexamethyl	16	0	JN	ppbV	1	1/27/2012 10:12:00 PM
TIC: Isobutane	3.0	0	JN	ppbV	1	1/27/2012 10:12:00 PM
TIC: Pentane, 2,3,4-trimethyi-	4.9	0	JN	ppbV	1	1/27/2012 10:12:00 PM
TIC: Pentane, 2-methyl-	3.6	0	JN	ppbV	1	1/27/2012 10:12:00 PM
TIC: Unknown (16.43)	2.9	0	JN	ppbV	1	1/27/2012 10:12:00 PM
TIC: Unknown (2.92)	9,2	0	JN	ppbV	1	1/27/2012 10:12:00 PM
TIC: Unknown (3.87)	3.0	0	JN	ppbV	1	1/27/2012 10:12:00 PM
TIC: Unknown alkane (12.48)	8.0	0	JN	ppbV	1	1/27/2012 10:12:00 PM
TIC: Unknown alkane (16.71)	17	0	JN	ppbV	1	1/27/2012 10:12:00 PM

Qualifiers:

- \*\* **Reporting Limit**
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- JN Non-routine analyte. Quantitation estimated.
- S Spike Recovery outside accepted recovery limits
- Results reported are not blank corrected .
- Ε Value above quantitation range
- J Analyte detected at or below quantitation limits
- ND Not Detected at the Reporting Limit

Date: 02-Feb-12

Center La	doratories, LL	i C		Jato, 02-11	.0-12	
CLIENT:	Tetra Tech			Client Sampl	e ID: SG2-	011012
Lab Order:	C1201051			Tag Nun	iber: 192,5	6
Project:	Maryland MartinA	ir Middle River	112IC03634	Collection 1	Date: 1/20/2	2012
Lab ID:	C1201051-013A	5G 2-017		Ma	trix: AIR	
Analyses		Result	**Limit (	Qual Units	DF	Date Analyzed
1UG/M3 W/ NA	PHTHALENE BY ME	THOD TO15	TO-	15		Analyst: RJP
1,1,1-Trichloroe	ethane	ND	0.83	ug/m3	1	1/27/2012 11:52:00 PM
1,1,2-Trichloroe	ethane	ND	0.83	ug/m3	1	1/27/2012 11:52:00 PM
1,1-Dichloroeth	ane	ND	0.62	ug/m3	1	1/27/2012 11:52:00 PM
1,1-Dichloroeth	ene	ND	0.60	ug/m3	1	1/27/2012 11:52:00 PM
1,2,4-Trichlorob	enzene	ND	1.1	ug/m3	1	1/27/2012 11:52:00 PM
1,2,4-Trimethyll	benzene	16	7.5	ug/m3	10	1/29/2012 2:23:00 AM
1,2-Dichloroben	izene	ND	0.92	ug/m3	1	1/27/2012 11:52:00 PM
1,2-Dichloroeth	ane	ND	0.52	ug/m3	1	1/27/2012 11:52:00 PM
1,3-Dichloroben	izene	ND	0.92	ug/m3	1	1/27/2012 11:52:00 PM
1,4-Dichloroben	IZERE	ND	0.92	ug/m3	1	1/27/2012 11:52:00 PM
Benzene		27	4.9	ug/m3	10	1/29/2012 2:23:00 AM
Carbon disulfide	e	14	4.7	ug/m3	10	1/29/2012 2:23:00 AM
Carbon tetrachi	oride	ND	0.26	ug/m3	1	1/27/2012 11:52:00 PM
Chlorobenzene		ND	0.70	ug/m3	1	1/27/2012 11:52:00 PM
Chloroform		ND	0.74	ug/m3	1	1/27/2012 11:52:00 PM
Chloromethane		ND	0.31	ug/m3	1	1/27/2012 11:52:00 PM
cis-1,2-Dichloro	ethene	ND	0.60	ug/m3	1	1/27/2012 11:52:00 PM
Ethylbenzene		6.8	0.66	ug/m3	1	1/27/2012 11:52:00 PM
Freon 12		2.1	0.75	ug/m3	1	1/27/2012 11:52:00 PM
m&p-Xylene		18	13	ug/m3	10	1/29/2012 2:23:00 AM
• •				-		

9.0

0.55

0.53

0.80

6.6

1.0

5.7

0.60

0.22

0.10

J

ug/m3

10

1

1

1

10

1

10

1

1

1

1/29/2012 2:23:00 AM

1/27/2012 11:52:00 PM

1/27/2012 11:52:00 PM

1/27/2012 11:52:00 PM

1/29/2012 2:23:00 AM

1/27/2012 11:52:00 PM

1/29/2012 2:23:00 AM

1/27/2012 11:52:00 PM

1/27/2012 11:52:00 PM

1/27/2012 11:52:00 PM

72

ND

0.46

5.6

9.7

ND

51

ND

ND

ND

Qualifiers:	**	Reporting Limit	•	Results reported are not blank corrected	
	В	Analyte detected in the associated Method Blank	E	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitatio	n limits
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit	D 10 000
	S	Spike Recovery outside accepted recovery limits			Page 13 of 23

Methyl Ethyl Ketone

Methylene chloride

Tetrachloroethylene

Trichloroethene

Vinyl chloride

trans-1,2-Dichloroethene

Naphthaiene

o-Xylene

Toluene

Methyl tert-butyl ether

CLIENT:	Tetra Tech			(	Client Sample ID:	SG2-(	011012
Lab Order:	C1201051				Tag Number:	192,5	6
Project:	Maryland Martin	Air Middle River	112IC03634	ł	<b>Collection Date:</b>	1/20/2	2012
Lab ID:	C1201051-013A			•	Matrix:	AIR	
Analyses	· · · · · · · · · · · · · · · · · · ·	Result	**Limit	Qual	Units	DF	Date Analyzed
FIELD PARAM	ETERS		F	LD			Analyst:
Lab Vacuum In		-4			"Hg		1/24/2012
Lab Vacuum Or	ut	-30			"Hg		1/24/2012
1UG/M3 W/ NA	PHTHALENE BY ME	THOD TO15	то	-15			Analyst: RJP
1,1,1-Trichloroe	thane	ND	0.15		ppbV	1	1/27/2012 11:52:00 PN
1,1,2-Trichloroe		ND	0.15		ppbV	1	1/27/2012 11:52:00 PM
1,1-Dichloroeth		ND	0.15		ppbV	1	1/27/2012 11:52:00 PM
1,1-Dichloroeth		ND	0.15		ppbV	1	1/27/2012 11:52:00 PM
1,2,4-Trichlorob		ND	0.15		ppbV	1	1/27/2012 11:52:00 PM
1,2,4-Trimethylt		3.3	1.5		ppbV	10	1/29/2012 2:23:00 AM
1,2-Dichloroben		ND	0.15		ppbV	1	1/27/2012 11:52:00 PM
1,2-Dichloroetha		ND	0.15		ppbV	1	1/27/2012 11:52:00 PM
1,3-Dichloroben		ND	0.15		ppbV	1	1/27/2012 11:52:00 PM
1,4-Dichloroben	zene	ND	0.15		ppbV	1	1/27/2012 11:52:00 PM
Benzene		8.2	1,5		ppbV	10	1/29/2012 2:23:00 AM
Carbon disulfide		4.5	1.5		ppbV	10	1/29/2012 2:23:00 AM
Carbon tetrachi	oride	ND	0.040		ppbV	1	1/27/2012 11:52:00 PM
Chlorobenzene		ND	0.15		ppbV	1	1/27/2012 11:52:00 PM
Chloroform		ND	0.15		ppbV	1	1/27/2012 11:52:00 PM
Chloromethane		ND	0.15		ppbV	1	1/27/2012 11:52:00 PN
cis-1,2-Dichloro	ethene	ND	0.15		ppbV	1	1/27/2012 11:52:00 PM
Ethylbenzene		1.5	0.15		ppbV	1	1/27/2012 11:52:00 PM
Freon 12		0.42	0.15		ppbV	1	1/27/2012 11:52:00 PM
m&p-Xylene		4.1	3.0		ppbV	10	1/29/2012 2:23:00 AM
Methyl Ethyl Ke	tone	24	3.0		ppbV	10	1/29/2012 2:23:00 AM
Methyl tert-butyl		ND	0.15		ppbV	1	1/27/2012 11:52:00 PM
Methylene chlor		0.13	0.15	J	ppbV	1	1/27/2012 11:52:00 PM
Naphthalene		1.1	0.15		ppbV	1	1/27/2012 11:52:00 PM
o-Xylene		2.2	1.5		ppbV	10	1/29/2012 2:23:00 AM
Tetrachloroethy	lene	ND	0.15		ppbV	1	1/27/2012 11:52:00 PM
Toluene		13	1.5		ppbV	10	1/29/2012 2:23:00 AM
trans-1,2-Dichlo	roethene	ND	0.15		ppbV	1	1/27/2012 11:52:00 PM
Trichloroethene		ND	0.040		ppbV	1	1/27/2012 11:52:00 PM
Vinyl chloride		ND	0.040		ppbV	1	1/27/2012 11:52:00 PM
Surr. Bromofi	uorobenzene	96.0	70-130		%REC	1	1/27/2012 11:52:00 PM
TIC: 1-Proper		18	0	JN	ppbV	1	1/27/2012 11:52:00 PN
TIC: 2-Butene		2.6	0	JN	ppbV	1	1/27/2012 11:52:00 PM
TIC: 2-Penter		3.2		JN	ppbV	_1	1/27/2012 11:52:00 PM
TIC: Butane		8.6	D D	JN	ppbV	1	1/27/2012 11:52:00 PM
	2,2,3,3-tetramethyl-	3.7	0	JN	ppbV	1	1/27/2012 11:52:00 PM

Qualifiers:

\*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

CLIENT:	Tetra Tech			C	lient Sample ID	: SG2-0	11012
Lab Order:	C1201051				Tag Number	: 192,50	5
Project:	Maryland MartinA	ir Middle River I	12IC03634	4	<b>Collection Date</b>	: 1/20/2	012
Lab ID:	C1201051-013A	562-0120	12		Matrix	: AIR	
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed
IUG/M3 W/ NA	PHTHALENE BY ME	THOD TO15	тс	)-15			Analyst: RJP
TIC: Butane,	2-methyl-	2.6	0	JN	ppbV	1	1/27/2012 11:52:00 PM
TIC: Cyclotris	siloxane, hexamethyl	4.2	0	JN	ppbV	1	1/27/2012 11:52:00 PN
TIC: Hexanal	I	4.0	0	JN	ppbV	1	1/27/2012 11:52:00 PN
TIC: Isobutar	ne	3.0	0	JN	ppbV	1	1/27/2012 11:52:00 PM
TIC: Pentana	<b>1</b>	3.4	0	JN	ppbV	1	1/27/2012 11:52:00 PN
TIC: Pentane	e, 2-methyl-	2.4	0	JN	ppbV	1	1/27/2012 11:52:00 PN
TIC: Propana	al, 2-methyl-	2,3	0	JN	ppbV	1	1/27/2012 11:52:00 PN
TIC: Unknow	m (12.88)	1.9	0	JN	ppbV	1	1/27/2012 11:52:00 PN
TIC: Unknow	m (16.71)	5.6	0	JN	ppbV	1	1/27/2012 11:52:00 PN
TIC: Unknow	m (4.2)	4.2	0	JN	ppbV	1	1/27/2012 11:52:00 PN
TIC: Unknow	m (4.23)	4.4	0	JN	ppbV	1	1/27/2012 11:52:00 PM
TIC: Unknow	n alkane (12.47)	2,4	0	JN	ppbV	1	1/27/2012 11:52:00 PM
	n alkane (2.93)	5.9	0	JN	ppbV	4	1/27/2012 11:52:00 PM

Qualifiers:

\*\* Reporting Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- JN Non-routine analyte. Quantitation estimated.
- S Spike Recovery outside accepted recovery limits
- , Results reported are not blank corrected
- E Value above quantitation range
- J Analyte detected at or below quantitation limits
- ND Not Detected at the Reporting Limit

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Date: 02-Feb-12

CLIENT:	Tetra Tech	Client Sample ID: SG20-011912
Lab Order:	C1201051	<b>Tag Number: 240,123</b>
Project:	Maryland MartinAir Middle River 112IC03634	Collection Date: 1/19/2012
Lab ID:	C1201051-004A SG20-011912	Matrix: AIR

Analyses	Result	**Limit	Qual Units	DF	Date Analyzed
IUG/M3 W/ NAPHTHALENE BY	METHOD TO15	то	-15		Analyst: RJP
1,1,1-Trichloroethane	ND	0.83	ug/m3	1	1/27/2012 6:48:00 PM
1,1,2-Trichloroethane	ND	0.83	ug/m3	1	1/27/2012 6:48:00 PM
1,1-Dichloroethane	ND	0.62	ug/m3	1	1/27/2012 6:48:00 PM
1,1-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 6:48:00 PM
1,2,4-Trichlorobenzene	ND	1.1	ug/m3	1	1/27/2012 6:48:00 PM
1,2,4-Trimethylbenzene	18	7.5	ug/m3	10	1/28/2012 8:44:00 AM
1,2-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 6:48:00 PM
1,2-Dichloroethane	ND	0.62	ug/m3	1	1/27/2012 6:48:00 PM
1,3-Dichlorobenzene	ND	0,92	ug/m3	1	1/27/2012 6:48:00 PM
1,4-Dichlorobenzene	ND	0,92	ug/m3	1	1/27/2012 6:48:00 PM
Benzene	4.5	0.49	ug/m3	1	1/27/2012 6:48:00 PM
Carbon disulfide	2.0	0.47	ug/m3	1	1/27/2012 6:48:00 PM
Carbon tetrachloride	ND	0.26	ug/m3	1	1/27/2012 6:48:00 PM
Chlorobenzene	ND	0.70	ug/m3	1	1/27/2012 6:48:00 PM
Chloroform	ND	0.74	ug/m3	1	1/27/2012 6:48:00 PM
Chloromethane	ND	0.31	ug/m3	1	1/27/2012 6:48:00 PM
cis-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 6:48:00 PM
Ethylbenzene	5.1	0.66	ug/m3	1	1/27/2012 6:48:00 PM
Freon 12	1.7	0.75	ug/m3	1	1/27/2012 6:48:00 PM
m&p-Xylene	16		ug/m3	1	
Methyl Ethyl Ketone	11	9.0	ug/m3	10	1/28/2012 8:44:00 AM
Methyl tert-butyl ether	ND	0.55	ug/m3	1	1/27/2012 6:48:00 PM
Methylene chloride	0.39	0.53	J ug/m3	1	1/27/2012 6:48:00 PM
Naphthalene	6.0	0.80	ug/m3	1	1/27/2012 6:48:00 PM
o-Xylene	9.2	0.66	ug/m3	1	1/27/2012 6:48:00 PM
Tetrachloroethylene	ND	1.0	ug/m3	1 .	1/27/2012 6:48:00 PM
Toluene	29	5.7	ug/m3	10	1/28/2012 8:44:00 AM
trans-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 6:48:00 PM
Trichloroethene	ND	0,22	ug/m3	1	1/27/2012 6:48:00 PM

Qualifiers:	**	Reporting Limit		Results reported are not blank corrected
	В	Analyte detected in the associated Method Blank	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
	S	Spike Recovery outside accepted recovery limits		Page 4 of 23

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	atura Track	• • • • • •	-	-	Ward Carry In Th	0000	011010
	etra Tech			C	lient Sample ID:		
	1201051				Tag Number:	•	
Project: M	laryland MartinAi	r Middle River 1	12IC03634		<b>Collection Date:</b>	1/19/2	2012
Lab ID: C	1201051-004A	5620-011	112		Matrix:	AIR	
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETER	RS		FL	.D			Analyst:
Lab Vacuum In		-1			"Hg		1/24/2012
Lab Vacuum Out		-30	•		"Hg		1/24/2012
1UG/M3 W/ NAPHTI	HALENE BY MET	HOD TO15	то	-15			Analyst: RJP
1,1,1-Trichioroethane	1	ND	0.15		ppbV	1	1/27/2012 6:48:00 PM
1,1,2-Trichloroethane	•	ND	0.15		ppbV	1	1/27/2012 6:48:00 PM
1,1-Dichloroethane		ND	0.15		ppbV	1	1/27/2012 6:48:00 PM
1,1-Dichloroethene		ND	0.15		ppbV	1	1/27/2012 6:48:00 PM
1,2,4-Trichlorobenzer	1e	ND	0.15		ppbV	1	1/27/2012 6:48:00 PM
1,2,4-Trimethylbenze	ne	3.7	1.5		ppbV	10	1/28/2012 8:44:00 AM
1,2-Dichlorobenzene		ND	0.15		ppbV	1	1/27/2012 6:48:00 PM
1,2-Dichloroethane		ND	0.15		ppbV	1	1/27/2012 6:48:00 PM
1,3-Dichlorobenzene		ND	0.15		ppbV	1	1/27/2012 6:48:00 PM
1,4-Dichlorobenzene		ND	0.15		ppbV	1	1/27/2012 6:48:00 PM
Benzene		1.4	0.15		ppbV	1	1/27/2012 6:48:00 PM
Carbon disulfide		0.64	0.15		ррьV	1	1/27/2012 6:48:00 PM
Carbon tetrachloride		ND	0.040		ррbV	1	1/27/2012 6:48:00 PM
Chlorobenzene		ND	0.15		ppbV	1	1/27/2012 6:48:00 PM
Chloroform		ND	0.15		ppbV	1	1/27/2012 6:48:00 PM
Chloromethane		ND	0.15		ppbV	1	1/27/2012 6:48:00 PM
cis-1,2-Dichloroethen	e	ND	0.15		ppbV	1	1/27/2012 6:48:00 PM
Ethylbenzene		1.2	0.15		ppbV	1	1/27/2012 6:48:00 PM
Freon 12		0.33	0.15		ppbV	1	1/27/2012 6:48:00 PM
m&p-Xylene		3.7	0,30		ppbV	1	1/27/2012 6:48:00 PM
Methyl Ethyl Ketone		3.7	3,0		ppbV	10	1/28/2012 8:44:00 AM
Methyl tert-butyl ether	r	ND	0.15		ppbV	1	1/27/2012 6:48:00 PM
Methylene chloride		0.11	0.15	J	ppbV	1	1/27/2012 6:48:00 PM
Naphthalene		1.1	0.15		ppbV	1	1/27/2012 6:48:00 PM
o-Xylene		2.1	0.15		ppbV	1	1/27/2012 6:48:00 PM
Tetrachloroethylene		ND	0.15		ppbV	1	1/27/2012 6:48:00 PM
Toluene		7.7	1.5		ррь∨	10	1/28/2012 8:44:00 AM
trans-1,2-Dichloroethe	ene	ND	0.15		ppbV	1	1/27/2012 6:48:00 PM
Trichloroethene		ND	0.040		ppbV	1	1/27/2012 6:48:00 PM
Vinyl chloride		ND	0.040		ppbV	1	1/27/2012 6:48:00 PM
Surr: Bromofluorob		99.0	70-130		%REC	1	1/27/2012 6:48:00 PM
TIC: 1-Propene, 2-	•	20	0	JN	ppbV	1	1/27/2012 6:48:00 PM
TIC: 1H-Indene, 2,3	3-dihydro- <b>4-</b>	1.0	0	JN	ppbV	1	1/27/2012 6:48:00 PM
methyl- TIC: Benzene, 1,2,	3-trimethyl-	1.1	0	JN	ppbV	1	1/27/2012 6:48:00 PM
TIC: Benzene, 1,3,	-	0.99	0 0	JN	ppbV	1	1/27/2012 6:48:00 PM

Qualifiers:

\*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

Date: 03-Feb-12

E Value above quantitation range

J Analyte detected at or below quantitation limits

ND Not Detected at the Reporting Limit

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### Date: 03-Feb-12

CLIENT:	Tetra Tech		Client Sample ID:	SG20-011912
Lab Order:	C1201051		Tag Number:	240,123
Project:	Maryland MartinAi	r Middle River 112IC03634	<b>Collection Date:</b>	1/19/2012
Lab ID:	C1201051-004A	5G20-011912	Matrix:	AIR
Analyses		Result **Limit Q	ual Units	DF Date Analyzed

JG/M3 W/ NAPHTHALENE BY METH	JU 1015	10	-15			Analyst: RJP
TIC: Benzene, 1-ethyl-2-methyl- (16.82)	2.4	0	JN	ррbV	1	1/27/2012 6:48:00 PM
TIC: Benzene, 1-methyl-2-(1- methylethyl	1.1	٥	JN	ppbV	1	1/27/2012 6:48:00 PM
TIC: Benzene, 2-ethyl-1,4- dimethyl-	1.2	0	JN	ppbV	1	1/27/2012 6:48:00 PM
TIC: Cyclohexane, methyl-	1.8	0	JN	ppbV	1	1/27/2012 6:48:00 PM
TIC: Cyclotrisiloxane, hexamethyl	3.1	0	JN	ppbV	1	1/27/2012 6:48:00 PM
TIC: Hexane, 2,2-dimethyl-	4.8	0	JN	ppbV	1	1/27/2012 6:48:00 PM
TIC: Hexane, 3-methyl-	0.83	0	JN	ppbV	1	1/27/2012 6:48:00 PM
TIC: Pentane, 2,3,3-trimethyl-	2.5	0	JN	ppbV	1	1/27/2012 6:48:00 PM
TIC: Pentane, 2,3,4-trimethyl-	2.1	0	JN	ppbV	1	1/27/2012 6:48:00 PM
TIC: Pentane, 2,3-dimethyl-	0.82	0	JN	ррbV	1	1/27/2012 6:48:00 PM
TIC: Pentane, 2-methyl-	1.8	0	JN	ppbV	1	1/27/2012 6:48:00 PM
TIC: Unknown (16.44)	2.2	0	JN	ppbV	1	1/27/2012 6:48:00 PM
TIC: Unknown (16.72)	3.8	0	JN	ppbV	1	1/27/2012 6:48:00 PM

Qualifiers:

- Reporting Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- JN Non-routine analyte, Quantitation estimated.
- S Spike Recovery outside accepted recovery limits
- . Results reported are not blank corrected
- E Value above quantitation range
- J Analyte detected at or below quantitation limits
- ND Not Detected at the Reporting Limit

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Date: 02-Feb-12

CLIENT:	Tetra Tech	Client Sample ID:	SG21-211912
Lab Order:	C1201051	Tag Number:	170,146
Project:	Maryland MartinAir Middle River 112IC03634	<b>Collection Date:</b>	1/19/2012
Lab ID:	C1201051-005A 5621-011912	Matrix:	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 W/ NAPHTHALENE BY	METHOD TO15	TO-	15			Analyst: RJP
1,1,1-Trichloroethane	ND	0.83		ug/m3	1	1/27/2012 7:21:00 PM
1,1,2-Trichloroethane	ND	0.83		ug/m3	1	1/27/2012 7:21:00 PM
1,1-Dichloroethane	ND	0.62		ug/m3	1	1/27/2012 7:21:00 PM
1,1-Dichloroethene	ND	0.60		ug/m3	1	1/27/2012 7:21:00 PM
1,2,4-Trichlorobenzene	ND	1.1		ug/m3	1	1/27/2012 7:21:00 PM
1,2,4-Trimethylbenzene	27	7.5		ug/m3	10	1/28/2012 9:17:00 AM
1,2-Dichlorobenzene	ND	0,92		ug/m3	1	1/27/2012 7:21:00 PM
1,2-Dichioroethane	ND	0.62		ug/m3	1	1/27/2012 7:21:00 PM
1,3-Dichlorobenzene	ND	0.92		ug/m3	1	1/27/2012 7:21:00 PM
1,4-Dichlorobenzene	ND	0.92		ug/m3	1	1/27/2012 7:21:00 PM
Benzene	6.3	0.49		ug/m3	1	1/27/2012 7:21:00 PM
Carbon disulfide	3.9	0.47		ug/m3	1	1/27/2012 7:21:00 PM
Carbon tetrachloride	ND	0.26		ug/m3	1	1/27/2012 7:21:00 PM
Chlorobenzene	ND	0.70		ug/m3	1	1/27/2012 7:21:00 PM
Chloroform	ND	0.74		ug/m3	1	1/27/2012 7:21:00 PM
Chloromethane	ND	0.31		ug/m3	1	1/27/2012 7:21:00 PM
cis-1,2-Dichloroethene	ND	0.60		ug/m3	1	1/27/2012 7:21:00 PM
Ethylbenzene	5.1	0.66		ug/m3	1	1/27/2012 7:21:00 PM
Freon 12	2.1	0.75		ug/m3	1	1/27/2012 7:21:00 PM
m&p-Xylene	17	1.3		ug/m3	1	1/27/2012 7:21:00 PM
Methyl Ethyl Ketone	57	9.0		ug/m3	10	1/28/2012 9:17:00 AM
Methyl tert-butyl ether	ND	0,55		ug/m3	1	1/27/2012 7:21:00 PM
Methylene chloride	0.39	0.53	J	ug/m3	1	1/27/2012 7:21:00 PM
Naphthalene	7.9	0.80		ug/m3	1	1/27/2012 7:21:00 PM
o-Xylene	9.4	0.66		ug/m3	1	1/27/2012 7:21:00 PM
Tetrachloroethylene	ND	1.0		ug/m3	1	1/27/2012 7:21:00 PM
Toluene	35	5.7		ug/m3	10	1/28/2012 9:17:00 AM
trans-1,2-Dichloroethene	ND	0.60		ug/m3	1	1/27/2012 7:21:00 PM
Trichloroethene	ND	0.22		ug/m3	1	1/27/2012 7:21:00 PM
Vinyl chloride	ND	0.10		ug/m3	1	1/27/2012 7:21:00 PM

Qualifiers:	**	Reporting Limit	•	Results reported are not blank corrected
	В	Analyte detected in the associated Method Blank	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	1	Analyte detected at or below quantitation limits
	JN	Non-routine analyte. Quantitation estimated.	ND	
	S	Spike Recovery outside accepted recovery limits		Page 5 of 23

Date: 03-Feb-12

CLIENT:	Tetra Tech			. (	Client Sample ID	: SG21-	-211912
Lab Order:	C1201051				Tag Number:	: 170,14	46
Project:	Maryland MartinAir	Middle River	121C03634	ţ	<b>Collection Date</b>	: 1/19/2	2012
Lab ID:	C1201051-005A	5G21-0			Matrix	: AIR	
nalyses		Result	**Limit	Qual	Units	DF	Date Analyzed
	ETERS		 Fi	LD			Analyst:
Lab Vacuum In		-3			"Hg		1/24/2012
Lab Vacuum Or	ut	-30			"Hg		1/24/2012
UG/M3 W/ NA	PHTHALENE BY METH	IOD TO15	тс	-15			Analyst: RJP
1,1,1-Trichloroe	thane	ND	0.15		ppbV	1	1/27/2012 7:21:00 PM
1,1,2-Trichloroe	thane	ND	0.15		ppbV	1	1/27/2012 7:21:00 PM
1,1-Dichloroeth		ND	0.15		ppbV	1	1/27/2012 7:21:00 PM
1,1-Dichloroeth	ene	ND	0.15		ppbV	1	1/27/2012 7:21:00 PM
1,2,4-Trichlorob	enzene	ND	0,15		ppbV	1	1/27/2012 7:21:00 PM
1,2,4-Trimethyll	benzene	5.5	1.5		ppbV	10	1/28/2012 9:17:00 AM
1,2-Dichlorober	zene	ND	0.15		ppbV	1	1/27/2012 7:21:00 PM
1,2-Dichloroeth	ane	ND	0.15		ppbV	1	1/27/2012 7:21:00 PM
1,3-Dichlorober	zene	ND	0.15		ррbV	1	1/27/2012 7:21:00 PM
1,4-Dichlorober	izene	ND	0.15		ppbV	1	1/27/2012 7:21:00 PM
Benzene		2.0	0.15		ppbV	1	1/27/2012 7:21:00 PM
Carbon disulfide	3	1.2	0.15		ppbV	1	1/27/2012 7:21:00 PM
Carbon tetrachl		ND	0.040		ppbV	1	1/27/2012 7:21:00 PM
Chlorobenzene		ND	0.15		ppbV	1	1/27/2012 7:21:00 PM
Chioroform		ND	0.15		ppbV	1	1/27/2012 7:21:00 PM
Chioromethane		ND	0.15		ppbV	1	1/27/2012 7:21:00 PM
cis-1,2-Dichloro	ethene	ND	0.15		ррbV	1	1/27/2012 7:21:00 PM
Ethylbenzene		1.2	0.15		ppbV	1	1/27/2012 7:21:00 PM
Freon 12		0.41	0.15		ppbV	1	1/27/2012 7:21:00 PM
m&p-Xylene		3.8	0.30		ppbV	1	1/27/2012 7:21:00 PM
Methyl Ethyl Ke	tone	19	3.0		ppbV	10	1/28/2012 9:17:00 AM
Methyl tert-buty	ether	ND	0.15		ppbV	1	1/27/2012 7:21:00 PM
Methylene chlor	ride	0.11	0.15	J	ppbV	1	1/27/2012 7:21:00 PM
Naphthalene		1.5	0.15		ppbV	1	1/27/2012 7:21:00 PM
o-Xyiene		2.1	0.15		ppbV	1	1/27/2012 7:21:00 PM
Tetrachloroethy	lene	ND	0.15		ppbV	1	1/27/2012 7:21:00 PM
Toluene	•••••	9.2	1.5		ppbV	10	1/28/2012 9:17:00 AM
trans-1,2-Dichlo	proethene	ND	0.15		ppbV	1	1/27/2012 7:21:00 PM
<b>Frichloroethene</b>	ł	ND	0.040		ppbV	1	1/27/2012 7:21:00 PM
Vinyl chloride		ND	0.040		ppbV	1	1/27/2012 7:21:00 PM
Surr: Bromof	luorobenzene	102	70-130		%REC	1	1/27/2012 7:21:00 PM
TIC: .alpha	Pinene	2.5	0	JN	ppbV	1	1/27/2012 7:21:00 PM
TIC: Acetalde	ehyde	8.1	0	JN	ppbV	1	1/27/2012 7:21:00 PM
-TIC: Benzen	e, 1,2;3-trimethyl-	1.5	0-	JN	ppbV	1	1/27/2012-7:21:00-PM
TIC: Benzene	e, 1,3,5-trimethyi-	2.2	0	JN	ppbV	1	1/27/2012 7:21:00 PM
TIC: Benzene dimethyl-	e, 1-ethyl-2,3-	1.8	0	JN	ppb∨	1	1/27/2012 7:21:00 PM

Qualifiers:

\*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

Results reported are not blank corrected

E Value above quantitation range

.

J Analyte detected at or below quantitation limits

Date: 03-Feb-12

CLIENT:	Tetra Tech			Client Sample ID:	SG21-2	211912
Lab Order:	C1201051			Tag Number:	170,14	6
Project:	Maryland MartinA	ir Middle River 1	12IC03634	Collection Date:	1/19/20	)1 <b>2</b>
Lab ID:	C1201051-005A	5621-0110	112	Matrix:	AIR	
Analyses		Result	**Limit Qu	al Units	DF	Date Analyze

ranary 505	resure		~~~~	Omia	DI	Date Analyzeu
1UG/M3 W/ NAPHTHALENE BY MET	HOD TO15	то-	15			Analyst: RJP
TIC: Benzene, 1-ethyl-2,4- dimethyl-	1.8	0	JN	ppbV	1	1/27/2012 7:21:00 PM
TIC: Benzene, 1-ethyl-2-methyl- (17.12)	3.4	0	JN	ppbV	1	1/27/2012 7:21:00 PM
TIC: Butane	1.3	0	JN	ppbV	1	1/27/2012 7:21:00 PM
TIC: Cobalt, (2-methyleta3- propenyl	4.4	0	JN	ррbV	1	1/27/2012 7:21:00 PM
TIC: Cyclohexane, methyl-	2.0	0	JN	ppbV	1	1/27/2012 7:21:00 PM
TIC: Cyclotrisiloxane, hexamethyl	5.3	D	JN	ppbV	1	1/27/2012 7:21:00 PM
TIC: Hexane, 2,2-dimethyl-	5.6	0	JN	ррbV	1	1/27/2012 7:21:00 PM
TIC: Indan, 1-methyl-	1.8	0	JN	ppbV	1	1/27/2012 7:21:00 PM
TIC: Pentane, 2,3,3-trimethyl-	3.0	0	JN	ppbV	1	1/27/2012 7:21:00 PM
TIC: Unknown (10.41)	1.2	0	JN	ppbV	1	1/27/2012 7:21:00 PM
TIC: Unknown (18.69)	1.3	0	JN	ppbV	1	1/27/2012 7:21:00 PM
TIC: Unknown alkane	2.5	D	JN	ppbV	1	1/27/2012 7:21:00 PM

Qualifiers:	**	Reporting Limit		Results reported are not blank corrected	
	В	Analyte detected in the associated Method Blank	Е	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation	limits
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit	
	S	Spike Recovery outside accepted recovery limits			Page 10 of 44

Date: 02-Feb-12

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CLIENT:	Tetra Tech			Clien	t Sample ID:	SG22	-011012	
Lab Order:	C1201051				ag Number;			
Project:	Maryland MartinA	ir Middle River	112IC03634		lection Date:	•		
Lab ID:	C1201051-016A	5G22-012			Matrix:	AIR		
Analyses		Result	**Limit	Qual Un	its	DF	Date Analyzed	
1UG/M3 W/ NAF	PHTHALENE BY ME	THOD TO15	TO	-15	-		Analyst: RJI	
1,1,1-Trichloroet	hane	ND	0,83	ug/r	n3	1	1/28/2012 1:33:00 AM	
1,1,2-Trichioroet	han <b>e</b>	ND	0.83	ug/r	n3	1	1/28/2012 1:33:00 AM	
1,1-Dichloroetha	ne	ND	0.62	ug/r	n3	1	1/28/2012 1:33:00 AM	
1,1-Dichloroethe	ne	ND	0.60	ug/r	n3	1	1/28/2012 1:33:00 AM	
1,2,4-Trichlorobe	enzene	ND	1.1	ug/r	n3	1	1/28/2012 1:33:00 AM	
1,2,4-Trimethylb	enzene	26	7.5	ug/r	n3	10	1/29/2012 4:34:00 AM	
1,2-Dichlorobenz	ene	ND	0.92	ug/r	n3	1	1/28/2012 1:33:00 AM	
1,2-Dichloroetha	ne	ND	0.62	ug/r	n3	1	1/28/2012 1:33:00 AM	
1,3-Dichlorobenz	ene	ND	0.92	ug/r	n3	1	1/28/2012 1:33:00 AM	
1,4-Dichtorobenz	ene	ND	0.92	ug/r	n3	1	1/28/2012 1:33:00 AM	
Benzene		39	4.9	ug/r	n3	10	1/29/2012 4:34:00 AM	
Carbon disulfide		33	4.7	ug/r	n3	10	1/29/2012 4:34:00 AM	
Carbon tetrachlo	ride	ND	0.26	ug/n	n3	1	1/28/2012 1:33:00 AM	
Chlorobenzene		ND	0.70	ug/n	n3	1	1/28/2012 1:33:00 AM	
Chloroform		ND	0.74	ug/n	n3	1	1/28/2012 1:33:00 AM	
Chloromethane		0.67	0.31	ug/n	n3	1	1/28/2012 1:33:00 AM	
cis-1,2-Dichloroe	thene	ND	0.60	ug/n	n3	1	1/28/2012 1:33:00 AM	
Ethylbenzene		6,9	0.66	ug/n		1	1/28/2012 1:33:00 AM	
Freon 12		61	7.5	ug/n		10	1/29/2012 4:34:00 AM	
m&p-Xylene		30	13	ug/n		10	1/29/2012 4:34:00 AM	
Methyl Ethyl Kete	one	270	36	ug/n		40	1/29/2012 5:07:00 AM	
Methyl tert-butyl	ether	ND	0.55	ug/n		1	1/28/2012 1:33:00 AM	
Methylene chlorid	de	0.49	0.53	J ug/n		1	1/28/2012 1:33:00 AM	
Naphthalene		7.7	0.80	ມ <b>g</b> /ກ		1	1/28/2012 1:33:00 AM	
o-Xylene		16	6.6	ug/n		10	1/29/2012 4:34:00 AM	
Tetrachloroethyle	ene	ND	1.0	ug/n		1	1/28/2012 1:33:00 AM	
Toluene		60	5.7	ug/n		10	1/29/2012 4:34:00 AM	
trans-1,2-Dichlor	oethene	ND	0.60	ug/n		1	1/28/2012 1:33:00 AM	
Trichloroethene		ND	0.22	ug/n		1	1/28/2012 1:33:00 AM	
Vinyl chloride		ND	0.10	ug/n		1	1/28/2012 1:33:00 AM	

rs: **	Reporting Limit	•	Results reported are not blank corrected	
В	Analyte detected in the associated Method Blank	Е	Value above quantitation range	
Н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation	n limits
ЛN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit	
S	Spike Recovery outside accepted recovery limits			Page 16 of 23
1	B H	<ul> <li>B Analyte detected in the associated Method Blank</li> <li>H Holding times for preparation or analysis exceeded</li> <li>N Non-routine analyte. Quantitation estimated.</li> </ul>	BAnalyte detected in the associated Method BlankEHHolding times for preparation or analysis exceededJJNNon-routine analyte. Quantitation estimated.ND	B       Analyte detected in the associated Method Blank       E       Value above quantitation range         H       Holding times for preparation or analysis exceeded       J       Analyte detected at or below quantitation         JN       Non-routine analyte. Quantitation estimated.       ND       Not Detected at the Reporting Limit

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CLIENT:	Tetra Tech			(	Client Sample ID:	SG22	-011012
Lab Order:	C1201051				Tag Number:	232,1	79
Project:	Marvland Martin	Air Middle River	112IC03634		Collection Date:	1/20/2	2012
Lab ID:	•	5G 22-012			Matrix:	AIR	
Analyses	<u></u>	Result	**Limit (	Qual	Units	DF	Date Analyzed
FIELD PARAM	ETERS		FLI	 כ			Analyst:
Lab Vacuum In		-4			"Hg		1/24/2012
Lab Vacuum Ou	ut	-30			"Hg		1/24/2012
1UG/M3 W/ NA	PHTHALENE BY MI	ETHOD TO15	TO-1	15			Analyst: RJP
1,1,1-Trichloroe	thane	ND	0.15		ppbV	1	1/28/2012 1:33:00 AM
1,1,2-Trichloroe	thane	ND	0.15		ppbV	1	1/28/2012 1:33:00 AM
1,1-Dichloroetha	ane	ND	0.15		ppbV	1	1/28/2012 1:33:00 AM
1,1-Dichloroethe	ene	ND	0.15		ppbV	1	1/28/2012 1:33:00 AM
1,2,4-Trichlorob	enzene	ND	0.15		ppbV	1	1/28/2012 1:33:00 AM
1,2,4-Trimethylt		5.3	1.5		ppbV	10	1/29/2012 4:34:00 AM
1,2-Dichloroben		ND	0.15		ppbV	1	1/28/2012 1:33:00 AM
1,2-Dichloroetha	ane	ND	0.15		ppbV	1	1/28/2012 1:33:00 AM
1,3-Dichloroben	zene	ND	0.15		ppbV	1	1/28/2012 1:33:00 AM
1,4-Dichloroben	izene	ND	0.15		ppbV	1	1/28/2012 1:33:00 AM
Benzene		12	1.5		ppbV	10	1/29/2012 4:34:00 AM
Carbon disulfide	•	10	1.5		ppbV	10	1/29/2012 4:34:00 AM
Carbon tetrachi	oride	ND	0.040		ppbV	1	1/28/2012 1:33:00 AM
Chlorobenzene		ND	0.15		ppbV	1	1/28/2012 1:33:00 AM
Chloroform		ND	0,15		ppbV	1	1/28/2012 1:33:00 AM
Chloromethane		0.32	0.15		ppbV	1	1/28/2012 1:33:00 AM
cis-1,2-Dichloro	ethene	ND	0.15		ppbV	1	1/28/2012 1:33:00 AM
Ethylbenzene		1.6	0.15		ppbV	1	1/28/2012 1:33:00 AM
Freon 12		12	1.5		ppbV	10	1/29/2012 4:34:00 AM
m&p-Xylene		6.7	3.0		ppbV	10	1/29/2012 4:34:00 AM
Methyl Ethyl Ke	tone	89	12		ppbV	40	1/29/2012 5:07:00 AM
Methyl tert-buty	l ether	ND	0.15		ppbV	1	1/28/2012 1:33:00 AM
Methylene chlor		0.14	0.15	J	ppbV	1	1/28/2012 1:33:00 AM
Naphthalene		1.4	0.15		ppbV	1	1/28/2012 1:33:00 AM
o-Xylene		3.6	1.5		ppbV	10	1/29/2012 4:34:00 AM
Tetrachloroethy	lene	ND	0.15		ppbV	1	1/28/2012 1:33:00 AM
Toluene		16	1.5		ppbV	10	1/29/2012 4:34:00 AM
trans-1,2-Dichlo	roethene	ND	0.15		ppbV	1	1/28/2012 1:33:00 AM
Trichloroethene		ND	0.040		ppbV	1	1/28/2012 1:33:00 AM
Vinyl chloride		ND	0.040		ppbV	1	1/28/2012 1:33:00 AM
Surr: Bromofi	luorobenzene	97.0	70-130		%REC	1	1/28/2012 1:33:00 AM
TIC: 1,3-Buta	diene, 2-methyl-	2.8	0	JN	ppbV	1	1/28/2012 1:33:00 AM
TIC: 1,3-Cycl		3.1	0	JN	ppbV	1	1/28/2012 1:33:00 AM
TIC: 1-Penter		2.9		.JN	ppbV	1	1/28/2012 1:33:00 AM
TIC: 1-Prope		19	0	JN	ppbV	1	1/28/2012 1:33:00 AM
TIC: 2-Buten	-	4.8	0	JN	ppbV	1	1/28/2012 1:33:00 AM

Qualifiers:

\*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

Results reported are not blank corrected

E Value above quantitation range

.

J Analyte detected at or below quantitation limits

Date: 03-Feb-12

CLIENT:	Tetra Tech			C	lient Sample	EID: SG22	-011012
Lab Order:	C1201051				Tag Num	ber: 232,1	79
Project:	Maryland MartinA	ir Middle River 1	12IC03634	4	<b>Collection</b> I	Date: 1/20/2	2012
Lab ID:	C1201051-016A	5622-0120	12		Ma	trix: AIR	
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 W/ NAF	PHTHALENE BY ME	THOD TO15	тс	)-15			Analyst: RJF
TIC: 2-Hepter	e	3.0	0	JN	ppb∨	1	1/28/2012 1:33:00 AM
TIC: 2-Penter	ie, (Z)-	3.5	0	JN	ppbV	1	1/28/2012 1:33:00 AM
TIC: Butane		8.4	0	JN	ppbV	1	1/28/2012 1:33:00 AM
TIC: Butane, 2	2-methyl-	3.0	0	JN	ppbV	1	1/28/2012 1:33:00 AM
TIC: Cyclotris	iloxane, hexamethyl	3.5	0	JN	ppbV	1	1/28/2012 1:33:00 AM
TIC: Methallyl	cyanide	9.2	Ó	JN	ppb∨	1	1/28/2012 1:33:00 AM
TIC: Pentane		3.1	0	JN	ppbV	1	1/28/2012 1:33:00 AM
TIC: Unknowr	n (10.41)	4.8	D	JN	ppbV	1	1/28/2012 1:33:00 AM
TIC: Unknowr	1 (3.39)	3.0	0	JN	ppb∨	1	1/28/2012 1:33:00 AM
TIC: Unknowr	1 (8.21)	3.3	0	JN	ppbV	1	1/28/2012 1:33:00 AM
TIC: Unknowr	1 alkane (2.93)	8.4	0	JN	ppbV	1	1/28/2012 1:33:00 AM
TIC: Unknowr	n alkane (5.76)	2.9	0	JN	ppbV	1	1/28/2012 1:33:00 AM
TIC: Unknowr	n alkane (9.99)	5.9	0	JN	ppbV	1	1/28/2012 1:33:00 AM

Qualifiers:

\*\* Reporting Limit

B Analyte detected in the associated Method Blank

- H Holding times for preparation or analysis exceeded
- JN Non-routine analyte. Quantitation estimated.
- S Spike Recovery outside accepted recovery limits
- . Results reported are not blank corrected
- E Value above quantitation range
- J Analyte detected at or below quantitation limits
- ND Not Detected at the Reporting Limit Page 31 of 44

Date: 02-Feb-12

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CLIENT:	Tetra Tech			<b>Client Sample ID:</b>	SG23-0	11912
Lab Order:	C1201051			Tag Number:	463,69	
Project:	Maryland MartinA	ir Middle River 1	12IC03634	<b>Collection Date:</b>	1/19/203	12
Lab ID:	C1201051-006A	5G23-011	912	Matrix:	AIR	
Analyses		Result	**Limit Qu	al Units	DF	Date Analyzed

		<b>v</b>			Date Many Loa
UG/M3 W/ NAPHTHALENE BY M	AETHOD TO15	TO-1	5		Analyst: RJP
1,1,1-Trichloroethane	ND	0.83	ug/m3	1	1/27/2012 7:55:00 PM
1,1,2-Trichloroethane	ND	0.83	ug/m3	1	1/27/2012 7:55:00 PM
1,1-Dichloroethane	ND	0.62	ug/m3	1	1/27/2012 7:55:00 PM
1,1-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 7:55:00 PM
1,2,4-Trichlorobenzene	ND	1.1	ug/m3	1	1/27/2012 7:55:00 PM
1,2,4-Trimethylbenzene	25	7.5	ug/m3	10	1/28/2012 9:49:00 AM
1,2-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 7:55:00 PM
1,2-Dichloroethane	ND	0.62	ug/m3	1	1/27/2012 7:55:00 PM
1,3-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 7:55:00 PM
1,4-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 7:55:00 PM
Benzene	4.1	0.49	ug/m3	1	1/27/2012 7:55:00 PM
Carbon disulfide	1.8	0.47	ug/m3	1	1/27/2012 7:55:00 PM
Carbon tetrachloride	ND	0.26	ug/m3	1	1/27/2012 7:55:00 PM
Chlorobenzene	ND	0.70	ug/m3	1	1/27/2012 7:55:00 PM
Chloroform	ND	0.74	ug/m3	1	1/27/2012 7:55:00 PM
Chloromethane	ND	0.31	ug/m3	1	1/27/2012 7:55:00 PM
cis-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 7:55:00 PM
Ethylbenzene	4.8	0.66	ug/m3	1	1/27/2012 7:55:00 PM
Freon 12	1.8	0.75	ug/m3	1	1/27/2012 7:55:00 PM
m&p-Xylene	17	1.3	ug/m3	1	1/27/2012 7:55:00 PM
Methyl Ethyl Ketone	30	9.0	ug/m3	10	1/28/2012 9:49:00 AM
Methyl tert-butyl ether	ND	0,55	ug/m3	1	1/27/2012 7:55:00 PM
Methylene chloride	0.46	0.53	J ug/m3	1	1/27/2012 7:55:00 PM
Naphthalene	11	0.80	ug/m3	1	1/27/2012 7:55:00 PM
o-Xylene	10	0.66	ug/m3	1	1/27/2012 7:55:00 PM
Tetrachloroethylene	ND	1.0	ug/m3	1	1/27/2012 7:55:00 PM
Toluene	22	5.7	ug/m3	10	1/28/2012 9:49:00 AM
trans-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 7:55:00 PM
Trichloroethene	ND	0.22	ug/m3	1	1/27/2012 7:55:00 PM
Vinyl chloride	ND	0.10	ug/m3	1	1/27/2012 7:55:00 PM

Qualifiers:	**	Reporting Limit	•	Results reported are not blank corrected	
	в	Analyte detected in the associated Method Blank	Е	Value above quantitation range	
	н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitatio	n limits
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit	
	S	Spike Recovery outside accepted recovery limits			Page 6 of 23

LIENT:	Tetra Tech			C	Client Sample ID:	SG23-	011912
b Order:	C1201051				Tag Number:	463,69	9
oject:	Maryland Martin	Air Middle River	112IC03634		Collection Date:	1/19/2	012
b ID:	C1201051-006A	5623-01			Matrix:	AIR	
alyses		Result	**Limit	Oual	Tinits	DF	Date Analyzed
						Br	
	TERS		FL	Ð	MI I_		Analyst:
ab Vacuum In		-1			"Hg		1/24/2012
ab Vacuum Out		-30			"Hg		1/24/2012
G/M3 W/ NAP	HTHALENE BY ME	ETHOD TO15	то	-15			Analyst: RJ
1,1-Trichloroet		ND	0.15		ppbV	1	1/27/2012 7:55:00 PN
1,2-Trichloroeth		ND	0.15		ppbV	1	1/27/2012 7:55:00 PM
1-Dichloroethai		ND	0.15		ppbV	1	1/27/2012 7:55:00 PM
1-Dichloroether		ND	0.15		ppbV	1	1/27/2012 7:55:00 PM
,2,4-Trichlorobe		ND	0.15		ppbV	1	1/27/2012 7:55:00 PN
2,4-Trimethylbe		5.1	1.5		ppbV	10	1/28/2012 9:49:00 AN
2-Dichlorobenz		ND	0.15		ppbV	1	1/27/2012 7:55:00 PM
2-Dichloroethai		ND	0.15		ppbV	1	1/27/2012 7:55:00 PM
3-Dichlorobenz	ene	ND	0.15		ppbV	1	1/27/2012 7:55:00 PN
1-Dichlorobenz	ene	ND	0.15		ppbV	1	1/27/2012 7:55:00 PN
nzene		1.3	0.15		ppbV	1	1/27/2012 7:55:00 PN
rbon disulfide		0.56	0.15		ppbV	1	1/27/2012 7:55:00 PN
bon tetrachloi	ride	ND	0.040		ppbV	1	1/27/2012 7:55:00 PN
probenzene		ND	0,15		ppbV	1	1/27/2012 7:55:00 PN
proform		ND	0.15		ppbV	1	1/27/2012 7:55:00 PM
promethane		ND	0.15		ppbV	1	1/27/2012 7:55:00 PN
,2-Dichloroe	thene	ND	0.15		ppbV	1	1/27/2012 7:55:00 PN
lbenzene		1.1	0.15		ppbV	1	1/27/2012 7:55:00 PM
on 12		0.36	0.15		ppbV	1	1/27/2012 7:55:00 PN
p-Xylene		3.8	0.30		ppbV	1	1/27/2012 7:55:00 PM
thyl Ethyl Keto		9.9	3.0		ppbV	10	1/28/2012 9:49:00 AM
ethyl tert-butyl		ND	0.15		ppbV	1	1/27/2012 7:55:00 PM
ethylene chlorid	le	0.13	0.15	J	ppbV	1	1/27/2012 7:55:00 PM
aphthalene		2.0	0.15		ppbV	1	1/27/2012 7:55:00 PM
Xylene		2.3	0.15		ppbV	1	1/27/2012 7:55:00 PN
etrachloroethyle	ne	ND	0.15		ppbV	1	1/27/2012 7:55:00 PM
luene		5.8	1.5		ppbV	10	1/28/2012 9:49:00 AN
ans-1,2-Dichlor	oethene	ND	0.15		ppbV	1	1/27/2012 7:55:00 PM
ichloroethene		ND	0.040		ppbV	1	1/27/2012 7:55:00 PM
nyl chloride		ND	0.040		ppbV	1	1/27/2012 7:55:00 PM
Surr: Bromoflu		96.0	70-130		%REC	1	1/27/2012 7:55:00 PN
TIC: (1R)-2,6,6 imethylbicyclo[		1.8	0	JN	ppbV	1	1/27/2012 7:55:00 PN
TIC: 1-Propent		6.8	0	JN	ppbV	1	1/27/2012 7:55:00 PM
TIC: Benzene, openyl)-	(2-methyl-2-	1.8	0	JN	ppbV	1	1/27/2012 7:55:00 PN
	1,2,3-trimethyl-	2.4	0	JN	ppbV	1	1/27/2012 7:55:00 PN

#### Date: 03-Feb-12

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

Results reported are not blank corrected

E Value above quantitation range

.

J Analyte detected at or below quantitation limits

### Date: 03-Feb-12

	1201051 Iaryland MartinA	ir Middle Diver		-	mber:	463,69	
Project: N	aryland MartinA	in Middle Diver					
			112IC03634	Collection	Date:	1/19/2012	
Lab ID: C	1201051-006A	5G23-01	1912		fatrix:	AIR	
Analyses		Result	**Limit Q	ual Units		DF I	Date Analyzed

TUG/WJ W/ NAPHIMALENE DI WEIN		10-	-15			Analyst: RJP	
TIC: Benzene, 1,3,5-trimethyl-	1.6	0	JN	ppbV	1	1/27/2012 7:55:00 PM	
TIC: Benzene, 1-ethyl-2-methyl-	1.5	0	JN	ppbV	1	1/27/2012 7:55:00 PM	
TIC: Benzene, 1-ethyl-3-methyl-	2.2	0	JN	ppbV	1	1/27/2012 7:55:00 PM	
TIC: Benzene, 1-methyl-2-(1- methylethyl	1.1	0	JN	ррЬ∨	1	1/27/2012 7:55:00 PM	
TIC: Benzene, 1-methyl-3-(1- methylethyl	1.8	0	JN	ppbV	1	1/27/2012 7:55:00 PM	
TIC: Benzene, 4-ethyl-1,2- dimethyl-	2.0	. 0	JN	ррь∨	1	1/27/2012 7:55:00 PM	
TIC: Butane	11	0	JN	ppbV	1	1/27/2012 7:55:00 PM	
TIC: Butane, 2-methyl-	2.1	0	JN	ppbV	1	1/27/2012 7:55:00 PM	
TIC: Cyclohexane, methyl-	1.6	0	JN	ppbV	1	1/27/2012 7:55:00 PM	
TIC: Cyclotrisiloxane, hexamethyl	5.2	0	JN	ppbV	1	1/27/2012 7:55:00 PM	
TIC: Pentane, 2,2,4-trimethyl-	3.4	0	JN	ppbV	1	1/27/2012 7:55:00 PM	
TIC: Pentane, 2,3,3-trimethyl-	2.5	0	JN	ppbV	1	1/27/2012 7:55:00 PM	
TIC: Pentane, 2,3,4-trimethyl-	1.8	0	JN	ppbV	1	1/27/2012 7:55:00 PM	
TIC: Pentane, 2-methyl-	2.1	0	JN	ppbV	1	1/27/2012 7:55:00 PM	
TIC: Unknown alkane	5.6	0	JN	ppbV	1	1/27/2012 7:55:00 PM	

Qualifiers:	**	Reporting Limit		Results reported are not blank corrected	
	В	Analyte detected in the associated Method Blank	E	Value above quantitation range	
	н	Holding times for preparation or analysis exceeded	l	Analyte detected at or below quantitation	on limits
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit	D 10 044
	S	Spike Recovery outside accepted recovery limits			Page 12 of 44

Date: 02-Feb-12

CLIENT:	Tetra Tech	Client Sample ID:	SG24-011912
Lab Order:	C1201051	<b>Tag Number:</b>	364,121
Project:	Maryland MartinAir Middle River 112IC03634	<b>Collection Date:</b>	1/19/2012
Lab ID:	C1201051-007A 5624-011912	Matrix:	AIR

Analyses	Result	**Limit Qu	ual Units	DF	Date Analyzed
UG/M3 W/ NAPHTHALENE BY	METHOD TO15	TO-15	;		Analyst: RJP
1,1,1-Trichloroethane	ND	0.83	ug/m3	1	1/27/2012 8:28:00 PM
1,1,2-Trichloroethane	ND	0.83	ug/m3	1	1/27/2012 8:28:00 PM
1,1-Dichloroethane	ND	0.62	ug/m3	1	1/27/2012 8:28:00 PM
1,1-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 8:28:00 PM
,2,4-Trichlorobenzene	ND	1.1	ug/m3	1	1/27/2012 8:28:00 PM
,2,4-Trimethylbenzene	19	7.5	ug/m3	10	1/28/2012 8:22:00 PM
,2-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 8:28:00 PM
,2-Dichloroethane	ND	0.62	ug/m3	1	1/27/2012 8:28:00 PM
,3-Dichlorobenzene	ND	0,92	ug/m3	1	1/27/2012 8:28:00 PM
1,4-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 8:28:00 PM
Велzеле	10	4.9	ug/m3	10	1/28/2012 8:22:00 PM
arbon disulfide	1.3	0.47	ug/m3	1	1/27/2012 8:28:00 PM
arbon tetrachloride	ND	0.26	ug/m3	1	1/27/2012 8:28:00 PM
hlorobenzene	ND	0.70	ug/m3	1	1/27/2012 8:28:00 PM
hloroform	ND	0.74	ug/m3	1	1/27/2012 8:28:00 PM
hloromethane	ND	0.31	ug/m3	1	1/27/2012 8:28:00 PM
s-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 8:28:00 PM
thylbenzene	6.9	0.66	ug/m3	1	1/27/2012 8:28:00 PM
reon 12	2.0	0.75	ug/m3	1	1/27/2012 8:28:00 PM
&p-Xylene	23		ug/m3	10	1/28/2012-8:22:00 <sup>-</sup> PM-
ethyl Ethyl Ketone	40	9.0	ug/m3	10	1/28/2012 8:22:00 PM
ethyl tert-butyl ether	ND	0.55	ug/m3	1	1/27/2012 8:28:00 PM
lethylene chloride	0.56	0.53	ug/m3	1	1/27/2012 8:28:00 PM
aphthalene	3.9	0.80	ug/m3	1	1/27/2012 8:28:00 PM
Xylene	13	6,6	ug/m3	10	1/28/2012 8:22:00 PM
etrachloroethylene	ND	1.0	ug/m3	1	1/27/2012 8:28:00 PM
bluene	34	5.7	ug/m3	10	1/28/2012 8:22:00 PM
ans-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 8:28:00 PM
richloroethene		0.22	ug/m3		1/27/2012 8:28:00 PM
/inyl chloride	<b>ND</b>	0.10	ug/m3	e e <b>1</b> e	1/27/2012 8:28:00 PM

Qualifiers:	**	Reporting Limit		Results reported are not blank corrected	
	в	Analyte detected in the associated Method Blank	Е	Value above quantitation range	
	н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation	n limits
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit	
	S	Spike Recovery outside accepted recovery limits			Page 7 of 23

Date: 03-Feb-12

CLIENT:	Tetra Tech			Client Sample ID:	SG24	-011912
ab Order:	C1201051			Tag Number:	364,1	21
roject:	Maryland Martin/	Air Middle River I	12IC03634	<b>Collection Date:</b>	1/19/2	2012
ab ID:	C1201051-007A	5624-01	1912	Matrix:	AIR	
nalyses		Result	**Limit Qu	al Units	DF	Date Analyzed
IELD PARAME	TERS		FLD			Analyst:
Lab Vacuum In		-5		"Hg		1/24/2012
Lab Vacuum Ou	t	-30		"Hg		1/24/2012
UG/M3 W/ NAF	PHTHALENE BY ME	THOD TO15	TO-15			Analyst: RJP
1,1,1-Trichloroet		ND	0.15	ррьV	1	1/27/2012 8:28:00 PM
1,1,2-Trichloroet		ND	0.15	ppbV	1	1/27/2012 8:28:00 PM
1,1-Dichloroetha		ND	0.15	ppbV	1	1/27/2012 8:28:00 PM
1,1-Dichloroethe		ND	0.15	рррЛ	1	1/27/2012 8:28:00 PM
1,2,4-Trichlorobe	enzene	ND	0.15	ppbV	1	1/27/2012 8:28:00 PM
1,2,4-Trimethylb	enzene	3.9	1.5	ppbV	10	1/28/2012 8:22:00 PM
1,2-Dichlorobena	zene	ND	0.15	ppbV	1	1/27/2012 8:28:00 PM
1,2-Dichloroetha	ne	ND	0.15	ppbV	1	1/27/2012 8:28:00 PM
1,3-Dichlorobenz	zene	ND	0.15	ppbV	1	1/27/2012 8:28:00 PM
4-Dichlorobenz	zene	ND	0.15	ррbV	1	1/27/2012 8:28:00 PM
Benzene		3.1	1.5	ppbV	10	1/28/2012 B:22:00 PM
Carbon disulfide		0.40	0.15	ppbV	1	1/27/2012 8:28:00 PM
arbon tetrachio	ride	ND	0.040	ppbV	1	1/27/2012 8:28:00 PM
hlorobenzene		ND	0.15	ppbV	1	1/27/2012 8:28:00 PM
hloroform		ND	0.15	ppbV	1	1/27/2012 8:28:00 PM
hloromethane		ND	0,15	ppbV	1	1/27/2012 8:28:00 PM
is-1,2-Dichloroe	ethene	ND	D.15	ppbV	1	1/27/2012 8:28:00 PM
thylbenzene		1.6	0.15	ppbV	1	1/27/2012 8:28:00 PM
reon 12		0.39	0.15	ppbV	1	1/27/2012 8:28:00 PM
n&p-Xylene		5.3	3.0	ppbV	10	1/28/2012 8:22:00 PM
Methyl Ethyl Ket	опе	13	3.0	ppbV	10	1/28/2012 8:22:00 PM
Methyl tert-butyl		ND	0.15	ppbV	1	1/27/2012 8:28:00 PM
Methylene chlori		0.16	0.15	ppbV	1	1/27/2012 8:28:00 PM
Naphthalene		0.74	0.15	ppbV	1	1/27/2012 8:28:00 PM
o-Xylene		2.9	1.5	ppbV	10	1/28/2012 8:22:00 PM
Fetrachloroethyle	ene	ND	0.15	ppbV	1	1/27/2012 8:28:00 PM
Foluene		9.0	1.5	ppbV	10	1/28/2012 8:22:00 PM
rans-1,2-Dichlor	oethene	ND	0.15	ppbV	1	1/27/2012 8:28:00 PM
richloroethene		ND	0.040	ppbV	1	1/27/2012 8:28:00 PM
inyl chloride		ND	0.040	ppbV	1	1/27/2012 8:28:00 PM
Surr: Bromoflu	lorobenzene	92.0	70-130	%REC	1	1/27/2012 8:28:00 PM
TIC: (1R)-2,6,	6-	1.9	0 JN	ppbV	1	1/27/2012 8:28:00 PM
Trimethylbicyclo	[3.1 <i>.</i> 1] , 1,2,3-trimethyl-	2.4	0 JN	ppbV	1	1/27/2012 8:28:00 PM
	, 1,3,5-trimethyl-	1.6	0 JN	ppbV ppbV	1	1/27/2012 8:28:00 PM
TIC: Benzene TIC: Benzene	-	1.5 2,1	O JN		1 1	1/27/2012 8:28:00 PM 1/27/2012 8:28:00 PM

Qualifiers:

\*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

Results reported are not blank corrected

E Value above quantitation range

.

J Analyte detected at or below quantitation limits

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CLIENT:	Tetra Tech			C	lient San	nple ID:	SG24	-011912
Lab Order:	C1201051				Tag N	lumber:	364,1	21
Project:	Maryland MartinAi	Middle River 1	2IC03634	ļ	Collectio	on Date:	1/19/2	2012
Lab ID:	C1201051-007A	5624-0119	12			Matrix:	AIR	
Analyses		Result	**Limit	Qual	Units		DF	Date Analyzed
1UG/M3 W/ NAPH	THALENE BY MET	HOD TO15	то	-15				Analyst: RJP
TIC: Benzene, 1 (16.82)	-ethyl-2-methyl-	3.8	0	JN	ppbV		1	1/27/2012 8:28:00 PM
TIC: Benzene, 1 methylethyl	I-methy -2-(1-	1.6	0	JN	ррbV		1	1/27/2012 8:28:00 PM
TIC: Benzene, 1 methylpropy	I-methyl-4-(1-	1.2	0	JN	₽₽bV		1	1/27/2012 8:28:00 PM
TIC: Butanal, 3-	methyl-	1.2	0	JN	ppbV		1	1/27/2012 8:28:00 PM
TIC: Cyclohexa	ne, methyl-	1.8	0	JN	ppbV		1	1/27/2012 8:28:00 PM
TIC: Cyclotrisllo	xane, hexamethyl	3.6	0	JN	ppbV		1	1/27/2012 8:28:00 PM
TIC: Indan, 1-m	ethyi-	1.6	Q	JN	ppbV		1	1/27/2012 8:28:00 PM
TIC: Pentane, 2	,2,4-trimethyl-	4.9	0	JN	ppbV		1	1/27/2012 8:28:00 PM
TIC: Pentane, 2	,3,3-trimethyl-	2.9	0	JN	ppbV		1	1/27/2012 8:28:00 PM
TIC: Pentane, 2	,3,4-trimethyl-	2.1	0	JN	ppbV		1	1/27/2012 8:28:00 PM
TIC: Pentane, 2	-methyl-	1.5	0	JN	ppbV		1	1/27/2012 8:28:00 PM
TIC: Unknown (	16.71)	3.2	0	JN	ppbV		1	1/27/2012 8:28:00 PM
TIC: Unknown (	18.69)	1.4	0	JN	ppbV		1	1/27/2012 8:28:00 PM
TIC: Unknown (	3.17)	5.9	0	JN	ppbV		1	1/27/2012 8:28:00 PM

Date: 03-Feb-12

## Centek Laboratories, LLC

#### Qualifiers: \*\* **Reporting Limit** Results reported are not blank corrected • В Analyte detected in the associated Method Blank Ε Value above quantitation range Н Holding times for preparation or analysis exceeded Analyte detected at or below quantitation limits J JN Non-routine analyte. Quantitation estimated. ND Not Detected at the Reporting Limit Page 14 of 44 S Spike Recovery outside accepted recovery limits

CLIENT:	Tetra Tech			С	ient Sample ID:	SG25-01	1912
Lab Order:	C1201051				Tag Number:	421,302	
Project:	Maryland MartinA	ir Middle River	112IC03634	Ļ	<b>Collection Date:</b>	1/19/201:	2
Lab ID:	C1201051-008A	5625-011	1912		Matrix:	AIR	
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed

1UG/M3 W/ NAPHTHALENE BY METH	TO-15	;	Analyst: RJP		
1,1,1-Trichloroethane	ND	0.83	ug/m3	1	1/27/2012 9:01:00 PM
1,1,2-Trichloroethane	ND	0.83	ug/m3	1	1/27/2012 9:01:00 PM
1,1-Dichloroethane	ND	0.62	ug/m3	1	1/27/2012 9:01:00 PM
1,1-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 9:01:00 PM
1,2,4-Trichlorobenzene	ND	1.1	ug/m3	1	1/27/2012 9:01:00 PM
1,2,4-Trimethylbenzene	2.4	0.75	ug/m3	1	1/27/2012 9:01:00 PM
1,2-Dichlorobenzene	ND	0,92	ug/m3	1	1/27/2012 9:01:00 PM
1,2-Dichloroethane	0.70	0.62	ug/m3	1	1/27/2012 9:01:00 PM
1,3-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 9:01:00 PM
1,4-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 9:01:00 PM
Benzene	1.4	0.49	ug/m3	1	1/27/2012 9:01:00 PM
Carbon disulfide	0.60	0.47	ug/m3	1	1/27/2012 9:01:00 PM
Carbon tetrachloride	ND	0.26	ug/m3	1	1/27/2012 9:01:00 PM
Chlorobenzene	ND	0.70	ug/m3	· 1	1/27/2012 9:01:00 PM
Chloroform	0.50	0.74 .	J ug/m3	1	1/27/2012 9:01:00 PM
Chloromethane	ND	0.31	ug/m3	1	1/27/2012 9:01:00 PM
cis-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 9:01:00 PM
Ethylbenzene	2.3	0.66	ug/m3	1	1/27/2012 9:01:00 PM
Freon 12	2.3	0.75	ug/m3	1	1/27/2012 9:01:00 PM
m&p-Xylene	5.0	1.3	ug/m3	1	1/27/2012 9:01:00 PM
Methyl Ethyl Ketone	22	4.5	ug/m3	5	1/28/2012 8:54:00 PM
Methyl tert-butyl ether	ND	0.55	บ <b>g/m3</b>	1	1/27/2012 9:01:00 PM
Methylene chloride	5.7	0.53	ug/m3	1	1/27/2012 9:01:00 PM
Naphthaiene	1.0	0.80	ug/m3	1	1/27/2012 9:01:00 PM
o-Xylene	2.0	0.66	ug/m3	1	1/27/2012 9:01:00 PM
Tetrachloroethylene	ND	1.0	ug/m3	1	1/27/2012 9:01:00 PM
Toluene	270	23	ug/m3	40	1/28/2012 9:27:00 PM
trans-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 9:01:00 PM
Trichloroethene	ND	0.22	ug/m3	1	1/27/2012 9:01:00 PM
Vinyl chloride	ND	0,10	ug/m3	1	1/27/2012 9:01:00 PM

Qualifiers:	**	Reporting Limit		Results reported are not blank corrected		
	В	Analyte detected in the associated Method Blank	E	Value above quantitation range		
H JN S	Н	Holding times for preparation or analysis exceeded	Ţ	Analyte detected at or below quantitation limits		
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit		
	Spike Recovery outside accepted recovery limits			Page 8 of 23		

Date: 03-Feb-12

CLIENT:	Tetra Tech			C	Client Sample ID:	SG25-0	11912
Lab Order:	C1201051				Tag Number:	421,302	
Project:	Maryland MartinA	ir Middle River	112IC03634		<b>Collection Date:</b>	1/19/20	12
Lab ID:	C1201051-008A	5625-01	1912		Matrix:	AIR	
Analyses	·	Result	**Limit	Qual	Units	DF	Date Analyzed
FIELD PARAM	ETERS		FL	D			Analyst:
Lab Vacuum In		-5			"Hg		1/24/2012
Lab Vacuum O	ut	-30			"Hg		1/24/2012
1UG/M3 W/ NA	PHTHALENE BY MET	HOD TO15	TO-	15			Analyst: RJP
1,1,1-Trichloroe	ethane	ND	0.15		ppbV	1	1/27/2012 9:01:00 PM
1,1,2-Trichloroe	ethane	ND	0.15		ppbV	1	1/27/2012 9:01:00 PM
1,1-Dichloroeth	ane	ND	0.15		ppbV	1	1/27/2012 9:01:00 PM
1,1-Dichloroeth	ene	ND	0.15		ppbV	1	1/27/2012 9:01:00 PM
1,2,4-Trichlorob	enzene	ND	0.15		ppbV	1	1/27/2012 9:01:00 PM
1,2,4-Trimethyil	benzene	0.49	0.15		ppbV	1	1/27/2012 9:01:00 PM
1,2-Dichlorober	izerie	ND	0.15		ppbV	1	1/27/2012 9:01:00 PM
1,2-Dichloroeth	ane	0.17	0.15		ppbV	1	1/27/2012 9:01:00 PM
1,3-Dichlorober	zene	ND	0.15		ррbV	1	1/27/2012 9:01:00 PM
1,4-Dichloroben	zene	ND	0.15		ppb∨	1	1/27/2012 9:01:00 PM
Benzene		0.42	0.15		ppbV	1	1/27/2012 9:01:00 PM
Carbon disulfide	e	0.19	0.15		ppbV	1	1/27/2012 9:01:00 PM
Carbon tetrachl	oride	ND	0.040		ppbV	1	1/27/2012 9:01:00 PM
Chlorobenzene		ND	0.15		ррbV	1	1/27/2012 9:01:00 PM
Chloroform		0.10	0.15	J	ррbV	1	1/27/2012 9:01:00 PM
Chloromethane		ND	0.15		ppbV	1	1/27/2012 9:01:00 PM
cis-1,2-Dichloro	ethene	ND	0.15		ppbV	1	1/27/2012 9:01:00 PM
Ethylbenzene		0.52	0.15		ppbV	1	1/27/2012 9:01:00 PM
Freon 12		0.46	0.15		ррbV	1	1/27/2012 9:01:00 PM
m&p-Xylene		1.1	0.30		ppbV	1	1/27/2012 9:01:00 PM
Methyl Ethyl Ke	tone	7.2	1.5		рръV	5	1/28/2012 8:54:00 PM
Methyl tert-buty	l ether	ND	0.15		ррьV	1	1/27/2012 9:01:00 PM
Methylene chlor	ride	1.6	0.15		ppbV	1	1/27/2012 9:01:00 PM
Naphthalene		0.19	0.15		ppbV	1	1/27/2012 9:01:00 PM
o-Xylene		0.45	0.15		ppbV	1	1/27/2012 9:01:00 PM
Tetrachloroethy	lene	ND	0.15		ppbV	1	1/27/2012 9:01:00 PM
Toluene		69	6,0		ppbV	40	1/28/2012 9:27:00 PM
trans-1,2-Dichlo	roethene	ND	0,15		ppbV	1	1/27/2012 9:01:00 PM
Trichloroethene		ND	0.040		ppbV	1	1/27/2012 9:01:00 PM
Vinyl chloride		ND	0.040		ppbV	1	1/27/2012 9:01:00 PM
Surr: Bromof	luorobenzene	93.0	70-130		%REC	1	1/27/2012 9:01:00 PM
TIC: .alphaF	Pinene	0.67	0	JN	ppbV	1	1/27/2012 9:01:00 PM
TIC: Acetalde	ehyde	0.96	0	JN	ppbV	1	1/27/2012 9:01:00 PM
TIC: Benzoic		1,1	00	JN	ppbV	1	1/27/2012 9:01:00 PM
((trimethylsilyl)o							
TIC: Butane		2.2	0	JN	ppbV	1	1/27/2012 9:01:00 PM
TIC: Butane,	2,2,3,3-tetramethyl-	0.62	0	JN	ppbV	1	1/27/2012 9:01:00 PM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte, Quantitation estimated,

S Spike Recovery outside accepted recovery limits

Results reported are not blank corrected

E Value above quantitation range

.

J Analyte detected at or below quantitation limits

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ND Not Detected at the Reporting Limit

Date: 03-Feb-12

CLIENT:	Tetra Tech			C	lient Sam	ple ID:	SG25	-011912
Lab Order:	C1201051		Tag Number: 4			421,3	02	
Project:	Maryland MartinAi	r Middle River 1	12IC03634	ł	Collectio	n Date:	1/19/2	2012
Lab ID:	C1201051-008A	5625-0	11912		ľ	Matrix:	AIR	
Analyses		Result	**Limit	Qual	Units		DF	Date Analyzed
UG/M3 W/ NAPI	THALENE BY MET	HOD TO15	то	-15				Analyst: RJF
TIC: Butane, 2,	3-dimethyi-	1.0	0	JN	ppbV		1	1/27/2012 9:01:00 PM
TIC: Butane, 2-	methyl-	6.3	0	JN	ppbV		1	1/27/2012 9:01:00 PM
TIC: Cyclohexa	ne, 1,2,4-trimethyl	0.72	0	JN	ppbV		1	1/27/2012 9:01:00 PM
TIC: Cyclohexa	ne, methyl-	0.77	0	JN	ppbV		1	1/27/2012 9:01:00 PM
TIC: Cyclotrisilo	ixane, hexamethyl	3.8	0	JN	ppbV		1	1/27/2012 9:01:00 PM
TIC: Isobutane		3.0	0	JN	ppbV		1	1/27/2012 9:01:00 PM
TIC: Limonene		3.0	0	JN	ppbV		1	1/27/2012 9:01:00 PM
TIC: Pentane, 3	-methyl-	1.1	0	JN	ppbV		1	1/27/2012 9:01:00 PM
TIC: Unknown (	16.71)	4.8	0	JN	ppbV		1	1/27/2012 9:01:00 PM
TIC: Unknown (	9.13)	0.59	0	JN	ppbV		1	1/27/2012 9:01:00 PM
TIC: Unknown a	alkane	1.0	0	JN	ppbV		1	1/27/2012 9:01:00 PM

Qualifiers:

\*\* Reporting Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- JN Non-routine analyte. Quantitation estimated.
- S Spike Recovery outside accepted recovery limits
- . Results reported are not blank corrected
- E Value above quantitation range
- J Analyte detected at or below quantitation limits

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ND Not Detected at the Reporting Limit

Date: 02-Feb-12

CLIENT:	Tetra Tech		Client Sample ID:	SG3-011	012
Lab Order:	C1201051		Tag Number:	215,79	
Project:	Maryland MartinA	r Middle River 112IC03634	Collection Date:	1/20/201	2
Lab ID:	C1201051-014A	563-012012	Matrix:	AIR	
Analyses		Result **Limit	Oual Units	DF	Date Analyzed

Analyses	Result	**Limit Qu	ual Units	DF	Date Analyzed
1UG/M3 W/ NAPHTHALENE BY I	METHOD TO15	TO-15			Analyst: RJP
1,1,1-Trichloroethane	ND	0.83	ug/m3	1	1/27/2012 2:18:00 PM
1,1,2-Trichloroethane	ND	0.83	ug/m3	1	1/27/2012 2:18:00 PM
1,1-Dichloroethane	ND	0.62	ug/m3	1	1/27/2012 2:18:00 PM
1,1-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 2:18:00 PM
1,2,4-Trichlorobenzene	ND	1.1	ug/m3	1	1/27/2012 2:18:00 PM
1,2,4-Trimethylbenzene	14	3.7	ug/m3	5	1/27/2012 4:01:00 PM
1,2-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 2:18:00 PM
1,2-Dichloroethane	ND	0.62	ug/m3	1	1/27/2012 2:18:00 PM
1,3-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 2:18:00 PM
1,4-Dichlorobenzene	ND	0.92	ug/m3	1	1/27/2012 2:18:00 PM
Benzene	18	2.4	ug/m3	5	1/27/2012 4:01:00 PM
Carbon disulfide	15	2.4	ug/m3	5	1/27/2012 4:01:00 PM
Carbon tetrachloride	ND	0.26	ug/m3	1	1/27/2012 2:18:00 PM
Chlorobenzene	ND	0.70	ug/m3	1	1/27/2012 2:18:00 PM
Chloroform	ND	0.74	ug/m3	1	1/27/2012 2:18:00 PM
Chloromethane	0.55	0.31	ug/m3	1	1/27/2012 2:18:00 PM
cis-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 2:18:00 PM
Ethylbenzene	5.2	0.66	ug/m3	1	1/27/2012 2:18:00 PM
Freon 12	1.8	0.75	ug/m3	1	1/27/2012 2:18:00 PM
m&p-Xylene	16	1.3	ug/m3	1	1/27/2012 2:18:00 PM
Methyl Ethyl Ketone	38	36	ug/m3	40	1/27/2012 4:34:00 PM
Methyl tert-butyl ether	ND	0.55	ug/m3	1	1/27/2012 2:18:00 PM
Methylene chloride	ND	0.53	ug/m3	1	1/27/2012 2:18:00 PM
Naphthalene	4.5	0.80	ug/m3	1	1/27/2012 2:18:00 PM
o-Xylene	8.3	0.66	ug/m3	1	1/27/2012 2:18:00 PM
Tetrachloroethylene	ND	1.0	ug/m3	1	1/27/2012 2:18:00 PM
Toluene	32	2.9	ug/m3	5	1/27/2012 4:01:00 PM
trans-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 2:18:00 PM
Trichloroethene	ND	0.22	ug/m3	1	1/27/2012 2:18:00 PM
Vinyl chloride	ND	0.10	ug/m3	1	1/27/2012 2:18:00 PM

Qualifiers:	**	Reporting Limit		Results reported are not blank corrected	
	В	Analyte detected in the associated Method Blank	E	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation	n limits
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit	-
	S	Spike Recovery outside accepted recovery limits			Page 14 of 23

#### Date: 03-Feb-12

CLIENT:	Tetra Tech			Client Sample ID:	SG3-0	)11012
Lab Order:	C1201051			Tag Number:	215,7	9
Project:	Maryland MartinAi	ir Middle River 1	12IC03634	<b>Collection Date:</b>	1/20/2	2012
Lab ID:	C1201051-014A	SG3-0120	12	Matrix:	AIR	
Analyses		Result	**Limit Qua	l Units	DF	Date Analyzed
FIELD PARAM	ETERS		FLD			Analyst:
Lab Vacuum In		-4		"Hg		1/24/2012
Lab Vacuum O	ut	-30		"Hg		1/24/2012
1UG/M3 W/ NA	PHTHALENE BY MET	HOD TO15	TO-15			Analyst: RJF
1,1,1-Trichloroe	ethane	ND	0.15	ppbV	1	1/27/2012 2:18:00 PM
1,1,2-Trichloroe	ethane	ND	0.15	ppbV	1	1/27/2012 2:18:00 PM
1,1-Dichloroeth	ane	ND	0.15	ppbV	1	1/27/2012 2:18:00 PM
1,1-Dichloroeth	ene	ND	0.15	ppbV	1	1/27/2012 2:18:00 PM
1,2,4-Trichlorob	enzene	ND	0.15	ppbV	1	1/27/2012 2:18:00 PM
1,2,4-Trimethylt	benzene	2,9	0.75	ppbV	5	1/27/2012 4:01:00 PM
1,2-Dichloroben	zene	ND	0.15	ppbV	1	1/27/2012 2:18:00 PM
1,2-Dichloroeth	ane	ND	0.15	ppbV	1	1/27/2012 2:18:00 PM
1,3-Dichloroben	izene	ND	0.15	ppbV	1	1/27/2012 2:18:00 PM
1,4-Dichloroben	izene	ND	0.15	ppbV	1	1/27/2012 2:18:00 PM
Benzene		5.5	0,75	ppbV	5	1/27/2012 4:01:00 PM
Carbon disulfide	8	4.8	0.75	ppbV	5	1/27/2012 4:01:00 PM
Carbon tetrachi	oride	ND	0.040	ppbV	1	1/27/2012 2:18:00 PM
Chlorobenzene		ND	0.15	ppbV	1	1/27/2012 2:18:00 PM
Chloroform		ND	0.15	ppbV	1	1/27/2012 2:18:00 PM
Chloromethane		0.26	0.15	ppbV	1	1/27/2012 2:18:00 PM
cis-1,2-Dichloro	ethene	ND	0.15	ppbV	1	1/27/2012 2:18:00 PM
Ethylbenzene		1.2	0.15	ppbV	1	1/27/2012 2:18:00 PM
Freon 12		0.35	0.15	ppbV	1	1/27/2012 2:18:00 PM
m&p-Xylene		3.5	0.30	ppbV	1	1/27/2012 2:18:00 PM
Methyl Ethyl Ke	tone	13	12	ррbV	40	1/27/2012 4:34:00 PM
Methyl tert-buty	lether	ND	0,15	ppbV	1	1/27/2012 2:18:00 PM
Methylene chlor	ride	ND	0.15	ppb∨	1	1/27/2012 2:18:00 PM
Naphthalene		0.85	0.15	ррЬ∨	1	1/27/2012 2:18:00 PM
o-Xylene		1.9	0.15	ppbV	1	1/27/2012 2:18:00 PM
Tetrachloroethy	lene	ND	0,15	ppbV	1	1/27/2012 2:18:00 PM
Toluene		8,2	0.75	ppbV	5	1/27/2012 4:01:00 PM
trans-1,2-Dichlo		ND	0.15	ppbV	1	1/27/2012 2:18:00 PM
Trichloroethene	ł	ND	0.040	ppb∨	1	1/27/2012 2:18:00 PM
Vinyl chloride		ND	0.040	ppbV	1	1/27/2012 2:18:00 PM
Surr: Bromof	luorobenzene	100	70-130	%REC	1	1/27/2012 2:18:00 PM

Qualifiers:	**	Reporting Limit		Results reported are not blank corrected	
	В	Analyte detected in the associated Method Blank	Ε	Value above quantitation range	
	н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits	
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit	D 07 644
	S	Spike Recovery outside accepted recovery limits			Page 27 of 44

Date: 02-Feb-12

CLIENT:	Tetra Tech				ple ID: SG4-	
Lab Order:	C1201051			Tag N	umber: 495,5	3
Project:	Maryland MartinAir	Middle River	112IC03634	Collectio	n Date: 1/20/2	2012
Lab ID:	C1201051-017A	564-01	2012		Matrix: AIR	
Analyses		Result	**Limit	Qual Units	DF	Date Analyzed
1UG/M3 W/ NA	PHTHALENE BY METH	IOD TO15	то	-15	·	Analyst: RJI
1,1,1-Trichloroe	thane	ND	0.83	ug/m3	1	1/28/2012 2:07:00 AM
1,1,2-Trichloroe	thane	ND	0.83	ug/m3	1	1/28/2012 2:07:00 AM
1,1-Dichloroetha	ane	ND	0.62	ug/m3	1	1/28/2012 2:07:00 AM
1,1-Dichloroethe	ne	ND	0.60	ug/m3	1	1/28/2012 2:07:00 AM
1,2,4-Trichlorob	enzene	ND	1.1	ug/m3	1	1/28/2012 2:07:00 AM
1,2,4-Trimethylb	enzene	9.9	0.75	ug/m3	1	1/28/2012 2:07:00 AM
1,2-Dichloroben	zene	ND	0.92	ug/m3	1	1/28/2012 2:07:00 AM
1,2-Dichloroetha	ine	ND	0.62	ug/m3	1	1/28/2012 2:07:00 AM
1,3-Dichloroben	zene	ND	0.92	ug/m3	1	1/28/2012 2:07:00 AM
1,4-Dichloroben	zene	ND	0.92	ug/m3	1	1/28/2012 2:07:00 AM
Benzene		22	4.9	ug/m3	10	1/29/2012 5:39:00 AM
Carbon disulfide	•	ND	0.47	ug/m3	1	1/28/2012 2:07:00 AM
Carbon tetrachic	oride	ND	0.26	ug/m3	1	1/28/2012 2:07:00 AM
Chlorobenzene		ND	0.70	ug/m3	1	1/28/2012 2:07:00 AM
Chloroform		ND	0.74	ug/m3	1	1/28/2012 2:07:00 AM
Chloromethane		ND	0.31	ug/m3	1	1/28/2012 2:07:00 AM
cis-1,2-Dichloroe	ethene	3.7	0.60	ug/m3	1	1/28/2012 2:07:00 AM
Ethylbenzene		4.9	0.66	ug/m3	1	1/28/2012 2:07:00 AM
Freon 12		0.90	0.75	ug/m3	1	1/28/2012 2:07:00 AM
m&p-Xylene		16	1.3	ug/m3	1	1/28/2012 2:07:00 AM
Methyl Ethyl Ket	one	61	9.0	ug/m3	10	1/29/2012 5:39:00 AM
Methyl tert-butyl		ND	0.55	ug/m3	1	1/28/2012 2:07:00 AM
Methylene chlori		ND	0.53	ug/m3	1	1/28/2012 2:07:00 AM
Naphthalene		ND	0.80	ug/m3	1	1/28/2012 2:07:00 AM
o-Xylene		8.4	0,66	ug/m3	1	1/28/2012 2:07:00 AM
Tetrachloroethyl	ene	ND	1.0	ug/m3	1	1/28/2012 2:07:00 AM
Toluene		36	5.7	ug/m3	10	1/29/2012 5:39:00 AM
trans-1,2-Dichlor	roethene	ND	0.60	ug/m3	1	1/28/2012 2:07:00 AM
Trichloroethene		1.3	0.22	ug/m3	1	1/28/2012 2:07:00 AM
Vinyl chloride		2.8	0.10	ug/m3	1	1/28/2012 2:07:00 AM

Qualifiers:	**	Reporting Limit	•	Results reported are not blank corrected	1
	В	Analyte detected in the associated Method Blank	E Value above quantitation range		
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits	
JN Non-routine analyte. Quantitation estimated.		Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit	<b>D</b> 1 <b>0</b> 600
	S	Spike Recovery outside accepted recovery limits			Page 17 of 23

Centek	Labo	ratories	. LLC
Qui tuit	2400		,

Date: 03-Feb-12

CLIENT:	Tetra Tech			Cl	ient Sample ID:	SG4-0	)11012
Lab Order:	C1201051				Tag Number:	495,5	3
Project:	Maryland MartinAi	r Middle River I	12IC03634	C	Collection Date:	1/20/2	2012
Lab ID:	C1201051-017A				Matrix:	AIR	
Analyses	<u> </u>	<u>564 - 612</u> Result	//////////////////////////////////////	Dual	Units	DF	Date Analyzed
				-			
FIELD PARAME	TERS		FLC		A10 A		Analyst:
Lab Vacuum In		-4			"Hg		1/24/2012
Lab Vacuum Out		-30			"Hg		1/24/2012
1UG/M3 W/ NAF	HTHALENE BY MET	HOD TO15	TO-1	5			Analyst: RJF
1,1,1-Trichloroet	hane	ND	0.15		ppbV	1	1/28/2012 2:07:00 AM
1,1,2-Trichloroet	hane	ND	0.15		ррbV	1	1/28/2012 2:07:00 AM
1,1-Dichloroetha	ne	ND	0.15		ppbV	1	1/28/2012 2:07:00 AM
1,1-Dichloroethe	ne	ND	0.15		рръV	1	1/28/2012 2:07:00 AM
1,2,4-Trichlorobe	enzene	ND	0.15		ppbV	1	1/28/2012 2:07:00 AM
1,2,4-Trimethylbe	enzene	2.0	0.15	1	ppbV	1	1/28/2012 2:07:00 AM
1,2-Dichlorobenz	ene	ND	0.15	1	ррbV	1	1/28/2012 2:07:00 AM
1,2-Dichloroetha	ne	ND	0.15	i	ppbV	1	1/28/2012 2:07:00 AM
1,3-Dichlorobenz	ene	ND	0.15	1	ppbV	1	1/28/2012 2:07:00 AM
1,4-Dichlorobenz	ene	ND	0.15	ļ	ppbV	1	1/28/2012 2:07:00 AM
Benzene		6.7	1.5	1	ppbV	10	1/29/2012 5:39:00 AM
Carbon disulfide		ND	0.15	l	ppbV	1	1/28/2012 2:07:00 AM
Carbon tetrachlo	ride	ND	0.040	I	ppbV	1	1/28/2012 2:07:00 AM
Chlorobenzene		ND	0.15		ppbV	1	1/28/2012 2:07:00 AM
Chloroform		ND	0.15		ppbV	1	1/28/2012 2:07:00 AM
Chloromethane		ND	0.15	I	ppbV	1	1/28/2012 2:07:00 AM
cis-1,2-Dichloroe	thene	0.91	0.15	1	ppbV	1	1/28/2012 2:07:00 AM
Ethylbenzene		1.1	0.15		ppbV	1	1/28/2012 2:07:00 AM
Freon 12		0.18	0.15		ppbV	1	1/28/2012 2:07:00 AM
m&p-Xylene		3.5	0.30		ppbV	1	1/28/2012 2:07:00 AM
Methyl Ethyl Keto	one	20	3.0		ppbV	10	1/29/2012 5:39:00 AM
Methyl tert-butyl		ND	0.15		ppbV	1	1/28/2012 2:07:00 AM
Methylene chlorid		ND	0.15		ppbV	1	1/28/2012 2:07:00 AM
Naphthalene		ND	0.15		ppbV	1	1/28/2012 2:07:00 AM
o-Xylene		1.9	0.15		ppbV	1	1/28/2012 2:07:00 AM
Tetrachloroethyle	ene	ND	0.15		ppbV	1	1/28/2012 2:07:00 AM
Toluene		9.3	1.5		ppbV	10	1/29/2012 5:39:00 AM
trans-1,2-Dichlor	oethene	ND	0.15		ppbV	1	1/28/2012 2:07:00 AM
Trichloroethene		0.24	0.040		ppbV	1	1/28/2012 2:07:00 AM
Vinyl chloride		1.1	0.040		ppbV	1	1/28/2012 2:07:00 AM
Surr: Bromoflu	lorobenzene	87.0	70-130		%REC	1	1/28/2012 2:07:00 AM
TIC: Butane		9,5	0		ppbV	1	1/28/2012 2:07:00 AM
TIC: Butane, 2	2,3-dimethyl-	4.8			ppbV	1	1/28/2012 2:07:00 AM
	-methyl- (4.26)				ppbV	1	1/28/2012 2:07:00 AM
	ane, 1,1,3-trimethy)	5.1	0		ppbV	1	1/28/2012 2:07:00 AM
•	ane, 1,1-dimethyl-	4.8			ppbV	1	1/28/2012 2:07:00 AM

Qualifiers:

- H Holding times for preparation or analysis exceeded
- JN Non-routine analyte. Quantitation estimated.
- S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

- E Value above quantitation range
- J Analyte detected at or below quantitation limits
- ND Not Detected at the Reporting Limit Page 32 of 44

<sup>\*\*</sup> Reporting Limit

B Analyte detected in the associated Method Blank

Date: 03-Feb-12

CLIENT:	Tetra Tech			C	lient Sample ID:	SG4-(	011012		
Lab Order:	C1201051				Tag Number:	495,5	3		
Project: Maryland Martin		ir Middle River 112IC03634			<b>Collection Date:</b>	1/20/2	1/20/2012		
Lab ID:	C1201051-017A	564-01zo			Matrix:	AIR			
Analyses		Result	**Limit	Qual	Units	DF	Date Analyzed		
1UG/M3 W/ NA	PHTHALENE BY MET	THOD TO15	тс	)-15			Analyst: RJP		
TIC: Cyclohe cis-	exane, 1,3-dimethyl-,	4.4	0	JN	ppbV	1	1/28/2012 2:07:00 AM		
TIC: Cyclope	entane, methyl-	4.2	0	JN	ppbV	1	1/28/2012 2:07:00 AM		
TIC: Cyclopre trans	opane, 1,2-dimethyl-,	3.6	0	JN	ppbV	1	1/28/2012 2:07:00 AM		
	siloxane, hexamethyl	6.5	0	JN	ppbV	1	1/28/2012 2:07:00 AM		
TIC: Hexane,	, 2,2-dimethyl-	5.0	0	JN	ppbV	1	1/28/2012 2:07:00 AM		
TIC: Isobutar	ne	9.8	0	JN	ррьV	1	1/28/2012 2:07:00 AM		
TIC: Pentane	•	4.9	0	JN	ррbV	1	1/28/2012 2:07:00 AM		
TIC: Pentane 2,3,3	e, 2,3,3-trimethyl- \$\$	8.5	0	JN	ppbV	1	1/28/2012 2:07:00 AM		
TIC: Pentane	e, 2-methyl-	13	0	JN	ppbV	1	1/28/2012 2:07:00 AM		
TIC: Pentane	e, 3-methyl-	6.8	0	JN	ppbV	1	1/28/2012 2:07:00 AM		
TIC: Unknow	n (3.91)	3.5	0	JN	ppbV	1	1/28/2012 2:07:00 AM		
TIC: Unknow	m (5.08)	4.3	٥	JN	ppbV	1	1/28/2012 2:07:00 AM		

Qualifiers:

\*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

ND Not Detected at the Reporting Limit Page 33 of 44

Date: 02-Feb-12

CLIENT:	Tetra Tech			Client Sample II		11012
Lab Order:	C1201051			Tag Number	: 131	
Project:	Maryland MartinAi	r Middle River 11	2IC03634	Collection Date	: 1/20/2	2012
Lab ID:	C1201051-023A	713-012012		Matrix	: AIR	
Analyses		Result	**Limit Q	ual Units	DF	Date Analyzed
UG/M3 W/ NAPI	HTHALENE BY MET	HOD TO15	TO-1	5		Analyst: RJF
1,1,1-Trichloroeth	ane	ND	0,83	ug/m3	1	1/27/2012 1:45:00 PM
1,1,2-Trichloroeth	ane	ND	0.83	ug/m3	1	1/27/2012 1:45:00 PM
1,1-Dichloroethan	e	ND	0.62	ug/m3	1	1/27/2012 1:45:00 PM
1,1-Dichloroethen	e	ND	0.60	ug/m3	1	1/27/2012 1:45:00 PM
1,2,4-Trichlorober	zene	ND	1.1	ug/m3	1	1/27/2012 1:45:00 PM
1,2,4-Trimethylber	nzene	ND	0.75	ug/m3	1	1/27/2012 1:45:00 PM
1,2-Dichlorobenze	ne	ND	0.92	ug/m3	1	1/27/2012 1:45:00 PM
1,2-Dichloroethan	e	ND	0.62	ug/m3	1	1/27/2012 1:45:00 PM
1,3-Dichlorobenze	ine	ND	0.92	ug/m3	1	1/27/2012 1:45:00 PM
1,4-Dichlorobenze	ne	ND	0.92	ug/m3	1	1/27/2012 1:45:00 PM
Benzene		ND	0.49	ug/m3	1	1/27/2012 1:45:00 PM
Carbon disulfide		ND	0.47	ug/m3	1	1/27/2012 1:45:00 PM
Carbon tetrachlori	de	ND	0.26	ug/m3	1	1/27/2012 1:45:00 PM
Chlorobenzene		ND	0,70	ug/m3	1	1/27/2012 1:45:00 PM
Chloroform		ND	0.74	ug/m3	1	1/27/2012 1:45:00 PM
Chloromethane		ND	0.31	ug/m3	1	1/27/2012 1:45:00 PM
cis-1,2-Dichloroeti	hene	ND	0.60	ug/m3	1	1/27/2012 1:45:00 PM
Ethylbenzene		ND	0.66	ug/m3	1	1/27/2012 1:45:00 PM
Freon 12		ND	0.75	ug/m3	1	1/27/2012 1:45:00 PM
m&p-Xylene		ND	1.3	ug/m3	1	1/27/2012 1:45:00 PM
Methyl Ethyl Ketor	ne	ND	0.90	ug/m3	1	1/27/2012 1:45:00 PM
Methyl tert-butyl e		ND	0.55	ug/m3	1	1/27/2012 1:45:00 PM
Methylene chloride		ND	0.53	ug/m3	1	1/27/2012 1:45:00 PM
Naphthalene		ND	0.80	ug/m3	1	1/27/2012 1:45:00 PM
o-Xylene		ND	0.66	ug/m3	1	1/27/2012 1:45:00 PM
Tetrachloroethyler	ie	ND	1.0	ug/m3	1	1/27/2012 1:45:00 PM
Toluene		ND	0.57	ug/m3	1	1/27/2012 1:45:00 PM
trans-1,2-Dichloro	ethene	ND	0.60	ug/m3	1	1/27/2012 1:45:00 PM
Trichloroethene		ND	0.22	ug/m3	1	1/27/2012 1:45:00 PM
Vinyl chloride		ND	0.10	ug/m3	1	1/27/2012 1:45:00 PM

Qualifiers:	**	Reporting Limit		Results reported are not blank corrected
	в	Analyte detected in the associated Method Blank	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
	ЛN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
	S	Spike Recovery outside accepted recovery limits		Page 23 of 23

CLIENT:	Tetra Tech			Client Sample II	D: TB-0	11012
Lab Order:	C1201051			Tag Numbe	r: 131	
Project:	Maryland MartinAi	r Middle River 112	2IC03634	<b>Collection Dat</b>	e: 1/20/3	2012
Lab ID:	C1201051-023A	TB-012012	2	Matri	x: AIR	
Analyses		Result	**Limit Qu	al Units	DF	Date Analyzed
FIELD PARAMI	ETERS		FLD			Analyst:
Lab Vacuum In				"Hg		1/24/2012
Lab Vacuum Ou	ıt	-30		"Hg		1/24/2012
1UG/M3 W/ NA	PHTHALENE BY MET	HOD TO15	TO-15			Analyst: RJF
1,1,1-Trichloroe	thane	ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
1,1,2-Trichloroe	thane	ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
1,1-Dichloroetha		ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
1,1-Dichloroethe	ene	ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
1,2,4-Trichlorob	enzene	ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
1,2,4-Trimethylt	enzene	ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
1,2-Dichloroben	zene	ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
1,2-Dichloroetha	ane	ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
1,3-Dichioroben	zene	ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
1,4-Dichloroben	zene	ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
Benzene		ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
Carbon disulfide	3	ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
Carbon tetrachk	oride	ND	0.040	ppbV	1	1/27/2012 1:45:00 PM
Chlorobenzene		ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
Chloroform		ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
Chloromethane		ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
cis-1,2-Dichloro	ethene	ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
Ethylbenzene		ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
Freon 12		ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
m&p-Xylene		ND	0.30	ppbV	1	1/27/2012 1:45:00 PM
Methyl Ethyl Kei	tone	ND	0.30	ppbV	1	1/27/2012 1:45:00 PM
Methyl tert-butyl	ether	ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
Methylene chlor	ide	ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
Naphthalene		ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
o-Xylene		ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
Tetrachloroethyl	lene	ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
Toluene		ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
trans-1,2-Dichlo	roethene	ND	0.15	ppbV	1	1/27/2012 1:45:00 PM
Trichloroethene		ND	0.040	ppbV	1	1/27/2012 1:45:00 PM
Vinyl chloride		ND	0.040	ppbV	1	1/27/2012 1:45:00 PM
Surr: Bromofi	uorobenzene	96.0	70-130	%REC	1	1/27/2012 1:45:00 PM
TIC: Cyclotris	iloxane, hexamethyl	0.24	O JN	l ppbV	1	1/27/2012 1:45:00 PM

Qua	lifiers:	
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- \*\* Reporting Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- JN Non-routine analyte. Quantitation estimated.
- S Spike Recovery outside accepted recovery limits
- Results reported are not blank corrected
- E Value above quantitation range

.

- J Analyte detected at or below quantitation limits
- ND Not Detected at the Reporting Limit

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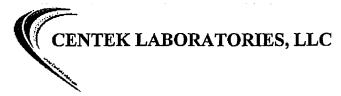
Appendix C

Support Documentation

TO-:	15 Package Review Checkl	ist
Client: Tetra-Tech	Project: Martin State	SDG: C1201057 4
	1	CI201063 YES NO NA
Analytical Results TIC's present	Present and Complete Present and Complete Holding Times Met	
Chain-of-Custody	Present and Complete	<u> </u>
Surrogate Recovery	Present and Complete Recoveries within limits Sample(s) reanalyzed	
Internal Standards Recovery	Present and Complete Recoveries within limits Sample(s) reanalyzed	
Comments:		
Lab Control Sample (LCS)	Present and Complete Recoveries within limits	
Lab Control Sample Dupe (LCSD)	Present and Complete Recoveries within limits	
MS/MSD	Present and Complete Recoveries within limits	
Comments:		/ビ
Sample Raw Data	Present and Complete Spectra present for all samples	
Comments:		
Centek Laboratories, LLC	Private and Confidential	Page 1 of 2

# **TO-15 Package Review Checklist**

Client: Tetra - Tech	Project: Martin State	SDG: <u>C1201057</u>
Standards Data		<u>YES NO NA</u>
Initial Calibration Summary	Present and Complete	<u> </u>
Continuing Calibration Summary	-Calibration(s)-met-criteria Present and Complete	
	Calibration(s) met criteria	
Standards Raw Data	Present and Complete	
Comments:		
Raw Quality Control Data		<b>`</b>
Tune Criteria Report	Present and Complete	$\overline{}$ — —
Method Blank Data	MB Results <pql< td=""><td></td></pql<>	
	Associated results flagged "B"	<u> </u>
LCS sample data	Present and Complete	<u> </u>
LCSD sample data	Present and Complete	$\frac{1}{\sqrt{2}}$ — —
MS/MSD sample data	Present and Complete	<u> </u>
Comments:		
Logbooks		
Injection Log	Present and Complete	$\sim$ — —
Standards Log	Present and Complete	<u>}                                    </u>
Can Cleaning Log	Present and Complete	<u>×</u>
	Raw Data Present	<u> </u>
Calculation sheet	Present and Complete	<u>\</u>
IDL's	Present and Complete	<u> </u>
Bottle Order Form	Present and Complete	<u>&gt;                                    </u>
Sample Tracking Form	Present and Complete	<u> </u>
Additional Comments:	· _	
<u> </u>	E LAGE NARRATIVE	
		1 1
Section Supervisor: With Dal	Date:ζ	luin
QC Supervisor:	Date:	2/6/17-
Centek Laboratories, LLC	Private and Confidential	Page 2 of 2



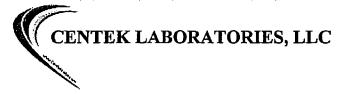
Date: 03-Feb-12

CLIENT:	Tetra Tech	
Project:	Maryland MartinAir Middle River 1121C03634	CASE NARRATIVE
Lab Order:	C1201051	

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objective except as indicated in the corrective action report(s). All samples were received and analyzed within the EPA recommended holding times. Test results are not Method Blank (MB) corrected for contamination. Samples were analyzed using the methods outlined in the following references:

Compendium of Methods for the Determination of Toxic Organic Compounds, Compendium Method TO-15, January 1999.

See Corrective Action: [2366] Very little sample collected See Corrective Action: [2374] MS/MSD did not meet criteria. See Corrective Action: [2375] LCS & LCSD did not meet criteria.



Date: 03-Feb-12

CLIENT:	Tetra Tech	
Project:	Maryland MartinAir Middle River 112IC0634	CASE NARRATIVE
Lab Order:	C1201063	

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objective except as indicated in the corrective action report(s). All samples were received and analyzed within the EPA recommended holding times. Test results are not Method Blank (MB) corrected for contamination. Samples were analyzed using the methods outlined in the following references:

Compendium of Methods for the Determination of Toxic Organic Compounds, Compendium Method TO-15, January 1999.

See Corrective Action: [2374] MS/MSD did not meet criteria. See Corrective Action: [2375] LCS & LCSD did not meet criteria.

#### **Corrective Action Report**

Initiated By: Jar	Jan-12 nice Scala		Corrective Actio	Department:	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Co	rrective Action	Description		
CAR Summary:	Very little sample	collected			
Description of Nonconformance:	Sample C120105	i1-010 had very little	sample collected		
Description of Corrective Action:	lab will attempt to	analyze			
Performed By:	Janice Scala		Completion Date:	24-Jan-12	
		Client Notif	ication		
Client Notification F Comment:	Required: No	Notified By:			
Further Action		Quality Assura	nce Review		
Nonconformance <sup>-</sup> T Further Action required by QA:	ype: Anomaly		nce Review		
Further Action required by QA:	ype: Anomaly no action required				
Further Action	ype: Anomaly no action required	Approval and		Close Date:	24-Jan-12
Further Action equired by QA:	ype: Anomaly no action required				24-Jan-12 24-Jan-12



Date: 03-Feb-12

CLIENT: Project: Lab Order:	Tetra Tech Maryland MartinAir Mic C1201063	rtinAir Middle River 112IC0634 Work Order Sample Su		er Sample Summary
Lab Sample ID C1201063-001A	Client Sample ID IA1-012512	Tag Number 368,266	Collection Date 1/25/2012	Date Received 1/27/2012
C1201063-002A	IA2-012512	159,374	1/25/2012	1/27/2012
C1201063-003A	IA3-012512	430,267	1/25/2012	1/27/2012

Date: 03-Feb-12

# CENTEK LABORATORIES, LLC

				······································	
_CLIENT: Project: Lab Order:	ct: Maryland MartinAir Middle River 112IC03634		Work Order Sample Summary		
Lab Sample ID C1201051-001A	Client Sample ID SG11-011912	<b>Tag Number</b> 233,65	Collection Date 1/19/2012	Date Received 1/24/2012	
C1201051-002A	SG10-011912	554,80	1/19/2012	1/24/2012	
C1201051-003A	SG12-011912	163,177	1/19/2012	1/24/2012	
C1201051-004A	SG20-011912	240,123	1/19/2012	1/24/2012	
C1201051-005A	SG21(2)1912	170,146	1/19/2012	1/24/2012	
C1201051-006A	SG23-011912	463,69	1/19/2012	1/24/2012	
C1201051-007A	SG24-011912	364,121	1/19/2012	1/24/2012	

CLIENT: Project: Lab Order: Lab Sample ID C1201051-008A	Tetra Tech Maryland MartinAir M C1201051	iddle River 112IC03634	Work Order Sample Summary		
	Client Sample ID SG25-011912	<b>Tag Number</b> 421,302	Collection Date	Date Received 1/24/2012	
C1201051-009A	SG18-011912	200,54	1/19/2012	1/24/2012	
C1201051-010A	2 SG19-01(012	1165,60	1/20/2012	1/24/2012	
C1201051-011A	1- SG13-010012	. 161,381	1/20/2012	1/24/2012	
C1201051-012A	2 SG09-01(012	332,78	1/20/2012	1/24/2012	
C1201051-013A	SG2-010012	192,56	1/20/2012	1/24/2012	
C1201051-014A	SG3-01 012	215,79	1/20/2012	1/24/2012	
C1201051-015A	-}- SG1=010012	558,249	1/20/2012	1/24/2012	

CLIENT: Project: Lab Order:	Tetra Tech Maryland MartinAir Mic C1201051	dle River 1121C03634	Work Orde	er Sample Summary
Lab Sample ID C1201051-016A	Client Sample ID SG22-01()012	<b>Tag Number</b> 232,179	Collection Date	<b>Date Received</b> 1/24/2012
C1201051-017A	SG4-010012	495,53	1/20/2012	1/24/2012
C1201051-018A	ん SG08-01()012	471,339	1/20/2012	1/24/2012
C1201051-019A	ۍ SG14-01 <b>()</b> 012	547,57	1/20/2012	1/24/2012
C1201051-020A	۲ SG17-010012	561,118	1/20/2012	1/24/2012
C1201051-021A	SG15-010012	353,402	1/20/2012	1/24/2012
	· · · · · · · · · · · · · · · · · · ·			
C1201051-022A	SG07-01012	328,126	1/20/2012	1/24/2012
	l			
C1201051-023A	TB-014012	131	1/20/2012	1/24/2012

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# Centek Laboratories, LLC

#### **Corrective Action Report**

Initiated By: Ru	Jan-12 ssell Pellegrino	Corrective Action Report ID: 2374 Department: MSVOA
	Corrective A	ction Description
CAR Summary:	MS/MSD did not meet criteria.	
Description of Nonconformance:		for samples C1201051-014 MS/MSD. Based on the s is most likely due to matrix interference.
Description of Corrective Action:		results at this time no further corrective action taken. All samples show many hits in the matrix which will interfere data submitted
Performed By:	Russell Pellegrino	Completion Date: 29-Jan-12
	Client	t Notification
Client Notification F Comment:	Required: No Notifie	ed By:
	Quality As	ssurance Review
Nonconformance T	ype: Deficiency	
Further Action required by QA:	No further corrective action take	ken. All sets of data submitted
	· · ·	
	 Approva	al and Closure
Technical Director Deputy Tech. Dir	With Dobi	Close Date: 31-Jan-12
	: William Dobbi	Close Date: 31-Jan-12 Din QA Date: 31-Jan-12

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# **Corrective Action Report**

	Russell Pellegrino	Department:	MSVOA									
	Corrective Action	Description										
CAR Summary:	LCS & LCSD did not meet criteria.											
Description of Nonconformanc	e: compounds. The LCSD did not repro	teria for RPD and % recoveries for s oduce. All other QC met criteria for the s independent of the 6 Liter continuin	e compounds of									
Description of Corrective Action	n: was independent of the 6 Liter contir	e associated samples and the LCS 6 luing calibration canister, no correctiv outside established limits then a new f data submitted.	e action taken									
Performed By:	Russell Pellegrino	Completion Date: 31-Jan-12										
	Client Noti	fication										
Client Notificatio Comment:	n Required: No Notified By:											
Quality Assurance Review												
Nonconformance	e Type: Deficiency											
Further Action required by QA:	A new LCS stock standard will be and	alyzed. All sets of data submitted.										
	Approval and	d Closure										
Technical Direct Deputy Tech.		Close Date:	01-Feb-12									
QA Officer Appro	oval:	QA Date:	01-Feb-12									
Last Updated BY rus	ss2 Updated: 03-Fet	D-2012 5:02 PM Reported: 03	-Feb-2012 5:02 PM									

	Sample	Rec	eipt Che	cklist						
Client Name: TETRA TECH - ATLANTA				Date a	nd Tim	e Received;		1/24	/2012	
Work Order Number C1201051			1.	Receiv	ed by:	JDS				
		11		o						
Checklist completed by:	Date	10	4772		ed by;	Initiais		1/14/12 Date		
Matrix:	Carrier name:	FedE	= <b>v</b>							
	Gamer hame.	1 601	-0							
Shipping container/cooler in good condition?		Yes		No 🗌		Not Present				
Custody seals intact on shippping container/coole	a7	Yes		No 🗌		Not Present				
Custody seals intact on sample bottles?		Yes		No 🗋		Not Present				
Chain of custody present?		Yes		No 🗌						
Chain of custody signed when relinquished and n	eceived?	Yes	✓	No 🗔						
Chain of custody agrees with sample labels?		Yes		No 🗆						
Samples in proper container/bottle?		Yes		No 🗌						
Sample containers intact?		Yes	✓	No 🗌						
Sufficient sample volume for indicated test?		Yes		No 🗹						
All samples received within holding time?		Yes	$\checkmark$	No 🗌		×.				
Container/Temp Blank temperature in compliance	?	Yes		No 🗖						
Water - VOA vials have zero headspace?	No VOA vials subm	itted		Ye	s 🗌	No 🗆				
Water - pH acceptable upon receipt?		Yes		No 🗹						
	Adjusted?		Che	ecked by			-			
Any No and/or NA (not applicable) response mus	t be detailed in the com	ments	section bel	ow.						
	<b></b>									
Client contacted:	Date contacted:				Perso	n contacted:				
Contacted by:	Regarding:									
Comments:										
						····		· ···· ····		
			<u>-</u>							
Corrective Action:										
		<u> </u>				· · · · · · · · · · · · · · · · · · ·	· ·			

J			(	Cent	ek L	abo	ora	itor	ies	s, Ll	_C	;								_					•	proper	_			_					_	
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													0160	290	104	1208	1250	1331	14/3	25%1	15.52	5280	09/1	0954	1002	95 01	1/36	1224	1307	/313	ONE	Pickup/Dropoff		1901		
	Detection Limit	] 5ppbv	1 1ug/M3	] 1ug/M3 +TCE .25	Same.							PST Rei	- 30	- 30	-30	- 30	- 30	5.	- 30	-30	-30	-30	-30	-10 -30	-30	07-	-20	-30	- 30	-30	: CIRCLE	SUPS	For LAB USE ONLY	Work Order #	Ţe,	
	shaft	0.3634			Company: Check Here If Same:	Invoice to:	Address:	City, State, Zip	Email:		Ir Iulic.	C (M)	1	2	1	1	م ۱	0 1	- 5	5-	5	- 23	<i>- d</i>		-4	۱ ۲	-2	-4	71	/ -	Date/Time C	/-23-/2 (FedEx	Fc Fc	W21/28/1	n the réverse sli	
	Site Name: Machine Site	Project: 1/2 I	PO#:	Quote # Q- Other:	1		boild france	YOWN ME		76-25	1.	Analysis Request	Vocs																• •	h			10-	Ac Ne	abs Terms and Conditions listed on the reverse side.	
				ות & IAQ	re Tech	Ż	<u>s</u> [	10 Cochrenter ton		1 1 100		Number	-57	0 <b>G</b>	107	123	741	69	121	302	SΥ	60	381	78	56	82 193	249	179	55	339	Signature	Nell		X	Labs Terms a	1
	Custody			Vapor Intrusion & IAQ	Company:		Address: Z	Luiy, state, Zir	Email:	Phone:		Vanister	222	554	163	240	170	463	364	421	200	165	111	322	192.	215 Mg	855	232	495	ILA				.(	epting Centek	
	<b>Centek Chain of Custody</b>	143 Midler Park Drive	Syracuse, NY 13206	315-431-9730 www.CentekLabs.com	Rush TAT Due Surcharge % Date:		A02	75%	100%	150%		uate sampled	1-14-12	1							*	1-20-12									Print Name	Walt Payon		Jan Shalo	*** By signing Centek Labs Chain of Custody, you are accepting Centel	
			1		Check One						]		21	21	2	2			<u> </u>	\ 	~	>	<b>&gt;</b>		,	>	<u>~</u>	>							Labs Chai	
		Centek Laboratories		4	Turnaround Time:	5 Business Days	14 DUSIDES UAYS	2 Business Days	Next Day by 5pm	Next Day by Noon Same Dav	- 11		5611 - 011912	5610 - 011912		4	1		20-54 - 011912	11	N	6	5613-012012	29-	5	5	J61-012012	~		Stog- DIZURZ	Chain of Custody	Sampled by:	Relinquished by:	Received at Lab by:	*** By signing Centek	

Centrex Criain of Custom     Site Name:     N.2.94       143 Mider Perk Drive     Synause, NY 13205     Vapor Intrusion & IAO       Synause, NY 13205     Vapor Intrusion & IAO     Picent       Synause, NY 13205     Vapor Intrusion & IAO     Dite:     Company:       Synause, NY 13205     Vapor Intrusion & IAO     Dite:     Company:       Synause, NY 13205     Vapor Intrusion & IAO     Dite:     Company:       Rush TAT     Due     Company:     Company:       Statistic     Zio     Zio     Zio       Statistic     Zio     Zio     Christic       Statistic     Zio     Zio     Zio       Differ     Control:     Zio     Zio       Differ     Zio	ection Limit Report Level 5ppbv Level I 1ug/M3 Level I 1ug/M3 +TCE .25 Cat "B" Like	Vacuum startistop 1440 / 1500 1960 000 0000	CLE ONE S Pickup/Dropoff ON 2010 (
Centrex Critatin Of Custodoy     Site Name:       143 Midler Park Drive     Syracuse, NY 13205       Syracuse, NY 13205     Syracuse, NY 13205       Syracuse, NY 13205     Vapor Intrusion & IAQ       Syracuse, NY 13205     Outole # Q       Syracuse, NY 13205     Vapor Intrusion & IAQ       Www.CentekLabs.com     Company       www.CentekLabs.com     Company       Wither     Due       Company     Zist,       Stracuse, NT 10     Company       Stracuse, NT 10     Company       Stracuse, NT 14     Due       Stracuse, NT     Due       Stracuse, NT <td></td> <td></td> <td>Date/Time Courier: CIRCLE ONE /-23-/72/FedEx) UPS Picki //24///21work Order #</td>			Date/Time Courier: CIRCLE ONE /-23-/72/FedEx) UPS Picki //24///21work Order #
Ventex Criain of Custody       143 Midler Park Drive       Syracuse, NY 13205       Veport to:       Syracuse, NY 13205       Syracuse, NY 140       Print Name       Signature       Signature			
Centrex Criani OI C Syracuse, NY 13206 Syracuse, NY 13206 315-431-9730 www.CentekLabs.com Rush TAT Due 50% 50% 50% 50% 150% 25% 25% 25% 25% 26% 26% 26% 26% 26% 26% 200% 75% 100% 150% 20% 75% 76% 100% 150% 20% 76% 76% 76% 76% 76% 76% 76% 76% 76% 76	ISLOUY apor Intrusion & IAQ	Ethen 7. 201 5 201 5 126 126 126	Signature
		Surcharge ¼       Due         0%       0%         50%       50%         50%       50%         75%       100%         150%       200%         200%       Date Sampled	Les C

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		Certien Criain of Custody		Site Name:	Per -	<b>Detection Limit</b>		Report Level
Centek Laboratories	143 Midler Park Drive			Project: Munitions	APER	5ppbv		Level I
	Syracuse, NY 13206			PO#:		1ug/M3		Level II
	m 21	Vapor Intrusion &	on & IAQ	Quote # Q- Other:		1ug/M3 +TCE .25	= .25	Cat "B" Like
Ch Turnaround Time:	Check Rush TAT Due Ohe Surcharge % Date:	Company: 7E7	124	Tech	Company: Check Here If Same:	If Same:	=	
	25%	Report to: Address: 2025/		ENTURY BLUD ZUTE	Invoice to: Address			
i	50%	City, State, Zip		Town MD.	City, State, Zip	Zip		
	100%	Email: Tony, 0 Mug va co	0 00 MON	100 R 12 14	Email:			
	150%			1000, 10 m				
Sample ID	Date Sampled	3—	Regulator Number	Analysis Request	2	Sements S		Vacuum
-0122121	1/25/12	368	200	2121-	- 30	ľ	5/11) 0 1/176	
-012512	$\sim$	159	374	7015	0 m 1	2	52.0 0	5-5- 15-5-
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Received at Lab hur	LICV IN ALLOND AND		A My ( V				, () ) IV	5 L L
					21/12/	Mork Order # /	シンノ	~

Page 21 of 621

CENTEK LABORATORIES, LLC		Sample Receij	ot Checklist
Client Name: TETRA TECH - ATLANTA		Date and Time Received	1/27/2012
Work Order Number C1204063	5	Received by: NM	
Checklist completed by Augusture	1-7/12 ate	Reviewed by	1/27/17- Date
Matrix: Carrier nam	ne: <u>FedEx</u>		
Shipping container/cooler in good condition?	Yes 🗹	No 🗌 Not Present 🗍	
Custody seals intact on shippping container/cooler?	Yes 🗌	No 🗌 Not Present 🗹	
Custody seals intact on sample bottles?	Yes 🗌	No 🗌 Not Present 🗹	
Chain of custody present?	Yes 🗹	No 🗖	
Chain of custody signed when relinquished and received?	Yes 🗹	No 🗀	
Chain of custody agrees with sample labels?	Yes 🗹		
Samples in proper container/bottle?	Yes 🗹	No	
Sample containers intact?	Yes 🗹	No 🗖	
Sufficient sample volume for indicated test?	Yes 🗹	No 🗔	
Ali samples received within holding time?	Yes 🗹	No 🗆	
Container/Temp Blank temperature in compliance?	Yes 🗹	Νο	
Water - VOA vials have zero headspace? No VOA vials su	ıbmitted 🗹	Yes No	
Water - pH acceptable upon receipt?	Yes	No 🗹	
Adjusted?	Chi	ecked by	
Any No and/or NA (not applicable) response must be detailed in the	e comments section	bel 	<u></u>
Client contacted: Date contacted:		Person contacted:	
Contacted by: Regarding:			
Comments:	·····		
Corrective Action:			

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	SMP_ANL	ω	œ	6	80	თ	æ	თ	7	თ	6	6	ø	თ	80	б ,
	EXTR_ANL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SMP_EXTR	œ	ω	6	8	6	ω	6	7	6	თ	თ	Ø	6	8	6
	ANAL_DATE §	1/27/2012	1/28/2012	1/29/2012	1/28/2012	1/29/2012	1/28/2012	1/29/2012	1/27/2012	1/28/2012	1/29/2012	1/28/2012	1/27/2012	1/29/2012	1/28/2012	1/28/2012
	EXTR_DATE	1/27/2012	1/28/2012	1/29/2012	1/28/2012	1/29/2012	1/28/2012	1/29/2012	1/27/2012	1/28/2012	1/29/2012	1/28/2012	1/27/2012	1/29/2012	1/28/2012	1/28/2012
	SAMP_DATE	1/19/2012	1/20/2012	1/20/2012	1/20/2012	1/20/2012	1/20/2012	1/20/2012	1/20/2012	1/19/2012	1/20/2012	1/19/2012	1/19/2012	1/20/2012	1/20/2012	1/19/2012
	OC_TYPE	MN				Ţ	Ţ	-	-			-	·-	Ţ.	Ţ	
		Ż	MN	MN	MN	MN	Ň	NN	MN	MN	MN	MN	MN	MN	MN	MN
		C1201051-001A NI	C1201051-022A NN	C1201051-021A NM	C1201051-021A NM	C1201051-019A NM	C1201051-019A NM	C1201051-011A NM	C1201051-011A NM	C1201051-003A NM	C1201051-020A NM	C1201051-001A NM	C1201051-009A NM	C1201051-015A NM	C1201051-015A NM	C1201051-002A NN
		C1201051-001A	C1201051-022A	C1201051-021A	C1201051-021A	C1201051-019A	C1201051-019A	C1201051-011A	C1201051-011A	C1201051-003A	C1201051-020A	C1201051-001A	C1201051-009A	C1201051-015A	C1201051-015A	C1201051-002A
	NSAMPLE LAB_ID	SG11-011912 C1201051-001A	SG07-011012 C1201051-022A	SG15-011012 C1201051-021A	SG15-011012 C1201051-021A	SG14-011012 C1201051-019A	SG14-011012 C1201051-019A	SG13-011012 C1201051-011A	SG13-011012 C1201051-011A	SG12-011912 C1201051-003A	SG17-011012 C1201051-020A	SG11-011912 C1201051-001A	SG18-011912 C1201051-009A	SG1-011012 C1201051-015A	SG1-011012 C1201051-015A	C1201051-002A
HOLDTIME SDG CI201051		UG/M3 SG11-011912 C1201051-001A	C1201051-022A	C1201051-021A	C1201051-021A	C1201051-019A	C1201051-019A	C1201051-011A	C1201051-011A	C1201051-003A	C1201051-020A	C1201051-001A	C1201051-009A	C1201051-015A	C1201051-015A	C1201051-002A

SORT	UNITS	NSAMPLE LAB_I	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
N	UG/M3	SG10-011912	C1201051-002A	NN	1/19/2012	1/27/2012	1/27/2012	8	0	8
N	UG/M3	SG09-011012	C1201051-012A	MN	1/20/2012	1/29/2012	1/29/2012	6	0	6
NO	UG/M3	SG09-011012	C1201051-012A	WN	1/20/2012	1/27/2012	1/27/2012	7	0	7
NO	UG/M3	SG08-011012	C1201051-018A	ŴN	1/20/2012	1/29/2012	1/29/2012	0	0	6
٨٥	UG/M3	SG08-011012	C1201051-018A	WN	1/20/2012	1/28/2012	1/28/2012	Ø	0	8
٨٥	UG/M3	SG07-011012	C1201051-022A	MN	1/20/2012	1/29/2012	1/29/2012	6	0	б
٨	UG/M3	SG12-011912	C1201051-003A	MN	1/19/2012	1/27/2012	1/27/2012	80	0	8
٨٥	UG/M3	SG22-011012	C1201051-016A	WN	1/20/2012	1/28/2012	1/28/2012	8	0	8
NO	UG/M3	SG4-011012	C1201051-017A	WN	1/20/2012	1/29/2012	1/29/2012	0	0	6
NO	UG/M3	SG4-011012	C1201051-017A	WN	1/20/2012	1/28/2012	1/28/2012	8	0	8
٥٧	UG/M3	SG3-011012	C1201051-014A	WN	1/20/2012	1/27/2012	1/27/2012	7	0	7
NO	UG/M3	SG25-011912	C1201051-008A	MN	1/19/2012	1/28/2012	1/28/2012	6	0	თ
NO	UG/M3	SG25-011912	C1201051-008A	MN	1/19/2012	1/27/2012	1/27/2012	8	0	80
NO	UG/M3	SG24-011912	C1201051-007A	WN	1/19/2012	1/28/2012	1/28/2012	6	0	6
NO	UG/M3	SG24-011912	C1201051-007A	WN	1/19/2012	1/27/2012	1/27/2012	8	0	80
NO	UG/M3	SG23-011912	C1201051-006A	WN	1/19/2012	1/28/2012	1/28/2012	ი	0	თ
NO	UG/M3	SG17-011012	C1201051-020A	MN	1/20/2012	1/28/2012	1/28/2012	ω	0	80
NO	UG/M3	SG22-011012	C1201051-016A	MN	1/20/2012	1/29/2012	1/29/2012	σ	0	თ
Wednest	day, Febru	Wednesday, February 22, 2012								Page 2 of 3

SORT	UNITS	UNITS NSAMPLE	LAB_ID		QC_TYPE SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL SMP_ANL	SMP_ANL
NO	UG/M3	TB-011012	C1201051-023A	WN	1/20/2012	1/27/2012	1/27/2012	7	0	7
N	UG/M3	SG21-211912	C1201051-005A	WN	1/19/2012	1/28/2012	1/28/2012	6	0	6
N	UG/M3	SG21-211912	C1201051-005A	WN	1/19/2012	1/27/2012	1/27/2012	8	0	æ
VO	UG/M3	SG2-011012	C1201051-013A	WN	1/20/2012	1/29/2012	1/29/2012	6	0	თ
Q	UG/M3	SG2-011012	C1201051-013A	ŴN	1/20/2012	1/27/2012	1/27/2012	7	0	7
N	UG/M3	SG20-011912	C1201051-004A	WN	1/19/2012	1/28/2012	1/28/2012	6	0	თ
N	UG/M3	SG20-011912	C1201051-004A	WN	1/19/2012	1/27/2012	1/27/2012	8	0	80
NO	UG/M3	SG19-011012	C1201051-010A	WN	1/20/2012	1/28/2012	1/28/2012	8	0	ω
NO	UG/M3	SG19-011012	C1201051-010A	WN	1/20/2012	1/27/2012	1/27/2012	7	0	7
N	UG/M3	SG18-011912	C1201051-009A	WN	1/19/2012	1/28/2012	1/28/2012	6	0	თ
Q	UG/M3	SG23-011912	C1201051-006A	MZ	1/19/2012	1/27/2012	1/28/2012	œ	-	თ

Wednesday, February 22, 2012

Page 3 of 3

	SMP_ANL	ო	ო	4	ო
	EXTR_ANL SMP_ANL	0	0	0	0
	SMP_EXTR	т	ო	4	ო
	ANAL_DATE	1/28/2012	1/28/2012	1/29/2012	1/28/2012
	EXTR_DATE	1/28/2012	1/28/2012	1/29/2012	1/28/2012
	QC_TYPE SAMP_DATE	1/25/2012	1/25/2012	1/25/2012	1/25/2012
	QC_TYPE	WN	WN	WN	MZ
	LAB_ID	C1201063-003A	C1201063-002A	C1201063-001A	C1201063-001A
	NSAMPLE	UG/M3 IA3-012512	UG/M3 IA2-012512	IA1-012512	UG/M3 IA1-012512
<b>SDG</b> C1201063	UNITS	UG/M3	UG/M3	UG/M3	UG/M3
Sog Sog	SORT	S	VO	VO	NO

Thursday, February 23, 2012

Page 1 of 1

		BackUp#	-	Ţ																								
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	Internal Standard Stock #: <u> </u>	Comments																								rage nu.		
k A-MSI		Time	1			5100						7000	- ac, n															
Logbool		Date Date	21/72/1													-												ļ
njection	ard Stock # k #(s) )	Group Number																										
Injection Logbook A-MSD	Internal Standard St Standard Stock #(s) LCS Stock #(s)	MethodQ File	711-2610											7														
	<u>= 0</u>	Inj Vol cc					- 102																-					
		Dil. Factor	1	1	ı	1	'	,	,   	,	,	,	<u>,</u>	,	_	_			+	-	-	-		-+	+			
ies, LLC	ISD MS, 1.0u, 60M	Data File Name	AU 0126 01	(7	4	ũ	F.	Ţ.		11	5	01	1	ų											-			
Centek Laboratories, LLC	Instrument: HP5975 MSD GC Column: J&W DB-5MS, 1.0u, 60M	Login Number		0.	1 1	1.25	110	0.15	0.50	0.30	0,10	0.04	6	PL I												by:	:147	
		Detection Limit																								Analyzed by:_	Form C	

199 199

		Centek Laborate	ories, LLC <sub>Res</sub>	sponse F	actor	Report	MSD :	#1		
	Meth Tit]		HEM\1\METHON VOA Standa:	S\A126_ ds for						
		onse via : Initia								
	Cali	bration Files								
	0.04	=AJ012620.D =AJ012617.D		L2619.D L2616.D			012621 012615			
		Compound	0.04 0.10	0.15	0.30	0.50	0.75	Avg	<b>%RSD</b>	
			*****	· · · · · · · · · · · ·						
1)	I	Bromochlorometha Propylene Freon 12 Chloromethane Freon 114 Vinyl Chloride 1,3-butadiene Bromomethane Ethanol Acrolein Chloroethane Vinyl Bromide Freon 11 Acetone Isopropyl alcoh 1,1-dichloroeth Freon 113 Methylene chlor Allyl chloride Carbon disulfid trans-1,2-dichl methyl tert-but 1,1-dichloroeth Vinyl acetate Methyl Ethyl Ke cis-1,2-dichlor Hexane Ethyl acetate Chloroform	ne		IST	D				
3)	Ť	Freon 12		5.006	3.734	3.594	3.807	3.901	37.08	
4)	т	Chloromethane		0.821	0.878	0.809	0.818	0.811	4.86	
5)	T	Freon 114		4.201	3.107	2.493	2.938	3.053	16.55	
6) 7)	T T	Vinyl Chloride	0.74	1.018 0 649	0.737	0.622	0.684	0.710	17.53	
8)	Ť	Bromomethane		1.079	1.111	0.919	0.900	0.971	13.40	
, e	т	Ethanol			0.355	0.303	0.190	0.251	26.58	
10)	T	Acrolein			0.263	0.245	0.268	0.258	10.80	
11)	T	Chloroethane Vinul Bromido		0.343	0.339	0.347	0.317	0.297	14.87	
13)	Ť	Freon 11		3.725	3.376	3.233	3.394	3.450	4.22	
14)	Ť	Acetone		0.904	0.668	0.524	0.560	0.567	27.36	
15)	T	Isopropyl alcoh		0.727	0.896	0.802	0.959	0.827	8.68	
16)	T	1,1-dichloroeth		1.136	0.955	0.815	0.995	0.930	11.33	
18)	Ť	Methvlene chlor		2.21/	1.213	1.124	2.051	2.114	4.37 21.98	
19)	Ŧ	Allyl chloride		0.873	0.637	0.453	0.594	0.685	18.50	
20)	т	Carbon disulfid		3.270	2.347	2.181	2.238	2.354	16.50	
21)	T	trans-1,2-dichl		1.243	1.211	0.984	1.186	1.130	7.30	
22)	T T	1.1-dichloroeth		1.708	2.092	1.3963	2.140	2.089	3.89	
24)	Ť	Vinyl acetate		1.688	1.272	1.145	1.424	1.379	11.21	
25)	Т	Methyl Ethyl Ke		0.204	0.255	0.215	0.259	0.230	9.62	
26)	T	cis-1,2-dichlor		1.296	1.054	1.012	1.076	1.064	9.35	
28)	ገ ጥ	Ethyl acetate		1.164	0.992	0.870	0.908	0.952	70.0T	
29)	Ŧ	Chloroform		2.589	2.143	2.046	2.166	2.190	7.87	
30)	т	Tetrahydrofuran			0.502	0.514	0.526	0.523	5.03	
31)	т	Ethyl acetate Chloroform Tetrahydrofuran 1,2-dichloroeth		1.450	1.263	1.313	1.303	1.342	4.13	
32)	I	1,4-difluorobenz	ene		IST	D			~~~~	
33)	T	1,1,1-trichloro Cyclohexane		0.732	0.581	0.623	0.601	0.618	7.91	
			0 060 0 70	0.300	0.249	0.233	0.233	0.234	12.81	
36)	Т Т	Benzene		0 620	0 509	0 513	0 489	0 512	8 97	
37)	Ť	Methyl methacry		0.020	0.153	0.168	0.166	0.169	6.89	
38)	т	1,4-dioxane			0.065	0.064	0.061	0.068	13.71	
39)	T	2,2,4-trimethyl		0.785	0.667	0.626	0.642	0.655	8.38	
40) 41)	T T	Methyl methacry 1,4-dioxane 2,2,4-trimethyl Heptane Trichloroethene	0.390 0 35	U.334 8 0 425	0.344	0.347	0.241	0.247	14.97 8 61	
42)	'T'	1,2-dichioropro		0.182	0.161	0.167	0.169	0.166	5.06	
43)	т	Bromodichlorome		0.545	0.483	0.487	0.512	0.498	4.48	
44)	T	cis-1,3-dichlor		0.320	0.271	0.274	0.281	0.291	5.90	
45) -46)	Tr	cis-1,3-dichlor trans-1,3-dichl -1,1,2-trichloro-		0.233	0.205	0.235	0.257 -0-247-	0.253	11.44 7-43	
47)	I	Chlorobenzene-d5 Toluene			IST)	D				
48)	T T	TOLUENE Methyl Ischutyl		0.659	0.486	0.543	0.543	0.556	8.58	
		Dibromochlorome		0.796	0.687	0.199 0.771	0.240	0.203	10.44 5.51	
51)		Toluene Methyl Isobutyl Dibromochlorome Methyl Butyl Ke		2.720	0.175	0.149	0.143	0.176	17.18	

(#) = Out of Range ### Number of calibration levels exceeded format ###
A126\_1UG.M Thu Feb 02 12:06:54 2012 MSD1

		Centek Labora	tories, LL	C <sub>Resp</sub>	onse F	actor 3	Report	MSD :	#1		
	Last		CHEM\1\M VOA St an 27 09	ETHODS andard :12:05	Al26_ s for	l <b>UG.M</b>	(RTE I	ntegrai	tor)		
		bration Files									
				=AJ012				012621			
	0.30	=AJ012617.D	0.50	=AJ012	516.D	0.75	=AJ	012615	.D		
		Compound	0.04	0.10	0.15	0.30	0.50	0.75	Avg	%RSD	
52)	T	1,2-dibromoetha			0.623	_0545	_0.588-	_0637	0620-	609	 
53)	T	Tetrachloroethy			0 749	0 573	0 630	0 600	0 626	9 16	
	т	Chlorobenzene Ethylbenzene m&p-xylene Styrene Bromoform o-xylene			0.892	0.726	0.821	0.832	0.835	6.22	
	т	Ethylbenzene			1.185	0.978	1.147	1.196	1.175	7.39	
56)	т	m&p-xylene			0.863	0.814	0.920	0.957	0.939	7.67	
57)	T	Styrene			0.594	0.526	0.660	0.706	0.679	12.19	
58)	T	Bromotorm			0.505	0.474	0.538	0.573	0.573	10.75	
59)	T	o-xylene Bromofluorobenz	0 701	0 000	0.859	0.750	1.028	1.079	0.999	13.40	
60) 61)		1,1,2,2-tetrach		0.090					0.568		
62)		2-Chlorotoluene							1.072		
63)	Î	4-ethvltoluene			0.947	0.920	1.115	1,180	1.146	12.66	
64)	Ŧ	4-ethyltoluene 1,3,5-trimethyl 1,2,4-trimethyl 1,3-dichloroben			0.792	0.860	1.028	1.102	1.046	14.07	
65)	т	1,2,4-trimethyl			0.885	0.842	0.971	1.055	1.013	10.50	
66)	т	1,3-dichloroben			0.686	0.637	0.766	0.846	0.804	12.59	
67)	T	benzyl chloride			0.417	0.379	0.517	0.628	0.611	26.04	
		1,4-dichloroben			0.670	0.651	0.790	0.789	0.788	11.61	
69)		1,2-dichloroben			0.616	0.616	0.729	0.778	0.761	13.28	
		1,2,4-trichloro			0.350	0.3/0	V.441	0.512	0.480	18.30	
	Т	Naphthalene							0.667		
72)	Τ.	Hexachloro-1,3-			0.445	0.490	0.553	0.650	0.605	16.98	

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				Jan-99
Injection Logbook A-MSD	8080	8861	E882	Method Reference: Toxic Organic Componds in Ambient Air Jan-99
Injection L	Internal Standard Stock #:	Standard Stock #(s)	LCS Stock #(s)	Method Reference: Toxic O

CD BackUp#																													ł
Comments																							-						Page No: 17
Inj. Time	1/07%																							0026				ואבס	
Inj. Date																		_					ھ	1/22/12	~			9	-
Group Number													-													•			
MethodQ File	MA- 9TIV	1 MARY																							}			9	
Inj Vol cc	•	200						7	40	6	700	~								-								- <del>)</del>	
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Login Number	BFRIUL A	0	ALCONG-012712	Amaluc L	<u>'</u>		201	3.40	۵۲	-1	7100	7700	1 500	1 400	1,200	00%	1000	100			/ 110	1210	1210	1/2/0	LISTID-0-1010-01721	<1201021-0161		1810	- V V
Detection																									*				Analyzed by: Form C147

	Centek Laboratores, Peter Co	ontinuin	g Calibrat	ion Report		
Data Acq Samp Misc MS I	File : C:\HPCHEM\l\DATA\AJ012 On : 27 Jan 2012 12:09 pm Dle : AlUG_1.0 : : Method-Al26_1UG Integration Params: RTEINT.P	2702.D		Vial Operator Inst Multiplr		
Titl Last	od : C:\HPCHEM\1\METHODS e : TO-15 VOA Standard Update : Fri Jan 27 09:12:09 oonse via : Multiple Level Cal:	is for 5 5 2012	point cal	Integrator) ibration		
Min. Max.	RRF : 0.000 Min. Rel. RRF Dev : 30% Max. Rel.	Area :	150%		· · · · · · · · · · · · · · · · · · ·	
	Compound	AvgRF	CCRF	*Dev Are	ea% Dev(min)	
1 I 2 T 3 T 4 T 5 T 6 T 7 T 8 T 10 T 11 T 12 T 13 T 14 T 15 I 16 T 17 T 18 T 19 T 20 T	Bromochloromethane Freon 12 Chloromethane Vinyl Chloride 1,1-dichloroethene Methylene chloride Carbon disulfide trans-1,2-dichloroethene methyl tert-butyl ether 1,1-dichloroethane Methyl Ethyl Ketone cis-1,2-dichloroethene Chloroform 1,2-dichloroethane 1,4-difluorobenzene 1,1,1-trichloroethane Carbon tetrachloride Benzene Trichloroethene 1,1,2-trichloroethane	1.000 3.901 0.811 0.710 0.930 1.084 2.354 1.130 2.089 1.403 0.230 1.064 2.190 1.342	1.000 3.267 0.576 0.517 0.723 1.388 1.670 1.090 1.970 1.328 0.229 1.047 2.037 1.286	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	31       0.00         L2       0.00         95       0.00         94       0.01         98       0.01         94       0.00         95       0.00         96       0.00         97       0.00         92       0.02         80       0.01         89       0.00         80       0.00         80       0.00         80       0.00         80       0.00         80       0.00         80       0.00         80       0.00	
21 IT 22 TT 23 TT 24 TT 25 TT 28 TT 27 S 70 TT 30 T 32 T 33 T	Chlorobenzene-d5 Toluene Tetrachloroethylene Chlorobenzene Ethylbenzene m&p-xylene o-xylene Bromofluorobenzene 1,2,4-trimethylbenzene 1,3-dichlorobenzene 1,4-dichlorobenzene 1,2,4-trichlorobenzene 1,2,4-trichlorobenzene Naphthalene	1.000 0.556	1.000 0.567	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	21       0.00         26       0.00         21       0.00         22       0.00         23       0.00         23       0.00         23       0.00         24       0.00         25       0.00         26       0.00         27       0.00         28       0.00         29       0.00         20       0.00         20       0.00         20       0.00         23       0.00	

#### Concertationies, KLROport

une File : C:\HPCHEM\1\DATA\AJ012702.D une Time : 27 Jan 2012 12:09 pm			
aily Calibration File : C:\HPCHEM\1\DATA\AJ012702	.D		
(BFB)	(IS1) 31022	(IS2) 129393	(IS3) 88095
ile Sample DL Surrogate Recovery %		Standard Res	
J012703.D ALCS1UG-012712 97	28885	124111	87354
J012704.D AMBIUG-012712 96	27961	116625	77580
J012705.D C1201051-023A 96	28144	119100	81313
J012706.D C1201051-014A 100	30884	130360	92002
J012707.D C1201051-014A MS 99	31919	138986	95733
J012708.D C1201051-014A MSD 93	31433	135488	91290
J012709.D C1201051-014A 5X 100	28962	126980	86194
J012710.D C1201051-014A 40X 101	33743	136062	92393
J012711.D C1201051-001A 94	33208	144835	95330
J012712.D C1201051-002A 93	33253	139210	98001
J012713.D C1201051-003A 99	32862	142780	97783
J012714.D C1201051-004A 99	34464	150768	102736
J012715.D C1201051-005A 102	37767	165097	117123
J012716.D Cl201051-006A 96	35910	158022	111922
J012717.D C1201051-007A 92	36929	158617	109096
J012718.D C1201051-008A 93	39416	162285	113273
J012719.D C1201051-009A 94	38330	163976	114204
J012720.D C1201051-010A 93	38251	158729	109370
J012721.D Cl201051-011A 94	39326	165406	113964
J012722.D C1201051-012A 97	38705	165257	114168
J012723.D C1201051-013A 96	39432	165126	114520
J012724.D C1201051-015A 92	39819	169198	119283
J012725.D ALCS1UGD-012512 96	42804	179509	117738
J012726.D C1201051-016A 97	39682	166138	119424
J012727.D C1201051-017A 87	38076	166269	112370
J012728.D-C1201051-018A-96		174158	-116694
J012729.D C1201051-019A 93	39318	173924	117946
		174372	123265
J012731.D C1201051-021A 103		178900	122302
J012732.D Cl201051-022A 96	39878	173330	118357
J012736.D C1201051-001A 10X 99		171808	112073
J012737.D C1201051-002A 10X 97 Page 109 of 621	38334	167649	106655

J012738.D C1201051-003A 10X 94	36321	162649	107204
J012739.D C1201051-004A 10X 93	37610	162938	106780
J012740.D C1201051-005A 10X 100	37529	158963	105029
J012741.D C1201051-006A 10X 92	37748	164931	111986
t - fails 24hr time check * - fails criteria			

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Created: Thu Feb 02 12:10:33 2012 MSD #1/

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#### CentensLaboratomes KL Report

une File : C:\HPCHEM\1\DATA\AJ012702.D une Time : 27 Jan 2012 12:09 pm aily Calibration File : C:\HPCHEM\1\DATA\AJ012702.D (IS1) (IS2) (IS3) 31022 129393 8 (BFB) 88095 Sample Surrogate Recovery & Internal Standard Responses ile  $\mathbf{DL}$ J012733.D C1201063-001A 97 39989 172203 115423 \_\_\_\_\_ J012734.D C1201063-002A 96 39213 167021 108246 \_\_\_\_\_ J012735.D C1201063-003A 94 39660 171172 115003 t - fails 24hr time check \* - fails criteria

Created: Fri Feb 03 17:05:36 2012 MSD #1/

GC Column: J&W DB-5MS, 1.0u, 60M Login Data File Number Name				Internal otaric	Internal Standard Stock #:	1200				
	.0u, 60M			Standard Stock #(s) LCS Stock #(s) Method Reference:	ck #(s) s) rence: Toxic	Crganic Com	ر omponds	Standard Stock #(s) ・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・	Jan-99	
			Ē	MethodQ	Group		Tima Tima	Comments		CD BackUp#
	Name	Factor	Val cc	FIIE	INULIDE		_Ľ			
<1201051-019 / ATOI	ATOLA729	i i	100	ADL-746		1128/11	100			
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AIUG- 1.0	70	$\overline{\mathbf{A}}$	2002							
ALCAIUL 012812	20		+	-+						
AMBIUL 6	90		-+							
NALDIZYIZA	20	•	-+							
	20		+			+				
Q	10		-				+			
4	11	•	-+			+	+			
12	12	•	-+	-+						
J	1,3	١		-+						
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4	15	•		*		┽				
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Page 599 of 621

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Form C147

Centek Laboratories, LLc Instrument: HP5975 MSD GC Column: J&W DB-5MS, 1.0u, 60M

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Detection Limit	Login Number	Data File Name	Dil. Factor	Inj Vol cc	MethodQ File	Group Number	Inj. Date	Inj. Time	Comments	CD BackUp#
	LI201051-00504	AJ DI 2 XI J	2	04	A126-106		21/82/1	<u> </u>		
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Analyzed by:	by: La A								Page No:	
Form C147	1									

Centek Laboratories, LLC

Centek Laborato Report Continuing Calibration Report

Acq On : Sample : Misc :	C:\HPCHEM\1\DATA\AJ012804.D 28 Jan 2012 1:43 pm AlUG_1.0 Method-A126_1UG ion Params: RTEINT.P	Vial: Operator: Inst : Multiplr:	RJP MSD #1
Method Title Last Update	: C:\HPCHEM\1\METHODS\A126MART.M (RTE ) : TO-15 VOA Standards for 5 point cali : Fri Jan 27 09:12:05 2012		

Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	*Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	148	0.02
2	т	Freon 12	3.901	3.505	10.2	136	0.00
3	т	Chloromethane	0.811	0.616	24.0	114	0,00
4	Т	Vinyl Chloride	0.710	0.599	15.6	136	0.01
	т	1,1-dichloroethene	0.930	0.864	7.1	132	0.02
	т	Methylene chloride	1.084	0.844	22.1		0.00
	т	Carbon disulfide	2.354	1.980	15.9		0.01
	Т	trans-1,2-dichloroethene	1.130	0.912	19.3	120	0.01
9	Т	methyl tert-butyl ether	2.089	1.920	8.1	134	0.02
10	Т	1,1-dichloroethane	1.403	1.176	16.2		0.02
11		Methyl Ethyl Ketone	0.230	0.271	-17.8		
12	т	cis-1,2-dichloroethene	1.064		19.9		0.01
13	т	Chloroform	2.190		-19.1		
14	т	1,2-dichloroethane	1.342	1.632	-21.6	176#	0.01
15	т	1,4-difluorobenzene	1.000	1.000	0.0	148	0.02
16		1,1,1-trichloroethane	0.618	0.622	-0.6		
17		Carbon tetrachloride	0.772	0.607	21.4		0.02
18		Benzene	0.512		-21.7		
19		Trichloroethene	0.358	0.367	-2.5		
20		1,1,2-trichloroethane	0.252	0.304	-20.6	182#	0.02
21	т	Chlorobenzene-d5	1.000	1.000	0.0	144	0.01
22		Toluene	0.556		-24.3		
23		Tetrachloroethylene	0.626	0.601	4.0	143	0.00
24		Chlorobenzene	0.835	0.970	-16.2		
25		Ethylbenzene	1.175	1.518	-29.2		0.00
26		m&p-xylene	0.939		-27.2		0.00
27		o-xylene	0.999		-24.5		
28		Bromofluorobenzene	0.720	0.761	-5.7		
29		1,2,4-trimethylbenzene	1.013	1.285	-26.9	177#	0.01
30		1,3-dichlorobenzene	0.804	0.895	-11.3	158#	0.00
31		1,4-dichlorobenzene	0.788		-11.0		
32		1,2-dichlorobenzene	0.761		-14.1		
33		1,2,4-trichlorobenzene	0.486		-11.1	153#	0.00
34	т	Naphthalene	0.667	0.827	-24.0	181#	0.00

(#) = Out of Range AJ012804.D A126MART.M

\_\_\_\_\_ SPCC's out = 0 CCC's out = 0Thu Feb 02 12:12:13 2012 MSD1

#### Centers Laboratories & LR Eport

une	File	:	C: )	\HPCH	IEM/l'	DATA	/AĽ	J012804.D	
	- '			-	0 0 1 0	-4			

une Time : 28 Jan 2012 1:43 pm

aily Calibration File : C:\HPCHEM\1\DATA\AJ012804.D

			(BFB)	(IS1) 34996		(IS3) 105159
ile			Surrogate Recovery #			
J012805.D	ALCS1UG-01281		101	33509	147027	99397
J012806.D	AMB1UG-012812			33639	141890	93267
J012816.D	C1201051-007A	10X	101	30351	128476	83780
J012817.D	C1201051-008A	5X	103	29797	126211	83664
J012818.D	C1201051-008A	40X	104	29477	127209	81588
J012819.D	C1201051-009A	5X	104	29075	125100	84289
J012820.D	C1201051-009A	40X	102	28827	125858	83974
J012821.D	C1201051-010A	5X	99	30756	129119	86165
J012822.D	C1201051-010A	40X	104	30559	124336	81319
J012824.D	C1201051-011A	5X	102	28970	121517	81719
J012825.D	C1201051-011A	40X	108	28812	120580	78966
J012826.D	C1201051-012A	10X	97	28788	118654	80637
J012827.D	C1201051-013A	10X	106	28041	123248	80119
J012828.D	C1201051-015A	10X	107	29863	120609	82196
J012829.D	C1201051-015A	40X	103	27572	115547	75608
J012830.D	AlugLCSD-0128	12	102	27588	115827	76314
J012831.D	C1201051-016A	10X	100	29159	122810	78354
J012832.D	C1201051-016A	40X	103	27482	109712	75103
J012833.D	C1201051-017A	10X	102	26849	111753	75439
J012834.D	C1201051-018A	10X	102	26487	109383	73776
J012835.D	C1201051-019A	10X	104	25578	109530	73215
J012836.D	C1201051-020A	20X	109	26054	107512	70069
J012837.D	C1201051-021A	20X	102	25819	112544	71738
J012838.D	C1201051-022A	20X	100	25674	109258	71037
t - fa	ils 24hr time	checl	x * - fails criteri	.a		

-----Created: Thu Feb-02-12:13:23-2012-MSD-#1/------

#### Contens Laboratomes, KLE Oport

	le : C:\HPCHEM' ne : 28 Jan 201		•				
aily Ca	alibration File	∎ : C:\]	HPCHEM\1\DATA\AJ012804	.D			
			(BFB)	(IS1) 34996	(IS2) 155321	(IS3) 105159	
ile	Sample	$\mathbf{D}\mathbf{L}$	Surrogate Recovery %	Internal	Standard Res	ponses	
J012839	D C1201063-00	01A 10X	100	25507	109893	70131	
, <b>t</b>	fails 24hr_tin	me chec	k 🕴 - fails criteria				· · · · ·

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Created: Fri Feb 03 17:06:13 2012 MSD #1/



#### Date: 02-Feb-12

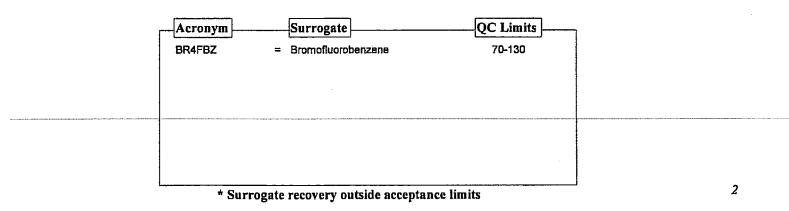
# QC SUMMARY REPORT SURROGATE RECOVERIES

CLIENT:	Tetra Tech							
Work Order:	C1201051						 	
Project:	Maryland Ma	rtinAir Mi						
Test No:	TO-15		Matrix	: A			 	
Sample ID	BR	4FBZ				 		
A1UGLCSD-0128	312	102				 		
ALCS1UG-01271	2 9	7.0						
ALCS1UG-01281	2	101				 	 	
ALCS1UGD-0125	512 9	6.0						
AMB1UG-012712	2 9	6.0						
AMB1UG-012812	2 1	02						
C1201051-001A	5	94.0				 		
C1201051-002A	9	93.0						
C1201051-003A	9	9.0						
C1201051-004A	9	9.0						
C1201051-005A	1	102						
C1201051-006A	9	6.0						
C1201051-007A	5	2.0 <sup>·</sup>		ĺ				
C1201051-008A	9	3.0						
C1201051-009A	5	94.0						
C1201051-010A	9	3.0						
C1201051-011A	9	94.0						
C1201051-012A	9	7.0						
C1201051-013A	9	6.0						
C1201051-014A	1	00			1			
C1201051-014A N	VIS 9	9.0						
C1201051-014A N	MSD 9	3.0						
C1201051-015A	5	2.0					 	
	BR4		= Bron	rogate nofluorobenz	ene	<b>Limits</b>		

\* Surrogate recovery outside acceptance limits

1

CLIENT: Work Order: Project:	Tetra Tech C1201051 Maryland MartinAir M	iddle River 1
Test No:	TO-15	Matrix: A
Sample ID	BR4FBZ	
C1201051-016A	97.0	
C1201051-017A	87.0	
C1201051-018A	96.0	
C1201051-019A	93.0	
C1201051-020A	95.0	
C1201051-021A	103	
C1201051-022A	96.0	
C1201051-023A	96.0	



1					ANA	LYTIC/	ANALYTICAL OC SUMMARY REPORT	<b>MMARV</b>	REPORT	<b></b>
1							-> -> ->			4
CLIENT: Tetra Tech	ų									
Work Order: C1201051 Project: Marvland	C1201051 Marvland MartinAir Middle River 112IC03634	12IC0363	4				TestCode: ]	1ugM3 TO15w/Nanh	5w/Nanh	
Sample ID AMB1UG-012712	SampType: MBLK	TestCo	TestCode: 1ugM3_T015	016 Units: ppbV	Prep	Prep Date:		RunNo: 5397	4	
Client ID: ZZZZ	Batch ID: R5397	Test	TestNo: TO-15		Analysis Date:		1/27/2012	SeqNo: 63222	22	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit	nit HighLimit	nit RPD Ref Val	048%	RPDLimit 0	Qual
1,1,1-Trichloroethane	QN	0.15								
1,1,2-Trichloroethane	QN	0.15								
1,1-Dichloroethane	Q	0.15								
1,1-Dichloroethene	QN	0.15								
1,2,4-Trichlorobenzene	QN	0.15								
,2,4-Trimethylbenzene	QN	0.15								
,2-Dichlorobenzene	QN	0.15								
1,2-Dichloroethane	Q	0.15								
, 3-Dichlorobenzene	Q	0.15								
1,4-Dichlorobenzene	Q	0.15								
Benzene	QN	0.15								
Carbon disulfide	Q	0.15								
Carbon tetrachloride	QN	0.040								
Chlorobenzene	Q	0.15								
Chlaroform	QN	0.15								
Chloromethane	Q	0.15								
cis-1,2-Dichloroethene	QN	0.15								
Ethylbenzene	QN	0,15								
Freon 12	QN	0.15								
m&p-Xylene	QN	0.30								
Methyl Ethyl Ketone	QN	0.30								
Methyl tert-butyl ether	<u>n</u>	0.15								
Methylene chloride	QN	0.15								
Naphthalene	QN	0.15								
a-Xylene	QN	0.15								
Qualifiers: Results rep	Results reported are not blank corrected		E Value	Value above quantitation range		H	Holding times for preparation or analysis exceeded	preparation or an	alysis exceeded	
	Analyte detected at or below quantitation limits	nits	ND Not D	Not Detected at the Reporting Limit	Limit	R	RPD outside accepted recovery limits	pted recovery limi	its	
۶ 										

Date: 02-Feb-12

	Maryland MartinAir Middle River 112IC03634	iver 112IC03634	4	·			TestCode:		1ugM3_TO15w/Naph	_
Sample ID AMB1UG-012712 Client ID: 22222	SampType: MBLK Batch ID: R5397	TestCod	TestCade: 1ugM3_TO15 TestNo: TO-15	i Units: ppbV		Prep Date: Analvsis Date:	<pre>c 1/27/2012</pre>		RunNo: 5397 SeaNo: 63222	
	Result	POL	ne	SPK Ref Val	%REC	LowLimit 1	ighLimit	RPD Ref Val	%RPD RPDLimit	Quai
Tetrachloroethylene Toluene trans-1,2-Dichloroethene Trichloroethene Vinyl chloride Surr: Bromofluorobenzene	<u>0 0 0 0 0 000000000000000000000000000</u>	0.15 0.15 0.15 0.040 0.040	-	a	96.0	02	130			
Sample ID AMB1UG-012812 Client ID: ZZZZ	SampType: MBLK Batch ID: R5398	TestCod	TestCode: 1ugM3_T015 TestNo: T0-15	i Units: ppbV	▲	Prep Date: Analysis Date:	: 1/28/2012		RunNo: 5398 SeqNo: 63261	
Analyte	Result	PQL	SPK value SP	SPK Ref Val	%REC	LowLimit I	HighLimit RPD	RPD Ref Val	%RPD RPDLimit	Qual
1,1,1-Trichloroethane 1,1,2-Trichloroethane	88		-						· · ·	
1,1-Dichloroethane 1,1-Dichloroethene	22									
1,2,4-1 richlorobenzene 1,2,4-Trimethylbenzene										
1,2-Dichlorobenzene 1 2-Dichloroethane		0.15							·	
1,3-Dichlorobenzene	2									
1,4-Dichlorobenzene Benzene		0.15 0.15							·	
Carbon disulfide	Q									
Carbon tetrachloride	Q	U								
Chlorobenzene										
Chloroform		0.15								
cis-1.2-Dichloroethene										
Ethylbenzene	Q									
Freon 12	9	0.15								
	Results reported are not blank corrected	ed		Value above quantitation range	Ð			g times for p	Holding times for preparation or analysis exceeded	led
J Analyte de S Spike Reco	Analyte detected at or below quantitation limits Spike Recovery outside accepted recovery limits	tion limits very limits	ND Not Detect	Not Detected at the Reporting Limit	Limit		R RPD ou	utside accep	RPD outside accepted recovery limits	Paca 2 of 3

CLIENT:	Tetra Tech											
Project:	Maryland N	Maryland MartinAir Middle River 112IC03634	12IC03634	·				Tes	TestCode: 1	lugM3_T015w/Naph	w/Naph	
Sample ID AMB1	AMB1UG-012812	SampType: MBLK	TestCode	TestCode: 1ugM3_TO15 Uni	Units: ppbV		Prep Date:			RunNo: 5398		
Client ID: ZZZZZ	N	Batch ID: R5398	TestNo	TestNo: TO-15		¥	Analysis Date:	e: 1/28/2012		SeqNo: 63261	-	
Analyte		Result	Pal	SPK value SPK Ref Val		%REC	LowLimit	HighLimit R	RPD Ref Val	%RPD F	RPDLimit C	Qual
m&p-Xylene		QN	0:30					1				
Methyl Ethyl Ketone	ne	QN	0:30									
Methyl tert-butyl ether	ther	QN	0.15									
Methylene chloride	<b>.</b>	QN	0.15									
Naphthalene		Q	0.15									
o-Xylene		Q :	0.15									
Tetrachloroethylene	9		0.15									
Taluene		av	0.15									
trans-1,2-Dichloroethene	ethene	2	0.15									
Trichloroethene		Q	0.040									
Vinyl chloride		Q	0.040									
Surr. Bromofluorobenzene	robenzene	1.020	o	-	0	102	20	130				
Qualifiers:	Results repor	Results reported are not blank corrected			antitation range				ding times for	Holding times for preparation or analysis exceeded	lysis exceeded	
-, <i>v</i>		Analyte detected at or below quantitation limits Suite Recovery outside accorded recovery limits	nits mits	ND Not Detected at the Reporting Limit	the Reporting l	Limit		R RPI	D outside accer	RPD outside accepted recovery limits		
o		cið uusine accepteu tecoverg ti	2111								Pag	Page 3 of 3

Date: 02-Feb-12

ANALYTICAL QC SUMMARY REPORT

CENTEK LABORATORIES, LLC

Qual S S S S S იიი Holding times for preparation or analysis exceeded TestCode: 1ugM3\_TO15w/Naph %RPD RPDLimit RPD outside accepted recovery limits SeqNo: 63251 RunNo: 5397 LowLimit HighLimit RPD Ref Val 1/27/2012 130 130 130 130 130 130 30 130 130 30 30 130 8 30 8 нĸ Analysis Date: Prep Date: 22222 2222 %REC 27.0 82.0 87.0 95.0 ₽(a) (空)(認 91.0 90.0 77.0 92.0 87.0 74.0 96.0 <u>99</u>,0 90.08 8 80.0 ģ 107 **5** 103 Not Detected at the Reporting Limit Value above quantitation range TestCode: 1ugM3\_TO15 Units: ppbV 31.25 SPK value SPK Ref Val 5.9 o 5.5 4.8 0 TestNo: TO-15 шQ Maryland MartinAir Middle River 112IC03634 ğ 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.040 0.15 0.15 0.15 0.15 0.15 0.15 0.30 0.30 0.15 0.15 0.15 0.15 0.15 0.15 Analyte detected at or below quantitation limits Results reported are not blank corrected Result 0.9100 6.400 1.010 0.9500 5.070 1.040 5.670 38.83 1.030 0.9200 0.8700 0.7400 4.330 0.9200 0.7700 0.9600 0.9900 1.070 1.020 2.220 0.9000 1.800 1.430 0.8000 2.960 Batch ID: R5397 SampType: MS Tetra Tech Sample ID C1201051-014A MS C1201051 SG3-011012 ,2,4-Trimethylbenzene ,2,4-Trichlorobenzene cis-1,2-Dichloroethene .1,1-Trichloroethane ,1,2-Trichloroethane Methyl tert-butyl ether 4-Dichlorobenzene ,2-Dichlorobenzene .3-Dichlorobenzene Carbon tetrachloride Methyl Ethyl Ketone ,1-Dichloroethane **.1-Dichloroethene** .2-Dichloroethane Methylene chloride Carbon disulfide Chlorobenzene Chloromethane Work Order: Ethylbenzene Naphthalene m&p-Xylene Chloroform CLIENT: Qualifiers: Client ID: Freon 12 Project: Benzene o-Xylene Analyte

Page 1 of 3

Spike Recovery outside accepted recovery limits

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#### Centek Laboratories, LLC

Project: Maryland	Maryland MartinAir Middle River 1121C03634	12IC03634					•	TestCode: 1	TestCode: 1ugM3_TO15w/Naph	/Naph	
Sample ID C1201051-014A MS Client ID: SG3-011012	t SampType: MS Batch ID: R5397	TestCode	TestCode: 1ugM3_TO15 TestNo: TO-15	015 Units: ppbV		Prep Date: Analysis Date:	e: 1/27/2012	012	RunNo: 5397 SeqNo: 63251		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RP	RPDLimit	Qual
Tetrachloroethylene	0.8400	0.15	-	0	84.0	02	130				
Toluene	9.130	0.15	•	8.25	88.0	20	130				
trans-1,2-Dichloroethene	0.9800	0.15	-	0	98.0	02	130				
Trichloroethene	0.9100	0.040	-	0	91.0	70	130				
Vinyi chloride Surr: Bromofluorabenzene	0.7100 0.9900	0.040 0		• •	71.0 99.0	02 Q2	130 130				
Sample ID C1201061-014A MS	SampType: MSD	TestCode	TestCode: 1ugM3_TO15	015 Units: ppbV		Prep Date:	ë		RunNo: 5397		
Client ID: SG3-011012	Batch ID: R5397	TestN	TestNo: TO-15			Analysis Date:	e: 1/27/2012	012	SeqNo: 63252		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPI	RPDLimit	Qual
1,1,1-Trichloroethane	0.8400	0.15	-	0	84.0	02	130	0.8	4.88	Œ	
1,1,2-Trichloroethane	1.130	0.15	-	0	113	20	130	1.03	9.26	30	
1,1-Dichloroethane	0.9700	0.15	-	0	0.72	70	130	0.92	5.29	30	
1,1-Dichloraethene	0.9200	0.15	-	0	92.0	70	130	0.87	5.59	30	
1,2,4-Trichlorobenzene	0.4100	0.15	-	o		02	130		57.4)	30	SR
1,2,4-Trimethylbenzene	4.530	0.15	-	2.9	163	02	130		4.51	30	S
1,2-Dichlorobenzene	0.9600	0.15	-	0	96.0	20	130		4.26	30	
1,2-Dichloroethane	1.060	0.15	-	0	106	20	130		4.83	ÐE	
1,3-Dichiorobenzene	0.9800	0.15	-	0	98.0	20	130		3.11	30	
1,4-Dichlorobenzene	0.9800	0.15		0	98.0	20	130	J	7.41	30	
Benzene	6.540	0.15	-	5.5	104	02	130		2.16	30	
Carbon disulfide	5.100	0.15	-	4.8	O.OE	02	130	5.07	0.590	90	ა
Carbon tetrachloride	0.8000	0.040	-	0	80.0	70	130	0.77	3.82	30	
Chlorobenzene	1.040	0.15	-	0	104	70	130	0.96	8.00	30	
Chloraform	1.010	0.15	-	0	101	70	130	0.99	2.00	30	
Chloromethane	0.1900	0.15	-	0	0.61	70	130	1.07	140	30	RS
cis-1,2-Dichloroethene	1.000	0.15	-	o	100	70	130	1.02	1.98	30	
Ethylbenzene	2.330	0.15	-	0	(EEZ)	70	130	2.22	4.84	30	S
Freon 12	0.9400	0.15	<del></del>	o	94.0	70	130	1.04	10.1	30	
Qualifiers: Results repo	Results reported are not blank corrected		E Value	Value above quantitation range	ßc		н	Holding times for	Holding times for preparation or analysis exceeded	is exceeded	
J Analyte dete	Analyte detected at or below quantitation limits	nits	ND Not D(	Not Detected at the Reporting Limit	g Limit		R	<b>RPD</b> outside acce	RPD outside accepted recovery limits		
C Crite Daros											

<b>CLIENT:</b>	Tetra Tech
Work Order:	C1201051
Draind.	Maryland Martin Air Middle Diver 117

C1201051	Maryland MartinAir Middle River 112IC03634
Work Order:	Project:

Project: Maryland	Maryland MartinAir Middle River 112IC03634	112IC0363	4				T	TestCode: 1ugM3_TO15w/Naph	ugM3_TO1	l5w/Naph	
Sample ID C1201051-014A MS	IS SampType: MSD	TestCo	de: 1ugM3_TC	TestCode: 1ugM3_T015 Units: ppbV		Prep Date:			RunNo: 5397	11	
Client ID: SG3-011012	Batch ID: R5397	Test	TestNo: TO-15			Analysis Date: 1/27/2012	: 1/27/20	12	SeqNo: 63252	152	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	LowLimit HighLimit RPD Ref Val	%RPD	RPDLimit	Qual
m&p-Xylene	6.090	0.30	2	0	304	20	130	5.67	7.14	30	s
Methyl Ethyl Ketone	37.70	0.30	-	31.25	642	20	130	38.83	2.95	30	S
Methyl tert-butyl ether	0.9300	0.15	-	٥	93.0	20	130	0.9	3.28	30	
Methylene chloride	1.920	0.15	-	Ð	(192	70	130	1.8	6.45	30	S
Naphthalene	0.8400	0.15	-	a	84.0	22	130	1.43	52.0	30	Ľ
o-Xylene	3.170	0.15	-	D	(LE)	70	130	2.96	6.85	30	S
Tetrachloroethylene	0.9500	0.15	<del></del>	o	95.0	20	130	0.84	12.3	30	
Toluene	9.720	0.15	~	8.25	147	02	130	9.13	6.26	30	s
trans-1,2-Dichloroethene	1.000	0.15	~	a	100	70	130	0.98	2.02	80	
Trichloroethene	0.9400	0.040	-	0	94.0	20	130	0.91	3.24	30	
Vinyl chloride	0.770	0.040	~	o	77.0	02	130	0.71	8.11	30	
Surr: Bromofluorobenzene	0.9300	0	~	0	93.0	02	130	D	•	30	
									·		

Page 3 of 3

Holding times for preparation or analysis exceeded RPD outside accepted recovery limits

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E Value above quantitation range ND Not Detected at the Reporting Limit

Analyte detected at or below quantitation limits Spike Recovery outside accepted recovery limits

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Qualifiers:

Results reported are not blank corrected

Centek Laboratories, LLC

Method TO-15 Units=ppb		0.038	0.043	0.066	0.044	0.024	0.077	0.051	0.104	0.078	0.077	0.063	0.028	0.090	0.001		0.101	0.092	0.098	0.094	0.094	0.043	0.085	0.075	0.047	0.087	0.092	0.054	0.093	0.066	0.057	0.048	0.048	0.059	0.065	0.097	0.043	0.092
Metho	%Rec	80.4%	90.7%	87.9%	91.1%	79.3%	91.4%	88.9%	85.7%	87.9%	91.4%	90.0%	92.9% 96.9%	00.00 70	97.9% BD 692	0/0-00 00 00/00	87.5%	86.1%	92.5%	83.2%	78.2%	88.2%	82.5%	83.9%	85.7%	81.4%	84.6%	90.7%	82.5%	90.4%	96.4%	87.5%	91.1%	94.3%	80.0%	80.7%	84.3%	82.1%
	StdDev	0.01	0.01	0.02	0.01	0.01	0.02	0.02	0.03	0.02	0.02	0.02	10.0				0.03	0.03	0.03	0.03	0.03	0.01	0.03	0.02	0.01	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.01	0.03
	AVG	0.32	0.36	0.35	0.36	0.32	0.37	0.36	0.34	0.35	0.37	0.36	0.37		0.39 AF 0	0.00	0.35	0.34	0.37	0.33	0.31	0.35	0.33	0.34	0.34	0.33	0.34 4.0	0.36	0.33	0.36	0.39	0.35	0.36	0.38	0.32	0.32	0.34	0.33
	[DF #2	0.32	0.37	0.38	0.39	0.33	0.39	0.35	0.33	0.34	0.36	0.4	U.39 D.26	00.0 76.0	10.0	10.0	0.34	0.32	0.4	0.37	0.27	0.34	0.3	0.3	0.36	0.32	0.0 707	0.35	0.31	U.38 0.28	0.38	0.35	0.36	U.38	0.3	0.3	0.33	0.32
	1DL #6	0.33	0.37	0.33	0.37	0.32	0.35	0.35	0.35	0.36	0.36	0.35	70.0		06.0		0.42	0.31	0.4	0.32	0.28	0.35	0.3	0.33	0.33	0.3	0.3Z	0.35 2.2	U.31	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	0.37	0.33	0.36	45.0	0.31	0.28	0.32	0.0
tion Limit 2012	IDL #5	0.32	0.34	0.35	0.36	0.31	0.33	0.35	0.32	0.36	0.36	0.37	0.37 7 2 5	3.0	4-0 1 37	50.0	0.32 0.32	0.38	0.32	0.31	0.33	0.35	0.32	0.32	0.36	0.36	0.0	0.35	υ.υ Γο τ	0.50	0.37	0.33	0.34	4 0 0	0.33	0.36	0.32	R7'N
1ug/m3 Detection Limit January 2012	IDL #4	0.32	0.37	0.37	0.37	0.32	0.4	0.35	0.35	0.31	0.38	0.35	0.36 0.36	0.00	- F 0	0.36	0.35	0.36	0.36	0.33	0.33	0.36	0.36	0.37	0.34	0.34		0.38	00	0.30	U.38	0.36	0.30	0.38	0.3	0.3	0.35	CC.D
146	IDL #3	0.32	0.36	0.36	0.35	0.31	0.37	0.34	0.41	0.36	0.39	0.34	0.36		0.36	0.34	0.35	0.38	0.35	0.29	0.33	0.38	0.37	0.34	0.32	0.34		U.35	70.0	1.3/ 0.00	0.38 0.0	U.3/	0.37	10.0	0.32	0.33	0.35	0.00
	IDL #2	0.3	0.38	0.32	0.35	0.31	0.35	0.36	0.31	0.34	0.32	0.30	0.30	0.41	0.36	0.34	0.34	0.32	0.4	0.34	0.3	0.34	0.33	0.33	U. 4 4 0 4 0	0.28	10.0	0, J 2, C	0.00 000	0.00	4.0 4.2	0.50	0.37		0.3Z	0.33	0.34	20.0
	IDL_#1	0.34	0.35	0.35	0.36	0.32	0.37	0.39	0.33	0.39	0.39	0.00		20:0 1 4 0	0.36	0.35	0.33	0.34	0.36	0.37	0.35	0.35	0.33	0.36	0.5 0	0.34 0.30	00.00	0.07			0.42 7 0 0	0.00 0	20.0		05.0	0.30	0.35	10.0
	Amt	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	4.0	0 0 4 •			40	4.0	40	0.4	0.4	0.4	0.4	4.0	<b>0.4</b>	0.4	4.0	0.4	4.0		t t 5 c		t 7	4. <b>-</b>	5 C	4. C	t x	4.0 4.0	0.4 7	4.0	† 5
0 0																		•		- ue		···· •	<u></u>														<i>(</i> 1)	-
Centek Laboratories IDL Study	Compound	Propylene	Freon 12	Chloromethane	Freon 114	Vinyl Chloride	1,3-butadiene	Bromomethane	Ethanol	Acrolein Chlaradhana		VIII VIII DI VIII DI VIII DI PINI DI VIII DI V	Acetone	Isonrovi alcohol	1.1-dichloroethene	Freon 113	Methylene chloride	Allyl chloride	Carbon disulfide	trans-1,2-dichloroethene	methyl tert-butyl ether	1,1-dichloroethane	Vinyl acetate	Methyl Ethyl Ketone	cis- r,z-aicrioroeinene Lovooo	rtexane Ethul acetate	Chloroform	Tatrahudrofiiran	1 3 dishloroothana			Corbon totrochlorido	Cal Doll (EulaCrijulue Benzene	Mathvi mathachiata	Membrinenaciyiale	1,4-010Xane	∠,∠,4-trimetnyipentane Hantana	

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Method TO-15 Units=ppb	IDL	0.062	0.094	0.062	0.096	0.106	0.088	0.059	0.097	0.062	0.088	0.068	0.038	0.086	0.072	0.142	0.060	0.075	0.104	0.128	0.084	0.110	0.098	0.087	0.092	0.103	0.075	0.098	0.094	0.113	0.145	0.137
Meth	%Rec	94.3%	96.8%	95.7%	86.8%	92.1%	96.8%	80.4%	70.4%	94.3%	72.9%	95.0%	<b>90.6%</b>	91.8%	73.9%	73.6%	73.6%	86.4%	66.1%	103.1%	92.1%	84.3%	69.6%	68.9%	69.3%	90.0%	88.9%	90.0%	88.6%	103.6%	86.8%	133.9%
	StdDev	0.02	0.03	0.02	0.03	0.03	0.03	0.02	0.03	0.02	0.03	0.02	0.01	0.03	0.02	0.05	0.02	0.02	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.04	0.05	0.04
	AVG	0.38	0.39	0.38	0.35	0.37	0.39	0.32	0.28	0.38	0.29	0.38	0.40	0.37	0.30	0.59	0.29	0.35	0.26	1.03	0.37	0.34	0.28	0.28	0.28	0.36	0.36	0.36	0.35	0.41	0.35	0.54
	IDL #7	0.35	0.37	0.37	0.32	0.35	0.35	0.3	0.26	0.37	0.29	0.37	0.4	0.34	0.26	0.54	0.29	0.32	0.26	1.01	0.33	0.34	0.24	0.23	0.23	0.35	0.33	0.35	0.32	0.41	0.33	0.5
	9# 10I	0.38	0.36	0.35	0.3	0.31	0.37	0.3	0.26	0.35	0.32	0.34	0.38	0.33	0.27	0.58	0.26	0.31	0.22	0.95	0.34	0.34	0.25	0.26	0.25	0.3	0.33	0.31	0.31	0.35	0.32	0.48
tion Limit 1012	IDL #5	0.35	0.35	0.37	0.35	0.35	0.36	0.31	0.28	0.36	0.28	0.37	0.4	0.35	0.29	0.53	0.3	0.35	0.23	1.07	0.36	0.3	0.26	0.28	0.28	0.36	0.38	0.35	0.35	0.42	0.34	0.53
1ug/m3 Detection Limit January 2012	IDL #4	0.38	0.39	0.4	0.37	0.38	0.4	0.35	0.26	0.38	0.27	0.4	0.4	0.39	0.31	0.63	0.29	0.35	0.31	1.04	0.37	0.32	0.28	0.29	0.29	0.36	0.35	0.38	0.37	0.4	0.32	0.52
1ug	IDL #3	0.39	0.39	0.39	0.39	0.39	0.4	0.33	0.26	0.38	0.27	0.39	0.39	0.39	0.32	0.63	0.31	0.38	0.27	1.06	0.39	0.32	0.3	0.27	0.29	0.37	0.38	0.37	0.38	0.43	0.34	0.54
	IDL #2	0.4	0.43	0.4	0.34	0.39	0.4	0.33	0.32	0.39	0.27	0.39	0.4	0.37	0.31	0.57	0.29	0.36	0.3	1.04	0.39	0.33	0.29	0.28	0.28	0.37	0.38	0.35	0.36	0.42	0.33	0.57
	1DL #1	0.39	0.42	0.4	0.36	0.41	0.43	0.33	0.33	0,41	0.34	0.4	0.42	0.4	0.31	0.64	0.32	0.35	0.26	1.05	0,4	0.41	0.33	0.32	0.32	0.41	0.34	0.41	0.39	0.47	0.45	0.61
	Amt	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.4	0.4	0.4	<b>~</b>	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Centek Laboratories IDL Study	Compound	Trichloroethene	1,2-dichloropropane	Bromodichloromethane	cis-1,3-dichloropropene	trans-1,3-dichloropropene	1,1,2-trichloroethane	Toluene	Methyl Isobutyl Ketone	Dibromochloromethane	Methyl Butyl Ketone	1,2-dibromoethane	l etrachloroethylene	Chlorobenzene	Ethylbenzene	m&p-xylene	Styrene	Bromoform	o-xylene	Bromofluorobenzene	1,1,2,2-tetrachloroethane	2-Chlorotoluene	4-ethyltoluene	1,3,5-trimethylbenzene	1,2,4-trimethylbenzene	1,3-dichlorobenzene	benzyi chloride	1,4-dichlorobenzene	1,2-dichlorobenzene	1,2,4-trichlorobenzene	Naphthalene	Hexachloro-1,3-butadiene

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סר	0.025 0.024 0.042 0.053				
%Rec	105.7% 122.9% 111.4% 121.4%				
StdDev	0.01 0.01 0.02	 		 	
AVG	0.11 0.12 0.12 0.12				
Dr.#2	0.12 0.12 0.14 0.12				
9# 1DF	0.1 0.11 0.09 0.09				
DLL;#5,  DL #6	0.12 0.12 0.12 0.12				
IDL #4	0.11 0.13 0.12 0.12				
DL: #21DL: #3	0.1 0.13 0.12 0.12				
IDL #2	0.1 0.12 0.13 0.12				
IDL #1	0.11 0.13 0.14 0.14				
Amt	0.1 0.1 1.0				
pur			•		
Compound	Vinyi Chloride Carbon tetrachloride Trichloroethene Tetrachloroethylene			(	Confidential

Centek Laboratories, LLC

Method TO-15 Units=ppb

0.25ug/m3 Detection Limit January 2012

Centek Laboratories IDL Study

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									n en	
CLIENT: Tetra Tech	sch									
Work Order: C1201051	51									
Project: Marylan	Maryland MartinAir Middle River 1121C03634	12IC03634					F	TestCode: ]	1ugM3_T015w/Naph	(Naph
Sample ID ALCS1UG-012712	2 SampType: LCS	TestCode:	TestCode: 1ugM3_T015	Units: ppbV		Prep Date:			RunNo: 5397	
Cilent ID: ZZZZZ	Batch ID: R5397	TestNo: TO-15	TO-15		4	Analysis Date:	:: 1/27/2012	12	SeqNo: 63223	
Analyte	Result	PQL	SPK value SPI	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	KPD RPI	RPDLimit Qual
1,1,1-Trichloroethane	0.9200	0.15		0	92.0	70	130			
1,1,2-Trichloroethane	1.090	0.15		0	109	70	130			
1,1-Dichloroethane	1.000	0.15	-	D	100	20	130			
1,1-Dichloroethene	0.8300	0.15	↽	0	83.0	20	130			
1,2,4-Trichlorobenzene	0.9500	0.15	*-	0	95.0	02	130			
1,2,4-Trimethylbenzene	1.030	0.15	۲	0	103	02	130			
1,2-Dichlorabenzene	1.010	0.15	-	0	101	02	130			
1,2-Dichloroethane	1.070	0.15	-	0	107	70	130			
1,3-Dichlorobenzene	1.030	0.15	-	o	103	20	130			
1,4-Dichlorobenzene	1.040	0.15	-	0	104	02	130			
Benzene	1.050	0.15	-	0	105	02	130			
Carbon disulfide	1.010	0.15	-	0	101	70	130			
Carbon tetrachloride	0.8100	0.040	-	0	81.0	02	130			
Chlorobenzene	1.030	0.15		o	103	70	130			
Chlaroform	1.030	0.15	*	0	103	02	130			
Chloromethane	0.7700	0.15	-	0	0.77	70	130			
cis-1,2-Dichloroethene	1.010	0.15	F	0	<del>10</del> 1	70	130			
Ethylbenzene	1.090	0.15	£	0	109	70	130			
Freon 12	0.9000	0.15	F	0	90.0	02	130			
m&p-Xylene	2.170	0.30	7	0	108	02	130			
Methyl Ethyl Ketone	1.060	0:30	<b>-</b>	0	106	22	130			
Methyl tert-butyl ether	1.010	0.15	-	0	ē	02	130			
Methylene chloride	1.690	0.15	-	0	169	70	130			S
Naphthalene	0.7700	0.15	-	o	17.0	70	130			
a-Xylene	1.140	0.15	-	0	114	02	130			
Qualifiers: Results n	Results reported are not blank corrected		E Value abov	Value above quantitation range	a		H	lolding times for	Holding times for preparation or analysis exceeded	s exceeded
J Analyte	Analyte detected at or below quantitation limits		ND Not Detect	Not Detected at the Reporting Limit	g Limit		R	PD outside acce	RPD outside accepted recovery limits	
S Spike Re	Spike Recovery outside accepted recovery limits	imits								Pape 1 of 5

Date: 03-Feb-12

CENTEK LABORATORIES, LLC

CY UDAT. Tehn Tech				-							
ler:	-										
	Maryland MartinAir Middle River 1121C03634	12IC03634					Ţ	TestCode: 1	1ugM3_T015w/Naph	15w/Naph	
Sample ID ALCS1UG-012712	SampType: LCS	TestCode:	1ugM3_T015	TestCode: 1ugM3_TO15 Units: ppbV		Prep Date			RunNo: 5397	37	
Client ID: ZZZZ	Batch ID: R6397	TestNo: TO-15	10-15		4	Analysis Date:	:: 1/27/2012	7	SeqNo: 63223	223	
Anaiyte	Result	Pal	SPK value SF	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachioroethylene	0.9300	0.15	÷	0	93.0	02	130				
Toluene	1.050	0.15	•	0	105	20	130				
trans-1,2-Dichloroethene	1.020	0.15	-	0	102	70	130				
Trichloroethene	0.9900	0.040	-	٥	<b>99.0</b>	02	130				
Vinyl chloride	0.7800	0.040	Ţ	0	78.0	02	130				
Surr. Bromofluorobenzene	0.9700	a	1	0	97.0	70	130				
Sample ID ALCS1UG-012812	SampType: LCS	TestCode:	TestCode: 1ugM3_T015	Units: ppbV		Prep Date:			RunNo: 5398	88	
Client ID: ZZZZZ	Batch ID: R5398	TestNo: TO-15	TO-15		đ	Analysis Date:	a: 1/28/2012	2	SeqNo: 63505	505	
Analyte	Result	PQLS	SPK value St	SPK Ref Val	%REC	LawLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	1.100	0.15	-	0	110	70	130				
1,1,2-Trichloroethane	1.400	0.15	-	0	(P)	02	130				S
1,1-Dichloroethane	0.9100	0.15	-	0	91.0	70	130				
1,1-Dichloroethene	1.040	0.15	-	0	104	70	130				
1,2,4-Trichlorobenzene	1.210	0.15	-	o	₽ 1	2	130				
1,2,4-Trimethylbenzene	1.310	0.15	-	o	( IEI)	02	130				S
1,2-Dichlorobenzene	1.270	0.15	-	0	127	02	130				
1,2-Dichloroethane	1.260	0.15	-	0	126	20	130				
1,3-Dichlorobenzene	1.290	0.15	-	0	129	02	130				
1,4-Dichlorobenzene	1.290	0.15	-	0	129	70	130				
Benzene	1.280	0.15	•	Ö	128	2	130				
Carbon disulfide	0.9500	0.15		0 0	95.0	2 9	021				
Carbon tetrachlonde	0.18/00	0.040		- •	0.78	5 8			·		
	1 280					5 6					
Chiororom	1.200	0,10		2 0		5 6					
Chloromethane	0.9100	c1.0	<b>-</b> ·		0.18	21	051				
cis-1,2-Dichloroethene	1.290	0.15	<b>-</b> -	0	128 1	2	130				
Ethylbenzene	1.390	0.15	-	0		2	130				ŝ
Freon 12	1.040	0.15	-	0	104	70	130				
	Results reported are not blank corrected			Value above quantitation range	nge			Holding times for preparation or analysis exceeded	preparation or a	nalysis exceed	r.
	Analyte detected at or below quantitation limits		ND Not Deter	Not Detected at the Reporting Limit	ıg Limit		X	KPD outside accepted recovery limits	sted recovery his		
S Spike Recov	Spike Recovery outside accepted recovery limits	imits								đ,	Page 2 of 5
-											

<b>CLIENT:</b>	Tetra Tech
Work Order:	C1201051
Project:	Maryland MartinAir Middle River 1121C03634

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River	
Maryland MartinAir Middle River 1121	
rtinAir ]	
ICN and Ma	
Maryland	
k Order: ect:	

Project: Maryland I	Maryland MartinAir Middle River 1121C03634	121C0363	4					estCode: 1	TestCode: 1ugM3_TO15w/Naph	5w/Naph	
Sample ID ALCS1UG-012812	SampType: LCS	TestCo	TestCode: 1ugM3_T015	Units: ppbV		Prep Date:			RunNo: 5398		
Client ID: ZZZZZ	Batch ID: R5398	Test	TestNo: TO-15			Analysis Date:	e: 1/28/2012	12	SeqNo: 63505	35	
Analyte	Result	Pal	SPK value Sf	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual.
m&p-Xylene	2.930	0.30	2	0	146	22	130				s S
Methyl Ethyl Ketone	1.200	0:30	-	0	120	02	130				
Methyl tert-butyl ether	0.9900	0.15	-	0	0'66	22	130				
Methylene chloride	0.7300	0.15	**	0	73.0	22	130				
Naphthalene	1.340	0.15		0	मि	70	130				S
o-Xylene	1.340	0.15	F	0	134	70	130				S
Tetrachloroethylene	1.110	0.15	F	0	111	20	130				
Toluene	1.280	0.15	Ŧ	0	128	70	130				
trans-1,2-Dichloroethene	0,8900	0.15	۲	0	89.0	02	130				
Trichloraethene	1.130	0,040	4	0	113	20	130				
Vinyi chloride	0.9700	0.040	-	¢	97.0	70	130				
Surr. Bromofluorobenzene	1.010	D	-	D	101	02	130				
Sample ID ALCS1UGD-012512	2 SampType: LCSD	TestCo	TestCode: 1ugM3_T015 Units: ppbV	Units: ppbV		Prep Date:			RunNo: 5397		
Client ID: ZZZZ	Batch ID: R5397	Test	TestNo: TO-15			Analysis Date:	e: 1/28/2012	12	SeqNo: 63224	24	
Analyte	Result	PQL	SPK value St	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.7500	0.15	•	0	75.0	0.2	130	0.92	20.4	33	
1,1,2-Trichloroethane	0.9500	0.15	-	0	95.0	02	130	1.09	13.7	30	
1,1-Dichloroethane	0.8300	0.15	-	0	83.0	02	130	-	18.6	30	
1,1-Dichloroethene	0.5900	0.15	-	0	193 193 193	02	130	0.83	33.8	30	SR
1,2,4-Trichlorobenzene	0.7100	0.15	۳	0	71.0	02	130	0.95	28.9	30	
1,2,4-Trimethylbenzene	0.8600	0.15	-	D	86.0	20	130	1.03	18.0	30	
1,2-Dichlorobenzene	0.8500	0.15	-	Ð	85.0	Q2	130	1.01	17.2	30	
1,2-Dichloroethane	0.8300	0.15	-	o	83.0	20	130	1.07	25.3	30	
1,3-Dichlorobenzene	0.9000	0.15	-	0	90.0	70	130	1.03	13.5	30	
1,4-Dichlorobenzene	0.8700	0.15	<del></del>	0	87.0	02	130	1.04	17.8	30	
Benzene	0.9300	0.15	-	0	93.0	70	130	1.05	12.1	30	
Carbon disulfide	0.8300	0.15		0	83.0	70	130	1.01	19.6	30	
Carbon tetrachloride	0.6600	0.040	-	0	66.0	70	130	0.81	20.4	30	S

Page 3 of 5

Holding times for preparation or analysis exceeded RPD outside accepted recovery limits

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E Value above quantitation range ND Not Detected at the Reporting Limit

Analyte detected at or below quantitation limits Spike Recovery outside accepted recovery limits

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Results reported are not blank corrected

Qualifiers:

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CLIENT: Tetra Tech Work Order: C1201051

Project: Marylar	Maryland MartinAir Middle Kiver 1121C03634	ver 1121C0363	4			.•	I	lestCode: ]	lugM3_1U15W/Naph	ndaN/wcl	
Sample ID ALCS1UGD-012512	512 SampType: LCSD	TestCor	TestCode: 1ugM3_T015	i Units: ppbV		Prep Date:			RunNo: 5397	7	
Client ID: 22222	Batch ID: R5397	Testh	TestNo: TO-15		×	Analysis Date:	1/28/2012	12	SeqNo: 63224	24	
Analyte	Result	PQL	SPK value Sf	SPK Ref Val	%REC	LowLimit }	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	0.9500	0.15	-	0	95.0	20	130	1.03	8.08	30	
Chloroform	0.8700	0.15	**	o	87.0	20	130	1.03	16.8	30	
Chloromethane	0.5600	0.15	-	D	56.0 56	02	130	0.77	31E	30	SR
cis-1,2-Dichloroethene	0.8700	0.15	÷	0	87.0	20	130	1.01	14.9	30	
Ethylbenzene	0.9800	0.15	-	D	98.0	02	130	1.09	10.6	30	
Freon 12	0.6900	0.15	-	0	69.0	20	130	0.9	26.4	30	S
m&p-Xylene	1.870	0:30	N	0	93.5	20	130	2.17	14.9	30	
Methyl Ethyl Ketone	0.8900	0:30	-	0	89.0	20	130	1.06	17.4	30	
Methyl tert-butyl ether	0.7600	0.15	-	0	76.0	20	130	1.01	28.2	30	
Methylene chloride	2.220	0.15	-	0	222	20	130	1.69	27.1	30	م
Naphthalene	0.5100	0.15	-	0	51.0	70	130	0.77	40.6	30	SR
o-Xylene	1.000	0.15	-	0	9	20	130	1.14	13.1	30	
Tetrachloroethylene	0.8500	0.15	-	0	85.0	20	130	0.93	8.99	30	
Taluene	1.010	0.15	-	0	101	20	130	1.05	3.88	30	
trans-1,2-Dichloroethene	0.8200	0.15	-	0	82.0	02	130	1.02	21.7	30	
Trichloroethene	0.8700	0.040	•	0	87.0	02	130	0.99	12.9	30	
Vinyi chloride	0.6000	0.040	-	o	0.00	70	130	0.78	26.1	30	S
Surr. Bromofluorobenzene	0.9600	Ø	٣	0	96.0	70	130	0		30	
Sample ID A1UGLCSD-012812	812 SamoTvoe: LCSD	TestCo	TestCode: 1uaM3 TO15 Units: ppbV	5 Units: pobV		Prep Date:			RunNo: 5398	8	
	)										
Client ID: ZZZZZ	Batch ID: R6398	Test	Na: 70-15		<	Analysis Date:	: 1/29/2012	12	SeqNo: 63263	(63	
Analyte	Result	Pal	SPK value SI	SPK Ref Val	%REC	LawLimit I	HighLimit	RPD Ref Val	048%	RPDLimit	Qual
1,1,1-Trichloroethane	1.110	0.15	÷	0	111	70	130	1:1	0.905	B	
1,1,2-Trichloroethane	1.450	0.15	-	0	145	02	130	1.4	3.51	30	ŝ
1,1-Dichtoroethane	1.030	0.15	•	0	103	20	130	0.91	12.4	30	
1,1-Dichloroethene	1.190	0.15	-	0	119	20	130	1.04	13.5	30	
1,2,4-Trichlorobenzene	1.060	0.15	~	0	106	70	130	1.21	13.2	30	
1,2,4-Trimethylbenzene	1.410	0.15	~	o	(F)	70	130	1.31	7.35	30	S
1,2-Dichlorobenzene	1.170	0.15	<b>~</b>	0	117	02	130	1.27	8.20	30	
Oualifiers: Results	Results reported are not blank corrected	ŗ	E Value abc	Value above quantitation range	nge		H	Iolding times for	Holding times for preparation or analysis exceeded	nalysis exceed	ed
-	Analyte detected at or below quantitation limits	ion limits	~	Not Detected at the Reporting Limit	g Limit		R	LPD outside acce	RPD outside accepted recovery limits	lits	
S Spike Re	Spike Recovery outside accepted recovery limits	very limits								Ð	Page 4 of 5
										•	- 12 - 29

CLIENT: Tetra Tech	Ę.										
Work Order: C1201051	1										
Project: Maryland	Maryland MartinAir Middle River 1121C03634	112IC0363	4				F	estCode:	TestCode: 1ugM3_TO15w/Naph	15w/Naph	
Sample ID A1UGLCSD-012812	12 SampType: LCSD	TestCo	TestCode: 1ugM3_TO15 Units: ppbV	Units: ppbV		Prep Date:			RunNo: 5398	8	
Client ID: ZZZZ	Batch ID: R5398	Test	iNo: TO-15		đ	Analysis Date:	e: 1/29/2012	12	SeqNo: 63263	263	
Analyte	Result	Pal	SPK value SF	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	UGAN%	RPDLimit	Qual
1,2-Dichloroethane	1.490	0.15	-	Ð	<b>(4</b> )	20	130	1.26	16.7	99	s
1,3-Dichlorobenzene	1.200	0.15	-	0	120	70	130	1.29	7.23	80	
1,4-Dichlorobenzene	1.170	0.15	-	0	117	02	130	1.29	9.76	30	
Benzene	1.460	0.15	-	٥	( <del>1</del> 9)	20	130	1.28	13.1	30	S
Carbon disulfide	1.060	0.15	-	0	106	20	130	0.95	10.9	30	
Carbon tetrachloride	0.8500	0.040	-	0	85.0	20	130	0.87	2.33	30	
Chiorabenzene	1.360	0.15	-	0	(36)	20	130	1.28	6.06	30	S
Chloroform	1.370	0.15	۴-	o	(13)	02	130	1.28	6.79	90	S
Chioromethane	1.010	0.15	~	0	101	70	130	0.91	10.4	30	
cis-1,2-Dichloroethene	1.550	0.15	-	0	(33)	20	130	1.29	18.3	30	S
Ethylbenzene	1.540	0.15	-	0		02	130	1.39	10.2	30	S
Freon 12	1.010	0.15	-	0	101	20	130	1.04	2.93	30	
m&p-Xylene	3.090	0.30	7	0	(E)	20	130	2.93	5.32	30	s
Methyl Ethyl Ketone	1.790	0.30	-	D		70	130	1.2	39.5	30	SR
Methyl tert-butyl ether	1.100	0.15	-	a	3	02	130	0.99	10.5	30	
Methylene chloride	0.7800	0.15	-	o	78.0	22	130	0.73	6.62	30	
Naphthaiene	1.280	0.15	-	D	128 (	70	130	1.34	4.58	30	
o-Xylene	1.590	0.15	-	D		70	130	1.34	17.1	30	S
Tetrachloroethylene	1.030	0.15	۰-	۵	103	70	130	1.11	7.48	Œ	
Toluene	1.450	0.15	-	<b>0</b>	142	02 2	130	1.28	12.5	30	s
trans-1,2-Dichloroethene	0.9900	0.15	-	D	99.0	02	130	0.89	10.6	30	
Trichloroethene	1.130	0.040	-	0	113	2	130	1.13	0	30	
Vinyl chloride	1.100	0.040	۲	o	110	02	130	0.97	12.6	30	
Surr. Bramafluorobenzene	1.020	•	•	0	102	2	130	0		30	

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Page 5 of 5

E Value above quantitation range ND Not Detected at the Reporting Limit

> J Analyte detected at or below quantitation limits S Spike Recovery outside accepted recovery limits

Results reported are not blank corrected

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Qualifiers:

Centek Laboratories, LLC

Holding times for preparation or analysis exceeded RPD outside accepted recovery limits

**CALCULATION WORKSHEET TETRA TECH** OF PAGE CLIENT JOB NUMBER ntin state duport 5DG C120151 SUBJE Emple Calculations DRAWING NUMBER CHECKED BY APPROVED BY Cenn Cognetti Sample 5624-011912; (methyl (thyl (ketone 10-7094 \* 1pph 36929 \* 0.230 = 12.61 ppb  $12.61 \text{ ppb} * \frac{72.11 \text{ g}|_{mole}}{24.45 \text{ L}|_{mole}} = 37.19 \text{ ug}|_{m}^{3}$ 

Sample Calculation

### **Centek Laboratories, LLC**

Date: 02-Feb-12

CLIENT:	Tetra Tech			Client Sampl	e ID: SG24	-011912
Lab Order:	C1201051			Tag Nun	<b>iber: 364,</b> 1	21
Project:	Maryland MartinAir I	Middle River	112IC03634		Date: 1/19/2	
Lab ID:	C1201051-007A S			Ma	trix: AIR	
Analyses	··· ··································	Result	**Limit Q	ual Units	DF	Date Analyzed
1UG/M3 W/ NA	PHTHALENE BY METH	OD TO15	TO-1	5		Analyst: RJP
1,1,1-Trichloroe	ethane	ND	0.83	ug/m3	1	1/27/2012 8:28:00 PM
1,1,2-Trichloroe	ethane	ND	0.83	ug/m3	1	1/27/2012 8:28:00 PM
1,1-Dichloroeth	ane	ND	0.62	ug/m3	1	1/27/2012 8:28:00 PM
1,1-Dichloroeth	ene	ND	0.60	ug/m3	1	1/27/2012 8:28:00 PM
1,2,4-Trichlorot	penzene	ND	1.1	ug/m3	1	1/27/2012 8:28:00 PM
1,2,4-Trimethyl	benzene	19	7.5	ug/m3	10	1/28/2012 8:22:00 PM
1,2-Dichlorober	zene	ND	0.92	ug/m3	1	1/27/2012 8:28:00 PM
1,2-Dichloroeth	ane	ND	0.62	ug/m3	1	1/27/2012 8:28:00 PM
1,3-Dichlorober	izene	ND	0.92	ug/m3	1	1/27/2012 8:28:00 PM
1,4-Dichlorober	izene	ND	0.92	ug/m3	1	1/27/2012 8:28:00 PM
Benzene		10	4.9	ug/m3	10	1/28/2012 8:22:00 PM
Carbon disulfide	8	1.3	0.47	ug/m3	1	1/27/2012 8:28:00 PM
Carbon tetrachl	oride	ND	0.26	ug/m3	1	1/27/2012 8:28:00 PM
Chlorobenzene		ND	0.70	ug/m3	1	1/27/2012 8:28:00 PM
Chloroform		ND	0.74	ug/m3	1	1/27/2012 8:28:00 PM
Chioromethane		ND	0.31	ug/m3	1	1/27/2012 8:28:00 PM
cis-1,2-Dichloro	ethene	ND	0.60	ug/m3	1	1/27/2012 8:28:00 PM
Ethylbenzene		6.9	0.66	ug/m3	1	1/27/2012 8:28:00 PM
Freon 12		2.0	0.75	ug/m3	1	1/27/2012 8:28:00 PM
m&p-Xylene		23	13	ug/m3	10	1/28/2012 8:22:00 PM

	Ethylbenzene	6.9	0.66	ug/m3	1	1/27/2012 8:28:00 PM
	Freon 12	2.0	0.75	ug/m3	1	1/27/2012 8:28:00 PM
	m&p-Xviene	23	13	ug/m3	10	1/28/2012 8:22:00 PM
<	Methyl Ethyl Ketone	40	9.0	ug/m3	10	1/28/2012 8:22:00 PM
	Methyl tert-butyl ether	ND	0.55	ug/m3	1	1/27/2012 8:28:00 PM
	Methylene chloride	0.56	0.53	ug/m3	1	1/27/2012 8:28:00 PM
	Naphthalene	3.9	0.80	ug/m3	1	1/27/2012 8:28:00 PM
	o-Xylene	13	6.6	ug/m3	10	1/28/2012 8:22:00 PM
	Tetrachloroethylene	ND	1.0	ug/m3	1	1/27/2012 8:28:00 PM
	Toluene	34	5.7	ug/m3	10	1/28/2012 8:22:00 PM
	trans-1,2-Dichloroethene	ND	0.60	ug/m3	1	1/27/2012 8:28:00 PM
	Trichloroethene		0.22	ug/m3		1/27/2012 8:28:00 PM
	Vinyl chloride	ND	0.10	ug/m3	1	1/27/2012 8:28:00 PM

Qualifiers:	**	Reporting Limit		Results reported are not blank corrected
	В	Analyte detected in the associated Method Blank	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	l	Analyte detected at or below quantitation limits
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
	S	Spike Recovery outside accented recovery limits		Page 7 of 23

S Spike Recovery outside accepted recovery limits

Centek Laboratorie Data File : C:\HPCHEM\1\DATA\ Acq On : 27 Jan 2012 8:2 Sample : C1201051-007A G Misc : Method-A126_1UG MS Integration Params: RTEINT Quant Time: Jan 28 10:48:30 2 Quant Method : C:\HPCHEM\1\ME Title : TO-15 VOA Sta Last Update : Sat Jan 28 10: Response via : Initial Calibr DataAcq Meth : A126_1UG	AJ012717.D 8 pm .mple 5624-0114 7.P 012 Qu THODS\A126MART.M ndards for 5 poin 47:02 2012 ation	Ope 9 Z Ins Mul ant Results (RTE Integ nt calibrat	rator: RJP st : MSD tiplr: 1.00 File: A126 grator) tion	#1 MART.RES	Calculation
Internal Standards	R.T. QION	Response	Conc Units	Dev(Min)	
<ol> <li>Bromochloromethane</li> <li>1,4-difluorobenzene</li> <li>Chlorobenzene-d5</li> <li>System Monitoring Compounds</li> <li>Bromofluorobenzene</li> <li>Spiked Amount</li> <li>1.000</li> </ol>	9.81 114 14.75 117 16.31 95 Range 70 - 130	158617 109096 72388 Recover	1.00 ppb 1.00 ppb 0.92 ppb Ty = 92.	0.01 0.00 0.00	
<pre>Target Compounds 2) Freon 12 6) Methylene chloride 7) Carbon disulfide 11) Methyl Ethyl Ketone 18) Benzene 22) Toluene 25) Ethylbenzene 26) m&amp;p-xylene 27) o-xylene 29) 1,2,4-trimethylbenzene 34) Naphthalene</pre>	2.87 85 5.00 84 5.09 76 6.68 72 9.04 78 12.81 92 15.06 91 15.23 91 15.69 91 17.34 105 19.79 128	55708 6420 34370 107094 177508 453027 201193 480642 290180 548741 53710	0.39 ppb 0.16 ppb 0.40 ppb 12.62 ppb 2.19 ppb 7.47 ppb 1.57 ppb 4.69 ppb 2.66 ppb 4.96 ppb 0.74 ppb	Qvalue 98 # 76 # 100 98 89 94 93 94 94 94 97	

(#) = qualifier out of range (m) = manual integration (+) = signals summed AJ012717.D Al26MART.M Fri Feb 03 11:43:15 2012 MSD1

		Centek Labora	tories, LL	C Respo	onse F	actor 1	Report	MSD	#1 \$a	mple	Calculation
		od : C:\HP	CHEM\1\M VOA Sta an 27 09	ETHODS' andard: :12:05	\A126_ B for 2012	1UG.M	(RTE I	ntegra	tor)		
	0.04	bration Files =AJ012620.D =AJ012617.D				0.15 0.75		012621 012615			
		Compound	0.04	0.10	0.15	0.30	0.50	0.75	Avg	\$RSD	
											••••••••••••••••••••••••••••••••••••••
	I T	Bromochlorometh Propylene	ane -			IST	0 776	0 762	 n 840	37 08	
	Ť	Propylene Freon 12 Chloromethane Freon 114 Vinyl Chloride			5.006	3.734	3.594	3.807	3.901	11.68	
4)	$\mathbf{T}$	Chloromethane			0.821	0.878	0.809	0.818	0.811	4.86	
	$\mathbf{T}$	Freon 114			4.201	3.107	2.493	2.938	3.053	16.55	
	Т	Freon 114 Vinyl Chloride 1,3-butadiene Bromomethane Ethanol Acrolein Chloroethane Vinyl Bromide Freon 11 Acetone Isopropyl alcoh 1,1-dichloroeth		0.749	1.018	0.737	0.622	0.684	0.710	17.53	
7)	T	1,3-butadiene			0.648	0.480	0.533	0.431	0.510	13.40	
8)	T T	Bromometnane			1.079	1.111	0.919	0.900	0.971	8.34	
	T	Acrolein				0.355	0.303	0.190	0.251	26.58 10.80	
	Ť	Chloroethane			0.343	0.339	0.347	0.317	0.297	14.87	
	Ť	Vinyl Bromide			1.361	1.128	1.065	1.084	1.109	10.06	
	т	Freon 11			3.725	3.376	3.233	3.394	3.450	4.22	
14)	т	Acetone			0.904	0.668	0.524	0.560	0.567	27.36	
	Т	Isopropyl alcoh			0.727	0.896	0.802	0.959	0.827	8.68	
	T	1,1-dichloroeth			1.136	0.955	0.815	0.995	0.827 0.930 2.114	11.33	
	T T	Freon 113 Methylene chlor							2.114 1.084		
	Ť	Allyl chloride			0.873				0.685		•
	Ť	Carbon disulfid							2.354		
21)		trans-1,2-dichl								7.30	
·22)	т	methyl tert-but			1.962	2.092	1.963	2.146	2.089	3.89	
	т	1,1-dichloroeth							1.403		
		Vinyl acetate			1.688					11.21	
	T	Methyl Ethyl Ke	-		0.204					9.62	
26)	T T	cis-1,2-dichlor				1.054				9.35	
28)		Hexane Ethyl acetate			1 276	0.992	0.070	1 085	1 097	10.01	
29)	Ť	Chloroform			2.589	2.143	2.046	2.166	2.190	7.87	
30)	T	Tetrahydrofuran				0.502	0.514	0.526	0.523	5.03	
31)	т	Chloroform Tetrahydrofuran 1,2-dichloroeth			1.450	1.263	1.313	1.303	1.342	4.13	
32)	I	1,4-difluoroben	zene			ISTI		0 603			
	T T	Cyclohexane			0.732	0.201	0.023	0.001	0.010	10 01	
	Ť	1,1,1-trichloro Cyclohexane Carbon tetrachl	0.969	0.784	0.831	0.249	0.713	0.725	0.234	10.12	
	Ŧ	Benzene	0.505	0.701	0.620	0.509	0.513	0.489	0.512	8.97	
	т	Methyl methacry 1,4-dioxane				0.153	0.168	0.166	0.169	8.97 6.89	
	т	1,4-dioxane				0.065	0.064	0.061	0.068	13.71	
39)	т	2,2,4-trimethyl Heptane			0.785	0.667	0.626	0.642	0.655	8.38	
40)	т	Heptane Trichloroethene			0.334	0.248	0.253	0.241	0.247	14.97	
41)	Т	1,2-dichloropro	0.390	0.378	0.426	0.344	0.347	0.348	0.358	8.61 5.06	
44/	т Т	Bromodichlorome			0.102	0.101	0.107	0.109	0.100	5.06 4 4 A	
44)	Ť	Bromodichlorome cis-1,3-dichlor trans-1,3-dichl			0.320	0.271	0.274	0.281	0.291	5.90	
45)	Ŧ	trans-1,3-dichl			0.233	0.205	0.235	0.257	0.253	11.44	
-4:6-)	T	1,1,2-trichloro			-0-292-	-0-226-	0.249	0-247	-0-252-	7.43	
47)		Chlorobenzene-d!			0 650	0 400	0 640	0 040	0	0 5 0	
48) 49)		Toluene Methyl Tachutyl			V.659	U.486	0.543	0.543	0.556	8.58	
	T T	Dibromochlorome			0.796	0.687	0.199	0.240	0.203	LO.44 5 51	
51)		Methyl Isobutyl Dibromochlorome Methyl Butyl Ke			0.70	0.175	0.149	0.143	0.176	17.18	
•		_ •									

(#) = Out of Range ### Number of calibration levels exceeded format ###
 A126\_1UG.M Thu Feb 02 12:06:54 2012 MSD1

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# GC/MS-Whole Air Calculations

## Relative Response Factor (RRF)

÷.,

$$\frac{RRF}{RRF} = \frac{Ax * Cis}{Ais * Cx}$$

where: Ax = area of the characteristic ion for the compound being measured
 Ais = area of the characteristic ion for the specific internal standard of the compound being measured
 Cx = concentration of the compound being measured (ppbv)

Cis = concentration of the internal standard (ppbv)

## Percent Relative Standard Deviation (%RSD)

% RSD = <u>Standard deviation of RRF values \* 100</u> mean RRF

Percent Difference (%D)

% D = (RRFc - mean RRFi) \* 100mean RRFi

where: RRFc = relative response factor from the continuing calibration mean RRFi = mean relative response factor from the initial calibration

Sample Calculations

 $ppbv = \frac{Ax * Is * Df}{Ais * RRF}$ 

where: Ax = area of the characteristic ion for the compound being measured Ais = area of the characteristic ion for the specific internal standard of the compound being measured Is = Concentration of the internal standard injected (ppbv) RRF= relative response factor for the compound being measured Df = Dilution factor

<b>CENTEK LABORATORIES, LLC</b>	
 CENTEK LA	

ANALYTICAL QC SUMMARY REPORT

Date: 02-Feb-12

Tetra Tech	: C1201051
<b>CLIENT:</b>	Work Order:

Sample ID AMB1UG-012712	SampType: MBLK	TestCod	e: 1ugM	TestCode: 1ugM3_TO15 Units: ppbV	Ē	Prep Date:		RunNo: 5397	7	
Client ID: ZZZZ	Batch ID: R5397	TestN	Vo: TO-15		Analy	Analysis Date:	1/27/2012	SeqNo: 63222	22	
Analyte	Result	PQL	SPK value	alue SPK Ref Val	%REC Low	LowLìmit Hiç	HighLimit RPD Ref Val	%RPD	RPDLimit	Quat
1,1,1-Trichloroethane	Q	0.15					-			
1,1,2-Trichloroethane	QN	0.15								
1,1-Dichloroethane	QN	0.15							·	
1,1-Dichloroethene	ÛN	0.15								
I,2,4-Trichlorobenzene	QN	0.15								
,2,4-Trimethylbenzene	QN	0.15								
1,2-Dichlorobenzene	QN	0.15								
1,2-Dichloroethane	QN	0.15								
1,3-Dichlorobenzene	QN	0.15								
1,4-Dichlorobenzene	Q	0.15								
Benzene	QN	0.15								
Carbon disulfide	QN	0.15								
Carbon tetrachloride	Ð	0.040								
Chlorobenzene	Ð	0.15								
Chloroform	g	0.15								
Chioromethane	Q	0,15								
cis-1,2-Dichloroethene	Q	0.15								
Ethylbenzene	Q	0.15								
Freon 12	QN	0.15								
m&p-Xylene	QN	0:30								
Methyl Ethyl Ketone	Q	0:30								
Methyl tert-butyl ether	QN	0.15								
Methylene chloride	ON	0.15								
Naphthatene	QN	0.15						•		
o-Xylene	QN	0.15								
Qualifiers: . Results rep	Results reported are not blank corrected		Е	Value above quantitation range	9		H Holding times for	Holding times for preparation or analysis exceeded	alysis exceeded	
	Analyte detected at or below quantitation limits	nits	g	Not Detected at the Reporting Limit	Limit		R RPD outside accel	RPD outside accepted recovery limits	its	
C C-11-0		•		-						

	Maryland MartinAir Middle River 1121C03634	12IC03634				TestCode:	lugM3_TO15w/Naph	
Sample ID AMB1UG-012712 Client ID: ZZZZ	2 SampType: MBLK Batch ID: R5397	TestCode TestNo	TestCode: 1ugM3_T015 Units: ppbV TestNo: T0-15		Prep Date: Analysis Date:	a: a: 1/27/2012	RunNo: 5397 SeqNo: 63222	
Analyte	Result	PQL	SPK value SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Tetrachioroethylene	QN	0.15	-				-	
Toluene	QN	0.15						
trans-1,2-Dichloroethene	QN	0.15						
Trichloroethene	Q	0.040						
Vinyl chloride Surr: Bromofluorobenzene	ND 0.9600	0.040 0	-	96.0	70	130		
Sample ID AMB1UG-012812	2 SampType: MBLK	TestCode	TestCode: 1ugM3_T015 Units: ppbV		Prep Date:		RunNo: 5398	
Client ID: ZZZZ	Batch ID: R5398	TestNo	lo: TO-15	`	Analysis Date:	a: 1/28/2012	SeqNo: 63261	
Analyte	Result	PQL	SPK value SPK Ref Val	%REC	LowLimit HighLimit	HighLimit RPD Ref Val	%RPD RPDLimit	Qual
1,1,1-Trichioroethane	QN	0.15						
1,1,2-Trichloroethane	<u>(</u> N	0.15						
1,1-Dichloroethane	Q	0.15						
1,1-Dichloroethene	QN	0.15						
1,2,4-Trichlorobenzene	ON .	0.15						
.2,4-Trimethylbenzene	QN	0.15						
1,2-Dichlorobenzene	QN	0.15						
1,2-Dichloroethane	QN	0.15						
1,3-Dichlorobenzene	Q	0.15						
1,4-Dichlorobenzene	ON	0.15						
Benzene	QN	0.15						
Carbon disulfide	QN	0.15						
Carbon tetrachloride	QN	0.040						
Chlorobenzene	QN	0.15						
Chlarafarm	QN	0.15						
Chloromethane	QN	0.15	:					
cis-1,2-Dichloroethene	QN	0.15						
Ethylbenzene	Q	0.15						
Freon 12	QN	0.15						
Ovalifiers: Results r	Results reported are not blank corrected		E Value above cuantitation range	Be		H Holding times fo	Holding times for preparation or analysis exceeded	p
	Analyte detected at or below quantitation limits	mits	_	re Limit			RPD mitside accented recovery limits	1
	הכוברורה שרהו הרוהיו להשווושויהיו יי			ב בווווי			CULCU LCCUTCI Y MANUC	

CLUENT: LEUR LECO Work Order: C1201051 Project: Maryland I	C1201051 Maryland Mar	C1201051 Maryland MartinAir Middle River 112IC03634	12IC03634						Ľ	TestCode:	1ugM3_T015w/Naph	TOIS	v/Naph	
Sample ID AMB1UG-012812 Client ID: ZZZZ		SampType: MBLK Batch ID: R5398	TestCode TestNc	stCode: 1ugM3 TestNo: TO-15	TestCode: 1ugM3_TO15 Units: ppbV TestNo: TO-15	bbV	Pr	Prep Date: Analysis Date:	1/28/2012	12	RunNo SeqNo	RunNo: 5398 SeqNo: 53261		
Analyte		Result	PQL	SPK value	lue SPK Ref Val		%REC Low	LowLimit H	HighLimit	RPD Ref Val		%RPD RF	RPDLimit	Qual
m&p-Xylene	-	Q	0.30											
Methyl Ethyl Ketone		QN	0.30											
Methyi tert-butyl ether		Q	0.15											
Methylene chloride		QN	0.15											
Naphthalene		QN	0.15											
o-Xylene		QN	0.15											
Tetrachloroethylene		QN	0.15								•••••			
Toluene		Q	0.15											
trans-1,2-Dichloroethene		ON	0.15											
Trichlaroethene		QN	0.040											
Vinvl chioride		Q	0.040											
Surr. Bromofluorobenzene	ene	1.020	0		-	4	102	70	130					
	ults reported lyte detected	Results reported are not blank corrected Analyte detected at or below quantitation limits	ti -	N C N C	Value above quantitation range Not Detected at the Reporting Limit	ation range Reporting Limi			H H H	Holding times for preparation or analysis exceeded RPD outside accepted recovery limits	or preparatio	n or analy ery limits	sis exceeded	
S Snik	e Recoverv (	Spike Recovery outside accepted recovery limits	nits										1	

# APPENDIX D—CHEMICAL DATA TABLES

### TABLE D-1 MARYLAND AIR NATIONAL GUARD MUNITIONS AREA SOIL VAPOR RESULTS LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND PAGE 1 OF 8

L	SAMPLE ID: ABORATORY ID: SAMPLE DATE: LOCATION:	SG1-012012 C1201051-015A 1/20/2012 SG1	SG2-012012 C1201051-013A 1/20/2012 SG2	SG3-012012 C1201051-014A 1/20/2012 SG3	SG4-012012 C1201051-017A 1/20/2012 SG4	SG07-012012 C1201051-022A 1/20/2012 SG07	SG08-012012 C1201051-018A 1/20/2012 SG08	SG09-012012 C1201051-012A 1/20/2012 SG09
VOLATILES(UG/M3)								
1,1,1-TRICHLOROETHANE		0.83 U	0.83 U	0.83 U				
1,1,2-TRICHLOROETHANE		0.83 U	0.83 U	0.83 U				
1,1-DICHLOROETHANE		0.62 U	0.62 U	0.62 U				
1,1-DICHLOROETHENE		0.6 UL	0.6 UL	0.6 UL				
1,2,4-TRICHLOROBENZENE		1.1 U	1.1 U	1.1 UL	1.1 U	1.1 U	1.1 U	1.1 U
1,2,4-TRIMETHYLBENZENE		31 K	16 K	14	9.9	17 K	32 K	8.5 K
1,2-DICHLOROBENZENE		0.92 U	0.92 U	0.92 U				
1,2-DICHLOROETHANE		0.62 U	0.62 U	0.62 U				
1,3-DICHLOROBENZENE		0.92 U	0.92 U	0.92 U				
1,4-DICHLOROBENZENE		0.92 U	0.92 U	0.92 U				
2-BUTANONE		470 K	72 K	38	61 K	22 K	51 K	51 K
BENZENE		39	27	18	22	24	21	24
CARBON DISULFIDE		13	14	15	0.47 U	4	4.9	7.3
CARBON TETRACHLORIDE		0.26 U	0.26 U	0.26 U				
CHLOROBENZENE		0.7 U	0.7 U	0.7 U				
CHLOROFORM		350	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U
CHLOROMETHANE		0.31 UL	0.31 UL	0.55 L	0.31 UL	0.31 UL	0.31 UL	0.31 UL
CIS-1,2-DICHLOROETHENE		0.6 U	0.6 U	0.6 U	3.7	4.1	0.6	0.6 U
DICHLORODIFLUOROMETHANE		1.8	2.1	1.8	0.9	2	2.2	2.1
ETHYLBENZENE		8.8	6.8	5.2 K	4.9	4.2	5.8	4.4
M+P-XYLENES		35 K	18 K	16 K	16	14	24 K	14
METHYL TERT-BUTYL ETHER		0.55 U	0.55 U	0.55 U				
METHYLENE CHLORIDE		0.46 J	0.46 J	0.53 U	0.53 U	0.71 K	0.74 K	0.64 K
NAPHTHALENE		5.6 L	5.6 L	4.5 J	0.8 UL	5.6 L	11 L	2.8 L
O-XYLENE		19 K	9.7 K	8.3 K	8.4	9	15 K	7.7
TETRACHLOROETHENE		1 U	1 U	1 U	1 U	1 U	1.8	1 U

### TABLE D-1 MARYLAND AIR NATIONAL GUARD MUNITIONS AREA SOIL VAPOR RESULTS LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND PAGE 2 OF 8

SAMPLE ID:	SG1-012012	SG2-012012	SG3-012012	SG4-012012	SG07-012012	SG08-012012	SG09-012012
LABORATORY ID:	C1201051-015A	C1201051-013A	C1201051-014A	C1201051-017A	C1201051-022A	C1201051-018A	C1201051-012A
SAMPLE DATE:	1/20/2012	1/20/2012	1/20/2012	1/20/2012	1/20/2012	1/20/2012	1/20/2012
LOCATION:	SG1	SG2	SG3	SG4	SG07	SG08	SG09
TOLUENE	76	51	32	36	41	32	22
TRANS-1,2-DICHLOROETHENE	0.6 U						
TRICHLOROETHENE	0.22 U	0.22 U	0.22 U	1.3	0.22 U	0.22 U	0.22 U
VINYL CHLORIDE	0.1 U	0.1 U	0.1 U	2.8	77	0.1 U	0.1 U

### TABLE D-1 MARYLAND AIR NATIONAL GUARD MUNITIONS AREA SOIL VAPOR RESULTS LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND PAGE 3 OF 8

SAMPLE LABORATOR SAMPLE DA LOCATI	( ID: C1201051-002A TE: 1/19/2012	SG11-011912 C1201051-001A 1/19/2012 SG11	SG12-011912 C1201051-003A 1/19/2012 SG12	SG13-012012 C1201051-011A 1/20/2012 SG13	SG14-012012 C1201051-019A 1/20/2012 SG14	SG15-012012 C1201051-021A 1/20/2012 SG15	SG17-012012 C1201051-020A 1/20/2012 SG17
VOLATILES(UG/M3)							
1,1,1-TRICHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
1,1,2-TRICHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
1,1-DICHLOROETHANE	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U
1,1-DICHLOROETHENE	0.6 UL	0.6 UL	0.6 UL	0.6 UL	0.6 UL	0.6 UL	0.6 UL
1,2,4-TRICHLOROBENZENE	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
1,2,4-TRIMETHYLBENZENE	11	11	15	19 K	25 K	30 K	25 K
1,2-DICHLOROBENZENE	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
1,2-DICHLOROETHANE	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U
1,3-DICHLOROBENZENE	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
1,4-DICHLOROBENZENE	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
2-BUTANONE	8.7 J	5.4	18	220 K	55 K	110 K	130 K
BENZENE	2.5	2.7	4.6	11	10	14	22
CARBON DISULFIDE	0.79	1.2	1.8	4.1	2.1	5.3	0.47 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
CHLOROFORM	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U
CHLOROMETHANE	0.78 L	0.73 L	0.31 UL				
CIS-1,2-DICHLOROETHENE	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
DICHLORODIFLUOROMETHANE	2.6	2.1	2.1	2	2.1	2	1.8
ETHYLBENZENE	3.4	3.7	4	4.9	5.3	4.9	4.9
M+P-XYLENES	11	12	13	16	18 K	17	17
METHYL TERT-BUTYL ETHER	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U
METHYLENE CHLORIDE	0.46 J	0.53 U	0.6 K	0.53 U	2.6 K	0.42 J	0.71 K
NAPHTHALENE	3.6 L	2.7 L	3 L	4.7 L	11 L	7.2 L	3.9 L
O-XYLENE	5.9	7	7.5	9.4	11 K	14 K	16 K
TETRACHLOROETHENE	1 U	1 U	1 U	1 U	1 U	1 U	1 U

### TABLE D-1 MARYLAND AIR NATIONAL GUARD MUNITIONS AREA SOIL VAPOR RESULTS LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND PAGE 4 OF 8

SAMPLE ID:	SG10-011912	SG11-011912	SG12-011912	SG13-012012	SG14-012012	SG15-012012	SG17-012012
LABORATORY ID:	C1201051-002A	C1201051-001A	C1201051-003A	C1201051-011A	C1201051-019A	C1201051-021A	C1201051-020A
SAMPLE DATE:	1/19/2012	1/19/2012	1/19/2012	1/20/2012	1/20/2012	1/20/2012	1/20/2012
LOCATION:	SG10	SG11	SG12	SG13	SG14	SG15	SG17
TOLUENE	26	16	22	33	22	28	34
TRANS-1,2-DICHLOROETHENE	0.6 U						
TRICHLOROETHENE	0.22 U	0.22 U	0.22 U	0.22 U	0.66	0.22 U	0.22 U
VINYL CHLORIDE	0.1 U						

### TABLE D-1 MARYLAND AIR NATIONAL GUARD MUNITIONS AREA SOIL VAPOR RESULTS LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND PAGE 5 OF 8

SAMP LABORATO SAMPLE I LOCA	RY ID: C1201051-009A	SG19-012012 C1201051-010A 1/20/2012 SG19	SG20-011912 C1201051-004A 1/19/2012 SG20	SG21-011912 C1201051-005A 1/19/2012 SG21	SG22-012012 C1201051-016A 1/20/2012 SG22	SG23-011912 C1201051-006A 1/19/2012 SG23	SG24-011912 C1201051-007A 1/19/2012 SG24
VOLATILES(UG/M3)							
1,1,1-TRICHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
1,1,2-TRICHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
1,1-DICHLOROETHANE	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U
1,1-DICHLOROETHENE	0.6 UL	0.6 UL	0.6 UL	0.6 UL	0.6 UL	0.6 UL	0.6 UL
1,2,4-TRICHLOROBENZENE	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
1,2,4-TRIMETHYLBENZENE	23 K	22 K	18	27	26 K	25	19 K
1,2-DICHLOROBENZENE	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
1,2-DICHLOROETHANE	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U
1,3-DICHLOROBENZENE	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
1,4-DICHLOROBENZENE	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
2-BUTANONE	400 K	240 K	11	57	270 K	30	40 K
BENZENE	10	24	4.5	6.3	39	4.1	10
CARBON DISULFIDE	13	27	2	3.9	33	1.8	1.3
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
CHLOROFORM	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U
CHLOROMETHANE	0.31 UL	0.31 UL	0.31 UL	0.31 UL	0.67 L	0.31 UL	0.31 UL
CIS-1,2-DICHLOROETHENE	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
DICHLORODIFLUOROMETHANE	2.1	1.8	1.7	2.1	61	1.8	2
ETHYLBENZENE	4.6	4.2	5.1	5.1	6.9	4.8	6.9
M+P-XYLENES	16	14	16	17	30 K	17	23 K
METHYL TERT-BUTYL ETHER	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U
METHYLENE CHLORIDE	0.67 K	1.3 K	0.39 J	0.39 J	0.49 J	0.46 J	0.56 K
NAPHTHALENE	4.4 L	3.5 L	6 L	7.9 L	7.7 L	11 L	3.9 L
O-XYLENE	11 K	8.2	9.2	9.4	16 K	10	13 K
TETRACHLOROETHENE	1 U	1 U	1 U	1 U	1 U	1 U	1 U

### TABLE D-1 MARYLAND AIR NATIONAL GUARD MUNITIONS AREA SOIL VAPOR RESULTS LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND PAGE 6 OF 8

SAMPLE ID:	SG18-011912	SG19-012012	SG20-011912	SG21-011912	SG22-012012	SG23-011912	SG24-011912
LABORATORY ID:	C1201051-009A	C1201051-010A	C1201051-004A	C1201051-005A	C1201051-016A	C1201051-006A	C1201051-007A
SAMPLE DATE:	1/19/2012	1/20/2012	1/19/2012	1/19/2012	1/20/2012	1/19/2012	1/19/2012
LOCATION:	SG18	SG19	SG20	SG21	SG22	SG23	SG24
TOLUENE	23	36	29	35	60	22	34
TRANS-1,2-DICHLOROETHENE	0.6 U						
TRICHLOROETHENE	0.22 U						
VINYL CHLORIDE	0.1 U						

### TABLE D-1 MARYLAND AIR NATIONAL GUARD MUNITIONS AREA SOIL VAPOR RESULTS LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND PAGE 7 OF 8

	_	
	SAMPLE ID:	SG25-011912
	LABORATORY ID:	C1201051-008A
	SAMPLE DATE:	1/19/2012
	LOCATION:	SG25
VOLATILES(UG/M3)		
1,1,1-TRICHLOROETHANE		0.83 U
1,1,2-TRICHLOROETHANE		0.83 U
1,1-DICHLOROETHANE		0.62 U
1,1-DICHLOROETHENE		0.6 UL
1,2,4-TRICHLOROBENZENE		1.1 U
1,2,4-TRIMETHYLBENZENE		2.4
1,2-DICHLOROBENZENE		0.92 U
1,2-DICHLOROETHANE		0.7
1,3-DICHLOROBENZENE		0.92 U
1,4-DICHLOROBENZENE		0.92 U
2-BUTANONE		22 K
BENZENE		1.4
CARBON DISULFIDE		0.6
CARBON TETRACHLORIDE		0.26 U
CHLOROBENZENE		0.7 U
CHLOROFORM		0.5 J
CHLOROMETHANE		0.31 UL
CIS-1,2-DICHLOROETHENE		0.6 U
DICHLORODIFLUOROMETHAN	NE	2.3
ETHYLBENZENE		2.3
M+P-XYLENES		5
METHYL TERT-BUTYL ETHER		0.55 U
METHYLENE CHLORIDE		5.7 K
NAPHTHALENE		1 L
O-XYLENE		2
TETRACHLOROETHENE		1 U

### TABLE D-1 MARYLAND AIR NATIONAL GUARD MUNITIONS AREA SOIL VAPOR RESULTS LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND PAGE 8 OF 8

SAMPLE ID: LABORATORY ID: SAMPLE DATE: LOCATION:	SG25-011912 C1201051-008A 1/19/2012 SG25
TOLUENE	270
TRANS-1,2-DICHLOROETHENE	0.6 U
TRICHLOROETHENE	0.22 U
VINYL CHLORIDE	0.1 U

### TABLE D-2 MARYLAND AIR NATIONAL GUARD MUNITIONS AREA SOIL GAS STATISTICS TABLE LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND PAGE 1 OF 1

	Frequ	Jency	Mininum	Maximum	Mininum	Maximum	Sample of	Mean of	Mean of	Standard
Chemical	of De	tection	Non	Non	Detected	Detected	Maximum	All	Positive	Deviation
	Number	Percent	Detected	Detected			Detected	Samples	Detects	
VOLATILES(UG/M3)										
1,2,4-TRIMETHYLBENZENE	22/22	100%	-	-	2.4	32 K	SG08-012012	19.4	19.4	7.95
1,2-DICHLOROETHANE	1/22	5%	0.62	0.62	0.7	0.7	SG25-011912	0.328	0.700	0.083
2-BUTANONE	22/22	100%	-	-	5.4	470 K	SG1-012012	108	108	130
							SG1-012012,			
BENZENE	22/22	100%	-	-	1.4	39	SG22-012012	15.5	15.5	11.3
CARBON DISULFIDE	20/22	91%	0.47	0.47	0.6	33	SG22-012012	7.12	7.80	8.82
CHLOROFORM	2/22	9%	0.74	0.74	0.5 J	350	SG1-012012	16.3	175	74.5
CHLOROMETHANE	4/22	18%	0.31	0.31	0.55 L	0.78 L	SG10-011912	0.251	0.683	0.212
CIS-1,2-DICHLOROETHENE	3/22	14%	0.6	0.6	0.6	4.1	SG07-012012	0.641	2.80	1.06
DICHLORODIFLUOROMETHANE	22/22	100%	-	-	0.9	61	SG22-012012	4.65	4.65	12.6
ETHYLBENZENE	22/22	100%	-	-	2.3	8.8	SG1-012012	5.05	5.05	1.38
M+P-XYLENES	22/22	100%	-	-	5	35 K	SG1-012012	17.2	17.2	6.29
METHYLENE CHLORIDE	18/22	82%	0.53	0.53	0.39 J	5.7 K	SG25-011912	0.855	0.987	1.19
							SG08-012012,			
							SG14-012012,			
NAPHTHALENE	21/22	95%	0.8	0.8	1 L	11 L	SG23-011912	5.32	5.55	2.98
O-XYLENE	22/22	100%	-	-	2	19 K	SG1-012012	10.3	10.3	3.88
TETRACHLOROETHENE	1/22	5%	1	1	1.8	1.8	SG08-012012	0.559	1.80	0.277
TOLUENE	22/22	100%	-	-	16	270	SG25-011912	44.5	44.5	52.2
TRICHLOROETHENE	2/22	9%	0.22	0.22	0.66	1.3	SG4-012012	0.189	0.980	0.274
VINYL CHLORIDE	2/22	9%	0.1	0.1	2.8	77	SG07-012012	3.67	39.9	16.4

#### Footnotes:

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

Associated Samples

SG1-012012	SG12-011912	SG22-012012
SG2-012012	SG13-012012	SG23-011912
SG3-012012	SG14-012012	SG24-011912
SG4-012012	SG15-012012	SG25-011912
SG07-012012	SG17-012012	
SG08-012012	SG18-011912	
SG09-012012	SG19-012012	
SG10-011912	SG20-011912	
SG11-011912	SG21-011912	

### TABLE D-3 MARYLAND AIR NATIONAL GUARD MUNITIONS AREA INDOOR AIR RESULTS LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND PAGE 1 OF 1

SAMPLE ID: LABORATORY ID: SAMPLE DATE: LOCATION:	C1201063-001A	IA2-012512 C1201063-002A 1/25/2012 IA2	IA3-012512 C1201063-003A 1/25/2012 IA3
VOLATILES(UG/M3)			
1,1,1-TRICHLOROETHANE	0.83 U	0.83 U	0.83 U
1,1,2-TRICHLOROETHANE	0.83 U	0.83 U	0.83 U
1,1-DICHLOROETHANE	0.62 U	0.62 U	0.62 U
1,1-DICHLOROETHENE	0.6 UL	0.6 UL	0.6 UL
1,2,4-TRICHLOROBENZENE	1.1 U	1.1 U	1.1 U
1,2,4-TRIMETHYLBENZENE	1.6	1	1.8
1,2-DICHLOROBENZENE	0.92 U	0.92 U	0.92 U
1,2-DICHLOROETHANE	0.62 U	0.62 U	0.62 U
1,3-DICHLOROBENZENE	0.92 U	0.92 U	0.92 U
1,4-DICHLOROBENZENE	0.92 U	0.92 U	0.92 U
2-BUTANONE	26 K	4.3	3
BENZENE	1.3	1.3	1.3
CARBON DISULFIDE	0.47 U	0.47 U	0.47 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	0.7 U	0.7 U	0.7 U
CHLOROFORM	0.65 J	0.6 J	0.74 U
CHLOROMETHANE	0.31 UL	0.97 L	0.73 L
CIS-1,2-DICHLOROETHENE	0.6 U	0.6 U	0.6 U
DICHLORODIFLUOROMETHANE	2.3	2.4	0.75 U
ETHYLBENZENE	0.75	0.71	0.84
M+P-XYLENES	1.9	1.7	4.1
METHYL TERT-BUTYL ETHER	0.55 U	0.55 U	0.55 U
METHYLENE CHLORIDE	0.99 K	0.46 J	0.53 U
NAPHTHALENE	5.1 L	2.1 L	6.9 L
O-XYLENE	0.71	0.62 J	1.9
TETRACHLOROETHENE	1 U	1 U	1 U
TOLUENE	3.5	3.2	3.1
TRANS-1,2-DICHLOROETHENE	0.6 U	0.6 U	0.6 U
TRICHLOROETHENE	0.22 U	0.22 U	0.22 U
VINYL CHLORIDE	0.1 U	0.1 U	0.1 U

### TABLE D-4 MARYLAND AIR NATIONAL GUARD MUNITIONS AREA INDOOR AIR STATISTICS TABLE LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND PAGE 1 OF 1

Chemical	Frequency of Detection		Mininum Non	Maximum Non	Mininum Detected	Maximum Detected	Sample of Maximum	Mean of All	Mean of Positive	Standard Deviation	Variance
	VOLATILES(UG/M3)										
1,2,4-TRIMETHYLBENZENE	3/3	100%	-	-	1	1.8	IA3-012512	1.47	1.47	NA(1)	NA(1)
2-BUTANONE	3/3	100%	-	-	3	26 K	IA1-012512	11.1	11.1	NA(1)	NA(1)
							012512, IA3-				
BENZENE	3/3	100%	-	-	1.3	1.3	012512	NA(4)	NA(4)	NA(4)	NA(4)
CHLOROFORM	2/3	67%	0.74	0.74	0.6 J	0.65 J	IA1-012512	0.540	0.625	NA(1)	NA(1)
CHLOROMETHANE	2/3	67%	0.31	0.31	0.73 L	0.97 L	IA2-012512	0.618	0.850	NA(1)	NA(1)
DICHLORODIFLUOROMETHAN	2/3	67%	0.75	0.75	2.3	2.4	IA2-012512	1.69	2.35	NA(1)	NA(1)
ETHYLBENZENE	3/3	100%	-	-	0.71	0.84	IA3-012512	0.767	0.767	NA(1)	NA(1)
M+P-XYLENES	3/3	100%	-	-	1.7	4.1	IA3-012512	2.57	2.57	NA(1)	NA(1)
METHYLENE CHLORIDE	2/3	67%	0.53	0.53	0.46 J	0.99 K	IA1-012512	0.572	0.725	NA(1)	NA(1)
NAPHTHALENE	3/3	100%	-	-	2.1 L	6.9 L	IA3-012512	4.70	4.70	NA(1)	NA(1)
O-XYLENE	3/3	100%	-	-	0.62 J	1.9	IA3-012512	1.08	1.08	NA(1)	NA(1)
TOLUENE	3/3	100%	-	-	3.1	3.5	IA1-012512	3.27	3.27	NA(1)	NA(1)

Footnotes:

For non-detects, 1/2 sample quantitation limit was used as a proxy concentration.

1/2 the detection limit was used for B qualified data.

NA(1) - Not applicable, there are an insufficient number of samples to calculate statistics.

NA(4) - Not applicable, data contains constant observations with no distinct values, there is no need to calculate lognormal statistics.

Associated Samples

IA1-012512

IA2-012512

IA3-012512