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October 31, 2017

VIA OVERNIGHT CARRIER

Mr. James R. Carroll
Program Administrator
Land Restoration Program
Land Management Administration
Maryland Department of the Environment
1800 Washington Road, Suite 625
Baltimore, Maryland 21230

Re: Transmittal of the Greater Strawberry Point Feasibility Study Revision 2
Martin State Airport, 701 Wilson Point Road, Middle River, Maryland

Dear Mr. Carroll:

For your approval, please find enclosed two hard copies with CDs of the above-referenced document. This document addresses soil and groundwater contamination at the Greater Strawberry Point area of Martin State Airport (formerly known as Glenn L. Martin Airport) in Baltimore County, Maryland. This revision addresses comments received from MDE via email on September 17, 2018.

We respectfully request to receive MDE's approval by December 14, 2018.

If you have any questions or require any additional information please contact me by phone at 301-548-2223, or via e-mail at charles.trione@lmco.com.

Sincerely,

Charles Trione
Project Lead, Environmental Remediation
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GREATER STRAWBERRY POINT
FEASIBILITY STUDY
MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Prepared for:
Lockheed Martin Corporation

Prepared by:
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October 2018

Revision: 2



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ACRONYMS AND ABBREVIATIONS

ARARs	applicable or relevant and appropriate requirements
ATC	anticipated typical concentration
BaPEq	benzo(a)pyrene-equivalents
bgs	below ground surface
BTAG	Biological Technical Advisory Group
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	*Code of Federal Regulations*
COC	chemical(s) of concern
COMAR	*Code of Maryland Regulations*
COPC	chemical(s) of potential concern
cPAH	carcinogenic polycyclic aromatic hydrocarbon
CSF	cancer slope-factor
CSM	conceptual site model
cVOC	chlorinated volatile organic compound
DHC	*Dehalococcoides*
DPT	Direct-push technology
DRO	diesel-range organics
EA	EA Engineering, Science, and Technology, Inc.
ED	electron donor
Eh	redox potential
EU	exposure unit
FAA	Federal Aviation Administration
FRTR	Federal Remediation Technologies Roundtable
FS	feasibility study
GAC	granular activated-carbon
GRA	general response action
GRO	gasoline-range organics
GSP	Greater Strawberry Point
HHRA	human health risk assessment
ISCO	*in situ* chemical oxidation
ITRC	Interstate Technology and Regulatory Council
lb(s)	pound(s)
Lockheed Martin	Lockheed Martin Corporation
LTM	long-term monitoring
LUC	land use control

MAA	Maryland Aviation Administration
MCL	maximum contaminant level
MDANG	Maryland Air National Guard
MDE	Maryland Department of the Environment
MDOT	Maryland Department of Transportation
MHSWMA	Maryland Hazardous and Solid Waste Management Administration
µg/kg	microgram(s) per kilogram
µg/L	microgram(s) per liter
mg/kg	milligram(s) per kilogram
MNA	monitored natural attenuation
MSA	Martin State Airport
msl	mean sea level
NA	not applicable
NAVD88	North American Vertical Datum 1988
NCP	*National (Oil and Hazardous Substances Pollution) Contingency Plan*
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
O&M	operation and maintenance
ORC	oxygen-releasing compound
ORP	oxidation-reduction potential
OSHA	Occupational Safety and Health Administration
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PPE	personal protective equipment
PRB	permeable reactive-barrier
PRG	preliminary remediation goal
RAO	response action objective
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RfD	reference dose
RSL	regional screening-levels
SO_x	sulfur oxides
SP	Strawberry Point
SVOC	semivolatile organic compound
TBC	to be considered
TCE	trichloroethene
Tetra Tech	Tetra Tech, Inc.
TMV	toxicity, mobility, or volume
TPH	total petroleum hydrocarbons

UECA	"Uniform Environmental Covenant Act"
UIC	underground injection control
USC	*United States Code*
USEPA	United States Environmental Protection Agency
VC	vinyl chloride
VI	vapor intrusion
VOC	volatile organic compound
ZVI	zero-valent iron

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EXECUTIVE SUMMARY

This *Greater Strawberry Point Feasibility Study—Martin State Airport Middle River, Maryland* was prepared by Tetra Tech, Inc. on behalf of Lockheed Martin Corporation, to address soil and groundwater contamination at the Greater Strawberry Point area of Martin State Airport (formerly known as Glenn L. Martin Airport) in Baltimore County, Maryland. Martin State Airport is at 701 Wilson Point Road in Middle River, Maryland, and is bounded by Frog Mortar Creek to the east and Stansbury Creek to the west. Both creeks join Chesapeake Bay at the southern side of the airport. The Greater Strawberry Point area is in the southwestern portion of the airport between Stansbury Creek and Taxiway F.

This feasibility study evaluates technologies for the remediation of the impacted soil and groundwater at the Greater Strawberry Point area, with the primary goals of preventing unacceptable risk to on-site workers from contact with contaminated soil and groundwater based on continued current site use, and preventing off site migration of site contaminants to Stansbury Creek that would result in ambient water quality criteria or human health risk based exposure criteria in Stansbury Creek or Frog Mortar Creek being exceeded. Following approval of the feasibility study and subsequent design documents, Lockheed Martin Corporation intends to implement the recommended remedial action.

Environmental issues with the Greater Strawberry Point area were originally discovered in 2007. Several subsequent investigations of soil, groundwater, surface water, and sediment have identified soil and groundwater contamination over an approximately 100-acre area. These investigations are detailed in several reports for this site, including a Phase I environmental assessment, a Phase II environmental investigation, an additional Phase II site investigation, supplemental characterizations, a geophysical survey, a soil vapor investigation, and a design characterization study (see Section 1.6).

Greater Strawberry Point includes 11 areas identified as recognized environmental conditions (RECs). Each REC was identified based on historical activities that possibly impacted the

environment within the area. Ten of the RECs are contiguous, but the eleventh REC is separated from the others by an undeveloped wooded area (see Figure 1-4).

Soil in the Greater Strawberry Point area consists primarily of interbedded sandy silt, silt, and clay layers. Reworked soil comprises the first few feet of soil in the area, placed to provide a level surface for airport operations. The depth to groundwater varies from 3 to 10 feet below the ground surface. Shallow groundwater flow at Greater Strawberry Point is in the direction of, and can vary depending on proximity to, nearby surface water bodies surrounding the Martin State Airport peninsula. For most of the Greater Strawberry Point area, groundwater flow is towards the southeast.

The primary chemicals of concern for soil are carcinogenic polycyclic aromatic hydrocarbons, total petroleum hydrocarbons, and metals. Metals detected most frequently include arsenic, cobalt, iron, total and hexavalent chromium, manganese, thallium, and vanadium. Figures 1–9 through 1–14 of this feasibility study summarize soil contamination at Greater Strawberry Point.

The primary chemicals of concern for groundwater samples are chlorinated volatile organic compounds, total petroleum hydrocarbons, and metals. Metals detected most frequently include arsenic, cobalt, iron, total and hexavalent chromium, manganese, thallium, and vanadium. Figures 1–15 through 1–19 of this feasibility study summarize groundwater contamination at Greater Strawberry Point.

Laboratory results for Greater Strawberry Point soil and groundwater samples have been compared to the State of Maryland cleanup standards for residential soil and groundwater. Although land use at Greater Strawberry Point is not currently residential, and is anticipated to exclude residential use in the future, Maryland residential soil standards were used as a conservative screening tool. Soil results were also compared to Maryland non-residential (industrial) cleanup standards. Similarly, groundwater at Greater Strawberry Point will not be used as a drinking water source; however, drinking water standards were conservatively used to screen groundwater sample results.

A human health risk assessment and ecological risk assessment were prepared for the Greater Strawberry Point area. Site use is currently commercial/industrial, and expected to remain so in the future, so only current and future commercial/industrial users or construction workers were considered in the risk assessment, while residential receptors were not. The risk assessment

concluded that risk associated with commercial- or industrial-receptor exposure to soil is within the acceptable risk range, and that trichloroethene is the only contaminant in groundwater that presents an unacceptable risk to expected receptors (see Section 1.8.1). However, soil contaminant concentrations at Greater Strawberry Point exceed Maryland cleanup standards, and groundwater contaminant concentrations are greater than drinking water standards, so the site is not acceptable for residential uses.

Potential ecological risks were identified for site surface soil and sediment, but because habitat is of limited extent and is isolated, remedial actions were not warranted (see Section 1.8.2). Therefore, a preliminary remediation goal was developed for trichloroethene in groundwater based on commercial/industrial exposure, because unacceptable risks to the construction and industrial worker are limited to trichloroethene in groundwater. Concentrations of trichloroethene exceed the construction worker preliminary remediation goal only at RECs #8 and #9. Drinking water standards were retained as preliminary remediation goals to identify portions of the site that would have unacceptable risk in the unlikely event that the site would ever be used for residential purposes in the future. Groundwater contaminants of concern and their respective preliminary remediation goals are in Section 2.3 below.

Total petroleum hydrocarbons are not quantitatively evaluated in the risk assessment, but were detected in groundwater samples at concentrations greater than Maryland Department of the Environment drinking water criteria. Therefore, total petroleum hydrocarbons are included as chemicals of concern in this feasibility study. The risk assessment determined that metals concentrations in groundwater are not associated with unacceptable risks to on-site receptors, but are greater than drinking water criteria or potable-water-use risk-based criteria. Therefore, several metals are included as chemicals of concern in this feasibility study.

Remedial action objectives were developed to determine the basis for selecting the appropriate remedial action(s) for impacted soil and groundwater. RAO No. 1 applies to RECs #8 and #9. RAOs #2, #3, and #4 apply to all RECs. RAO No. 5 applies to RECs #8, #9, and #11. These remedial action objectives are listed below:

Remedial action objective	Description
1	Prevent exposure of construction workers to trichloroethene in groundwater during construction activities that cause unacceptable risk based on a hazard index greater than 1.
2	Prevent human exposure (including via showering, drinking, and irrigation) to groundwater containing chemicals of concern concentrations greater than groundwater criteria.
3	Prevent off site migration of site contaminants to Stansbury Creek, and prevent exceedances of ambient water quality criteria or human health risk-based exposure criteria in Stansbury Creek and Frog Mortar Creek by migration of contaminated groundwater.
4	Prevent exposures to site soil other than those of construction/industrial workers during activities consistent with typical industrial use and maintenance.
5	Prevent exposure of industrial workers and hypothetical residents to volatile organic compounds (resulting from vapor intrusion into buildings) that pose unacceptable risk (total incremental lifetime cancer risk greater than 1×10^{-5} [i.e., a one in 100,000 probability of cancer] or a hazard index greater than 1).

Remedial alternatives for groundwater were developed after identifying the remedial action objectives (see Section 3). Initially, 19 technologies/process options, separated into seven general response actions categories, were considered. The general response action categories carried on to the next phase of screening include no action, institutional/land use controls, and treatment (see Section 3.1 and Table 3-1 for more information). No treatment processes and technologies were evaluated for soil, because no unacceptable risks were identified for receptor exposure to site soil. All alternatives will have a common land use control component to prevent future residential use of the site.

The process options were subjected to a detailed screening process, and the remaining options were combined into the following four remedial alternatives for further evaluation:

Alternative G1: no action

Alternative G2: monitored natural attenuation

Alternative G3: in situ chemical oxidation

Alternative G4: in situ enhanced bioremediation

Alternative G1 was developed and analyzed as a baseline against which the other alternatives could be compared. Alternative G2 was developed to provide an alternative that included only passive actions, such as land use controls and monitoring, to meet the remedial action objectives.

Alternatives G3 and G4 include active groundwater treatment at RECs #8 and #9 where trichloroethene concentrations exceed the preliminary remedial goal (see Figure 4-1). Alternative G3 uses *in situ* chemical oxidation to treat the trichloroethene, and Alternative G4 uses *in situ* enhanced bioremediation to treat trichloroethene. Contaminants at lower concentrations in groundwater (i.e., trichloroethene at other RECs, metals, and total petroleum hydrocarbons) would be addressed through monitoring or natural attenuation.

A detailed evaluation of each alternative was conducted with respect to the following evaluation criteria: (1) overall protection of human health and the environment; (2) compliance with applicable, or relevant and appropriate requirements; (3) long-term effectiveness and permanence; (4) reduction of toxicity, mobility, or volume of contaminants through treatment; (5) short-term effectiveness; (6) implementability; (7) sustainability; and (8) cost (see Section 4.2). The alternatives were then compared to these criteria, both qualitatively and quantitatively, to help select a preferred remedial alternative (see Sections 5.1 and 5.2, and Tables 5-1 and 5-2).

As part of Lockheed Martin Corporation's "Go Green" program, sustainability was also considered when selecting the recommended remedial alternative. Sustainability practices will also be included in the design. Sustainability practices are those that consider economic and natural resources, ecology, human health and safety, quality of life, and reduction of the overall environmental "footprint." Details of these practices as they relate to this feasibility study are in Section 5.3. Alternative G2 (monitored natural attenuation) was chosen as the recommended remedial action based on qualitative and quantitative comparisons of the alternatives. Alternative G2 meets remedial action objectives, in that it prevents future unacceptable risk to human receptors through land use controls, monitors attenuation of contaminants in groundwater, and allows for degradation and removal of chemicals of concern from groundwater by natural processes.

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SECTION 1
INTRODUCTION

This feasibility study (FS) was prepared by Tetra Tech, Inc. (Tetra Tech) on behalf of Lockheed Martin Corporation (Lockheed Martin) to address contamination in soil and groundwater at the Greater Strawberry Point (GSP) area of Martin State Airport (MSA) (formerly known as Glenn L. Martin Airport) in Baltimore County, Maryland (Figure 1-1). This remedy primarily addresses groundwater, but also includes land use controls that apply to site soil.

1.1 REPORT PURPOSE

This feasibility study evaluates remedial alternatives for minimizing future human and ecological exposure to contaminated groundwater at GSP. Lockheed Martin Corporation and regulators will use the feasibility study results to select and implement a preferred remedial action.

1.2 SCOPE AND OBJECTIVES

This feasibility study is intended to address contaminated soil and groundwater associated with 10 recognized environmental conditions (RECs) in the GSP area. Environmental impacts associated with these RECs are the result of previous airport, aircraft-related, and research activities, as detailed in Section 1.6.2. This feasibility study:

- establishes remedial action objectives (RAOs)
- describes the formulation and evaluation of remedial alternatives
- screens and assembles remedial technologies and alternatives
- recommends an alternative to address site contamination

Although the cleanup of impacted soil and groundwater in the Greater Strawberry Point area is not regulated under the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also known as Superfund), remediation will be conducted in a manner consistent with the United States Environmental Protection Agency's (USEPA) *National Contingency Plan*

(NCP) and the USEPA Superfund program. As such, this feasibility study provides a full evaluation of remedial options. Cleanup actions at this site are subject to the requirements of Maryland's Hazardous Substance Response Plan (*Code of Maryland Regulations* [COMAR] Title 26, Subtitle 14), and will be overseen by the Maryland Department of the Environment (MDE). The Maryland Department of the Environment has authority to choose how a cleanup will be performed. Remediation and/or disposal of impacted soil or waste exhibiting "toxic" characteristics (as defined in 40 *Code of Federal Regulations* [CFR] 40 CFR §261.24) will also be done in compliance with the federal Resource Conservation and Recovery Act (RCRA; 40 CFR §262.11) and its implementing regulations. The methodology used herein is based on current USEPA *Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA* (USEPA, 1988).

This feasibility study focuses on continued use of the property as a commercial and military airport, and the preliminary remediation goals (PRGs) developed herein are based on land use consistent with current property use (i.e., commercial/industrial). This feasibility study only addresses Greater Strawberry Point; cleanup actions addressing contaminated soil and groundwater at the Dump Road Area are being completed under separate remedial actions, and Dump Road Area waste materials are being managed under a separate feasibility study. The following components and processes are incorporated in the GSP feasibility study:

- identification of chemicals of concern (COC) in soil and groundwater
- identification of applicable or relevant and appropriate requirements (ARARs)
- identification of RAOs and general response actions (GRAs)
- screening of technologies and process options
- development of alternatives
- screening and a detailed analysis of alternatives
- development of a cost estimate for each alternative
- comparative analysis of the alternatives, resulting in the selection of a preferred remedial alternative

1.3 REPORT ORGANIZATION

This feasibility study is organized as follows:

Section 1—Introduction: Describes the purpose, scope, and objectives of this study, along with a summary of relevant background information, including previous investigations and assessments, the nature and extent of contamination, the conceptual site model, and risk assessment summaries.

Section 2—Remedial Action Objectives: This section includes applicable or relevant and appropriate requirements for the environmental media of concern, remedial action objectives, preliminary remediation goals, and areas and volumes of environmental media to be addressed by the remedial alternatives.

Section 3—Identification and Screening of Technologies and Development of Alternatives: Discusses the general response actions identified to attain the remedial action objectives, screens technology types and process options, and discusses and evaluates candidate technologies and the development of alternatives.

Section 4—Description and Detailed Analysis of Alternatives: Discusses the conceptual design of the alternatives, and also provides a detailed alternatives analysis using the seven criteria promulgated in the *National Contingency Plan*.

Section 5—Comparative Analysis of Alternatives: Compares the alternatives using the information gained from Section 4.

Section 6—References: Contains a list of references used in this feasibility study.

1.4 SITE DESCRIPTION

The GSP area is an approximately 100-acre, industrial portion of MSA that includes a former seaplane ramp, hangars, a fuel tank farm, police building, tarmac, a wooded area, and maintenance buildings. It extends from the southern end of the tarmac (the former seaplane ramp) along Frog Mortar Creek to Taxiway J, and eastward from Stansbury Creek to Taxiway F. The airport runway is northeast of GSP. The GSP area excludes the vegetated Strawberry Point (SP) area at the southern end of the MSA peninsula. The 26-acre SP area was previously investigated (Tetra Tech, 2009), and is not included in this evaluation. Metals were detected in the groundwater at SP; however, no additional investigations or actions were performed there. Figure 1-2 shows GSP, along with other bordering MSA areas.

1.5 SITE HISTORY AND BACKGROUND

The United States Navy leased a portion of GSP from the Glenn L. Martin Company between December 1943 and December 1963, corresponding to the area south of the current maintenance building. During their occupancy, the Navy used a large hangar for seaplane maintenance, launching, and recovery operations. The former hangar and surrounding GSP area was known as Naval Weapons Industrial Reserve Plant No. 148. The United States Air Force subsequently occupied the facility (permit No. 1 N MD 714) from December 16, 1963 until 1967.

The southern portion of the GSP near the vegetated peninsula contained buildings operated by the Navy during their tenancy. Figure 1-3 is an index map of current and historical building numbers (note that for simplification, leading zeroes are omitted from building numbers in the text below). These buildings, constructed before 1963, included the beach house (Building No. 3), the pumping station (Building No. 4), the chlorination station (Building No. 5), two power-fence service houses (Buildings No. 6 and 9), a solvent storage building (Building No. 7), an equipment storage building (Building No. 8), a power-fence switch-house (Building No. 10), and a general storage building (Building No. 12). A delivery hangar (Building ND/No. 11) was also constructed for Navy use but was later occupied and operated by the Air Force during its lease (from 1963 to 1967). A tank farm containing aboveground storage tanks containing aircraft fuels was formerly adjacent to the wooded area, near the southernmost tip of the developed area (area No. 001 on Figure 1-3).

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

(Building Nos. 27, 28, and 29), and block house (Building No. 26) occupied what is now an open, mounded area seated at the northern edge of the wooded area on-site, near Taxiway F. These buildings were constructed and operated by the Glenn L. Martin Company.

Several buildings dedicated to nuclear research and testing were constructed by the Glenn L. Martin Company or Martin Marietta (i.e., the Martin companies) between 1957 and 1965. These facilities were farther northwest, along a former dirt road at the northern end of the GSP wooded area. Two main research buildings were designated as the critical-test building (Building No. 36/Building KC) and the radioisotope lab (Building No. 35/Building KJ). A third research building in this area (Building No. 34/Building KQ) was the liquid-metal test facility. Several former Glenn L. Martin airport maintenance buildings and sheds were located north (No. 037), west (No. 056), and southwest (No. 058) of these research buildings, on the opposite side of the former dirt road. Figure 1-3 shows the locations of these facilities.

1.6 PREVIOUS INVESTIGATIONS

Strawberry Point and Greater Strawberry Point have been the subject of ongoing investigations since 2007. A Phase I environmental assessment in the winter of 2007–2008 evaluated historical site activities and identified 11 recognized environmental conditions (RECs) within the GSP area. Figure 1-4 shows the REC boundaries. Subsequent investigations of the RECs include a Phase II environmental investigation in April and May 2010, an additional Phase II site investigation in May and July 2011, a supplemental characterization in 2012 at four RECs (RECs #7, 8, 9, and 10), a supplemental characterization in 2014, a geophysical survey and gamma surface scan of REC #11 (including the vicinity of former Buildings KC and KJ) in 2014, a soil-vapor investigation around the existing maintenance building at REC #7 in January 2015, and a design-characterization study in January 2016 (Tetra Tech, 2010; 2013; 2014; 2015a–c; 2017a). A 2008 Phase II investigation that focused on the southern SP wooded area (REC #1) is not included within the areas of investigation proposed in this feasibility study, and therefore is not discussed herein.

Volatile organic compounds (VOC) and metals have been detected in soil samples collected from all RECs. The highest VOC concentrations (exceeding Maryland cleanup standards for residential soil in some soil samples) have been detected in RECs #8, #9, and #11, and the highest metals

concentrations (many exceeding the Eastern Maryland anticipated typical concentration [ATCs]), have been detected in RECs #8, #9, #10, and #11. The highest concentrations of semivolatile organic compounds (SVOCs) were detected in samples from RECs #8, #9, #10, and #11, with benzo(a)pyrene equivalents accounting for many of the SVOC concentrations exceeding Maryland cleanup standards. Polychlorinated biphenyls (PCBs) were detected at concentrations exceeding Maryland cleanup standards in soil samples from REC #11, and total petroleum hydrocarbons (TPH) exceeding Maryland cleanup standards were detected in soil samples from RECs #10 and #11.

Metals have been detected in groundwater samples from all RECs, with the highest concentrations (exceeding Maryland groundwater standards) found in RECs #4 through #6. Concentrations of VOCs above Maryland groundwater standards, primarily trichloroethene (TCE), were found in groundwater samples from RECs #8, #9, and #11, and concentrations of total petroleum hydrocarbons (TPH) above Maryland standards were detected in groundwater samples from RECs #7, #8, #9, #10, and #11. Details of previous GSP investigations are summarized in the *Greater Strawberry Point Area Design Characterization Report* (Tetra Tech, 2017a), and are therefore not repeated herein.

1.7 PHYSICAL CHARACTERISTICS OF SITE AND VICINITY

The sections below summarize current site conditions, climate, topography, geology, hydrogeology, and surrounding water bodies at the site.

1.7.1 Current Conditions

The Maryland Aviation Administration (MAA) currently operates MSA on behalf of the Maryland Department of Transportation (MDOT). The airport has one central runway, two full-length taxiways parallel to the runway, several smaller connecting taxiways, an administration building, six plane and helicopter hangars near the Main Terminal building, and the Maryland State Police Hangar at Strawberry Point. MAA manages more than 130,000 square feet of heated hangar space and 190 smaller-aircraft T-hangars at MSA.

The southwestern portion of the airport contains numerous above-ground fuel storage tanks for Jet-A and Avgas 100LL fuels. Northeast of the taxiways, a portion of MSA is leased to the

Maryland Air National Guard, whose lease includes shared use of the runways. MSA is also home to more than 20 commercial tenants, and provides fuels and lubricants, helicopter avionics repair, and flight instruction services, in addition to hosting the Baltimore County police aviation and marine units and the Glenn L. Martin museum (MAA, 2012).

1.7.2 Physical Setting and Land Use

MSA is generally characterized as a moderately developed tract in a largely suburbanized, moderate-density, populated setting. Land use surrounding the airport is generally a combination of mixed suburban, industrial, and commercial, lightly to moderately developed tracts, and woodland tracts. The airport is bordered to the north by Eastern Boulevard (Maryland Route 150) and AMTRAK railroad lines.

Undeveloped woodland tracts and low-density residential properties are farther north. Missile launch devices and aircraft parts are assembled at Lockheed Martin's Middle River Complex, which lies along the airport's northwestern boundary. The airport is bounded to the east by Frog Mortar Creek, to the south by the confluence of Frog Mortar Creek and Stansbury Creek, and to the west by Stansbury Creek, wide, brackish, tidal tributaries of the middle Chesapeake Bay.

Land use beyond the creeks east, north, and west of the airport is low- to medium-density residential and light commercial tracts (e.g., shopping centers, convenience stores, restaurants, etc.). Farther east and west are high-density residential communities (Bengies Corner and Hawthorne Park). The town of Middle River is approximately 1.5 miles northwest of the airport.

The current use of each REC (see Figure 1-4) is described below:

- REC #2 is the Fuel Storage Tank Farm and includes the Baltimore County Marine Police operations building and a fuel pumping station. The area comprising this REC is open and covered by mowed grass.
- REC #3 is comprised of a former wastewater treatment plant and is covered by mowed grass.
- REC #4 is mostly covered by concrete and includes a large hangar leased to the Maryland State Police for light aircraft. A solvent storage area formerly occupied the site.
- REC #5 is an open area covered by reinforced concrete and is the location of a former electrical transformer pad.

- REC #6 is currently an open area covered with reinforced concrete and some private aircraft hangars, and was formerly occupied by a hangar and storage building.

- REC #7 is the present Facility Maintenance Area, which includes salt and sand storage domes, the Facility Maintenance Building, drum storage areas, tanks, and parking areas for the airport maintenance fleet. This REC area was the former site of a propulsion test facility.

- REC #8 includes the former jet engine test facilities. They were demolished, except for two buildings currently used by MSA maintenance for storage.

- REC #9 is the site of the former Vanguard missile test area. It has no structures at present, and the REC area is unpaved.

- REC #10 includes the former Coupon-Test-Sheds and Block House. These buildings have been demolished. The REC area is unpaved, and currently includes a soil mound that appears to have been placed there after demolition of the former buildings.

- REC #11 includes several former buildings that were once part of a nuclear research and testing facility. The buildings were demolished, and the area is currently open and unpaved. An undeveloped wooded area is between REC #11 and REC #7.

1.7.3 Climate

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

1.7.4 Physiography

MSA is in the western shore of the Coastal Plain physiographic province. The Coastal Plain comprises sediment composed of alluvium from the Pleistocene Epoch and the Potomac Group from the Cretaceous Period. Coastal Plain sediment begins at the fall line and follows a regional dip to the southeast at approximately 110 feet per mile (Hansen and Edwards, 1986). The Fall Line is the division between the Piedmont and Atlantic Coastal physiographic provinces, and refers to an imaginary line connecting waterfalls or changes in stream flow between the hard-rock upland areas of the Piedmont 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.

1.7.5 Topography

The land surface at MSA is generally flat to gently sloping in the areas of the airport runway, taxiways, and surrounding support operations. The airport runway forms a northwest to southeast-trending topographic ridge or drainage divide that gently slopes from the northwestern to the southeastern end. Runway elevations range from slightly over 20 feet above mean sea level (msl) at the northern end of the runway to slightly over 10 feet above msl at the southern end. The land also slopes northeastward and southwestward, away from the runway toward Frog Mortar Creek and Stansbury Creek.

GSP is southwest and south of the MSA runway. Site topography ranges from flat to gently sloping to the southwest toward Stansbury Creek. In the northern portion of GSP, land elevations range from approximately 11 feet above msl near the runway to nearly mean sea level along the Stansbury Creek shoreline. A constructed drainage channel and stormwater-detention basin are along the northwestern edge of the GSP wooded area, between the current Lockheed Martin corporate hangar (see Figure 1-3) and the current tree line. Localized topography along Taxiway J and the paved areas adjacent to the corporate hangar is sloped toward these features, and surface water drainage follows a southerly slope toward Stansbury Creek.

1.7.6 Surface Water Hydrology

The southern end of MSA is at the convergence of Frog Mortar and Stansbury Creeks; both are wide, brackish, tidal tributaries to Middle River, which flows to the southeast to the Chesapeake Bay. Stansbury Creek is west of Greater Strawberry Point and east of the Wilson Point housing development. Frog Mortar Creek (flowing from the northeast) is along the eastern side of MSA. Since surface water bodies surround most of MSA, it can be considered a small peninsula. Surface water across MSA can have localized topographic and man-made influences, but in general, surface water drains west toward Stansbury Creek from GSP and the western half of the peninsula. Across both the eastern half (e.g., where the Maryland Air National Guard [MDANG] and the Dump Road Area are located) and southern end of the peninsula, surface water drains to the east

and south respectively, toward Frog Mortar Creek. At GSP, surface water runoff from Taxiways F and J enters Stansbury Creek via localized drainage channels and storm sewers.

Surface/soil drainage in the GSP area is poor. The 1989 preliminary assessment report for MSA states that the area is in the Lenoir-Urban land complex, a soil type that is somewhat poorly drained and has a slow permeability (Maryland Hazardous and Solid Waste Management Administration [MHSWMA], 1989). At that time, the former shoreline of Stansbury Creek extended more than 1,500 feet north of its present location, along what is now the western side of the Northrup Grumman hangar north of REC #11 into a wet grassy area that has never been developed (see Figure 1-3). The former northern reach of the creek was partially filled in 1941, and the current shoreline was filled in approximately 1945. Natural drainage patterns near the former creek bed (about 600 feet west of the former Buildings KC and KJ) make the entire area vulnerable to wet soil conditions.

A drainage channel along the northern tree line of the GSP wooded area receives surface water drainage from the wooded area (Figure 1-4). This channel directs flow southerly to a stormwater culvert that passes below Strawberry Point Road to Stansbury Creek. A stormwater detention basin is west of the drainage channel; it spans the northern border of the GSP wooded area from Taxiway F to the truck canopy and deluge tank south of the corporate hangar. The detention basin contains tall grass, and the soil in the basin usually remains wet.

Stormwater enters the detention basin via three storm-drain inlets that convey runoff from the developed areas west of Taxiway J. This area was regraded, and the detention basins and storm drains were constructed, in 1998–2000 by MDOT as part of an airfield redevelopment project. At that time, Taxiway J was extended southwest to reach a newly constructed corporate hangar area. Two of these storm drains pass below the newer portion of Taxiway J and enter the basin near the former Buildings KC and KJ.

Stormwater entering the basin from these two inlets originates primarily from the grassy airfield area between the runway and Taxiway F, and from the Main Terminal southeast to the Taxiway J extension, next to the Lockheed Martin Corporate hangar. The third stormwater inlet enters the drainage basin near the northeastern corner of the existing corporate hangar. Stormwater entering

the basin at this inlet originates from storm drains in the concrete apron north and east of the corporate hangar.

Groundwater is not expected to discharge to the detention basin, based on known groundwater elevations in this area. All of these drainage features were constructed approximately 20 years after Lockheed Martin discontinued ownership of the MSA property. Stormwater enters these conveyances at REC #11, discharges from the basins, and any habitats affected by these basins are not considered subject to historical impacts by Lockheed Martin companies, as they were created after the period of Lockheed Martin ownership.

Drainage from the northern GSP stormwater-detention basin flows southwest, where it joins flow from the stormwater culvert crossing below Strawberry Point Road. It then appears to drain to the wetlands connected to Stansbury Creek. This localized drainage system also appears to have been constructed around 2000, when the Lockheed Martin corporate hangar was built, and does not include the two stormwater outfalls (Outfalls 007 and 012) in Stansbury Creek that are managed under the MSA's National Pollutant Discharge Elimination System (NPDES) permit. Although the drainage detention basin at REC #11 is closer to Outfalls 007 and 012, the MSA stormwater pollution prevention plan (EA, 2014) reports that it is part of the Outfall 006 drainage area.

Outfall 006 also receives drainage from:

- airport vehicle/equipment maintenance and de-icing operations
- taxiway and runway access
- a fuel farm
- storage piles of soil, asphalt millings, and stone
- chemical-waste storage areas
- parking, maintenance, and auto-shop areas
- private tenant hangars
-

The approximately 85-acre drainage area also includes pervious grassy surfaces along Strawberry Point Road and between parking areas and dense tree zones. Impervious portions of Strawberry Point Road, taxiways, hangars, maintenance buildings, and aircraft and vehicle parking areas also discharge to Outfall 006. Monitoring for Outfall 006 is at the exit of an existing storm-drain system discharging into Stansbury Creek.

1.7.7 Regional Geologic and Hydrogeologic Conditions

MSA is in the western shore of the Coastal Plain physiographic province. Regional and local studies (Vroblesky and Fleck, 1991; Chapelle, 1985) indicate that MSA lies on the Patapsco Formation. This formation consists of complex and interbedded mixtures of gray, brown, and red sand, silt, and clay originating from sediment deposition in a low coastal plain traversed by low-gradient meandering streams. Below the Patapsco Formation is a regionally extensive, thick-clay confining-unit known as the Arundel Formation. It is a massive formation with very low permeability underlying MSA and its surrounding area. The base of the Arundel Formation sits atop the deeper Patuxent Formation, and is approximately 225 feet below mean sea level near Martin State Airport. The Arundel formation may range from 235–255 feet below grade at GSP, and may be up to 150 feet thick in this area.

Regional groundwater flow across the GSP area is generally to the southeast, toward Stansbury Creek. However, radial flow patterns have also been modeled during previous studies at MSA. A central groundwater-flow divide has been reported in the uplands area near the airport runway and north of GSP. North and east of this divide, groundwater flows toward Frog Mortar Creek; south of the divide, groundwater flows toward Stansbury Creek.

1.7.8 Site-Specific Geologic and Hydrogeologic Conditions

Subsurface data have been collected at GSP and the western and southern portions of MSA during investigations completed from 2009 through 2016. Numerous shallow-soil borings at GSP have been advanced to depths of up to 40 feet below ground surface (bgs) to collect soil samples for subsurface lithologic information and soil and groundwater samples for chemical analyses. Previous investigations are summarized in the *Greater Strawberry Point Area Design Characterization Report* (Tetra Tech, 2017a) and are therefore not repeated herein. However, information about subsurface conditions at GSP included in previous reports is summarized below.

1.7.8.1 Geology

The lithology encountered in GSP soil borings varies across the RECs. On the eastern side of REC #2, the top 10 feet consist of clayey silt and clay with fine sandy silt from depths of 10 to 25 feet. From the central portion of RECs #2 through #6, the subsurface lithology consists of gray and brown clay and silty clay to a depth of 25 feet, with occasional thin, silty sand and sandy silt

layers/lenses. In the REC #7 area, gray and brown silty sand and sandy silt with occasional clay lenses are encountered to a depth of 25 feet.

The subsurface lithology in RECs #8 and #9 is similar to REC #7, except for the presence of a thick, dipping clay layer from approximately 14 to 22 feet below grade. This clay layer thickens somewhat at REC #10 to the west. REC #11 lithology is comprised of sand, clay, and occasional silt layers that vary in thickness and frequency. A layer of dense intermingled sand, silt, and clay lenses below these materials is encountered at depths ranging from about 15–30 feet below grade. Select geologic cross-sections of GSP are in Appendix A.

1.7.8.2 Hydrogeology

The surficial aquifer at MSA and GSP is divided into upper, intermediate, and lower surficial-aquifer zones for study purposes. The upper surficial-aquifer is defined as the portion of the aquifer from the ground surface to an elevation of approximately 15 feet below mean sea level. Generally, the upper surficial-aquifer occurs in the uppermost 10–20 feet below grade. The lithology is comprised mostly of fill in the upper 10 feet, with native soil beneath the fill materials. The intermediate surficial-aquifer is generally defined as being 15–45 feet below mean sea level. The lower surficial-aquifer zone is approximately 45–73 feet below mean sea level and overlies at least several feet of stiff, dense clay.

Groundwater depths (measured from the top of the well casings) at RECs #7 through #10 vary widely, and range from at or near the ground surface to around eight feet below grade; corresponding to a groundwater elevation range of about three to 10 feet. Groundwater depths (measured from the top of the well casings) in REC #11 range from approximately 3.5–10 feet, and corresponding groundwater elevations range from approximately 1.5–4 feet. Groundwater elevations are reported in North American Vertical Datum 1988 (NAVD88) relative to mean sea level. No permanent monitoring wells are in RECs #2 through #6, but, based on proximity to RECs #7 and #8, and field measurements of temporary wells installed at RECs #2 through #6 in 2010, the range of depth to groundwater there is assumed to be similar to that of the other RECs.

At GSP, groundwater flow is generally to the southeast, and is consistent with regional groundwater flow toward the southeastern tip of MSA, where Frog Mortar and Stansbury Creeks converge. Groundwater modeling also indicates that groundwater near the runway flows to the

northeast toward Frog Mortar Creek (Tetra Tech, 2017e). Localized groundwater flow at REC #11 is influenced by the drainage swale and stormwater-detention basins between the wooded area and Taxiway J; groundwater there flows southwest to a wetland adjoining Stansbury Creek. Figures 1-5 and 1-6 show shallow and intermediate groundwater potentiometric-surface maps for GSP.

1.7.9 Ecological Setting

The GSP RECs are partially developed, and are in cleared areas bounded by a large wooded area and Taxiway F; GSP mainly consists of cleared land with shortgrass and no canopy or woody plants. A wooded area is adjacent to RECs #7 through #11. Stansbury Creek is on the western edge of GSP. The eastern, southern, and western boundaries of MSA are bordered by Frog Mortar Creek and Stansbury Creek, which are wide, brackish, tidal tributaries of the middle Chesapeake Bay. Surface drainage from GSP is discharged via multiple outfalls to Stansbury Creek and Frog Mortar Creek.

Surface water features include two constructed detention basins and a narrow channel with a bed of rocky soil that follows the edge of the wooded area at REC #11. The detention ponds retain stormwater runoff/overflow from the proximal taxiway/runway. They are wetland-grass basins with minor, narrow-channel flow trickling through them. Little sediment is in the ponds, but some organic chemicals have been deposited over time in places that receive more channel flow. The channel discharges to Stansbury Creek via the wetland. The channel contains layers of decaying leaves that are usually only wet during rainfall.

Suitable habitat for most ecological receptors is limited at the GSP RECs, as these disturbed sites consist of partially developed, cleared land. However, GSP also includes forest, field, and aquatic habitats that support ecological receptors. A variety of bird species are likely to frequent GSP, including geese, ducks (wading, diving, and wood ducks), herons, finches, sparrows, robins, warblers, hawks, eagles, kingfishers, and woodpeckers. Given the proximity of GSP to a surface water body (i.e., Stansbury Creek), its relative lack of human activity, and the range of habitats available, mammals such as deer, fox, moles, shrews, rabbits, woodchucks, squirrels, and raccoons are also likely to be found on-site. Fish, aquatic and sediment invertebrates, and aquatic plants are

present in aquatic habitats, and terrestrial invertebrates and plants are found in the terrestrial habitats. Amphibians and reptiles are also likely to inhabit GSP.

1.8 CONCEPTUAL SITE MODEL

A conceptual site model (CSM) facilitates consistent and comprehensive evaluation of potential risks by creating a framework that identifies potential pathways by which human and ecological receptors might contact environmental media contaminated by site activities. The CSM depicts the relationships among the following elements, which are necessary to define complete exposure pathways:

- site sources of contamination
- contaminant-release mechanisms and transport/migration pathways
- exposure routes
- potential receptors

These CSM elements establish the manner and degree to which a potential receptor might be exposed to chemicals at a site. The degree of risk incurred by a potential receptor varies according to the means and duration of exposure, and the specific chemical to which the receptor is exposed. Current risk to human receptors from GSP soil is limited, because contaminated media are in restricted-access areas (minimizing trespassers) or below concrete. Current exposure pathways posing possible risk to ecological receptors include plants and invertebrates; therefore, birds, shrews, and other organisms may bioaccumulate surface soil contaminants found in their food sources and pass them on in the food chain. Invertebrates might be exposed to contaminated surface water and sediment in the stormwater drainage swale and in the ponds in the northern portion of GSP. Although all surface water and sediment at GSP is evaluated in this feasibility study, distinctions can be made regarding non-Lockheed-Martin-related sources impacting these media in certain areas at GSP, as discussed in Section 1.6.6.

The human receptors facing potential risk at the GSP site are the construction worker, who might be exposed to impacted soil or groundwater while working, and the commercial/industrial worker who might be exposed to impacted soil while working. These workers could also be exposed to groundwater contaminants through vapor intrusion into hypothetical future commercial/industrial

structures. Potential human receptors, and contaminant-release mechanisms, environmental fate and transport, and migration pathways for impacted soil and groundwater at GSP are discussed below.

Risks were evaluated in the HHRA using three exposure units (EUs). RECs #2–6 were evaluated as one EU, due to their proximity to each other. Likewise, RECs #7–10 were also evaluated as one EU, due to their proximity to each other. REC #11 is geographically distinct from the other RECs; therefore, it was evaluated as a separate EU.

1.8.1 Possible Contaminant-Release Mechanisms and Transport Pathways

Chemicals may migrate within an environmental medium (e.g., soil or water) or migrate to another environmental medium (e.g., air) once released. This section discusses possible contaminant-release mechanisms and transport pathways; these contaminant-release mechanisms and transport pathways are similar for all RECs within GSP.

Contaminants in surface soil could migrate to air through wind erosion or through volatile emissions. Subsurface soil is not currently exposed at the site; however, if future construction were to bring subsurface soil to the surface, contaminants in subsurface soil could be transported into the air through wind erosion or through volatile emissions. Surface soil contaminants could also be transported to surface water bodies (e.g., Stansbury Creek) through overland runoff and erosion.

As noted previously, multiple drainage outfalls in the GSP area drain the study area and its surrounding areas. These drainage outfalls discharge to Frog Mortar Creek or Stansbury Creek. Therefore, contaminant transport from soil to surface water could potentially occur. Although subsurface soil is currently not exposed, if future construction were to bring subsurface soil to the surface, contaminants in subsurface soil could then be transported through overland runoff and erosion to nearby surface water bodies. Overland runoff at the study area might not otherwise be a significant contaminant transport mechanism, due to the generally low-relief site topography. Much of the study area is vegetated, which facilitates infiltration and evapotranspiration, and minimizes erosion and overland runoff. Infiltration is therefore expected to significantly mitigate surface runoff impacts.

Contaminants can migrate from both surface and subsurface soil to groundwater through leaching of chemicals in the soil. Groundwater flow in the surficial aquifer at the GSP area generally follows surface topography, and flows from the watershed divide near the airport runway area to the southwest and west toward Stansbury Creek, and to the southeast and northeast toward Frog Mortar Creek. Transport mechanisms for the primary COC at GSP are discussed below.

Metals—The fate and transport of inorganics (metals) are controlled mainly by the mobility of soil particles and their dissolution into water present in the environment. Metals do not undergo the type of degradation reactions as most organic chemicals do; they are therefore considered persistent. The major fate mechanisms for metals are adsorption to the soil matrix and bioaccumulation.

The mobility of metals is influenced primarily by their physical and chemical properties, in combination with the physical and chemical characteristics of the soil matrix. Factors that help predict the mobility of inorganic species are the soil/pore-water pH (a measure of hydrogen-ion concentration used to express the acidity or alkalinity of a solution), soil/pore-water redox potential (Eh, referring to electron activity in soil), and cation-exchange capacity. pH and Eh allow us to understand the oxidation state of a metal in the environment. The oxidation state of a metal allows us to predict, to a certain extent, its mobility. The cation-exchange capacity of a metal is one predictor of its tendency to "bind" to the soil matrix, thus limiting its potential migration.

Polycyclic aromatic hydrocarbon (PAHs) are fairly immobile chemicals in the environment. PAHs are large molecules with high partitioning coefficients, limited solubility, and low vapor-pressures and Henry's Law Constants. Both vapor pressure and water solubility are useful for determining volatilization rates from surface water bodies and groundwater. The measured ratio of these two parameters under equilibrium conditions (the Henry's Law Constant) is used to calculate the equilibrium chemical concentrations in the vapor (air) phase compared to the liquid (water) phase for the dilute solutions commonly encountered in environmental settings.

In general, chemicals such as PAHs that have a Henry's Law Constant less than 1×10^{-5} atmosphere cubic meter per mole (atm-m^3/mole), should volatilize very little, and should be present only in minute amounts within the atmosphere or soil vapor. PAHs in soil are much more

likely to bind to soil and be transported via mass-transport mechanisms than migrate through dissolution. These compounds, when found in surface soil, generally do not vertically migrate. Instead, they are more likely to adhere to soil particles and be removed from the site via surface water runoff and erosional processes, especially in the absence of pavement, or if erosion controls are absent or not functioning properly.

PCBs are very persistent organic chemicals with great affinity to bind to particulates and organic matter (i.e., soil). However, PCBs can be mobilized via particulate transport, due to erosion of contaminated surface soil.

VOCs that might have been released/spilled onto surface soil would likely have volatilized over time. The lack of significant residual VOC contamination in surface soil is evidence that this transport mechanism is not currently significant for surface soil. VOCs not lost to the atmosphere may have migrated to subsurface strata and underlying groundwater via infiltration due to precipitation. VOCs with low molecular weights and low adsorption potential are considered very mobile in the environment.

1.8.2 Potential Current and Future Receptors of Concern and Exposure Pathways

Current land use within the GSP area is comparable to industrial exposure (MSA is an operating airport), and is expected to remain so for the foreseeable future. The area surrounding MSA consists of suburban developments, commercial/industrial developments, and woodlands. The area surrounding GSP includes the MSA Main Terminal to the north, a runway to the east, Stansbury Creek to the west, and the Strawberry Point wooded area to the south. Groundwater is not currently used as a source of potable or industrial water at the site, and such use in the future is not anticipated.

Current and/or potential/hypothetical future land uses suggest the following potential receptors are the most likely to be exposed to impacted environmental media at GSP:

- ***Construction workers*—**Construction workers are plausible on-site adult receptors under current and future land uses. Construction workers could be exposed to chemicals in surface and subsurface soil (0–2 feet below grade and 2–15 feet below grade, respectively) through incidental ingestion and dermal contact, and through inhalation of airborne contaminants emanating from soil. Groundwater in the study area is within approximately

15 feet of the ground surface. Direct contact with the deeper (saturated-zone) soil is assumed to be limited. Construction workers could also be exposed to chemicals in shallow groundwater (e.g., the shallow groundwater seeping into an excavation ditch) through incidental ingestion and dermal contact, and through inhalation of airborne contaminants emanating from groundwater.

- ***Industrial workers*—**Industrial workers are plausible on-site adult receptors under current and future land uses. These receptors could be directly exposed to chemicals in surface soil (0–2 feet below grade) through incidental ingestion, dermal contact, and inhalation of airborne particulates and vapors emitted from the soil. Industrial worker exposure to subsurface soil (2–15 feet below grade) is unlikely. Industrial workers would not be expected to be exposed to chemicals in groundwater, because groundwater is not used as a source of either drinking water or process water, and because industrial workers would not be expected to directly contact groundwater in their day-to-day work. Industrial workers working in an on-site structure could be exposed to VOCs migrating from contaminated subsurface soil or groundwater into the indoor air of a building via vapor intrusion (see Appendix B).

1.9 RISK ASSESSMENT SUMMARIES

1.9.1 Human Health Risk Assessment

The human health risk assessment (HHRA) included in the *Additional Phase II Site Investigation Report* (Tetra Tech, 2014) was updated in 2017 (Tetra Tech, 2017b) to include results from soil and groundwater sampling conducted since 2012, and changes in USEPA risk assessment methodology that had occurred since the original HHRA was prepared. Appendix B contains the GSP HHRA. The HHRA is focused on receptor exposure under nonresidential (e.g., commercial/industrial, construction) land-use scenarios, since these are representative of current and future land-use conditions on-site.

For purposes of the HHRA, a cumulative excess-cancer-risk greater than 1×10^{-5} (i.e., a one in 100,000 probability, the current MDE benchmark) was used to determine "unacceptable" (according to regulations) cancer risk. This value is within (i.e., the midpoint of) the USEPA target cancer-risk range of 1×10^{-4} to 1×10^{-6} (i.e., one-in-10,000 to one-in-a-million probabilities, respectively). (In most cases, the 1×10^{-4} cancer-risk level is used by USEPA as the risk-management benchmark.) A hazard index greater than 1 was used as the criterion for determining unacceptable noncancer risk. PRGs were developed for those media and receptors with unacceptable risk.

Chemical(s) of potential concern (COPC) selected for a quantitative health risk assessment were initially screened by comparing the maximum detected concentrations of each chemical to screening levels set at either the 1×10^{-6} cancer risk or a hazard index of 1. A preliminary screening of site data initially identified the following COPC as exceeding risk-based screening levels for human health direct-contact exposure pathways (differentiated by environmental medium):

- VOCs, primarily chlorinated ethenes in groundwater
- carcinogenic polycyclic aromatic hydrocarbons (cPAH) in surface and subsurface soil
- arsenic, cobalt, iron, total and hexavalent chromium, manganese, thallium, and vanadium in surface and subsurface soil, and groundwater
- TPH-diesel-range organics (DRO) in surface and subsurface soil and groundwater

As noted earlier, RECs #2–#6 were evaluated as one EU, due to their proximity to each other. Likewise, RECs #7–#10 were also evaluated as one EU, due to their proximity to each other. REC #11 is geographically distinct from the other RECs, and was therefore evaluated as a separate EU. Hypothetical construction workers were evaluated for exposures to surface soil, subsurface soil, and shallow groundwater. Hypothetical industrial workers were evaluated for exposures to surface soil and subsurface soil.

Cancer risks and hazard indices for the hypothetical construction and industrial workers exposed to COPC in surface and subsurface soil at RECs #2–#6, RECs #7–#10, and REC #11 do not exceed MDE and USEPA benchmarks. Therefore, the HHRA (Tetra Tech, 2017b) did not carry the soil COPC listed above forward as COC. Cancer risks for the hypothetical construction workers exposed to COPC in groundwater at RECs #2–#6, RECs #7–#10, and REC #11 do not exceed risk management benchmarks. Hazard indices (HI) for the hypothetical construction workers exposed to REC #7–#10 groundwater COPC exceed the regulatorily acceptable level of 1, whereas the hazard indices for construction workers exposed to groundwater at RECs #2–#6 and REC #11 are less than 1. TCE is the major contributor to noncancer risks posed to the hypothetical construction worker. The estimates for unacceptable risks posed by exposure to groundwater are summarized below.

Unacceptable Risk Summary
for the Hypothetical Construction Worker

Exposure Unit	Groundwater	
	Cancer Risk	Hazard index
RECs #7–#10[(1)]	5×10^{-6}	8

[(1)] The noncancer risk for the hypothetical-construction-worker exposure to groundwater in all REC areas is less than the 10^{-5}, and noncancer risk only exceeds the benchmark hazard index of 1 in RECs #7–#10.

The USEPA vapor-intrusion screening-level calculator was used to evaluate COPC vapor intrusion for each site. Note that the analysis presented is only for hypothetical future commercial/industrial structures. Incremental lifetime-cancer-risks and hazard indices for industrial exposures via vapor intrusion at RECs #7–#10 and at REC #11 exceed USEPA and MDE target benchmarks.

Note too that uncertainty in risk characterization results arises from assumptions made during the risk assessment. For instance, the additive effects that could result from exposure to multiple COPC via various exposure routes are uncertain. High uncertainty also exists when summing noncarcinogenic risks for several substances across different exposure pathways. Even when compounds affect the same target organs, they may have different mechanisms of action, or their fate in the body might differ; thus, summing these risks might not be an appropriate assumption in all cases. However, this approach was considered in the risk assessment because, in most cases, it represents a conservative (i.e., more protective) estimate of risk. The likelihood for risks to be over or under predicted cannot be defined, because chemical-specific interactions could not be predicted.

No soil COPC were retained as COC, because no unacceptable risk to hypothetical construction or industrial workers were found. However, land use controls should be implemented to prohibit future residential exposures to GSP surface and subsurface soil, based on a screening performed in the previous GSP HHRA (Tetra Tech, 2014) and a screening update in 2017 that evaluated hypothetical residential receptors. This screening identified unacceptable risks for hypothetical child trespassers, hypothetical lifelong recreational users, and hypothetical lifelong residents, from ingestion, dermal contact, and inhalation of PAHs (as benzo(a)pyrene-equivalents [BaPEq]) in surface and subsurface soil at RECs #9, #10, and #11. Unacceptable risks to hypothetical residential receptors identified in the 2017 HHRA (Tetra Tech, 2017b) are summarized below.

Summary of Residential Risks

Exposure unit	Surface soil		Subsurface soil	
	Cancer risk	Hazard index	Cancer risk	Hazard index
RECs #2–6	8×10^{-6}	3	1×10^{-5}	3[(1)]
RECs #7–10	1×10^{-4}	5	3×10^{-5}	1
REC #11	3×10^{-5}	2[(1)]	2×10^{-5}	1

[(1)] Target organ HI is less than 1.

TPH compounds are not subject to risk assessment, but were detected in groundwater samples at concentrations greater than MDE criteria. Therefore, TPH compounds were evaluated as a COC in this feasibility study.

1.9.2 Ecological Risk Assessment

An ecological risk assessment was conducted to evaluate risk to potential ecological receptors due to exposure to surface soil, sediment, and surface water impacted by historical activities at GSP (Tetra Tech, 2017c). Appendix C contains the ecological risk assessment. Several PAHs, seven total metals (barium, copper, lead, nickel, thallium, vanadium, and zinc), and two dissolved metals (barium and thallium) were initially selected as COPC because sampled concentrations exceeded screening values. PAHs were eliminated as COPC for aquatic organisms based on a secondary screening step that detected surface water concentrations that were less than USEPA final chronic-exposure values.

Similarly, the dissolved metals barium and thallium were eliminated from the list of ecological COPC during secondary screening against acute- or chronic-exposure screening values. Total metals were eliminated as surface water COPC because food-chain modeling did not indicate risks to piscivorous (i.e., fish-eating) receptors. Two other COPC possibly posing unacceptable risk to ecological receptors were considered for surface soil and sediment, but were ultimately eliminated, as described below.

Manganese in surface soil was originally retained as a COPC for risks posed to plants and soil invertebrates at RECs #9 and #10. The highest detected concentration of manganese in surface soil exceeded the screening values for soil invertebrates and plants, and was detected at a location (i.e., GSP-SB-071) at the edge of the REC #10 wooded area that was not bounded. However, the size of habitat affected by this elevated manganese concentration would be expected to be small, because

its associated sampling location was at the edge of an area that has always been wooded and never previously developed. Since the location of the elevated manganese concentration of concern to ecological receptors is vegetated, it does not appear that the manganese content in soil has directly impacted plant life (see Figure 1-7). Manganese concentrations also exceeded criteria at other RECs #9 and #10 surface soil sample locations, but these locations were not heavily wooded, and were near the GSP access road in areas subject to airport maintenance traffic and regular mowing, and are therefore not likely to sustain numerous or varied ecological receptors. Manganese was therefore eliminated as a COC for surface soil, as it is likely that elevated detected manganese concentrations are isolated, and its effect on plant and invertebrate communities at the site is probably insignificant. No other COC were identified for GSP soil.

Zinc was retained as a COPC for sediment invertebrates because one detected concentration in Pond 3B near REC #11 exceeded its benchmark, and no other samples were collected in that area to bound the sample (see Figure 1-8). Elevated zinc levels do not appear to be migrating out of the pond, because zinc concentrations in its associated drainage channel were much lower. In addition, chemicals detected in the stormwater detention basin sediment have accumulated there after Ponds 3A and 3B were constructed in 2000 (i.e., 25 years after Lockheed Martin ownership), when this area was redeveloped by its current owner. Therefore, zinc in sediment could not be directly attributed to past activities during Lockheed Martin ownership, so it was eliminated as a COC. No other COC were identified in GSP surface water or sediment.

1.9.3 Nature and Extent of Contamination

The nature and extent of contamination requiring further evaluation is limited to the areas exceeding the criteria thresholds described above. For completeness, contaminant nature and extent in all GSP media, soil, sediment, groundwater, and surface water are summarized below. Appendix D contains tables comparing chemical detections for all GSP environmental samples to applicable cleanup standards.

1.9.3.1 Soil

The nature and extent of contamination in soil at GSP was developed primarily from five investigations:

- Phase II Site Investigation Report (Tetra Tech, 2010)

- Additional Phase II Site Investigation Report (Tetra Tech, 2014)
- Supplemental Soil and Groundwater Characterization Report (Tetra Tech, 2013)
- Greater Strawberry Point Area Supplemental Soil and Groundwater Characterization Report (Tetra Tech, 2015a)
- Greater Strawberry Point Area Design Characterization (Tetra Tech, 2017a)

Each of the GSP RECs was investigated to different degrees in these reports. Figures 1-9 to 1-14 show the extent of contaminants exceeding screening criteria in surface and subsurface soil at GSP. These tag maps were created by screening sampling results against the Maryland cleanup standards for residential soil, or the Eastern Maryland anticipated typical concentration (ATCs) available for select metals. Throughout the soil-concentration maps referenced in this section, PAHs are expressed as BaPEq, and only those metals with concentrations that exceed their Eastern Maryland ATCs are shown.

Soil at RECs #2 through #6 was analyzed primarily in 2010 (Tetra Tech, 2010). Chemicals exceeding applicable MDE soil-cleanup standards or ATCs in RECs #2 through #6 surface soil included arsenic, chromium, iron, manganese, vanadium, and PAHs. The highest chromium, manganese, and vanadium concentrations detected in surface soil were below the concrete tarmac near the former Delivery Hangar (Building ND). The highest BaPEq concentration was in a surface-soil sample near the northern corner of REC #2, in a grassy area southeast of the former wastewater treatment plant. Figure 1-9 shows exceedances of MDE standards in surface soil at RECs #2 through #6.

Arsenic, chromium, iron, manganese, nickel, and vanadium exceed MDE standards and ATCs in subsurface soil throughout RECs #2 to #4. Most metals exceedances were reported in the 20 to 25-foot-depth samples. Manganese exceeded ATCs in 12 subsurface soil samples collected from 20 to 25 feet below ground surface (bgs) across RECs #3 through #6. Manganese also exceeded its ATC in two shallow subsurface-soil samples: GSP-SB-026-2–4 (e.g., 2–4 feet bgs), in a grassy area in the western part of REC #4; and GSP-SB-015-6–8, near the center of REC #3. Iron concentrations in 18 different subsurface soil sampling locations in RECs #2-6 exceeded the ATC. Iron and manganese are ubiquitous metals in local geologic formations, and frequently detected at elevated concentrations in MSA soil.

Chromium exceeded its ATC in the same two shallow subsurface samples (GSP-SB-026-2–4 and GSP-SB-015-6–8), and in two deeper subsurface samples (GSP-SB-001-20–22 at the southern corner of REC #2, and GSP-SB-032-20–21, near REC #5). Vanadium concentrations exceeded the ATC in most REC #2-6 subsurface soil samples, while nickel only exceeded its ATC in three subsurface soil samples from this area. Only one subsurface soil sample (GSP-SB-005-5–7) had BaPEq concentrations exceeding its criteria (i.e., BaPEq is compared to the benzo[a]pyrene residential standard). Figure 1-10 shows exceedances of MDE standards in subsurface soil in RECs #2 through #6.

Exceedances of MDE soil standards in REC #7 through #10 surface soil consist predominantly of PAHs; BaPEq exceeded its comparison standard in 38 out of 41 samples. The greatest concentrations of BaPEq in REC #7 through #10 surface soil were in samples collected around the perimeter of the mounded soil area in REC #10. This mounded area is shown as an open or grass-covered area in the southern portion of REC #10 (in the wooded area) on Figures 1-11 and 1-12. DRO (six samples), vanadium (four samples) and manganese (three samples) also exceeded their MDE standards or ATCs (metals) in surface soil samples collected around the perimeter of the mounded area. Manganese concentrations in these surface soil samples range from 864 milligrams per kilogram (mg/kg) to 2,390 mg/kg, which are above its ATC (480 mg/kg). Arsenic concentrations exceeded its ATC in six surface soil samples in RECs #7-10, while iron exceeded its ATC in one REC #7 surface soil sample.

One soil surface sample in REC #8 (GSP-SB-053-0–2) had a DRO concentration exceeding the MDE DRO standard. This sampling location appears to be near the area where MDE observed more than 200 improperly stored drums in 1985. Figure 1-11 shows exceedances of MDE standards in surface soil samples in RECs #7–#10.

Concentrations of arsenic, chromium, and vanadium exceeded MDE standards and ATCs at various depths in several subsurface soil samples collected in RECs #7 through #10. The highest subsurface concentrations of chromium and vanadium were in REC #7, in a sample collected from 10 to 12 feet bgs during installation of a monitoring well (GSP-MW-14), approximately 70 feet northeast of the MSA maintenance building. Several samples with the highest concentrations of chromium and vanadium were collected in a grassy strip bordering the taxiway, in the northern portion of REC #8. The highest subsurface arsenic concentration (17 mg/kg) was in the wooded

area south of REC #10 in sample GSP-SB-158 from a depth of 22 to 25 feet bgs. Although manganese concentrations exceeded its ATC in surface soil at RECs #7–#10, manganese concentrations do not exceed its ATC in subsurface soil, indicating its presence is likely limited to surface soil.

Consistent with the surface soil sampling results for these areas, the greatest BaPEq concentrations were detected in shallow subsurface-soil samples including some collected from test pits excavated in REC #10 in 2011 (Figure 1-12). Concentrations of DRO also exceeded the MDE standard in six REC #10 shallow subsurface samples, including borings and test pit samples in the western portion of REC #10, near the tree line, south and west of the open, mounded area. Figure 1-12 shows subsurface soil exceedances of MDE standards detected in samples from RECs #7–#10.

A manganese exceedance (1,050 mg/kg) of its ATC (480 mg/kg) was detected in one REC #11 surface soil sample (GSP-SB-084). Although arsenic and vanadium frequently exceeded their MDE standards in REC #11 soil, concentrations of these two metals were generally similar to their ATCs, and therefore consistent with "regional background" concentrations. DRO was detected above the MDE standard in nine REC #11 surface soil samples at concentrations ranging from 250 to 1,800 mg/kg. Most of these exceedances were in surface soil samples collected in the grassy area between the northern corner of the wooded area and Taxiway F.

The PCB Aroclor 1260 was detected in 13 surface soil samples in the western portion of REC #11 at concentrations exceeding its standard. MDOT reworked soil in this area during a 1998-2000 airfield redevelopment project, and the PCB exceedances appear to be in an area that was regraded to construct the Taxiway J extension at that time. Figure 1-13 shows exceedances of MDE standards in surface soil samples in REC #11. BaPEq exceedances are reported in nearly all surface soil samples in REC #11. However, this is not surprising, given that the REC #11 area receives drainage from an active airport where large areas of bituminous pavement are present and fuel combustion from airplanes has occurred for decades. Fill material brought to this area may have also been a source of PAHs.

Arsenic and vanadium were frequently detected in REC #11 subsurface soil at concentrations similar to ATCs but exceeding MDE standards. Manganese was detected in one REC #11 subsurface soil sample (GSP-SB-081-2-4) at a concentration above its ATC. Iron also slightly

exceeded its ATC in this sample, which was collected in the grassy area between the northern corner of the wooded area and Taxiway F, near the unpaved access road. DRO was detected in five subsurface soil samples in REC #11, all in shallow soil (less than eight feet bgs) that may have been reworked as part of the 1998–2000 MDOT airport improvements. Consistent with REC #11 surface soil, Aroclor 1260 exceedances are limited to soil in the western portion of REC #11, less than 20 feet from the Taxiway J extension constructed by MDOT around 2000. Also consistent with REC #11 surface soil, PAHs (as BaPEq) exceed MDE standards in many subsurface soil samples throughout the area. Figure 1-14 shows exceedances of MDE standards in subsurface soil samples in REC #11.

1.9.3.2 Groundwater

The nature and extent of contamination in groundwater exceeding evaluation criteria was determined primarily from five investigations:

- *Phase II Site Investigation Report* (Tetra Tech, 2010)
- *Additional Phase II Site Investigation Report* (Tetra Tech, 2014)
- *Supplemental Soil and Groundwater Characterization Report* (Tetra Tech, 2013)
- *Greater Strawberry Point Area Supplemental Soil and Groundwater Characterization Report* (Tetra Tech, 2015a)
- *Greater Strawberry Point Area Design Characterization* (Tetra Tech, 2017a)

Each of the RECs was investigated to different degrees in these reports. The nature and extent of the contaminants found in the RECs is summarized below.

Figures 1-15 through 1-19 show the extent of contaminants exceeding screening criteria in groundwater. These tag maps were created by screening the data against MCLs and other drinking water criteria if MCLs were not available. Low metal concentrations (primarily arsenic, cobalt, vanadium, iron, and manganese) and low total petroleum hydrocarbons (TPH)-DRO concentrations are widespread in groundwater. MDE TPH-DRO and TPH-gasoline-range organics (TPH-GRO) criteria are very conservative, and, according to the 2008 MDE guidance document, were derived using the aromatic compound fraction. However, these screening criteria might not

be relevant to this site, because of the general absence of aromatic petroleum hydrocarbon compounds in VOC and PAH analyses.

Other contaminants are present, notably TCE, naphthalene, and 1,2-dichloroethane. The areas with high concentrations of contaminants are few and relatively small. Groundwater contamination in each REC group is described below.

At RECs #2 through #6, metals and TPH-DRO are the primary contaminants (see Figure 1-15). TPH-DRO concentrations exceeded the groundwater cleanup standard at seven locations in RECs #2 through #6, with a maximum concentration of 380 µg/L in REC #6. TPH-GRO exceeded its cleanup standard in one groundwater sample in REC #2. No VOCs, chlorinated VOCs (cVOCs), or naphthalene were detected. Detected metals include arsenic, cobalt, lead, nickel, vanadium, iron, and manganese. Maximum concentrations of total metals exceeding their criteria are 33.7 µg/L for arsenic, 62.1 µg/L for beryllium, 1,500 µg/L for cobalt, 32.4 µg/L for lead, 2,040 µg/L for nickel, 112 µg/L for vanadium, and 5,020 µg/L for zinc. Concentrations of iron and manganese (both total and filtered) also exceeded groundwater cleanup standards; however, the groundwater samples were collected in temporary (Geoprobe®) groundwater boring locations, and these metals are consistently detected at elevated concentrations in soil and groundwater in the MSA area.

High TCE concentrations (2,600 µg/L and 2,200 µg/L; see Figure 1-16) were detected in shallow groundwater in RECs #7 through #9. Note that some TCE concentrations discussed herein were measured in five-foot depth intervals during vertical aquifer sampling (e.g., direct-push technology) in 2014 and 2016, and therefore the results are not directly comparable to samples collected from monitoring wells. TCE was detected at depths of 50 feet bgs at 95 µg/L. Other TCE detections above the criterion ranged from 5.4 to 580 µg/L. A carbon tetrachloride concentration of 8.4 µg/L exceeded its cleanup standard in one sample south of REC #8.

A high-concentration area of TPH-DRO (2,300 µg/L) is also in REC #8, containing naphthalene concentrations ranging from 1.2 to 4.9 µg/L. Other groundwater samples in RECs #7-9 had a range of TPH-DRO concentrations (110 to 320 µg/L) exceeding groundwater standards (Figure 1-16). TPH-GRO concentrations (47 to 300 µg/L) also exceeded the standard in four wells in RECs #7-9. Total cobalt exceedances in RECs#7-9 range between 6.4 and 41 µg/L, total vanadium

exceedances range from 3.9 and 110 µg/L, total lead exceedances range from 16 to 23.1 µg/L, and total arsenic exceedances range from 12.3 to 48 µg/L. Total thallium exceeded its groundwater standard at one REC #7 location. Iron and manganese were detected in several samples at concentrations exceeding groundwater criteria; however, as mentioned above, these metals are ubiquitous in native geologic and groundwater formations at MSA. Note that cobalt and vanadium concentrations detected in groundwater at RECs #7–#9 (Figure 1-16) are much lower as compared to those found in RECs #4 and #6 (Figure 1-15).

At REC #10 groundwater, high TPH-DRO concentrations (1,600 and 2,000 µg/L) were detected in two wells (see Figure 1-17). Recent concentrations of total cobalt which were greater-than-criterion range from 7.8 to 76 µg/L, whereas total vanadium concentrations range from 3.7 to 23 µg/L. Iron and manganese were also detected in several samples.

At REC #11 (see Figures 1-18 and 1-19), TCE was detected at concentrations exceeding the groundwater standard in many shallow groundwater samples, with maximum concentrations of 280 µg/L in the southern half of REC #11 (Figure 1-18) and 49 µg/L in the northern half of REC #11 (Figure 1-19). Concentrations of vinyl chloride (maximum concentration 33 µg/L) exceeded groundwater criteria at nine locations, only in the southern half of REC #11 (Figure 1-18). 1,2-Dichloroethane also exceeded criteria only in the southern half of REC #11, with a maximum concentration of 110 µg/L. (Figure 1-19). At several locations throughout REC #11, naphthalene concentrations exceeded groundwater screening criteria, with concentrations ranging from 0.87 µg/L to 110 µg/L. *cis*-1,2-Dichloroethene was also detected, but at a concentration less than its screening criterion. Bromomethane, carbon tetrachloride, and chloroform were each detected in one groundwater sample in the southern portion of REC #11 at concentrations exceeding their respective groundwater criteria.

These exceedances are spread over an area about 700 feet long (along groundwater flow direction) and 250 feet wide. VOC impacts in REC #11 groundwater appear to occur in several small, diffuse plumes over a broad area, without indication of significant source areas. No samples had results below detection limits at the downgradient or side-gradient extent, but the plume is sufficiently delineated to proceed with the FS. A high concentration of TPH-DRO (3,000 µg/L) was detected near the runway, and six other TPH-DRO results greater than 100 µg/L are from downgradient of

that location. The TPH-DRO plume is not completely delineated, but is sufficient to proceed with the FS. No TPH-GRO concentrations are greater than the MDE criterion in REC #11.

Total metals exceedances for REC #11 groundwater include cobalt (9.3 to 210 µg/L), vanadium (4.3 to 48 µg/L), nickel (77 to 380 µg/L), thallium (2.2 to 4.5 µg/L), and arsenic (11 to 92.3 µg/L). Iron and manganese were also detected in several samples. The extent of metals exceedances is not completely delineated in REC #11 groundwater, although sufficient data are available to proceed with the FS.

1.9.3.3 Surface Water and Sediment

During the 2016 GSP design-characterization investigation (Tetra Tech, 2017a), surface water samples in REC #11 were collected at eight locations, and sediment samples were collected at five locations and downstream from its stormwater features. Samples were collected in the stormwater-conveyance channel in the REC #11 wooded area, in the constructed stormwater-detention basins (Ponds 3A and 3B), and in Stansbury Creek downstream of the REC #11 area. It can be concluded that sediment at these locations has accumulated since Lockheed Martin ownership, because this area has been redeveloped, and the stormwater-detention basins (ponds) were constructed in 2000. Therefore, Figure 1-8 is limited to sediment results considered representative of potential ecological risks as discussed above in Section 1.9.2. Other surface water and sediment results discussed in the 2016 GSP design-characterization investigation are summarized below (Tetra Tech, 2017a).

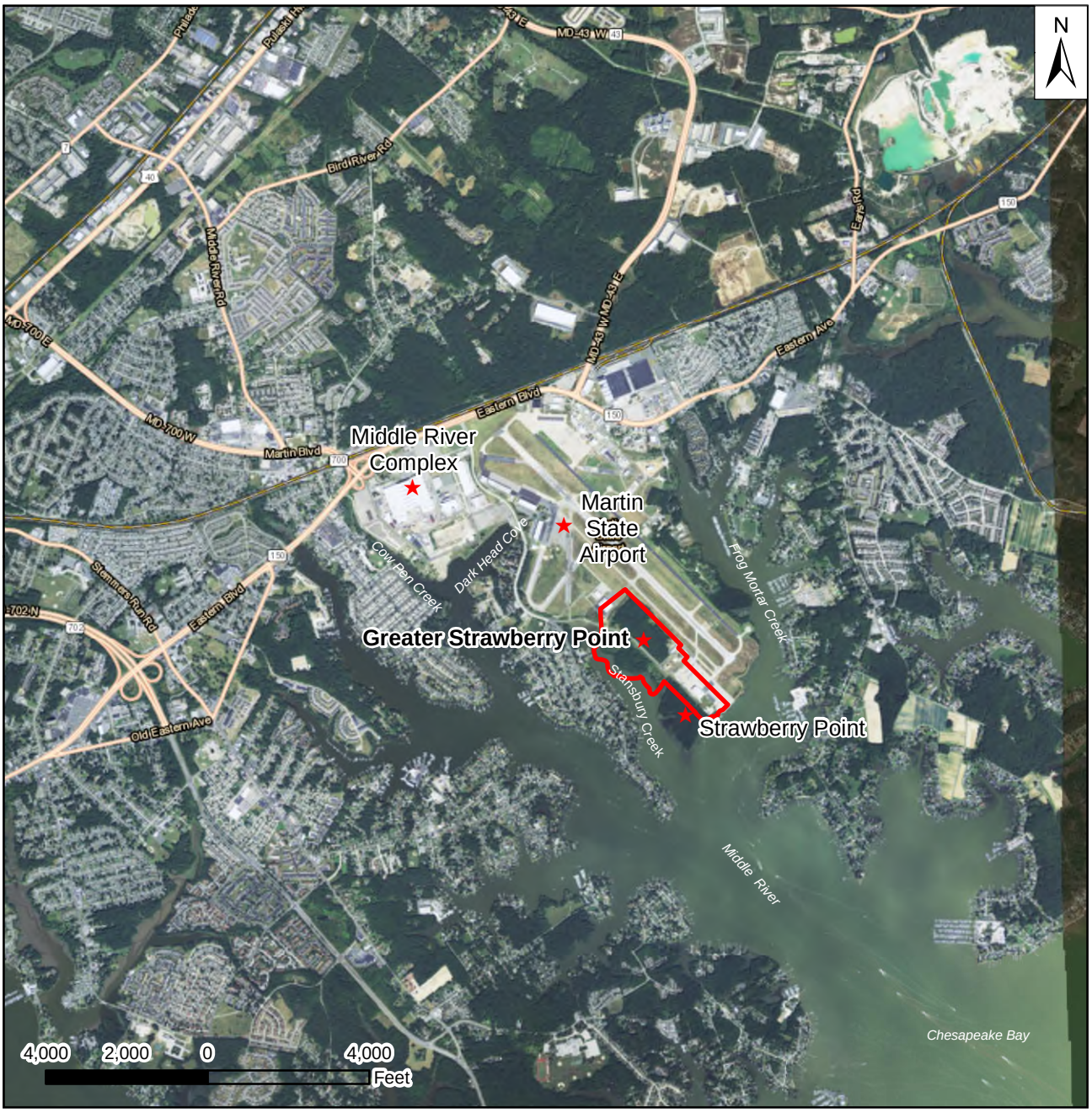
In shallow (0-1 foot bgs) sediment sample GSP-SED-DP2 (collected near a concrete discharge structure that conveys stormwater to Pond 3A), detected concentrations of 14 PAHs exceeded screening criteria. In the deeper (1–2 feet bgs) sample from the same location, 11 PAHs, mercury, and the PCB Aroclor 1254 exceeded one or more criteria. At GSP SED-DP3 (the next stormwater discharge point downstream after GSP-SED-DP2), 14 PAHs and six metals (arsenic, cadmium, copper, nickel, vanadium, and zinc) exceeded criteria in the shallow (0–1 foot bgs) sample, but only three SVOCs exceeded criteria in the deeper (1–2 feet bgs) sample. Again, environmental chemical results for these sediment samples are considered representative of recent (i.e., after the year 2000) airport use, when the detention ponds were constructed.

Four SVOCs exceed criteria in the shallow (0–1 foot bgs) sample from GSP-SED C1, collected in the drainage channel near the western edge of the wooded area in REC #11; concentrations of all other analytes in samples from that location are below screening criteria. At downstream sampling location GSP-SED C2, 14 SVOCs exceed criteria in the shallow (0–1 foot bgs) sample, and one SVOC exceeds criteria in the deeper (1–2 feet bgs). All SVOCs detected in GSP sediment samples are PAH compounds. These chemicals are generally ubiquitous in soil in industrial areas, and their presence in shallow sediments is not surprising, as these areas receive drainage from an active airport where large areas of bituminous pavement are present and fuel combustion from airplanes has occurred for decades.

Several SVOCs (PAHs) and/or metals were detected at concentrations exceeding one or more surface-water screening criteria in Pond 3A surface water samples GSP-SW-DP1 and GSP-SW-DP2. Barium (total and dissolved) and thallium (dissolved) exceeded criteria in GSP-SW-DP1, and total arsenic, barium, chromium, copper, lead, mercury, and vanadium, and dissolved barium exceeded criteria in GSP-SW-DP2. Farther downstream, the same metals (total and unfiltered fraction), as well as dissolved barium and thallium, exceeded criteria in Pond 3B surface water sample GSP-SW-DP4. No analytes exceeded criteria in samples GSP-SW-DP3 and GSP-SW-DP5 from Pond 3B.

Two SVOCs (fluoranthene and pyrene) exceeded USEPA Region 3 Biological Technical Advisory Group (BTAG) criteria in five surface water samples (GSP-SW-C1, GSP-SW-C2, GSP-SW-DP2, GSP-SW-DP-4, and GSP-SW-OF12). In GSP-SW-C1, total arsenic, lead, and zinc concentrations also exceeded criteria. In sample GSP-SW-C2, at the downstream sampling location in the drainage channel, concentrations of three SVOCs (benzo[a]anthracene, fluoranthene, and pyrene) and three metals (lead, mercury, and thallium in total fraction, and thallium in dissolved fraction) exceeded criteria. In the downgradient surface-water sample (GSP-SW-OF12), only fluoranthene and pyrene concentrations exceeded surface water criteria. As described in Section 1.9.2, all GSP surface water constituents were eliminated as COPC.

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Aerial photograph provided by ESRI's ArcGIS Online World Imagery map service (© 2013 ESRI and its data suppliers).

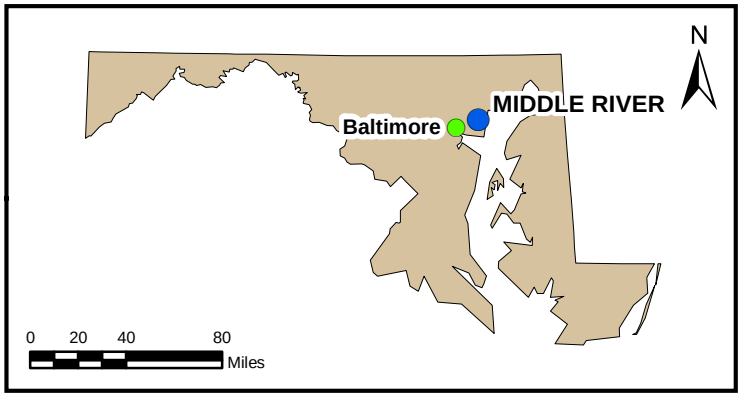


FIGURE 1-1

GREATER STRAWBERRY POINT
SITE LOCATION MAP

Lockheed Martin, Martin State Airport
Middle River, Maryland

DATE MODIFIED:	CREATED BY:
06/03/15	JEE

TETRA TECH

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FIGURE 1-2

LOCATION OF STRAWBERRY POINT AND GREATER STRAWBERRY POINT

LEGEND

- DUMP ROAD SITE
- GREATER STRAWBERRY POINT
- MARTIN STATE AIRPORT MAIN TERMINAL
- MDANG
- STRAWBERRY POINT

2014 aerial photograph provided by U.S. Gological Survey.

Lockheed Martin, Martin State Airport
Middle River, Maryland

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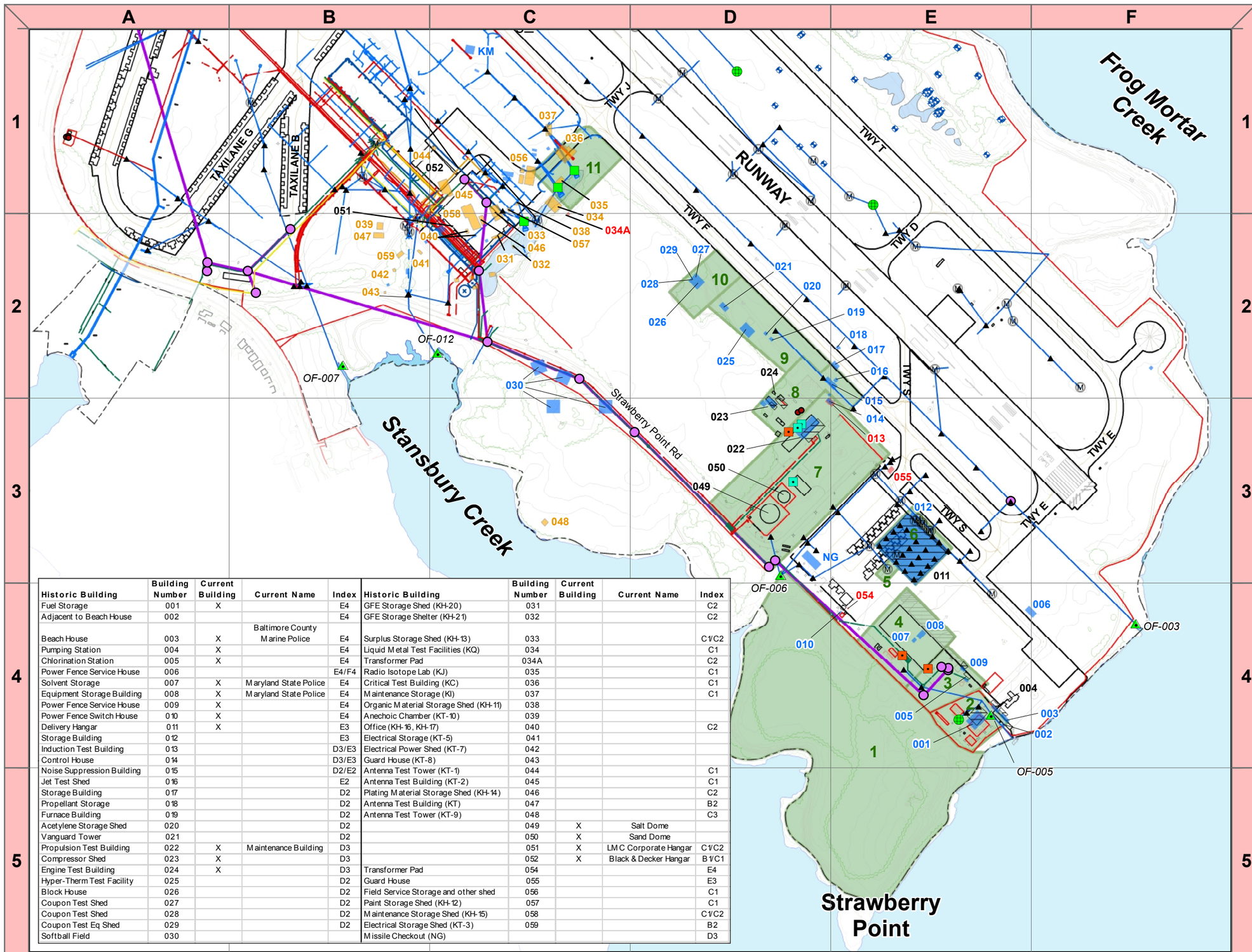
DATE MODIFIED: 03/10/17

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03/10/17 -- JEE

FIGURE 1-3
INDEX MAP FOR CURRENT AND HISTORICAL STRUCTURES AS EXISTED IN THE 1960S, GREATER STRAWBERRY POINT



Historic Building	Building Number	Current Building	Current Name	Index
Fuel Storage	001	X		E4
Adjacent to Beach House	002			E4
Beach House	003	X	Baltimore County Marine Police	E4
Pumping Station	004	X		E4
Chlorination Station	005	X		E4
Power Fence Service House	006			E4/F4
Solvent Storage	007	X	Maryland State Police	E4
Equipment Storage Building	008	X	Maryland State Police	E4
Power Fence Service House	009	X		E4
Power Fence Switch House	010	X		E4
Delivery Hangar	011	X		E3
Storage Building	012			E3
Induction Test Building	013			D3/E3
Control House	014			D3/E3
Noise Suppression Building	015			D2/E2
Jet Test Shed	016			E2
Storage Building	017			D2
Propellant Storage	018			D2
Furnace Building	019			D2
Acetylene Storage Shed	020			D2
Vanguard Tower	021			D2
Propulsion Test Building	022	X	Maintenance Building	D3
Compressor Shed	023	X		D3
Engine Test Building	024	X		D3
Hyper-Therm Test Facility	025			D2
Block House	026			D2
Coupon Test Shed	027			D2
Coupon Test Shed	028			D2
Coupon Test Eq Shed	029			D2
Softball Field	030			

Historic Building	Building Number	Current Building	Current Name	Index
GFE Storage Shed (KH-20)	031			C2
GFE Storage Shelter (KH-21)	032			C2
Surplus Storage Shed (KH-13)	033			C1/C2
Liquid Metal Test Facilities (KQ)	034			C1
Transformer Pad	034A			C2
Radio Isotope Lab (KJ)	035			C1
Critical Test Building (KC)	036			C1
Maintenance Storage (KI)	037			C1
Organic Material Storage Shed (KH-11)	038			
Anechoic Chamber (KT-10)	039			
Office (KH-16, KH-17)	040			C2
Electrical Storage (KT-5)	041			
Electrical Power Shed (KT-7)	042			
Guard House (KT-8)	043			
Antenna Test Tower (KT-1)	044			C1
Antenna Test Building (KT-2)	045			C1
Plating Material Storage Shed (KH-14)	046			C2
Antenna Test Building (KT)	047			B2
Antenna Test Tower (KT-9)	048			C3
	049	X	Salt Dome	
	050	X	Sand Dome	
	051	X	LMC Corporate Hangar	C1/C2
	052	X	Black & Decker Hangar	B1/C1
Transformer Pad	054			E4
Guard House	055			E3
Field Service Storage and other shed	056			C1
Paint Storage Shed (KH-12)	057			C1
Maintenance Storage Shed (KH-15)	058			C1/C2
Electrical Storage Shed (KT-3)	059			B2
Missile Checkout (NG)				D3

Legend

- Soil Borings (SB)
- Oil Filled Operational Equipment
- Drum Storage
- MTN Tanks
- MSA GW Wells
- MSA Inlets
- MSA Manholes
- NPDES Outfalls
- Sediment Basin
- Trench Drain
- Sanitary Manholes
- MTN Wells Pipes
- REC
- Current Structures (Black Building Numbers)
- Historical Structures (from 1964 Aerial Photograph, Yellow Building Numbers)
- Historical Structures (from 1966 Aerial Photograph and 1963 and 1964 Site Layout Maps, Blue Building Numbers)
- Historical Structures (from 1956 Drawing, Red Building Numbers)
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm Line
- Water
- Electricity
- Telephone Line
- Electric Utilities

Historic building location based on 1956 architect's drawing, 1963 and 1964 utility and site layout drawings, and aerial photos from 1964 and 1966.

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

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

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 250 500 Feet

N

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FIGURE 1-4

RECOGNIZED ENVIRONMENTAL CONDITION BOUNDARIES GREATER STRAWBERRY POINT

LEGEND

Recognized Environmental Condition (REC)

6 REC Number

2014 aerial photograph provided by U.S. Geological Survey,

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 175 350 Feet

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Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\gsp_rec_boundaries_jun2017.mxd)
06/14/17 -- JEE



FIGURE 1-5

MARCH 2016 SHALLOW GROUNDWATER CONTOURS AND HISTORIC GROUNDWATER FLOW GREATER STRAWBERRY POINT

LEGEND

- Monitoring Well
- (1.63) Groundwater Elevation (in feet below ground surface)
- Abandoned Temporary Well
- March 2016 Shallow Groundwater Contour (2-foot interval, dashed where inferred)
- 2016 Direction of Groundwater Flow
- Estimated 2010 Direction of Groundwater Flow, Based on Groundwater Elevations From Abandoned Temporary Wells
- Recognized Environmental Condition (REC)
- 6 REC Number

2014 aerial photograph provided by U.S. Geological Survey,

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 175 350 Feet

N

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03/02/17 -- JEE



FIGURE 1-6

MARCH 2016 INTERMEDIATE GROUNDWATER CONTOURS GREATER STRAWBERRY POINT

LEGEND

- Monitoring Well
- (4.14) Groundwater Elevation (in feet below ground surface)
- 2016 Direction of Groundwater Flow
- March 2016 Intermediate Groundwater Contour (2-foot interval, dashed where inferred)
- Recognized Environmental Condition (REC)
- 6 REC Number

2014 aerial photograph provided by U.S. Geological Survey,

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 175 350 Feet

N

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Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\gsp_gw_contours_2010_2016_intermediate.mxd)
03/02/17 -- JEE

AIRPORT RUNWAY

TAXIWAY F

10

9

8

SB-106
TP-01
SB-156
SB-104
SB-071 (0-2')
2390 **
TP-03
SB-107
TP-04
MW-06
SB-103
SB-066 (0-2')
34
SB-105
SB-157
SB-070 (0-2')
41
SB-065 (0-2')
116
TP-02
SB-108
TP-05
MW-05
SB-063 (0-2')
1590 *
SB-068 (0-2')
202
SB-102
SB-100
SB-159
SB-101
SB-109
SB-061 (0-2')
74.3
SB-069 (0-2')
93.6
SB-160
SB-099
TP-06
SB-162
SB-097
SB-110
SB-062 (0-2')
864 *
SB-161
SB-064 (0-2')
77
SB-158
SB-098
SB-067 (0-2')
417 *
SB-060 (0-2')
29.3
TP-08
SB-059 (0-2')
15.1
TP-07
MW-08
SB-095
SB-096
SB-058 (0-2')
4.6
SB-057 (0-2')
17.2
SB-131
DPT-44
SB-163
MW/SB-023I
SB-094
SB-093
TP-09
SB-132
SB-056
SB-134
MW-07
SB-133
DPT-45
SB-092
SB-091
TP-10
SB-136
SB-135
SB-137
SB-165
MW-09
SB-052

AREA OF MAP

0 2,000 4,000 Feet

FIGURE 1-7

SURFACE SOIL ECOLOGICAL RISKS FROM MANGANESE, REC 9 AND 10 GREATER STRAWBERRY POINT

LEGEND

- Soil Boring
- Monitoring Well
- Soil Gas Sample Location
- Test Pit
- Recognized Environmental Condition (REC)
- 9 REC Number

Note: Manganese concentrations exceeding criteria for plants (220 mg/kg) or plants and soil invertebrates (450 mg/kg) are shown in orange and red, respectively. Units in mg/kg.

* - Elevated concentration is bounded. Therefore, elevated manganese concentrations are likely isolated and its effect on plant and invertebrate communities are not significant.

** - Elevated manganese concentration is likely isolated because it is located at the edge of a wooded area that was not previously developed. Also, the location is heavily vegetated so, the manganese content in soil does not appear to have impacted plant life.

All location IDs begin with "GSP-."
2014 aerial photograph provided by U.S. Geological Survey.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 37.5 75 Feet

N

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05/12/17 -- JEE



FIGURE 1-8

SEDIMENT ECOLOGICAL RISKS FROM ZINC
REC 11, GREATER STRAWBERRY POINT

LEGEND

- JANUARY 2016 SEDIMENT SAMPLE LOCATION
- HISTORICAL STRUCTURES
- STORMWATER DETENTION POND
- DRAINAGE CHANNEL / WETLAND

REC	Recognized Environmental Condition
SED	sediment
mg/kg	milligram per kilogram

Note: Zinc concentrations exceeding USEPA Region 3 Biological Technical Advisory Group (BTAG) freshwater sediment screening benchmark of 121 mg/kg (USEPA, 2006) are shown in red. Units in mg/kg.

* - Zinc in sediment could not be directly attributed to former activities during Lockheed Martin ownership. Also, elevated zinc levels do not appear to be migrating out of the pond because zinc concentrations were lower in the drainage channel.

All location IDs begin with "GSP-."
2014 aerial photograph provided by U.S. Geological Survey.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 62.5 125 Feet

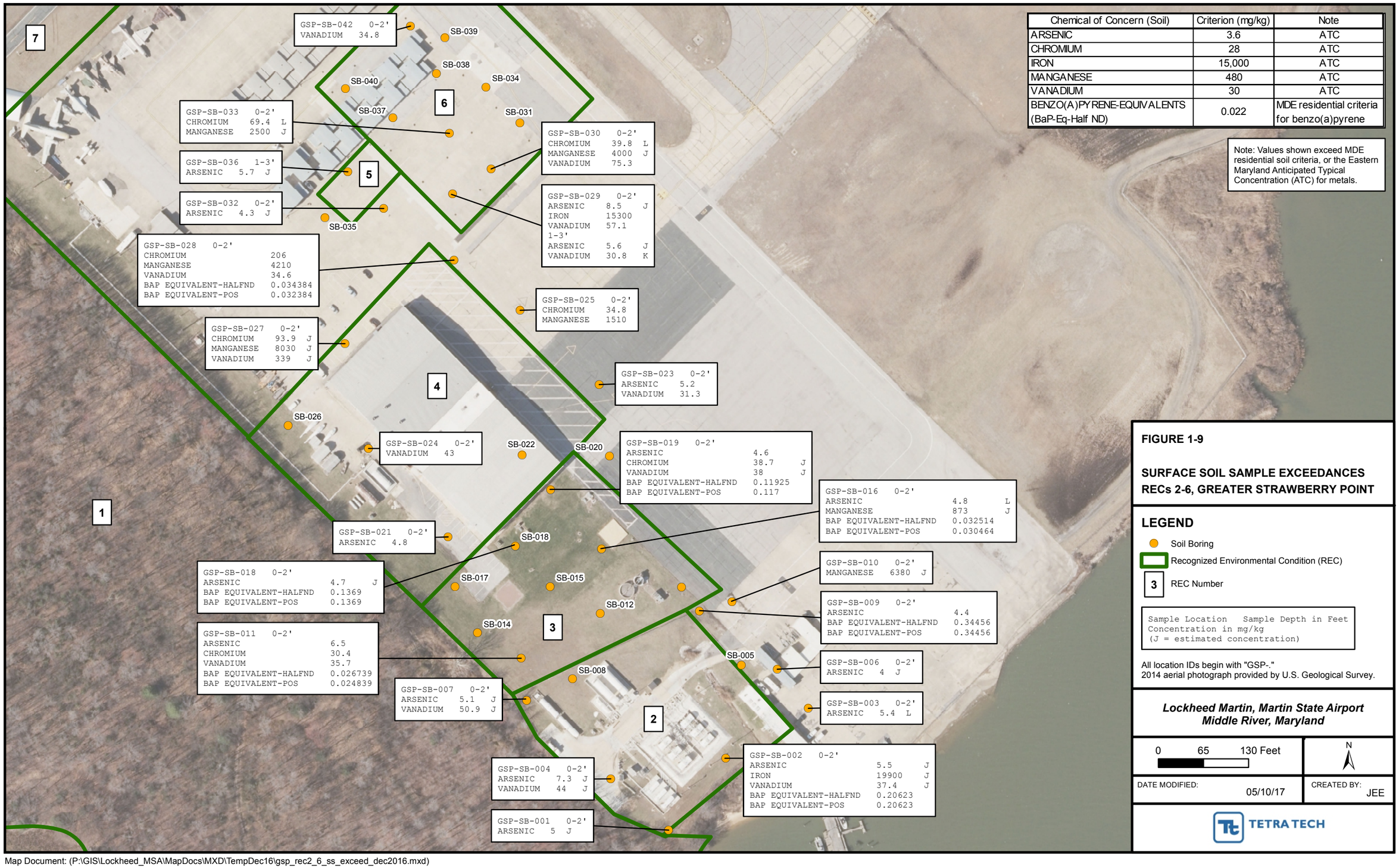
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Chemical of Concern (Soil)	Criterion (mg/kg)	Note
ARSENIC	3.6	ATC
CHROMIUM	28	ATC
IRON	15,000	ATC
MANGANESE	480	ATC
VANADIUM	30	ATC
BENZO(A)PYRENE-EQUIVALENTS (BaP-Eq-Half ND)	0.022	MDE residential criteria for benzo(a)pyrene

Note: Values shown exceed MDE residential soil criteria, or the Eastern Maryland Anticipated Typical Concentration (ATC) for metals.

FIGURE 1-9

SURFACE SOIL SAMPLE EXCEEDANCES
RECs 2-6, GREATER STRAWBERRY POINT

LEGEND

- Soil Boring
- Recognized Environmental Condition (REC)
- 3 REC Number

Sample Location Sample Depth in Feet
Concentration in mg/kg
(J = estimated concentration)

All location IDs begin with "GSP-."
2014 aerial photograph provided by U.S. Geological Survey.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 65 130 Feet

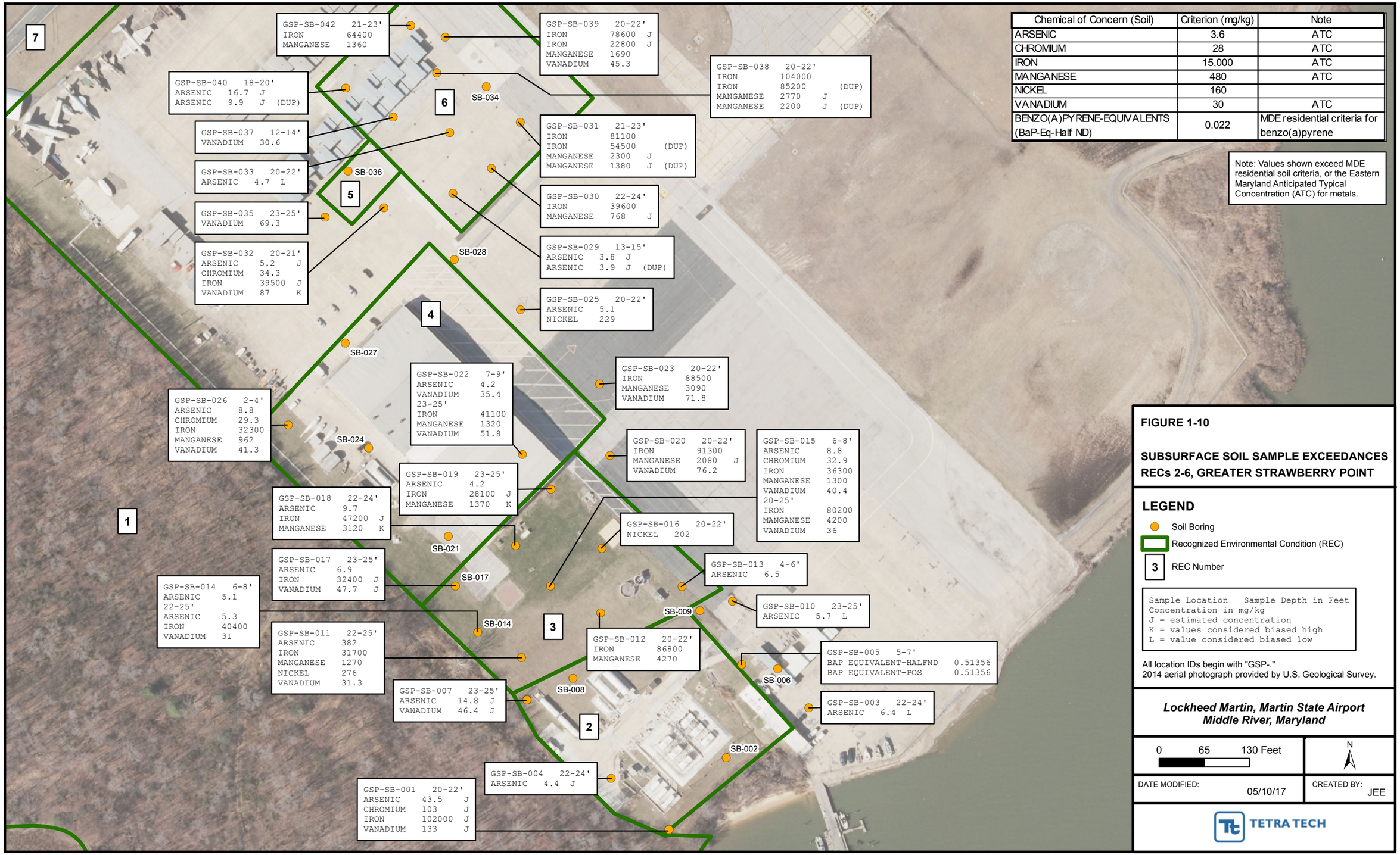
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Chemical of Concern (Soil)	Criterion (mg/kg)	Note
ARSENIC	3.6	ATC
CHROMIUM	28	ATC
IRON	15,000	ATC
MANGANESE	480	ATC
NICKEL	160	
VANADIUM	30	ATC
BENZO(A)PYRENE-EQUIVALENTS (BaP-Eq-Half ND)	0.022	MDE residential criteria for benzo(a)pyrene

Note: Values shown exceed MDE residential soil criteria, or the Eastern Maryland Anticipated Typical Concentration (ATC) for metals.

FIGURE 1-10

SUBSURFACE SOIL SAMPLE EXCEEDANCES RECs 2-6, GREATER STRAWBERRY POINT

LEGEND

- Soil Boring
- Recognized Environmental Condition (REC)
- 3 REC Number

Sample Location Sample Depth in Feet
Concentration in mg/kg
J = estimated concentration
K = values considered biased high
L = value considered biased low

All location IDs begin with "GSP-."
2014 aerial photograph provided by U.S. Geological Survey.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 65 130 Feet

N

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Chemical of Concern (Soil)	Criterion (mg/kg)	Note
ARSENIC	3.6	ATC
IRON	15,000	ATC
MANGANESE	480	ATC
VANADIUM	30	ATC
DIESEL RANGE ORGANICS	230	
BENZO(A)PYRENE-EQUIVALENTS (BaP-Eq-Half ND)	0.022	MDE residential criteria for benzo(a)pyrene

Note: Values shown exceed MDE residential soil criteria, or the Eastern Maryland Anticipated Typical Concentration (ATC) for metals.

GSP-SB-103 0-2'
ARSENIC 4.1

GSP-SB-069 0-2'
BAP EQUIVALENT-HALFND 1.4992
BAP EQUIVALENT-POS 1.4953

GSP-SB-156 0-2'
ARSENIC 3.8
BAP EQUIVALENT-HALFND 0.08683
BAP EQUIVALENT-POS 0.086425

GSP-SB-071 0-2'
MANGANESE 2390 J
VANADIUM 59 J
BAP EQUIVALENT-HALFND 9.4315
BAP EQUIVALENT-POS 9.4315
DIESEL RANGE ORGANICS 850

GSP-SB-157 0-2'
BAP EQUIVALENT-HALFND 0.049103
BAP EQUIVALENT-POS 0.048683

GSP-SB-108 0-2'
ARSENIC 5.5
VANADIUM 65

GSP-SB-102 0-2'
BAP EQUIVALENT-HALFND 0.27706
BAP EQUIVALENT-POS 0.27706

GSP-SB-109 0-2'
BAP EQUIVALENT-HALFND 0.58091
BAP EQUIVALENT-POS 0.56341
DIESEL RANGE ORGANICS 290

GSP-SB-110 0-2'
ARSENIC 5.6
VANADIUM 47
BAP EQUIVALENT-HALFND 0.062647
BAP EQUIVALENT-POS 0.060797
DIESEL RANGE ORGANICS 320

GSP-SB-158 0-2'
BAP EQUIVALENT-HALFND 0.88151
BAP EQUIVALENT-POS 0.88151
DIESEL RANGE ORGANICS 320 J

GSP-SB-062 0-2'
MANGANESE 864
VANADIUM 32.3
BAP EQUIVALENT-HALFND 3.7183
BAP EQUIVALENT-POS 3.6988
DIESEL RANGE ORGANICS 310

GSP-SB-061 0-2'
BAP EQUIVALENT-HALFND 0.033987
BAP EQUIVALENT-POS 0.031822

GSP-SB-099 0-2'
BAP EQUIVALENT-HALFND 0.12285
BAP EQUIVALENT-POS 0.12285

GSP-SB-070 0-2'
BAP EQUIVALENT-HALFND 4.2171
BAP EQUIVALENT-POS 4.2171

GSP-SB-106 0-2'
BAP EQUIVALENT-HALFND 0.69255
BAP EQUIVALENT-POS 0.69075

GSP-SB-105 0-2'
BAP EQUIVALENT-HALFND 0.14212
BAP EQUIVALENT-POS 0.13167

GSP-SB-066 0-2'
BAP EQUIVALENT-HALFND 0.39481
BAP EQUIVALENT-POS 0.39481

GSP-SB-104 0-2'
BAP EQUIVALENT-HALFND 0.055556
BAP EQUIVALENT-POS 0.053656

GSP-SB-065 0-2'
BAP EQUIVALENT-HALFND 0.037152
BAP EQUIVALENT-POS 0.035233

GSP-SB-068 0-2'
BAP EQUIVALENT-HALFND 19.285
BAP EQUIVALENT-POS 19.235
DIESEL RANGE ORGANICS 1200 J

GSP-SB-063 0-2'
MANGANESE 1590
BAP EQUIVALENT-HALFND 0.028998

GSP-SB-064 0-2'
ARSENIC 3.8
BAP EQUIVALENT-HALFND 0.089463
BAP EQUIVALENT-POS 0.087313

GSP-SB-101 0-2'
BAP EQUIVALENT-HALFND 0.21015
BAP EQUIVALENT-POS 0.20165

GSP-SB-097 0-2'
BAP EQUIVALENT-HALFND 0.119005
BAP EQUIVALENT-POS 0.119005

GSP-SB-067 0-2'
BAP EQUIVALENT-HALFND 2.2807
BAP EQUIVALENT-POS 2.2632
DIESEL RANGE ORGANICS 650 J

GSP-SB-057 0-2'
BAP EQUIVALENT-HALFND 0.13342
BAP EQUIVALENT-POS 0.13152

GSP-SB-096 0-2'
BAP EQUIVALENT-HALFND 0.05733
BAP EQUIVALENT-POS 0.05548

GSP-SB-093 0-2'
BAP EQUIVALENT-HALFND 0.023308

GSP-SB-094 0-2'
BAP EQUIVALENT-HALFND 0.040997
BAP EQUIVALENT-POS 0.039147

GSP-SB-092 0-2'
BAP EQUIVALENT-HALFND 0.125916
BAP EQUIVALENT-POS 0.125916

GSP-SB-136 0-2'
BAP EQUIVALENT-HALFND 0.121309
BAP EQUIVALENT-POS 0.119559

GSP-SB-091 0-2'
BAP EQUIVALENT-HALFND 0.030643
BAP EQUIVALENT-POS 0.028825

GSP-MW-09 0-2'
BAP EQUIVALENT-HALFND 0.60607
BAP EQUIVALENT-POS 0.60437

GSP-SB-052 0-2'
BAP EQUIVALENT-HALFND 0.14601
BAP EQUIVALENT-POS 0.14601

GSP-SB-140 0-2'
BAP EQUIVALENT-HALFND 0.14729
BAP EQUIVALENT-POS 0.14729

GSP-SB-050 0-2'
BAP EQUIVALENT-HALFND 0.20012
BAP EQUIVALENT-POS 0.20012

GSP-MW-11 0-2'
BAP EQUIVALENT-HALFND 0.11257
BAP EQUIVALENT-POS 0.11077

GSP-SB-054 0-2'
BAP EQUIVALENT-HALFND 0.54938
BAP EQUIVALENT-POS 0.54938

GSP-SB-049 0-2'
BAP EQUIVALENT-HALFND 0.21377
BAP EQUIVALENT-POS 0.21187

GSP-SB-053 0-2'
BAP EQUIVALENT-HALFND 0.045097
BAP EQUIVALENT-POS 0.043297
DIESEL RANGE ORGANICS 310

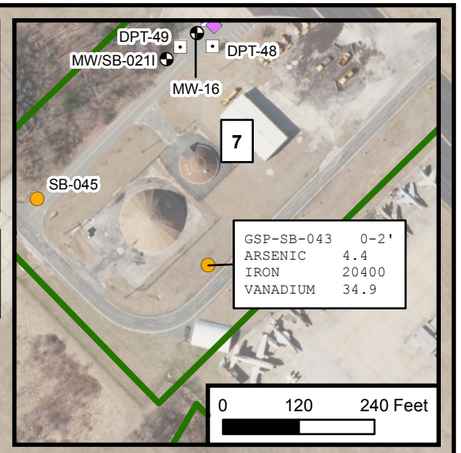


FIGURE 1-11

SURFACE SOIL SAMPLE EXCEEDANCES
RECS 7-10, GREATER STRAWBERRY POINT

LEGEND

- Soil Boring
- Monitoring Well
- Soil Gas Sample Location
- Test Pit
- Recognized Environmental Condition (REC)
- 9 REC Number

Sample Location Sample Depth in Feet
Concentration in mg/kg
(J = estimated concentration)

All location IDs begin with "GSP-."
2014 aerial photograph provided by U.S. Geological Survey.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 60 120 Feet

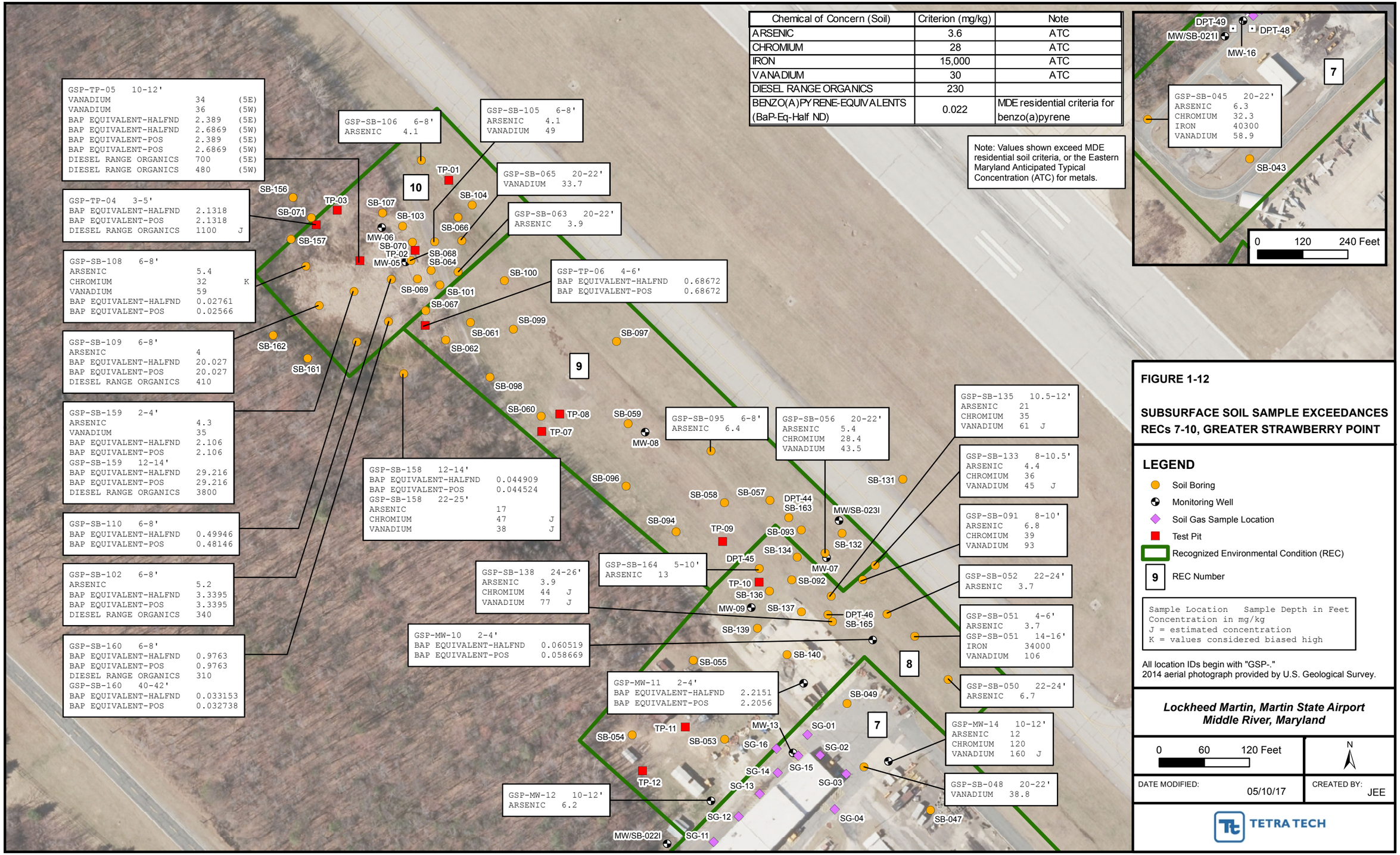
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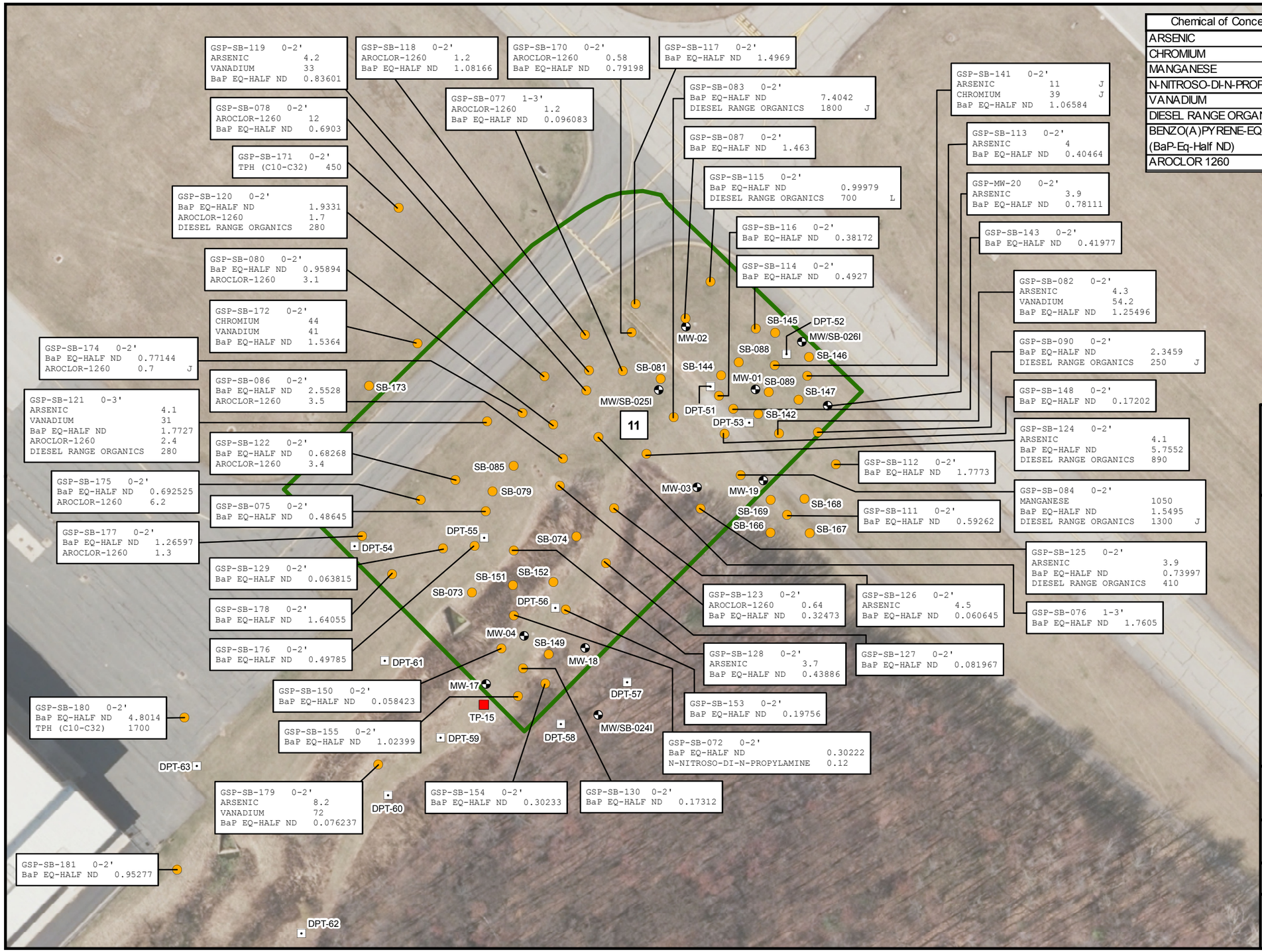
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Chemical of Concern (Soil)	Criterion (mg/kg)	Note
ARSENIC	3.6	ATC
CHROMIUM	28	ATC
MANGANESE	480	ATC
N-NITROSO-DI-N-PROPYLAMINE	0.091	
VANADIUM	30	ATC
DIESEL RANGE ORGANICS	230	
BENZO(A)PYRENE-EQUIVALENTS (BaP-Eq-Half ND)	0.022	MDE residential criteria for benzo(a)pyrene
AROCLOR 1260	0.32	

Note: Values shown exceed MDE residential soil criteria, or the Eastern Maryland Anticipated Typical Concentration (ATC) for metals.

FIGURE 1-13

SURFACE SOIL SAMPLE EXCEEDANCES REC 11, GREATER STRAWBERRY POINT

LEGEND

- Soil Boring
- Monitoring Well
- DPT Well
- Test Pit
- Recognized Environmental Condition (REC)
- 11 REC Number

Sample Location Sample Depth in Feet
Concentration in mg/kg
J = estimated concentration
L = value considered biased low

All location IDs begin with "GSP-."
2014 aerial photograph provided by U.S. Geological Survey.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 40 80 Feet

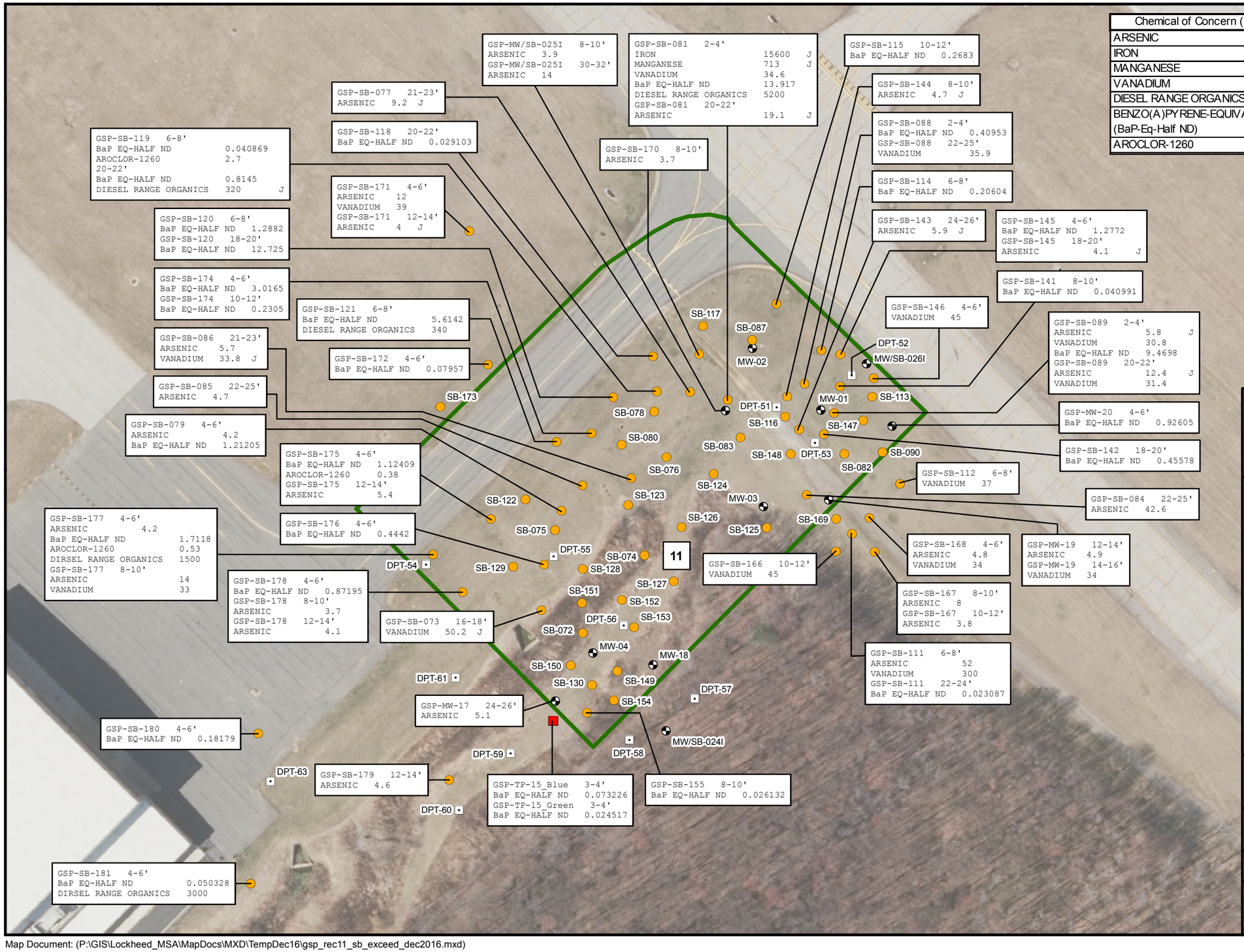
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05/10/17 -- JEE



Chemical of Concern (Soil)	Criterion (mg/kg)	Note
ARSENIC	3.6	ATC
IRON	15,000	ATC
MANGANESE	480	ATC
VANADIUM	30	ATC
DIESEL RANGE ORGANICS	230	
BENZO(A)PYRENE-EQUIVALENTS (BaP-Eq-Half ND)	0.022	MDE residential criteria for benzo(a)pyrene
AROCLOR-1260	0.32	

Note: Values shown exceed MDE residential soil criteria, or the Eastern Maryland Anticipated Typical Concentration (ATC) for metals.

FIGURE 1-14

SUBSURFACE SOIL SAMPLE EXCEEDANCES
REC 11, GREATER STRAWBERRY POINT

LEGEND

- Soil Boring
- Monitoring Well
- DPT Well
- Soil Gas Sample Location
- Test Pit
- Recognized Environmental Condition (REC)
- 11 — REC Number

Sample Location Sample Depth in Feet
Concentration in mg/kg
(J = estimated concentration)

All location IDs begin with "GSP-."
2014 aerial photograph provided by U.S. Geological Survey.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 40 80 Feet

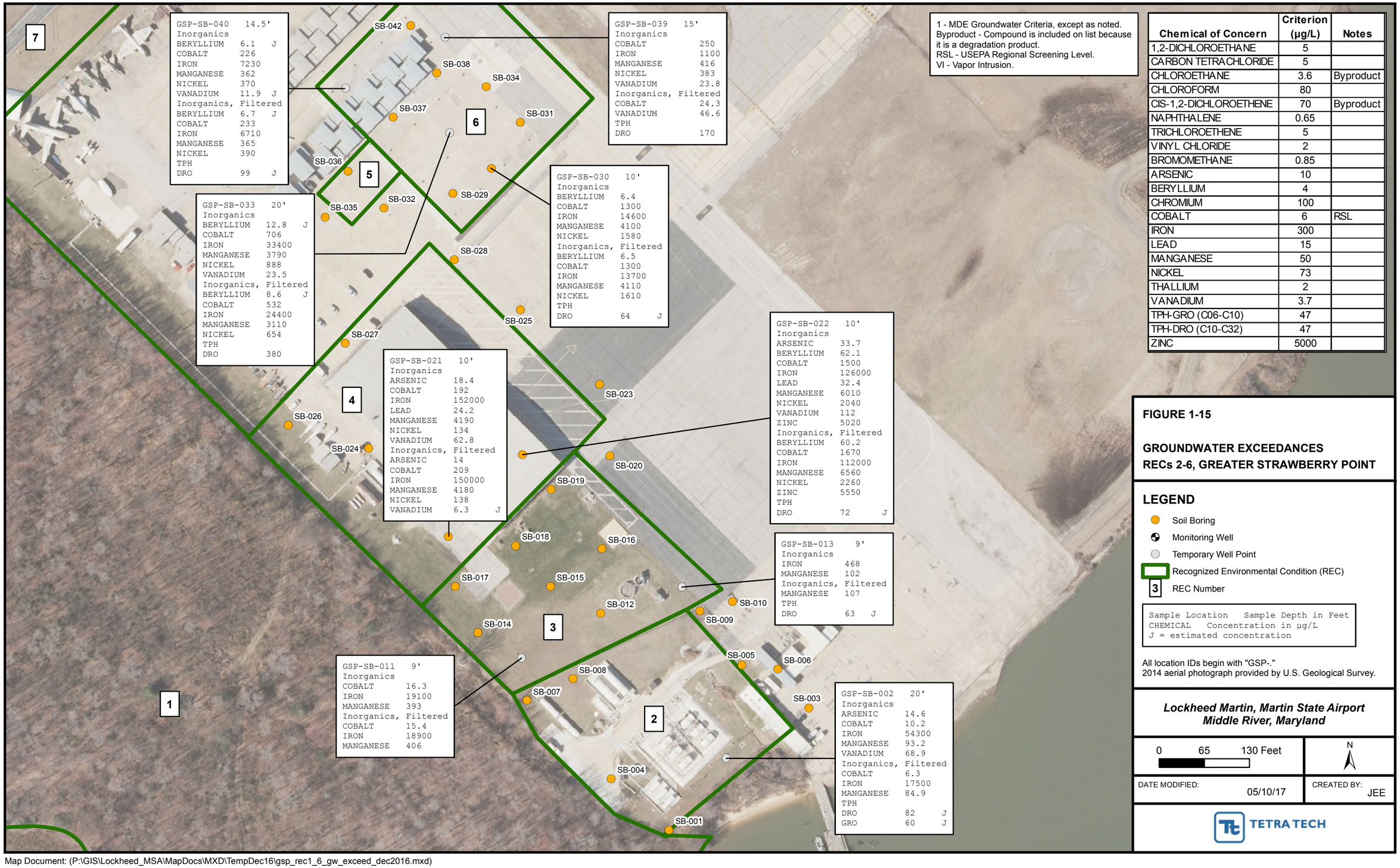
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1 - MDE Groundwater Criteria, except as noted.
Byproduct - Compound is included on list because it is a degradation product.
RSL - USEPA Regional Screening Level.
VI - Vapor Intrusion.

Chemical of Concern	Criterion (µg/L)	Notes
1,2-DICHLOROETHANE	5	
CARBON TETRACHLORIDE	5	
CHLOROETHANE	3.6	Byproduct
CHLOROFORM	80	
CIS-1,2-DICHLOROETHENE	70	Byproduct
NAPHTHALENE	0.65	
TRICHLOROETHENE	5	
VINYL CHLORIDE	2	
BROMOMETHANE	0.85	
ARSENIC	10	
BERYLLIUM	4	
CHROMIUM	100	
COBALT	6	RSL
IRON	300	
LEAD	15	
MANGANESE	50	
NICKEL	73	
THALLIUM	2	
VANADIUM	3.7	
TPH-GRO (C06-C10)	47	
TPH-DRO (C10-C32)	47	
ZINC	5000	

FIGURE 1-15

GROUNDWATER EXCEEDANCES
RECs 2-6, GREATER STRAWBERRY POINT

LEGEND

- Soil Boring
- Monitoring Well
- Temporary Well Point
- Recognized Environmental Condition (REC)
- 3 REC Number

Sample Location Sample Depth in Feet
CHEMICAL Concentration in µg/L
J = estimated concentration

All location IDs begin with "GSP-."
2014 aerial photograph provided by U.S. Geological Survey.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 65 130 Feet

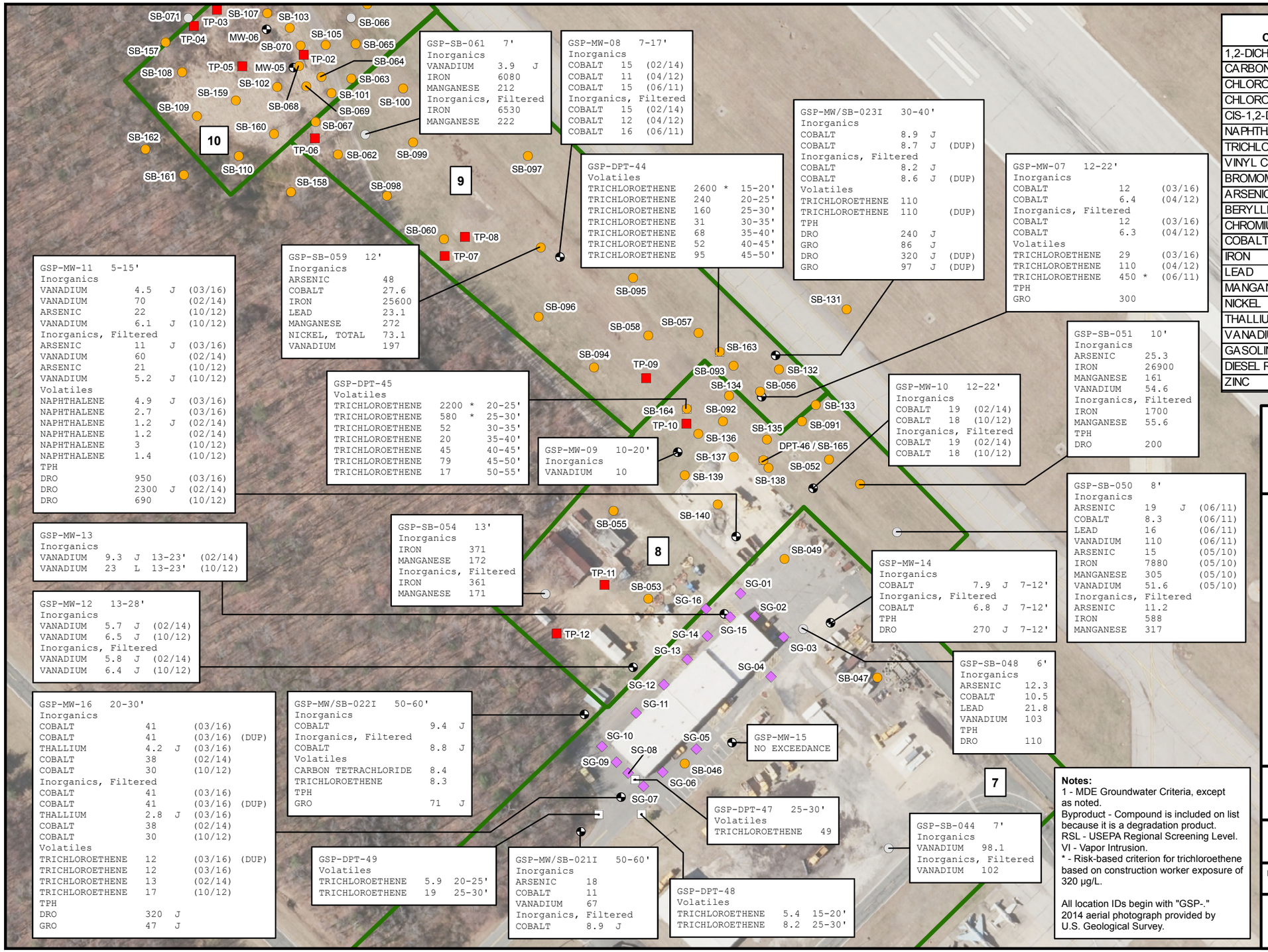
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GSP-MW-11 5-15'
Inorganics

VANADIUM	4.5	J	(03/16)
VANADIUM	70		(02/14)
ARSENIC	22		(10/12)
VANADIUM	6.1	J	(10/12)
Inorganics, Filtered			
ARSENIC	11	J	(03/16)
VANADIUM	60		(02/14)
ARSENIC	21		(10/12)
VANADIUM	5.2	J	(10/12)
Volatiles			
NAPHTHALENE	4.9	J	(03/16)
NAPHTHALENE	2.7		(03/16)
NAPHTHALENE	1.2	J	(02/14)
NAPHTHALENE	1.2		(02/14)
NAPHTHALENE	3		(10/12)
NAPHTHALENE	1.4		(10/12)
TPH			
DRO	950		(03/16)
DRO	2300	J	(02/14)
DRO	690		(10/12)

GSP-MW-13
Inorganics

VANADIUM	9.3	J	13-23'	(02/14)
VANADIUM	23	L	13-23'	(10/12)

GSP-MW-12 13-28'
Inorganics

VANADIUM	5.7	J	(02/14)
VANADIUM	6.5	J	(10/12)
Inorganics, Filtered			
VANADIUM	5.8	J	(02/14)
VANADIUM	6.4	J	(10/12)

GSP-MW-16 20-30'
Inorganics

COBALT	41		(03/16)
COBALT	41		(03/16) (DUP)
THALLIUM	4.2	J	(03/16)
COBALT	38		(02/14)
COBALT	30		(10/12)
Inorganics, Filtered			
COBALT	41		(03/16)
COBALT	41		(03/16) (DUP)
THALLIUM	2.8	J	(03/16)
COBALT	38		(02/14)
COBALT	30		(10/12)
Volatiles			
TRICHLOROETHENE	12		(03/16) (DUP)
TRICHLOROETHENE	12		(03/16)
TRICHLOROETHENE	13		(02/14)
TRICHLOROETHENE	17		(10/12)
TPH			
DRO	320	J	
GRO	47	J	

GSP-SB-061 7'
Inorganics

VANADIUM	3.9	J
IRON	6080	
MANGANESE	212	
Inorganics, Filtered		
IRON	6530	
MANGANESE	222	

GSP-MW-08 7-17'
Inorganics

COBALT	15	(02/14)
COBALT	11	(04/12)
COBALT	15	(06/11)
Inorganics, Filtered		
COBALT	15	(02/14)
COBALT	12	(04/12)
COBALT	16	(06/11)

GSP-DPT-44
Volatiles

TRICHLOROETHENE	2600	*	15-20'
TRICHLOROETHENE	240		20-25'
TRICHLOROETHENE	160		25-30'
TRICHLOROETHENE	31		30-35'
TRICHLOROETHENE	68		35-40'
TRICHLOROETHENE	52		40-45'
TRICHLOROETHENE	95		45-50'

GSP-SB-059 12'
Inorganics

ARSENIC	48
COBALT	27.6
IRON	25600
LEAD	23.1
MANGANESE	272
NICKEL, TOTAL	73.1
VANADIUM	197

GSP-DPT-45
Volatiles

TRICHLOROETHENE	2200	*	20-25'
TRICHLOROETHENE	580	*	25-30'
TRICHLOROETHENE	52		30-35'
TRICHLOROETHENE	20		35-40'
TRICHLOROETHENE	45		40-45'
TRICHLOROETHENE	79		45-50'
TRICHLOROETHENE	17		50-55'

GSP-MW-09 10-20'
Inorganics

VANADIUM	10

GSP-MW/SB-023I 30-40'
Inorganics

COBALT	8.9	J	
COBALT	8.7	J	(DUP)
Inorganics, Filtered			
COBALT	8.2	J	
COBALT	8.6	J	(DUP)
Volatiles			
TRICHLOROETHENE	110		
TRICHLOROETHENE	110		(DUP)
TPH			
DRO	240	J	
GRO	86	J	
DRO	320	J	(DUP)
GRO	97	J	(DUP)

GSP-MW-07 12-22'
Inorganics

COBALT	12	(03/16)
COBALT	6.4	(04/12)
Inorganics, Filtered		
COBALT	12	(03/16)
COBALT	6.3	(04/12)
Volatiles		
TRICHLOROETHENE	29	(03/16)
TRICHLOROETHENE	110	(04/12)
TRICHLOROETHENE	450	* (06/11)
TPH		
GRO	300	

GSP-SB-051 10'
Inorganics

ARSENIC	25.3
IRON	26900
MANGANESE	161
VANADIUM	54.6
Inorganics, Filtered	
IRON	1700
MANGANESE	55.6
TPH	
DRO	200

GSP-MW-10 12-22'
Inorganics

COBALT	19	(02/14)
COBALT	18	(10/12)
Inorganics, Filtered		
COBALT	19	(02/14)
COBALT	18	(10/12)

GSP-SB-050 8'
Inorganics

ARSENIC	19	J	(06/11)
COBALT	8.3		(06/11)
LEAD	16		(06/11)
VANADIUM	110		(06/11)
ARSENIC	15		(05/10)
IRON	7880		(05/10)
MANGANESE	305		(05/10)
VANADIUM	51.6		(05/10)
Inorganics, Filtered			
ARSENIC	11.2		
IRON	588		
MANGANESE	317		

GSP-MW-14
Inorganics

COBALT	7.9	J	7-12'
Inorganics, Filtered			
COBALT	6.8	J	7-12'
TPH			
DRO	270	J	7-12'

GSP-SB-048 6'
Inorganics

ARSENIC	12.3
COBALT	10.5
LEAD	21.8
VANADIUM	103
TPH	
DRO	110

GSP-MW-15
NO EXCEEDANCE

GSP-DPT-47 25-30'
Volatiles

TRICHLOROETHENE	49

GSP-SB-044 7'
Inorganics

VANADIUM	98.1
Inorganics, Filtered	
VANADIUM	102

GSP-DPT-49
Volatiles

TRICHLOROETHENE	5.9	20-25'
TRICHLOROETHENE	19	25-30'

GSP-MW/SB-021I 50-60'
Inorganics

ARSENIC	18
COBALT	11
VANADIUM	67
Inorganics, Filtered	
COBALT	8.9 J

GSP-DPT-48
Volatiles

TRICHLOROETHENE	5.4	15-20'
TRICHLOROETHENE	8.2	25-30'

GSP-MW/SB-022I 50-60'
Inorganics

COBALT	9.4 J
Inorganics, Filtered	
COBALT	8.8 J
Volatiles	
CARBON TETRACHLORIDE	8.4
TRICHLOROETHENE	8.3
TPH	
GRO	71 J

GSP-SB-054 13'
Inorganics

IRON	371
MANGANESE	172
Inorganics, Filtered	
IRON	361
MANGANESE	171

Chemical of Concern	Criterion (µg/L)	Notes
1,2-DICHLOROETHANE	5	
CARBON TETRACHLORIDE	5	
CHLOROETHANE	3.6	Byproduct
CHLOROFORM	80	
CIS-1,2-DICHLOROETHENE	70	Byproduct
NAPHTHALENE	0.65	
TRICHLOROETHENE	5	See Notes
VINYL CHLORIDE	2	
BROMOMETHANE	0.85	
ARSENIC	10	
BERYLLIUM	4	
CHROMIUM	100	
COBALT	6	RSL
IRON	300	
LEAD	15	
MANGANESE	50	
NICKEL	73	
THALLIUM	2	
VANADIUM	3.7	
GASOLINE RANGE ORGANICS (GRO)	47	
DIESEL RANGE ORGANICS (DRO)	47	
ZINC	5000	

FIGURE 1-16

GROUNDWATER EXCEEDANCES
RECS 7-9, GREATER STRAWBERRY POINT

LEGEND

- Soil Boring
- Monitoring Well
- DPT Well
- Soil Gas Sample Location
- Test Pit
- Temporary Well Point
- Recognized Environmental Condition (REC)
- 3 REC Number

Sample Location Sample Depth in Feet
CHEMICAL Concentration in µg/L
with Sample Date
DUP = duplicate sample
J = estimated concentration

Notes:
1 - MDE Groundwater Criteria, except as noted.
Byproduct - Compound is included on list because it is a degradation product.
RSL - USEPA Regional Screening Level.
VI - Vapor Intrusion.
* - Risk-based criterion for trichloroethene based on construction worker exposure of 320 µg/L.

All location IDs begin with "GSP-."
2014 aerial photograph provided by U.S. Geological Survey.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 60 120 Feet

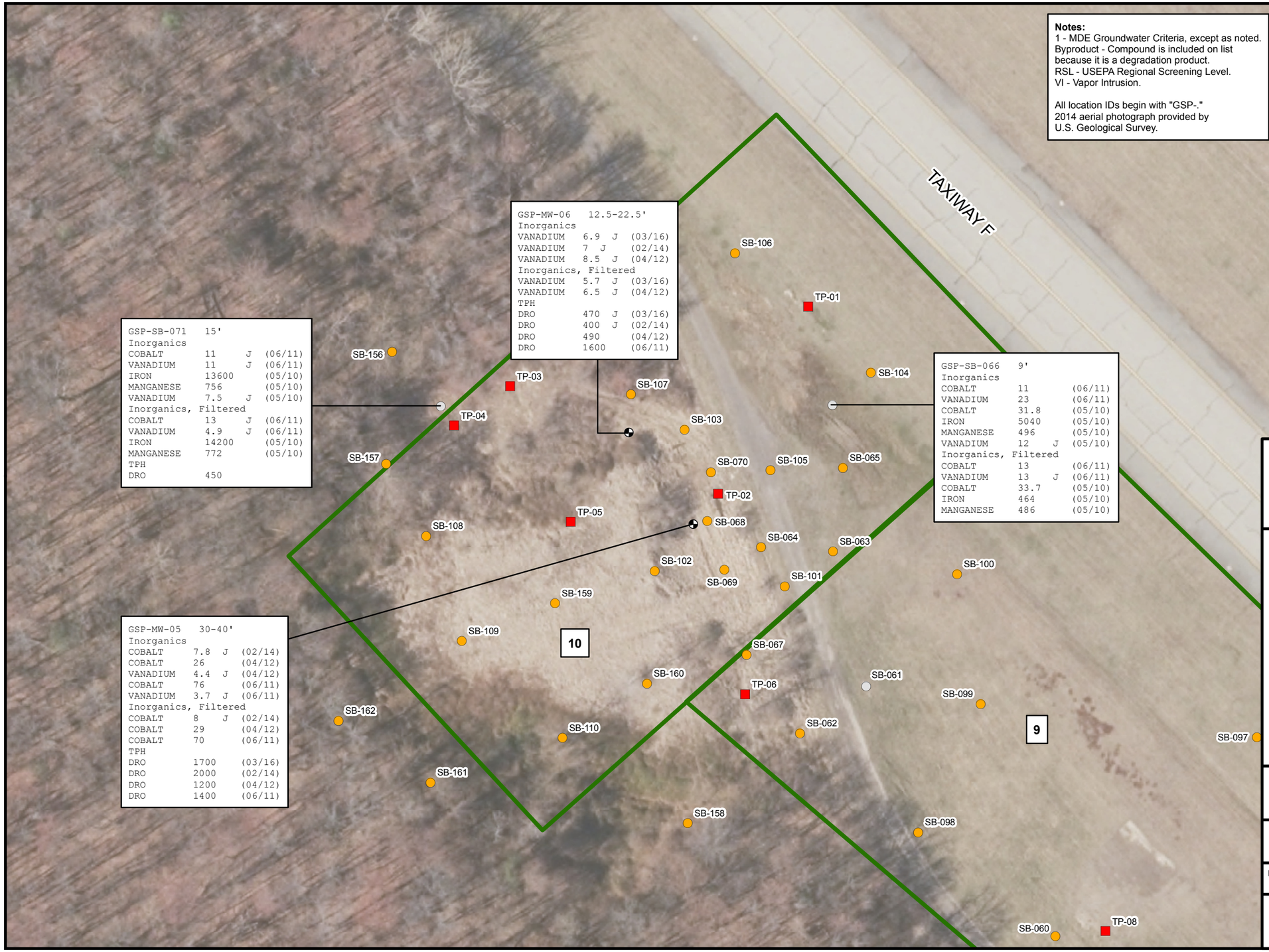
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05/10/17 -- JEE



Notes:
1 - MDE Groundwater Criteria, except as noted.
Byproduct - Compound is included on list because it is a degradation product.
RSL - USEPA Regional Screening Level.
VI - Vapor Intrusion.

All location IDs begin with "GSP-."
2014 aerial photograph provided by U.S. Geological Survey.

Chemical of Concern	Criterion (µg/L)	Notes
1,2-DICHLOROETHANE	5	
CARBON TETRACHLORIDE	5	
CHLOROETHANE	3.6	Byproduct
CHLOROFORM	80	
CIS-1,2-DICHLOROETHENE	70	Byproduct
NAPHTHALENE	0.65	
TRICHLOROETHENE	5	
VINYL CHLORIDE	2	
BROMOMETHANE	0.85	
ARSENIC	10	
BERYLLIUM	4	
CHROMIUM	100	
COBALT	6	RSL
IRON	300	
LEAD	15	
MANGANESE	50	
NICKEL	73	
THALLIUM	2	
VANADIUM	3.7	
GASOLINE RANGE ORGANICS (GRO)	47	
DIESEL RANGE ORGANICS (DRO)	47	
ZINC	5000	

FIGURE 1-17

GROUNDWATER EXCEEDANCES
REC 10, GREATER STRAWBERRY POINT

LEGEND

- Soil Boring
- Monitoring Well
- Test Pit
- Temporary Well Point
- Recognized Environmental Condition (REC)
- 3 REC Number

```
Sample Location   Sample Depth in Feet
CHEMICAL   Concentration in µg/L
                        with Sample Date
DUP = duplicate sample
J = estimated concentration
```

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 25 50 Feet

N

DATE MODIFIED: 05/10/17

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\TempDec16\gsp_rec10_gw_exceed_dec2016.mxd)
05/10/17 -- JEE

Notes:
1 - MDE Groundwater Criteria, except as noted.
Byproduct - Compound is included on list because it is a degradation product.
RSL - USEPA Regional Screening Level.
VI - Vapor Intrusion.

All location IDs begin with "GSP-."
2014 aerial photograph provided by U.S. Geological Survey.

Sample Location Sample Depth in Feet
CHEMICAL Concentration in µg/L
with Sample Date
DUP = duplicate sample
J = estimated concentration

Chemical of Concern	Criterion (µg/L)	Notes
1,2-DICHLOROETHANE	5	
CARBON TETRACHLORIDE	5	
CHLOROETHANE	3.6	Byproduct
CHLOROFORM	80	
CIS-1,2-DICHLOROETHENE	70	Byproduct
NAPHTHALENE	0.65	
TRICHLOROETHENE	5	
VINYL CHLORIDE	2	
BROMOMETHANE	0.85	
ARSENIC	10	
BERYLLIUM	4	
CHROMIUM	100	
COBALT	6	RSL
IRON	300	
LEAD	15	
MANGANESE	50	
NICKEL	73	
THALLIUM	2	
VANADIUM	3.7	
GASOLINE RANGE ORGANICS (GRO)	47	
DIESEL RANGE ORGANICS (DRO)	47	
ZINC	5000	

GSP-SB-072 15-15'
Inorganics
ARSENIC 13.5
COBALT 29.6
IRON 13900
MANGANESE 758
VANADIUM 22.8
Inorganics, Filtered
COBALT 28.8
IRON 10400
MANGANESE 779
Volatiles
NAPHTHALENE 3.1
TRICHLOROETHENE 7.1
TPH
DRO 220

GSP-DPT-55
Volatiles
NAPHTHALENE 1.4 J 10-15'
NAPHTHALENE 43 J 15-20'
NAPHTHALENE 42 15-20' (DUP)
NAPHTHALENE 0.87 J 20-25'
NAPHTHALENE 1.6 J 25-30'

GSP-DPT-54
Volatiles
TRICHLOROETHENE 19 10-15'
VINYL CHLORIDE 2 10-15'
TRICHLOROETHENE 9 15-20'

GSP-DPT-56
Volatiles
NAPHTHALENE 1.4 J 10-15'
TRICHLOROETHENE 6.2 10-15'
NAPHTHALENE 21 J 15-20'
TRICHLOROETHENE 56 15-20'
VINYL CHLORIDE 6.4 15-20'
NAPHTHALENE 2.1 J 20-25'
TRICHLOROETHENE 38 20-25'
VINYL CHLORIDE 5.3 20-25'
1,2-DICHLOROETHANE 23 25-30'
NAPHTHALENE 3.4 J 25-30'
TRICHLOROETHENE 170 25-30'
VINYL CHLORIDE 7 25-30'
TRICHLOROETHENE 12 30-35'

GSP-MW-04 10.5-20.5'
Inorganics
COBALT 8 J (03/16)
COBALT 11 (04/12)
COBALT 11 (06/11)
Inorganics, Filtered
COBALT 7.7 J (03/16)
COBALT 11 (04/12)
COBALT 11 (06/11)
Volatiles
TRICHLOROETHENE 5.1 (04/12)
TRICHLOROETHENE 6 (06/11)
TPH
DRO 500 (03/16)
DRO 330 J (04/12)

GSP-DPT-61 10-15'
Volatiles
TRICHLOROETHENE 5.2
VINYL CHLORIDE 4.6

GSP-MW-17 15-30'
Inorganics
COBALT 14
Inorganics, Filtered
COBALT 14

GSP-DPT-59
NO EXCEEDANCE

GSP-MW/SB-024I 45-55'
Inorganics
VANADIUM 17
Inorganics, Filtered
VANADIUM 7.9 J
TPH
DRO 1600

GSP-MW-18 13-28'
Inorganics
COBALT 36 (03/16)
COBALT 77 (10/12)
Inorganics, Filtered
COBALT 34 (03/16)
COBALT 80 (10/12)
Volatiles
NAPHTHALENE 0.87 J (03/16)
NAPHTHALENE 1 (03/16)
TRICHLOROETHENE 38 (03/16)
1,2-DICHLOROETHANE 13 (10/12)
TRICHLOROETHENE 170 (10/12)
VINYL CHLORIDE 4.7 J (10/12)
NAPHTHALENE 3.3 (10/12)
TPH
DRO 520 (03/16)
GRO 52 J (03/16)
DRO 390 J (10/12)

GSP-DPT-63
Volatiles
BROMOMETHANE 1.9 25-30'
CARBON TETRACHLORIDE 7.6 30-35'

GSP-DPT-60 10-15'
Volatiles
1,2-DICHLOROETHANE 6
NAPHTHALENE 4.7
TRICHLOROETHENE 7.4
VINYL CHLORIDE 3

GSP-DPT-58
Volatiles
NAPHTHALENE 59 10-15'
TRICHLOROETHENE 280 10-15'
VINYL CHLORIDE 6.6 J 10-15'
1,2-DICHLOROETHANE 7 J 15-20'
NAPHTHALENE 68 15-20'
TRICHLOROETHENE 220 15-20'
VINYL CHLORIDE 5.2 J 15-20'
1,2-DICHLOROETHANE 6.4 J 20-25'
NAPHTHALENE 58 20-25'
TRICHLOROETHENE 210 20-25'
VINYL CHLORIDE 5.6 J 20-25'
1,2-DICHLOROETHANE 5.5 25-30'
NAPHTHALENE 24 25-30'
TRICHLOROETHENE 41 25-30'
TRICHLOROETHENE 16 30-35'

GSP-DPT-64
Volatiles
1,2-DICHLOROETHANE 7.9 15-20'
CHLOROFORM 84 15-20'
1,2-DICHLOROETHANE 6.4 25-30'
TRICHLOROETHENE 25 25-30'
VINYL CHLORIDE 12 25-30'
1,2-DICHLOROETHANE 20 30-35'
TRICHLOROETHENE 43 30-35'
VINYL CHLORIDE 33 30-35'
1,2-DICHLOROETHANE 13 35-40'
TRICHLOROETHENE 13 35-40'
VINYL CHLORIDE 8.3 35-40'

GSP-DPT-62
Volatiles
1,2-DICHLOROETHANE 110 10-15'
TRICHLOROETHENE 11 10-15'
VINYL CHLORIDE 27 10-15'
1,2-DICHLOROETHANE 55 25-30'
1,2-DICHLOROETHANE 6.1 30-35'
1,2-DICHLOROETHANE 12 35-40'

GSP-DPT-57
Volatiles
TRICHLOROETHENE 8.8 10-15'
NAPHTHALENE 12 J 15-20'
TRICHLOROETHENE 84 15-20'
VINYL CHLORIDE 7 15-20'
NAPHTHALENE 13 J 15-20' (DUP)
TRICHLOROETHENE 83 15-20' (DUP)
VINYL CHLORIDE 7.1 15-20' (DUP)
NAPHTHALENE 12 20-25'
TRICHLOROETHENE 190 20-25'
VINYL CHLORIDE 6.8 20-25'
1,2-DICHLOROETHANE 7.3 25-30'
NAPHTHALENE 7.1 25-30'
TRICHLOROETHENE 260 25-30'
VINYL CHLORIDE 4.7 J 25-30'
TRICHLOROETHENE 59 30-35'
TRICHLOROETHENE 15 35-40'

SB-171, SB-172, SB-173, SB-174, SB-175, SB-176, SB-177, SB-178, SB-179, SB-180, SB-181, SB-115, SB-117, SB-118, SB-170, SB-087, SB-114, SB-145, DPT-52, MW/SB-026I, MW-02, SB-141, SB-088, SB-146, SB-120, SB-119, SB-077, SB-081, SB-144, MW-01, SB-113, SB-078, DPT-51, SB-147, MW/SB-025I, SB-116, MW-20, SB-080, SB-143, SB-142, SB-121, SB-076, SB-148, SB-090, SB-086, SB-124, DPT-53, SB-082, SB-112, SB-122, SB-085, MW-03, MW-19, SB-079, SB-123, SB-169, SB-168, SB-075, SB-125, SB-111, SWSD-DP1, SB-126, SB-074, SB-166, SB-167, SB-129, SB-128, SB-127, SB-151, SB-152, SB-073, SB-153, SWSD-DP2, SB-150, SB-130, SB-149, SB-154, SB-155, TP-15, SWSD-DP3, SW-DP4, SW-DP5, SWSD-C1
TAXIWAY J
TAXIWAY F
11
(SEE FIGURE 2-18)

FIGURE 1-18

GROUNDWATER EXCEEDANCES REC 11, SOUTHWESTERN SECTION, GREATER STRAWBERRY POINT

LEGEND
- Soil Boring
- Monitoring Well
- DPT Well
- Surface Water and Sediment Sample Location
- Surface Water Sample
- Test Pit
- Temporary Well Point
- Recognized Environmental Condition (REC)
- 3 REC Number

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 40 80 Feet
N

DATE MODIFIED: 05/10/17
CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\TempDec16\gsp_rec11_gw_exceed_dec2016_sw.mxd)
05/10/17 -- JEE

Notes:
1 - MDE Groundwater Criteria, except as noted.
Byproduct - Compound is included on list because it is a degradation product.
RSL - USEPA Regional Screening Level.
VI - Vapor Intrusion.

All location IDs begin with "GSP-."
2014 aerial photograph provided by U.S. Geological Survey.

Sample Location Sample Depth in Feet
CHEMICAL Concentration in µg/L
with Sample Date
J = estimated concentration
(OS) = organic semivolatile
(OV) = organic volatile

Chemical of Concern	Criterion (µg/L)	Notes
1,2-DICHLOROETHANE	5	
CARBON TETRACHLORIDE	5	
CHLOROETHANE	3.6	Byproduct
CHLOROFORM	80	
CIS-1,2-DICHLOROETHENE	70	Byproduct
NAPHTHALENE	0.65	
TRICHLOROETHENE	5	
VINYL CHLORIDE	2	
BROMOMETHANE	0.85	
ARSENIC	10	
BERYLLIUM	4	
CHROMIUM	100	
COBALT	6	RSL
IRON	300	
LEAD	15	
MANGANESE	50	
NICKEL	73	
THALLIUM	2	
VANADIUM	3.7	
GASOLINE RANGE ORGANICS (GRO)	47	
DIESEL RANGE ORGANICS (DRO)	47	
ZINC	5000	

GSP-MW-02 21-31'
Inorganics
COBALT 12 (04/12)
COBALT 16 (06/11)
Inorganics, Filtered
COBALT 12 (04/12)
COBALT 16 (06/11)
TPH
DRO 300 J

GSP-DPT-51 20-25'
Volatiles
NAPHTHALENE 1.1

GSP-MW/SB-025I 50-60'
TPH
DRO 260 J

GSP-MW-01 5-15'
Inorganics
THALLIUM 4.5 J (03/16)
COBALT 9.3 (04/12)
COBALT 52 (06/11)
NICKEL 77 (06/11)
Inorganics, Filtered
ARSENIC 10 J (03/16)
THALLIUM 3.9 J (03/16)
COBALT 9.4 (04/12)
COBALT 11 (06/11)
Volatiles
TRICHLOROETHENE 12 (06/11)
TPH
DRO 840 (03/16)
DRO 240 J (04/12)
DRO 310 J (06/11)

GSP-SB-089 12-12'
Inorganics
COBALT 38 (06/11)
VANADIUM 4.2 J (06/11)
COBALT 34 (05/10)
IRON 8690 (05/10)
MANGANESE 120 (05/10)
VANADIUM 9.3 J (05/10)
Inorganics, Filtered
COBALT 38 (06/11)
COBALT 41.3 (05/10)
IRON 5680 (05/10)
MANGANESE 111 (05/10)
Volatiles
TRICHLOROETHENE 25 (06/11)
TRICHLOROETHENE 25 (05/10)

GSP-DPT-52
NO EXCEEDANCE

GSP-MW/SB-026I 50-60'
Inorganics
COBALT 17
Inorganics, Filtered
COBALT 17
Volatiles
TRICHLOROETHENE 23

GSP-MW-20 6-16'
Inorganics
ARSENIC 11 J (03/16)
COBALT 14 (03/16)
THALLIUM 2.2 J (03/16)
VANADIUM 17 (03/16)
COBALT 6.7 (10/12)
Inorganics, Filtered
COBALT 9.6 J (03/16)
VANADIUM 14 (03/16)
COBALT 7 (10/12)
TPH
DRO 3000 (03/16)
DRO 840 (10/12)

GSP-SB-083 6-6'
Inorganics
ARSENIC 11 J (06/11)
COBALT 48.4 (05/10)
IRON 20800 (05/10)
MANGANESE 215 (05/10)
Inorganics, Filtered
COBALT 50.1
IRON 19800
MANGANESE 193
TPH
DRO 200

GSP-SB-080 10-10'
Inorganics
ARSENIC 92.3
COBALT 21.1
IRON 18800
MANGANESE 560
VANADIUM 4.3 J
Inorganics, Filtered
ARSENIC 87.4
COBALT 23.8
IRON 18000
MANGANESE 579
Volatiles
NAPHTHALENE 110 (OV)
NAPHTHALENE 70 (OS)
TPH
DRO 2800

GSP-DPT-53
Volatiles
TRICHLOROETHENE 49 10-15'
TRICHLOROETHENE 15 15-20'

GSP-SB-084 11-11'
Inorganics
COBALT 210 (06/11)
NICKEL 380 (06/11)
VANADIUM 14 J (06/11)
COBALT 194 (05/10)
IRON 7470 (05/10)
NICKEL 352 (05/10)
VANADIUM 21.1 (05/10)
Inorganics, Filtered
COBALT 220 (06/11)
NICKEL 410 (06/11)
VANADIUM 13 J (06/11)
COBALT 191 (05/10)
IRON 6610 (05/10)
NICKEL 344 (05/10)
VANADIUM 11.7 J (05/10)
Volatiles
TRICHLOROETHENE 5
TPH
DRO 55 J

GSP-MW-03 25-35'
Inorganics
COBALT 17 (04/12)
ARSENIC 11 (04/12)
COBALT 11 (06/11)
VANADIUM 48 (06/11)
Inorganics, Filtered
COBALT 16 (04/12)
COBALT 54 J (06/11)
TPH
DRO 360 J

GSP-MW-19 15-30'
Inorganics
COBALT 140 (03/16)
NICKEL 270 (03/16)
COBALT 100 (10/12)
NICKEL 180 (10/12)
Inorganics, Filtered
COBALT 140 (03/16)
NICKEL 280 (03/16)
COBALT 71 (10/12)
NICKEL 120 (10/12)
TPH
DRO 280 J

SB-171, SB-172, SB-173, SB-174, SB-175, SB-177, SB-178, SB-180, SB-121, SB-122, SB-085, SB-086, SB-075, SB-079, SB-123, SB-126, SB-125, SB-074, SB-127, SB-129, SB-128, SB-176, SB-151, SB-152, SB-073, SB-153, SB-072, SB-150, SB-130, SB-149, SB-154, SB-155, SB-076, SB-124, SB-148, SB-090, SB-082, SB-112, SB-168, SB-111, SB-169, SB-166, SB-167, SB-115, SB-117, SB-087, SB-118, SB-170, SB-114, SB-145, SB-088, SB-146, SB-120, SB-119, SB-077, SB-081, SB-144, SB-141, SB-113, SB-078, SB-116, SB-142, SB-147, SB-143, SB-146, SB-120, SB-119, SB-077, SB-081, SB-078, SB-174, SB-121, SB-076, SB-086, SB-124, SB-122, SB-085, SB-175, SB-079, SB-123, SB-075, SB-126, SB-125, SB-177, SB-074, SB-129, SB-128, SB-127, SB-176, SB-178, SB-151, SB-152, SB-073, SB-153, SB-072, SB-150, SB-130, SB-149, SB-154, SB-155, SB-180, SB-179

SECTION 2
REMEDIAL ACTION OBJECTIVES

This section identifies applicable or relevant and appropriate requirements (ARARs), discusses environmental media of concern and contaminant volumes, and develops the remedial action objectives (RAOs) to address contaminated soil and groundwater at Greater Strawberry Point (GSP). These ARARs are regulatory requirements and guidance that govern remedial activities. RAOs are medium-specific goals that define the objectives of remedial actions, and are developed to facilitate further assembly and screening of the range of remedial alternatives developed in subsequent sections.

2.1 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

The United States Environmental Agency's (USEPA) *National (Oil and Hazardous Substances Pollution) Contingency Plan* (NCP) defines "applicable" and "relevant and appropriate" requirements [40 *Code of Federal Regulations* [CFR] Section 300.400 (g)]. Applicable requirements consist of cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under law that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA statute, or "Superfund") site. Relevant and appropriate requirements are cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under federal or state environmental or facility siting laws that, although not "applicable" to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site, nevertheless address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site.

The ARARs consist of either of the following:

- any standard, requirement, criterion, or limitation under federal environmental law
- any promulgated standard, requirement, criterion, or limitation under a state environmental law that is more stringent than the associated federal standard, requirement, criterion, or limitation

To be considered (TBC) criteria are non-promulgated, non-enforceable guidelines or criteria that may help to develop the response action, or may help determine what is appropriately protective of human health and/or the environment. Examples of TBC criteria include USEPA advisories, reference doses (RfDs), cancer slope-factors (CSF), and Maryland Aviation Administration (MAA) permit requirements.

A primary criterion considered in developing response action alternatives for hazardous waste sites is the degree of human health and environmental protection offered by a given remedy. Section 121 of CERCLA requires that primary consideration be given to response alternatives that attain or exceed ARARs. This is to make CERCLA response actions consistent with other pertinent federal and state environmental requirements. Section 121(d)(4) of CERCLA allows the selection of a remedial alternative that will not attain all ARARs if any of six conditions for an ARAR waiver exists. These waiver conditions are: (1) the remedial action is an interim measure, whereby the final remedy will attain the ARAR upon completion; (2) compliance will result in greater risk to human health and the environment than other options; (3) compliance is technically impracticable; (4) an alternative remedial action will attain the equivalent of the ARAR; (5) the state has not consistently applied the requirement in similar circumstances (for state requirements); or (6) compliance with the ARAR will not provide a balance between protecting public health, welfare, and the environment and the availability of (Superfund) fund money for responses at other facilities (fund-balancing). This last condition applies only to Superfund-financed actions.

The NCP identifies the following three categories of ARARs:

- ***Chemical-specific:*** These ARARs are risk-based (protective of human and environmental health) numerical values or methodologies that establish concentration or discharge limits for particular contaminants. Table 2-1 lists federal and Maryland chemical-specific ARARs and TBC criteria. These ARARs and TBC criteria provide medium-specific guidance regarding “acceptable” or “permissible” concentrations of contaminants.

- ***Location-specific:*** ARARs that restrict actions or contaminant concentrations in certain environmentally sensitive areas. Examples regulated under various federal laws include floodplains, wetlands, and locations with endangered species or historically significant cultural resources. Table 2-2 lists federal and Maryland location-specific ARARs and TBC criteria. These ARARs and TBC criteria restrict contaminant concentrations or the nature and conduct of activities performed in an area solely based on the particular characteristics or location of a site.

- ***Action-specific:*** Technology- or activity-based requirements that limit actions, or conditions involving special substances that control or restrict response action(s). Examples of action-specific ARARs include wastewater-discharge standards and performance or design standards, controls, or restrictions on particular types of activities. Table 2-3 lists federal and Maryland action-specific ARARs and TBCs.

2.2 REMEDIAL ACTION OBJECTIVES

RAOs are medium-specific goals set to protect human health and the environment. They specify the chemicals of concern (COC), potential exposure routes and receptors, and regulatorily acceptable concentrations (i.e., cleanup goals) for the site. Developing RAOs considers ARARs and TBC criteria. In this section, RAOs are developed for impacted groundwater; RAOs are also developed to prevent future residential exposure to site soil. Impacted groundwater is defined as groundwater with COC concentrations that exceed risk-based criteria (Tetra Tech, 2017b), or groundwater with COC concentrations that exceed regulatory thresholds for drinking water (e.g., maximum contaminant levels [MCLs]). Groundwater at GSP will not be used for potable water. If a contaminant concentration exceeded its MCL, then the contaminant was considered a COC based on the most stringent cleanup standards associated with potential residential exposure. If a contaminant did not have an MCL, then the concentrations were compared to MDE generic numeric cleanup standards and risk-based criteria. The following RAOs were developed for GSP:

- ***RAO No. 1—***Prevent exposure of construction workers to trichloroethene (TCE) in groundwater during construction that could cause unacceptable risk based on a hazard index (HI) greater than 1.

- ***RAO No. 2—***Prevent human exposure (including via showering, drinking, and irrigation) to groundwater containing COC concentrations greater than groundwater criteria.

- ***RAO No. 3—***Prevent off site migration of site contaminants to Stansbury Creek, and prevent exceedances of ambient water quality criteria or human health risk-based exposure criteria in Stansbury Creek and Frog Mortar Creek by migration of contaminated groundwater.

- ***RAO No. 4—***Prevent exposures to site soil other than those of construction/industrial workers during activities consistent with typical commercial/industrial use and maintenance.

- ***RAO No. 5—***Prevent exposure of industrial workers and hypothetical residents to volatile organic compounds (VOCs) resulting from vapor intrusion into buildings that could cause unacceptable risk (total cancer-risk greater than 1×10^{-5} [i.e., a one in 100,000 probability] or a hazard index greater than 1).

Table 2-4 lists the groundwater COC and their respective preliminary remediation goals (PRGs). RECs #8 and #9 are the only areas where RAO No. 1 is not met under site current conditions. RECs #8, #9, and #11 are the only areas where RAO No. 5 might need to be applied. RAOs #2, #3, and #4 apply to all RECs. Note that no unacceptable risk was identified for exposure to surface water in Stansbury Creek; therefore, no PRGs for surface water have been developed. However, potential effects due to contaminated-groundwater migration toward the creek have not been verified, because no monitoring wells are near the shoreline, and very few surface water samples were collected from the creek adjacent to the site. PRGs for surface water will be developed if contaminants are detected in later sampling. Note that although high concentrations of many metals were detected in groundwater at the Dump Road Area, no exceedances of ecological criteria were detected in Frog Mortar Creek.

2.3 REMEDIATION GOALS

PRGs were developed to establish target groundwater-cleanup goals and to mitigate unacceptable risks to human health and the environment. The results of the risk assessments indicate that PRGs for potential exposure to site soil (see Section 1.9.1) are not required. Groundwater PRGs were developed for contaminants identified as COC by the HHRA, and for contaminants with concentrations greater than either maximum contaminant levels (MCLs) or USEPA tap water regional screening-levels (RSLs), as applicable. Groundwater PRGs must protect current and anticipated future receptors identified for the site (i.e., industrial workers and construction workers), and should be reasonable and practical to implement. These goals can be developed based on available chemical-specific ARARs or risk-based factors. The HHRA does not address residential use scenarios because GSP will not be used for residential purposes, but drinking water-based residential PRGs will also be applicable so that nonpotable groundwater can be identified and addressed as necessary in this feasibility study (FS). The presence of COC at concentrations greater than background can also be considered when developing PRGs; however,

a site-specific background data-set for groundwater has not been developed for the GSP area, and no generic state-wide background values are available. Thus, background concentrations will not be used to develop PRGs. The methods used to develop candidate PRGs are discussed below.

2.3.1 Applicable or Relevant and Appropriate Requirements and Guidance-Based Preliminary Remediation Goals

Federal MCLs have been identified as potential chemical-specific ARARs for groundwater in the GSP area. MCLs are promulgated, legally enforceable standards for drinking water. Available MCLs were considered in selecting PRGs for groundwater, because they consider returning groundwater to its most beneficial reuse. However, current land uses are expected to continue and that includes no use of groundwater as a drinking water source. These drinking water PRGs will be developed so that nonpotable groundwater can be identified and restrictions can be specified in the FS to prevent future potable use.

MDE generic numeric cleanup-standards (MDE, 2008) were also identified as TBC criteria for site groundwater. MDE cleanup standards can be used at the discretion of the site owner. Property-specific cleanup standards can be developed using approved risk assessment techniques. MDE groundwater-cleanup standards were retained only for contaminants lacking MCLs.

2.3.2 Human Health Risk-Based Preliminary Remediation Goals

Risk-based PRGs for COC associated with unacceptable human health risks, as identified in Section 1.9.1, and based on the lower of the values representing the 10^{-6} cancer risk level and an HI of 1 were developed for hypothetical construction-worker exposure to groundwater. TCE is the only COC associated with unacceptable risk for these receptors; its corresponding PRG is 320 micrograms per liter (µg/L). Human health risk assessment risk calculations based on current GSP data are provided under separate cover (Tetra Tech, 2017b). This PRG is not protective of industrial worker receptors via the vapor intrusion (VI) pathway.

As noted, residential PRGs will be developed so that groundwater unsuited for potable use can be identified and exposure of future residents can be prevented. Human health risk-based groundwater PRGs for residential exposure were developed for COC lacking MCLs or MDE numeric cleanup standards. Per the MDE *Generic Numeric Cleanup Standards* guidance, a cancer risk level of 1×10^{-6} is used to develop the PRG, which is more protective than the MDE risk level (1×10^{-5}), and

accounts for multiple hazardous substances at a site. The lower of the values representing the 10^{-6} cancer risk level and an HI of 1 for each COC was selected as the human health risk-based PRGs for residential exposure. The PRGs for carbon tetrachloride and chloroform are not protective of industrial worker receptors via the VI pathway.

2.3.3 Selection of Preliminary Remediation Goals

The selected PRGs are the COC concentrations that would provide the greatest level of protection of human health based on an industrial use scenario, yet still be reasonably achievable by current remediation techniques. PRGs for drinking water use were developed so that groundwater unsuited for potable use can be identified and subsequently restricted. The rationale for PRG selection is described below. Selected PRGs for each COC, and the basis of their selection, are in Table 2-4. A comparison of site data with the proposed PRGs and other criteria for groundwater is in Appendix D.

Risk-based PRGs for COC with concentrations that pose unacceptable risks to construction workers were identified first; TCE is the only COC in this category. Next, as described above, PRGs for contaminants with concentrations that exceed MCLs or tap water RSLs were conservatively developed. PRGs were selected from ARARs (MCLs), if available. If no MCL was available, then the MDE generic cleanup standard was used. If no MCLs or MDE generic cleanup standards were available, then the residential risk-based carcinogenic and noncarcinogenic PRGs were calculated. For contaminants with both carcinogenic and noncarcinogenic PRGs, the lower of the two was selected.

2.4 AREAS EXCEEDING CONSTRUCTION WORKER PRGS

The only area where construction worker PRGs are exceeded is in RECs #8 and #9, where TCE concentrations are greater than its PRG. The approximate area and volume of contaminated media (see Appendix E for calculations) are summarized below:

Area	Dimensions (feet)	Area (square feet)	Depth interval (feet bgs)	Saturated soil volume (cubic feet)	Groundwater volume (gallons)
RECs #8 & #9	175×110	19,200	10 to 30	385,000	865,000

Remedying elevated TCE concentrations in this area requires consideration of various remedial technologies. At the other RECs, contaminant concentrations only exceed drinking water PRGs, which are based on residential exposure, so only limited remedial action needs to be considered.

Table 2-1

Chemical-Specific ARARs and Other Guidance – Groundwater
Greater Strawberry Point Feasibility Study
Martin State Airport, Middle River, Maryland

Requirement	Citation	Status	Synopsis	Evaluation/Action to be Taken
Federal				
Safe Drinking Water Act Regulations, Maximum Contaminant Levels (MCLs)	40 Code of Federal Regulations (CFR) Part 141 subpart G	Relevant and Appropriate	Establishes enforceable standards for potable water for specific contaminants that have been determined to adversely affect human health.	Would be used as protective levels for groundwater that are current or potential drinking water sources.
Cancer Slope Factors (CSFs)	NA	To Be Considered	CSFs are guidance values used to evaluate the potential carcinogenic hazard caused by exposure to contaminants.	CSFs would be considered for development of risk-based human health protection preliminary remediation goals (PRGs) for groundwater at this site where MCLs or other guidance are unavailable.
Reference Doses (RfDs)	NA	To Be Considered	RfDs are guidance values used to evaluate the potential non-carcinogenic hazard caused by exposure to contaminants.	RfDs would be considered for development of risk-based human health protection PRGs for groundwater at this site where MCLs or other guidance are unavailable.
State				
Regulation of Water Supply, Sewage Disposal, and Solid Waste Drinking Water Quality	Code of Maryland Regulations (COMAR) 26.04.01.06 and -.07	Relevant and Appropriate	Establishes drinking water standards for public water systems.	Would be used as protective levels for groundwater that are current or potential drinking water sources.
Ground Water Quality Standards	COMAR 26.08.02.09	Applicable	For the purpose of controlling the pollution of the ground waters of the state, aquifer types are identified and ground water quality standards are established.	These standards would be used to determine which cleanup standards to apply to groundwater.
Generic Numeric Cleanup Standards for Groundwater And Soil	State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater June 2008	To Be Considered	Numeric Cleanup Standards for hazardous substances in the soil and groundwater media, which are to be considered as guidance.	These values would be used where MCLs are not available.

Table 2-1

Chemical-Specific ARARs and Other Guidance – Groundwater
Greater Strawberry Point Feasibility Study
Martin State Airport, Middle River, Maryland

ARAR - Applicable or Relevant and Appropriate Requirement
CFR - Code of Federal Regulations
COMAR - Code of Maryland Regulations
CSF - Cancer slope factor
MCL - Maximum Contaminant Level
NA - Not applicable
PRG - Preliminary remediation goal
RfD - Reference dose

Table 2-2

Location-Specific ARARs and Other Guidance – Groundwater
Greater Strawberry Point Feasibility Study
Martin State Airport, Middle River, Maryland

Requirement	Citation	Status	Synopsis	Evaluation/Action to be Taken
Federal				
Endangered Species Act Regulations	50 Code of Federal Regulations (CFR) Parts 81, 225, and 402	Applicable	This act requires federal agencies to take action to avoid jeopardizing the continued existence of federally listed endangered or threatened species.	If remediation could potentially affect an endangered species or its habitat, these regulations would apply (no endangered species or associated habitats have been identified at the site, although bald eagles are known to nest in the general vicinity).
Migratory Bird Treaty Act	16 United States Code (USC) 703-711	Applicable	Protects migratory birds and their nests.	Proposed response action shall not kill migratory birds or destroy their nests and eggs.
Bald and Golden Eagle Protection Act	16 USC 668; 50 CFR 22.11	Applicable	One may not take, possess, or transport any bald eagle (*Haliaeetus leucocephalus*) or the parts, nests, or eggs of such birds, except as allowed by a valid permit issued under this part.	Proposed response action shall not impact bald eagles. Bald eagles have been observed nesting in the vicinity of the airport.
Coastal Zone Management Act	16 USC Parts 1451 et. seq.	Applicable	Requires that any actions must be conducted in a manner consistent with state-approved management programs.	The site is located in a coastal zone management area: therefore, applicable coastal zone management requirements need to be addressed.
State				
Coastal Zone Management Program	Maryland Executive Order 01.01.1978.05 Coastal Zone Management	Applicable	Maryland's Coastal Program is based on existing state laws and policies designed to protect coastal and marine resources. These are described in Maryland's Enforceable Coastal Policies (2011).	The site is located in a coastal zone management area: therefore, applicable coastal zone management requirements need to be addressed.

Table 2-2

Location-Specific ARARs and Other Guidance – Groundwater
Greater Strawberry Point Feasibility Study
Martin State Airport, Middle River, Maryland

Requirement	Citation	Status	Synopsis	Evaluation/Action to be Taken
State (continued)				
Threatened and Endangered Species	Annotated Code of Maryland 10-2A-01; Code of Maryland Regulations (COMAR) 08.03.08 and 08.02.12	Applicable	Provides for conservation of threatened and endangered species of animal and plants.	If remediation could potentially affect an endangered species or its habitat, these regulations would apply (no endangered species or associated habitats have been identified at the site, although bald eagles are known to nest in the general vicinity).
Critical Area Act	Annotated Code of Maryland 8-1808(d); COMAR 27.01	Applicable	The Act regulates and restricts land development to: minimize adverse impacts on water quality; conserve fish, wildlife, and plant habitat; and establish land-use policies for development that accommodate growth. Commission reviews developments in critical areas of the Chesapeake and Atlantic Coastal Bay. Administered on the county level.	According to the county classification mapping, the site classification is an intensely developed area which is the least restrictive classification.

ARARs – applicable or relevant and appropriate requirements
CFR – Code of Federal Regulations
COMAR – Code of Maryland Regulations
USC – United States Code

Table 2-3

Action-Specific ARARs and Other Guidance – Groundwater
Greater Strawberry Point Feasibility Study
Martin State Airport, Middle River, Maryland

Requirement	Citation	Status	Synopsis	Evaluation/Action to be Taken
Federal				
Resource Conservation and Recovery Act (RCRA) Regulations, Identification and Listing of Hazardous Wastes	40 Code of Federal Regulations (CFR) Part 261 Subparts A, B, C, and D	Applicable	Defines the listed and characteristic hazardous wastes subject to RCRA. Appendix II contains the toxicity characteristic leaching procedure (TCLP).	These regulations would apply when determining whether groundwater and soil cuttings from wells are hazardous, either by being listed, or by exhibiting a hazardous characteristic.
RCRA Regulations, Standards Applicable to Generators	40 CFR 262, Subparts A, B, C, and D	Applicable	Establishes manifesting, pre-transport, and recordkeeping requirements for hazardous waste.	These regulations would apply to investigative-derived waste (IDW), if determined to be hazardous.
RCRA Regulations, Use and Management of Containers	40 CFR Part 264, Subpart I	Applicable	Sets standards for the storage of containers of hazardous waste.	This requirement would apply to storage of a hazardous waste (for example, contaminated soil or groundwater from monitoring well installation) in containers prior to disposal.
State				
Maryland Hazardous Waste Management System – Identification	Code of Maryland Regulations (COMAR) 26.13.02	Applicable	Identifies definitions and methods of identification of hazardous waste.	These regulations would apply when determining whether groundwater, and soil cuttings from wells are hazardous, either by being listed, or by exhibiting a hazardous characteristic.
Maryland Hazardous Waste Management System – Generators	COMAR 26.13.03	Applicable	Establishes manifesting, pre-transport, and recordkeeping requirements for hazardous waste.	These regulations would apply to investigative-derived waste (IDW), if determined to be hazardous.

Table 2-3

Action-Specific ARARs and Other Guidance – Groundwater
Greater Strawberry Point Feasibility Study
Martin State Airport, Middle River, Maryland

Requirement	Citation	Status	Synopsis	Evaluation/Action to be Taken
State (continued)				
Maryland General Permit for Construction Activity	COMAR 26.17.01 and -.02	Applicable	Establishes requirements for stormwater management and erosion and sediment control at construction sites.	Response actions involving excavation would require submittal of an erosion and sediment control plan and a stormwater management plan during land disturbance in accordance with Maryland Stormwater Design Manual (Volume I & II), latest revision.
Air Quality – Particulate Matter	COMAR 26.11.06.03D	Applicable	During construction, reasonable precautions to prevent particulate matter from becoming airborne must be taken.	Fugitive dust generated during soil management will be controlled, for example by the use of water sprays.
Regulation of Water Supply, Sewage Disposal, and Solid Wastes Well Construction	COMAR 26.04.04	Applicable	Contains design standards and procedures for construction of wells.	The requirements would apply to new monitoring wells and injection wells.
Underground Injection Control	COMAR 26.08.07	Applicable	Establishes a State Underground Injection Control Program consistent with federal requirements to preserve the quality of the groundwater of the state.	These regulations would apply to remedial actions that involve underground injection, such as an electron donor for bioremediation or oxidants for in situ chemical oxidation.
Local				
Baltimore County Grading Permit	Not Available	Applicable	A grading permit is required for grading or land disturbance greater than 5,000 square feet.	The permit may be needed for the large number of borings for *in situ* treatment.

Table 2-3

Action-Specific ARARs and Other Guidance – Groundwater
Greater Strawberry Point Feasibility Study
Martin State Airport, Middle River, Maryland

Requirement	Citation	Status	Synopsis	Evaluation/Action to be Taken
Local (continued)				
Maryland Aviation Administration (MAA) Division of Documents & Permits	http://www.marylandaviation.com/content/permitsandforms/constructionzoning/constr-permits.html	To Be Considered	Building permit (MAA-179) required for all site improvement on State-owned property under the jurisdiction of Maryland Aviation Administration (MAA).	The Greater Strawberry Point area is under the jurisdiction of MAA, therefore permit MAA-179 has to be obtained for all site work on Martin State Airport property.
			Submit tenant information advisory (TIA) if the project could affect other tenants at the airport.	Submit TIA so that MAA can keep other tenants informed of increased truck and construction vehicle traffic to and from the project areas.
			Trench & Excavation Permit "Utility Modification/Digging Authorization" (MAA-156).	This will be required for all excavations on MAA property including within the site area for the installation of utility corridors or removal of impacted soils.

ARARs – Applicable or Relevant and Appropriate Requirements
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
CFR – Code of Federal Regulations
COMAR – Code of Maryland Regulations
CWA – Clean Water Act
GAC – granular activated carbon
LDRs – land disposal restrictions
MAA – Maryland Aviation Administration
MDANG – Maryland Air National Guard
MDE – Maryland Department of the Environment
NPDES – National Pollutant Discharge Elimination System
PCBs – polychlorinated biphenyls
RCRA – Resource Conservation and Recovery Act
TCLP – toxicity characteristic leaching procedure
TIA – tenant information advisory
TSDF – treatment, storage, and disposal facility
USC – United States Code
USEPA – U.S. Environmental Protection Agency

Table 2-4

Groundwater Preliminary Remediation Goals
Greater Strawberry Point Feasibility Study
Martin State Airport, Middle River, Maryland

Chemical of Concern	Potential receptor[(1)]	Construction PRG, µg/L	Type	Residential PRG, µg/L	Type	Notes
Trichloroethene	Ind-Con, R	320	RB	5	MCL	
1,2-Dichloroethane	R	NA	NA	5	MCL	
Carbon Tetrachloride	R	NA	NA	5	MCL	
Chloroethane	R	NA	NA	3.6	MDE	degradation byproduct[(2)]
Chloroform	R	NA	NA	80	MCL	
cis-1,2-Dichloroethene	R	NA	NA	70	MCL	degradation byproduct[(2)]
Naphthalene	R	NA	NA	0.65	MDE	
Vinyl Chloride	R	NA	NA	2	MCL	
Bromomethane	R	NA	NA	0.85	MDE	
Arsenic	R	NA	NA	10	MCL	
Chromium	R	NA	NA	100	MCL	
Cobalt	R	NA	NA	6	RB	
Iron	R	NA	NA	300	MDE	
Manganese	R	NA	NA	50	MDE	
Nickel	R	NA	NA	73	MDE	
Thallium	R	NA	NA	2	MCL	
Vanadium	R	NA	NA	3.7	MDE	
TPH-GRO (C06-C10)	R	NA	NA	47	MDE	
TPH-DRO (C10-C32)	R	NA	NA	47	MDE	

[(1)] Potential receptor: Con = construction worker; R= residential receptor

[(2)] no exceedances

DRO - diesel-range organic
GRO - gasoline range-organic
MCL - maximum contaminant level
MDE - Maryland Department of the Environment generic numeric cleanup standard
µg/L - microgram(s) per liter
NA - not applicable
PRG - preliminary remediation goal
RB -risk-based

SECTION 3
IDENTIFICATION AND SCREENING OF TECHNOLOGIES AND DEVELOPMENT OF ALTERNATIVES

Possible technologies and process options considered to achieve remedial action objectives (RAOs) for the Greater Strawberry Point (GSP) area remedy are identified, screened, and evaluated in this section. The primary objective of this phase in the feasibility study (FS) is to develop an appropriate range of technologies and process options that will be used to develop alternatives to achieve remedial action objectives (RAOs). Technologies for contaminated groundwater remediation are discussed, and remedial alternatives are assembled in this section. Descriptions of the remedial alternatives developed and a detailed analysis of them are in Section 4.

The applicable or relevant and appropriate requirements (ARARs), chemicals of concern (COC), RAOs, preliminary remediation goals (PRGs), and areas and volumes of contaminated groundwater discussed in Section 2 are used in this section to identify and screen contaminated groundwater remediation technologies. Identification of general response actions (GRAs) (Section 3.1), preliminary screening of technologies and process options (Section 3.2), and evaluation of representative remedial technologies (Section 3.3) are also presented below. Remedial alternatives are developed using retained technologies and process options (Section 3.4). Selection of remediation technologies and process options for initial screening is based on United States Environmental Protection Agency (USEPA) guidance (USEPA, 1988).

Screening is first conducted at a preliminary level, to focus on relevant remediation technologies and process options, and then continues at a more detailed level based on three broad evaluation criteria: effectiveness, implementability, and cost. Finally, process options are selected to represent the remediation technologies that have passed the detailed evaluation and screening. The evaluation criteria for the detailed screening of remediation technologies and process options

retained are effectiveness, implementability, and cost. Descriptions of these evaluation criteria follow:

- ***Effectiveness***
  - protection of human health and environment; reduction in toxicity, mobility, or volume; and permanence of solution
  - ability of the technology to address the estimated areas and volumes of the contaminated media
  - ability of the technology to meet the RAOs
  - technical reliability (innovative versus well proven) with respect to contaminants and site conditions
- ***Implementability***
  - overall technical feasibility of the technology at the site
  - availability of vendors, mobile units, storage and disposal services, etc.
  - administrative feasibility
  - special long-term considerations (e.g., maintenance and operation requirements)
- ***Cost (qualitative)***
  - capital cost
  - operation and maintenance (O&M) costs
  - relative cost (high, medium, and low) are provided, based on experience with similar projects and publicly available information from the Federal Remediation Technologies Roundtable (FRTR) and Interstate Technology and Regulatory Council (ITRC) screening tools (FRTR, 2012; ITRC, 2012)

3.1 GENERAL RESPONSE ACTIONS

GRAs are the broad frameworks under which remedial technologies are identified to attain RAOs. Assembling GRAs sets the framework for remedial alternatives development. The GRAs for this FS were assembled with consideration of current and potential future land uses, and are described below:

- no action
- limited action
- containment
- treatment

3.1.1 No Action

The no action response is retained throughout this FS process, as required by the *National (Oil and Hazardous Substances Pollution) Contingency Plan* (NCP). The no action response provides a comparative baseline against which other alternatives can be evaluated. Under this response, no remedial action is taken upon contaminated media and there would be no implementation of additional monitoring, land use controls (LUCs), containment, treatment, or other mitigating actions.

3.1.2 Limited Action

Limited action includes various passive approaches. Institutional controls include various site access controls or land use restrictions to reduce or eliminate direct-contact pathways of exposure. These controls could involve monitoring, groundwater and LUCs, and access controls. The toxicity, mobility, or volume of the contaminants is not directly reduced through implementation of LUCs.

3.1.3 Containment

Another method of reducing risk to human health and the environment is through containment, which involves using physical measures to reduce the potential for exposure and containment migration. To reduce contaminant migration, contaminated environmental media must be isolated from the primary transport mechanisms (e.g., wind, erosion, surface water, and groundwater movement). For example, surface or subsurface barriers can isolate contaminated media from contact with human or ecological receptors and prevent contaminant migration. Containment is often combined with LUCs in developing remedial alternatives.

3.1.4 Treatment

Treatment of impacted media involves chemical or physical processes to reduce contaminant toxicity. Treatment can be performed using *in situ* or *ex situ* technology to address contamination. Phytoremediation, chemical injection, and natural attenuation are examples of *in situ* (in place) treatment. *Ex situ* treatment technologies include chemical treatment, air stripping, and granular activated-carbon adsorption. A significant limitation of physical or chemical treatment technologies is that different technologies are effective for organic versus inorganic contaminants.

3.2 PRELIMINARY SCREENING OF TECHNOLOGIES AND PROCESS OPTIONS

A variety of technologies and process options were identified under each GRA, and screened to focus on the conditions, medium of concern, and COC for the GSP area. The technologies and process options evaluated were identified based on experience with similar projects and publicly available information from the FRTR technologies screening matrix tool (FRTR, 2012), and using the ITRC screening tool (ITRC, 2012). Table 3-1 presents technology and process-option preliminary screening for groundwater, based on USEPA FS guidance (USEPA, 1988). GRAs and their applicability to each RAO are in Table 3-2. Technologies and process options are further evaluated in Section 3.3.

3.3 EVALUATION OF TECHNOLOGIES AND PROCESS OPTIONS FOR GRAS

The technologies and process options that remain after preliminary screening are retained based on evaluation of three broad criteria. Screening evaluations generally focus on effectiveness and implementability, with less emphasis on cost. Process options precluded by waste or chemical characteristics, and are not applicable to site conditions, are screened out and eliminated from further consideration.

3.3.1 No Action

"No action" includes no controls, remediation, or other actions to address contamination or mitigate risks at the site. The no action alternative is retained and evaluated, as required by the NCP.

- ***Effectiveness—***The no action alternative would not effectively meet RAOs, because no action would be taken to prevent direct exposure of human or ecological receptors to contaminated soil and groundwater present at the GSP area; therefore, unacceptable risks from contaminated media would remain.

- ***Implementability—***No technical implementability concerns exist, because no actions would be implemented.

- ***Cost—***No costs would be associated with the no action alternative.

- ***Conclusion—***Although the no action alternative does not effectively meet RAOs, it is retained as required under the federal Comprehensive Environmental Response,

Compensation, and Liability Act (CERCLA) and the NCP. The no action alternative is carried through this FS to provide a baseline for comparison with other alternatives.

3.3.2 Monitoring

Sampling and analysis of groundwater would be used to evaluate COC migration. Monitoring would also be used to monitor potential natural attenuation or the progress of active groundwater remediation.

- ***Effectiveness—***Monitoring would not of itself reduce the toxicity, mobility, or volume of COC in groundwater, but it would allow evaluation of potential COC migration and the expected reductions in their concentrations through natural attenuation or active remediation.

- ***Implementability—***A groundwater monitoring program could be readily implemented and is routinely performed at other sites. Monitoring well installation would need to comply with state and local regulations.

- ***Cost—***Capital and O&M costs of monitoring would be low.

- ***Conclusion—***Monitoring is retained in combination with other process options in developing groundwater remedial alternatives.

3.3.3 Land Use Controls

Institutional controls as stand-alone process options consist of LUCs and groundwater use restrictions. Deed restrictions or environmental covenants can be used to prevent future land use from posing a risk to human health, and would also prevent groundwater use. LUCs would be in place to protect monitoring wells. Note that elevated VOC concentrations in groundwater might also require LUCs that restrict building construction over the plume. Such restrictions would require special construction methods to control vapor intrusion, such as vented foundations or vapor barriers for buildings. LUCs would also include periodic inspections to verify that land use has not changed and that the vapor-intrusion controls, if required, are in place and maintained.

- ***Effectiveness—***Land use and groundwater use restrictions can be effective in reducing exposure, depending on how control is implemented and maintained in the long-term. LUCs would not reduce the toxicity, mobility, or volume of COC in groundwater.

- ***Implementability—***Land use and groundwater use restrictions are readily implementable, assuming that the site will continue to be used as an airport/commercial facility.

- ***Cost—***Costs of use restrictions and routine inspections are low.

- ***Conclusion*—**LUCs, in the form of environmental covenants will be retained, as risks to human health from contaminated soil and groundwater exist for residential uses, but not for current and future commercial/industrial uses. Long-term site inspection would also be retained with LUCs required under any remedial technology option.

3.3.4 Monitored Natural Attenuation

Monitored natural attenuation (MNA) would consist of monitoring groundwater quality to determine the extent to which naturally occurring processes such as biodegradation, abiotic transformation, dispersion, and dilution would reduce COC concentrations over time. For this purpose, new monitoring wells would be installed if needed to provide adequate groundwater monitoring points for this evaluation. For chlorinated ethenes and other organics, samples from new and existing wells would be regularly collected and analyzed for natural attenuation parameters such as oxidation-reduction potential (ORP), dissolved oxygen (DO), pH, alkalinity, temperature, conductivity, total organic carbon, ferrous and total iron, sulfur compounds (sulfide and sulfate), nitrogen compounds (nitrite and nitrate), orthophosphate, chloride, and metabolic gases (methane, ethane, ethene, and carbon dioxide).

Natural attenuation processes may also reduce concentrations of inorganic contaminants. Dispersion and dilution would reduce concentrations over time. As metals migrate to zones with different geochemistry, metals may precipitate or sorb onto soil particles. For inorganics, MNA consists of long-term monitoring of metals and geochemical parameters such as ORP, pH, and dissolved oxygen.

- ***Effectiveness*—**Naturally occurring processes could reduce concentrations of trichloroethene (TCE) and other organic contaminants in groundwater over the long term. Sampling results of previous investigations indicate that natural reductive dehalogenation is occurring at the site. Organic COC concentrations are relatively low, which is appropriate for MNA. Similarly, naturally occurring processes could reduce metals concentrations over the long term. Groundwater monitoring would effectively evaluate COC concentrations in groundwater and assess the rate of decrease of these concentrations. Monitoring of indicator parameters would help evaluate the potential effectiveness of reductive dehalogenation and other biological process.

- ***Implementability*—**MNA would be easy to implement. Monitoring groundwater quality and periodically reviewing site conditions could readily be done, and the necessary resources are available to provide these services.

- ***Cost*—**Capital and O&M costs for MNA would be low.

- ***Conclusion*—**We expect that MNA would be a stand-alone alternative, as well as a component for any of the other alternatives evaluated, because of the relatively low COC concentrations.

3.3.5 *In situ* Enhanced Bioremediation

In situ enhanced bioremediation involves the use of microorganisms to breakdown hazardous organic compounds into nontoxic or less toxic forms. *In situ* enhanced bioremediation includes biostimulation and bioaugmentation. Biostimulation uses an electron donor (ED) to cause anaerobic reductive-dehalogenation of chlorinated VOCs, such as TCE, and the growth of indigenous microorganisms and natural biodegradation processes. Bioaugmentation consists of using a bacterial culture to increase the naturally occurring microorganism population and provide organisms specifically targeted to degrade COC.

For the GSP area, *in situ* biostimulation would consist of an ED such as a lactate or emulsified-oil substrate to enhance the anaerobic reductive-dechlorination of the TCE and other chlorinated VOCs (cVOCs). TCE can be transformed to ethene, carbon dioxide, chloride, and water through anaerobic biological processes. *In situ* bioaugmentation could involve injecting a specialized bacterial culture, such as *Dehalococcoides* (DHC), to enhance TCE dechlorination if indigenous microorganisms are not sufficient. The ED compound and/or bacterial culture would be injected into the plume using multiple direct-push-technology (DPT) injection points or permanent injection wells. DPT injection is simple to implement and can be used over large areas.

- ***Effectiveness*—**Biostimulation with an ED and bioaugmentation with the use of DHC are fairly well-proven technologies for the complete dehalogenation of non-degraded chlorinated solvents (e.g., TCE) from groundwater. However, the reducing conditions created by the ED can mobilize metals, such as iron and manganese.

- ***Implementability*—***In situ* enhanced bioremediation could be implemented at the GSP area. Many qualified contractors would be available for the implementation of this technology. Application of an ED and bacterial culture would best be accomplished through DPT injection because of the relatively large surface area. Placement of permanent injection points could interfere with future site uses.

- ***Cost*—**Capital and O&M costs for *in situ* enhanced bioremediation would be moderate to high.

- ***Conclusion*—**Anaerobic *in situ* enhanced bioremediation is retained in combination with other technologies and process options for the development of remedial alternatives.

3.3.6 *In situ* Chemical Oxidation

In situ chemical oxidation (ISCO) involves injecting chemical agents into the contaminant plume. These chemical agents promote the generation of highly reactive hydroxyl radicals that react with COC such as cVOCs and TPH and result in the oxidative cleavage of the carbon-to-carbon bond, yielding water, carbon dioxide, oxygen, and dilute hydrochloric acid as byproducts. The chemical agents used for this purpose have included powerful oxidants such as iron-catalyzed hydrogen peroxide (known as Fenton's Reagent), sodium persulfate, or potassium permanganate. Milder oxidants, such as catalytically complexed sodium percarbonate (marketed as RegenOx™), have also been successfully used. Similar to *in situ* biological treatment additives, *in situ* chemical-oxidation reagents are generally injected in contaminant plumes using multiple DPT injection points and/or injection wells.

- ***Effectiveness—***ISCO with strong oxidants such as Fenton's Reagent and sodium persulfate is a well-established technology that could be effective in destroying TCE and TPH at the GSP area. ISCO with either strong or mild oxidants might not be cost effective for removing TCE to the very low concentrations typically required to meet groundwater PRGs and restore aquifer quality. This generally requires dosages of oxidants much in excess of stoichiometric *1* amount and/or multiple applications. Accordingly, ISCO is generally better suited to treating highly concentrated hot spots (which are absent at GSP) and source areas, rather than to the more diluted portions of a plume.

  Most oxidizing agents remain active in groundwater for a relatively short time, because they react with both contaminants and naturally occurring substances. The effectiveness of ISCO with either strong or mild oxidants can also be affected by heterogeneous subsurface conditions such as are known to exist at the GSP area. These conditions could result in uneven distribution of the injected chemical agents and incomplete contact of these agents with groundwater COC.

- ***Implementability—***ISCO could be implemented at the GSP area, and a sufficient number of qualified contractors are available to implement the technology. Application of an oxidant would best be accomplished through DPT rather than by recirculation, because of the heterogeneity of subsurface materials at the site, although placement of permanent injection points could interfere with current site operations. The results of a bench- or pilot-scale test would need to be evaluated to refine the implementation of this technology.

- ***Cost—***Capital and O&M costs for ISCO would be moderate to high.

1Refers to the quantity of one substance required to treat a quantity another substance by chemically reacting with it, such that there is no excess of either substance after the reaction occurs.

- ***Conclusion—***ISCO of TCE is retained in combination with other technologies and process options for the development of remedial alternatives.

3.3.7 *In situ* Chemical Reduction

In situ chemical-reduction involves injecting reducing agents into the contaminant plume, particularly in a source area. These reducing agents react with TCE and convert it to chloride and ethene. A common reducing agent is zero-valent iron (ZVI). It is available in micro- and nano-scale particles, and in an emulsified-oil mixture. This latter form is not being considered, because of its potential to mobilize metals. ZVI is mixed with water and then injected into the plume using multiple DPT injection points in a similar manner to other injected chemicals, such as Fenton's Reagent.

- ***Effectiveness—***ZVI has been demonstrated at many sites. However, like other injected reagents, distribution can be affected by heterogeneous overburden materials that could result in uneven distribution of the ZVI particles and incomplete contact with the groundwater COC. The particles are also more difficult to distribute into the fine-grained layers found at the site.

- ***Implementability—***ZVI injection could be implemented at the GSP area. However, the number of qualified contractors specializing in the application of this technology is relatively limited. The results of a pilot-scale test would need to be evaluated to determine the feasibility of applying this technology.

- ***Cost—***Capital and O&M costs for *in situ* chemical reduction would be moderate to high.

- ***Conclusion—****In situ* chemical reduction using ZVI is eliminated from further consideration, because of the potential difficulty associated with uneven particle distribution in the heterogeneous subsurface media.

3.4 DEVELOPMENT OF REMEDIATION ALTERNATIVES

The following technologies/process options were retained to develop the remedial alternatives:

- no action
- monitoring
- enhanced bioremediation (anaerobic)
- LUCs
- MNA
- ISCO

The retained technologies/process options were used to develop four remedial alternatives for the GSP area remedy. Detailed descriptions and evaluations of the alternatives are in Section 4. The remedial alternatives developed for this combined remedy are as follows:

- ***Alternative G1***: no action
- ***Alternative G2:*** monitored natural attenuation
- ***Alternative G3:*** in situ chemical oxidation
- ***Alternative G4:*** in situ enhanced bioremediation

Table 3-1

Screening of Technologies and Process Options – Groundwater
Greater Strawberry Point Feasibility Study
Martin State Airport, Middle River, Maryland

Technology Type	Description	Technology Screening Comments	Retained?	Cost
Monitoring	Sampling and analysis of groundwater would be used to evaluate migration of chemicals of concern (COC). Monitoring would also be used to evaluate potential natural attenuation or the progress of active groundwater remediation.	Technology does not change COC concentrations and would be part of an overall remedy.	Yes, in conjunction with other process options	Low
Land Use Controls (LUCs)	LUCs would be designed to protect public health and the environment from residual contamination at environmental sites. LUCs would consist of administrative or legal mechanisms (e.g., deed or zoning restrictions, permits, etc.) designated as institutional controls and/or physical controls (e.g., fencing, security guards, etc.) designated as engineering controls. Site-specific LUCs would typically be formulated through a LUC Remedial Design (RD). LUCs would typically also include the performance of regular site inspections to verify continued implementation. Depending upon the site-specific conditions, LUCs can be used alone or in conjunction with other remedial actions.	Technology does not change COC concentrations, and would be part of site-wide remedy. Use of LUCs that limit or prevent exposure will reduce risk.	Yes	Low
Enhanced Bioremediation (aerobic)	Enhanced bioremediation is a process in which indigenous or inoculated microorganisms degrade organic contaminants, converting them to innocuous end products. Enhanced bioremediation is most suited for lower to mid-level COC concentration plumes. Enhanced aerobic bioremediation typically involves the subsurface injection of groundwater or potable water mixed with nutrients, amendments, and saturated with dissolved oxygen. Oxygen can be provided by air sparging (biosparging), pure oxygen sparging/diffusion, and injection of oxygen-releasing compounds.	The effectiveness of enhanced aerobic bioremediation on chlorinated volatile organic compounds (cVOCs) is limited to co-metabolic mechanisms. Typically, a growth substrate such as phenol or methane is required as an amendment to support co-metabolic mechanisms. This technology would require a bench-scale and/or a pilot-scale test to determine amendment requirements.	No	Low to Moderate
Enhanced Bioremediation (anaerobic)	Enhanced bioremediation is a process in which indigenous or inoculated microorganisms degrade organic contaminants, converting them to innocuous end products. Enhanced anaerobic bioremediation for cVOCs typically involves the subsurface injection of groundwater or potable water mixed with nutrients, microorganisms, and electron donors to promote anaerobic degradation of chlorinated compounds (reductive dechlorination). In the absence of oxygen, microorganisms are used to metabolize organic amendments which provide energy which is used to reduce contaminants to innocuous end products.	In general, chlorinated compounds can be sequentially degraded and ultimately mineralized to carbon dioxide (CO_2), water, and chloride ions if the appropriate bacteria strains are active and viable in the subsurface. Anaerobic bioremediation creates reducing conditions which solubilize many metals, notably iron, manganese, and complexed arsenic, if present. This technology would require a bench-scale and/or a pilot-scale test to determine electron donor and nutrient requirements.	Yes	Low to Moderate
Monitored Natural Attenuation	Monitored natural attenuation (MNA) would consist of monitoring groundwater quality to determine the extent to which naturally occurring processes such as biodegradation, abiotic transformation, dispersion, and dilution would reduce concentrations of organic COC over time.	The technology is best suited for low concentrations of contaminants and/or groundwater with limited receptors.	Yes	Low
Phyto-remediation	Phytoremediation involves the use of plants to reduce hazardous organic and inorganic compounds to nontoxic or less toxic concentration levels. Phytoremediation is most applicable in large areas with low to moderate contaminant levels at shallow depths. Phytoremediation may utilize various species of plants depending on the required mechanism and COC. A treatability study would be required in order to verify species selection and quantify removal efficiency for specific COC.	The technology is best suited to contaminants in shallow groundwater that can be reached by the roots of the plants. The technology also requires planting over the entire area of contamination, and long-term maintenance of the plants. Because of the closer proximity of the runways and taxiways and the potential for heavy vegetation to interfere with aircraft operations, this technology will not be retained.	No	Low

Table 3-1

Screening of Technologies and Process Options – Groundwater
Greater Strawberry Point Feasibility Study
Martin State Airport, Middle River, Maryland

Technology Type	Description	Technology Screening Comments	Retained?	Cost
Air Sparging and Soil Vapor Extraction (SVE)	Air sparging is an *in situ* technology in which air is injected into a contaminated aquifer. Injected air traverses horizontally and vertically in channels through the soil column, creating an underground stripping action that removes contaminants by volatilization. This injected air helps to flush (bubble) the contaminants up into the unsaturated zone where a vapor extraction system may be implemented in conjunction with air sparging to remove the generated vapor phase contamination. This technology is designed to operate at high flow rates to maintain increased contact between groundwater and soil and strip more groundwater by sparging. The addition of air promotes aerobic biodegradation. Vacuum is applied through extraction wells to create a pressure/concentration gradient that induces gas-phase VOCs to diffuse through soil to extraction wells. The process must include a system for handling off-gases.	The target contaminant groups for air sparging are cVOCs. Factors that may limit the applicability and effectiveness of the process include: • Air flow through the saturated zone may not be uniform, which implies that there can be uncontrolled movement of contaminated vapors. • Depth of contaminants and specific site geology must be considered. • Air injection wells must be designed for site-specific conditions. • Soil heterogeneity may cause some zones to be relatively unaffected. Relatively high capital cost and operating cost for permanent facility for low mass removal in small areas. Off-gas treatment may be required depending on the level of VOCs.	No. Technology is not suited for heterogeneity of site and the clay layer would prevent upward migration of vapor and air. Relatively high cost for the required low level of removal.	Moderate
Chemical Oxidation	Chemical oxidizers most commonly employed are Fenton's Reagent, sodium persulfate, or potassium permanganate. These oxidizers have been used for the rapid and complete chemical destruction of many toxic organic chemicals; other organics are amenable to partial degradation as an aid to subsequent bioremediation. Metals may be oxidized to less soluble forms. Field applications have clearly affirmed that matching the oxidizer and *in situ* delivery system to the contaminants of concern (COC) and the site conditions is the key to successful implementation and achieving performance goals. Also included in this category are less aggressive approaches to creating oxidizing conditions. Oxygen can be added to the groundwater by air sparging (as described above), sparging with pure oxygen through diffusers, and by injecting oxygen releasing compounds.	This technology is applicable to cVOCs. Bench-scale and/or a pilot-scale testing should be conducted prior to implementation to establish effectiveness and dosage rates. Implementation can be by continuous groundwater injection via groundwater well or by direct push injection into the subsurface. Factors that may limit the applicability and effectiveness in a direct push injection application include: • Multiple applications of direct push injections in a grid pattern would be required. • A significant quantity of oxidant would be required to reduce the COC • Uneven distribution of the oxidants is possible due to the surficial aquifer containing highly heterogeneous lithology, although distribution in the deep sand layer may be more successful.	Yes	Moderate to High

Table 3-1

Screening of Technologies and Process Options – Groundwater
Greater Strawberry Point Feasibility Study
Martin State Airport, Middle River, Maryland

Technology Type	Description	Technology Screening Comments	Retained?	Cost
Chemical Reduction (organics)	*In situ* chemical reduction involves the injection of reducing agents into the contaminant plume, particularly in a source area. These reducing agents react with trichloroethene (TCE) and convert it to chloride and ethene. The agents react with dichloroethane and convert it to chloride and ethane. A common reducing agent is zero-valent iron (ZVI), which is often used in permeable reactive barriers. Nano-scale ZVI (nZVI) was tested during the pilot study in 2005 and was found to be effective at the site. A slurry of nZVI is pumped into a series of wells in the treatment zone so that the particles are distributed in the contaminated groundwater. Another form of ZVI, emulsified ZVI (EZVI), is composed of food-grade surfactant, biodegradable vegetable oil, water, and ZVI particles, either nano- or micro-scale. Each emulsion droplet consists of a ZVI particle surrounded by an oil-liquid membrane. The exterior oil membrane of the droplet has hydrophobic properties similar to dense non-aqueous-phase liquid (DNAPL) that allow the droplets to be miscible with the DNAPL. The contact between the droplets and the DNAPL allow PCE and TCE to come into contact and react with the ZVI. The EZVI technology is primarily intended for application to DNAPL, but it can also be used for treating dissolved-phase contaminants. Another variation of the process uses large diameter augers equipped with injectors so that ZVI, along with other additives such as bentonite clay and/or biodegradable vegetable oil, can be thoroughly mixed with the contaminated soil.	Factors that affect *in situ* chemical reduction are similar to those for *in situ* chemical oxidation. Heterogeneous layers and fine grained material will interfere with subsurface distribution of ZVI particles.	Yes	Moderate to High
Surfactant Enhanced Aquifer Remediation (SEAR)	SEAR is accomplished by flushing groundwater amended with surfactants through in-place saturated soil using an injection and extraction process. Approaches can include solubilization or mobilization of COC. Solubilization approaches must include extraction fluids being recovered, treated, and possibly recycled. Mobilization approaches lower interfacial tension forces within the subsurface and groundwater and COC's amenable to mobilization are extracted and collected via extraction wells.	SEAR is typically conducted at sites with very high concentrations of COC or the presence of non-aqueous phase liquids (NAPLs). This technology is applicable to cVOCs and BTEX compounds. Further delineation is required to determine if NAPLs are present as well as collection of other engineering parameters to determine if technology is suitable. A bench-scale and/or a pilot-scale testing should be conducted prior to implementation to determine effectiveness and worth. Factors that increase the applicability and effectiveness of a SEAR implementation include: • If NAPL is present and can be extracted significant mass can be removed from the site in a short amount of time. • If injection and extraction wells are used for implementation these wells can be re-used in second phase bioremediation technology. Factors that may limit the applicability and effectiveness of a SEAR implementation process include: • If solubilization is used, above ground equipment to separate COC from extracted groundwater could be relatively extensive. • Capital, electric usage, and operators are needed to operate above ground equipment for up to several months depending on size of treatment area • With induced movement of groundwater, confirmation of the groundwater capture would be needed.	No. Heterogeniety and clay layer makes technology difficult to apply. Low COC concentrations limit the cost-effectiveness of the method Large pilot effort required.	High

Table 3-1

Screening of Technologies and Process Options – Groundwater
Greater Strawberry Point Feasibility Study
Martin State Airport, Middle River, Maryland

Technology Type	Description	Technology Screening Comments	Retained?	Cost
Thermal Treatment - Steam Injection and Vacuum Extraction	Steam is forced into an aquifer through injection wells to vaporize volatile contaminants. Vaporized components rise to the unsaturated (vadose) zone where they are removed by vacuum extraction and then treated. *In situ* biological treatment may follow the displacement and is continued until groundwater contaminants concentrations satisfy statutory requirements. The process can be used to remove large portions of oily waste accumulations and to retard downward and lateral migration of organic contaminants. The process is applicable to shallow and deep contaminated areas and readily available mobile equipment can be used. Hot water/steam injection is typically short to medium duration, lasting a few weeks to several months.	The target contaminant groups for hot water or steam flushing/stripping are semivolatile organic compounds (SVOCs) and fuels. VOCs also can be treated by this technology, but there are more cost-effective processes for VOCs removal. After application of this process, subsurface conditions are good for biodegradation of residual contaminants. The following factors may limit the applicability and effectiveness of the process: • Saturated soil with highly variable permeabilities may result in uneven delivery of steam to the contaminated regions. • Saturated soil that has a high organic content has a high sorption capacity of VOCs, which results in reduced removal rates. • Air emissions would need to be regulated to eliminate possible harm to the public and the environment. Air treatment and permitting will increase project costs. • Residual liquids and spent activated carbon may require further treatment.	No. Heterogenous saturated soil and clay layer would lead to uneven treatment. High treatment cost.	High
Thermal Treatment - ERH	*In situ* electrical resistance heating (ERH) involves passing alternating current between electrodes in the ground, resulting in heating of the material through which the current passes. This technology can be employed using either three-phase or six-phase current. With the six-phase heating, six electrodes are placed in a circular array, with each connected to a single-phase transformer. With each electrode at a different voltage phase, each conducts electrical current to other electrodes in the array and provides more uniform heating than with three-phase heating. Typical electrodes consist of steel-cased vertical pipes with iron filings and graphite in the annular space. The heating boils the aquifer, resulting in a combination of volatilization and steam stripping of contaminants that can then be removed using the electrodes as vapor extraction (VE) points. As required and similar to air sparging (AS)/VE systems, extracted vapors may be treated with granular activated carbon (GAC) adsorption or other appropriate technologies prior to venting to the atmosphere. If GAC adsorption is selected for vapor treatment, these vapors would first need to be dehumidified to maintain the effectiveness of the GAC adsorption.	Applicable to VOCs. High energy cost associated with electricity. This technology is unaffected by heterogeneity.	No. High cost and high energy use would not be cost-effective for relatively low site concentrations.	High
Bioslurping	In bioslurping, vacuum-enhanced pumping allows low-density non-aqueous-phase liquid (LNAPL) to be lifted off the water table and released from the capillary fringe. This minimizes changes in the water table elevation which minimizes the creation of a smear zone. Bioventing of vadose zone soil is achieved by drawing air into the soil due to withdrawing soil gas via the recovery well. Bioslurping can be successfully used to remediate soil contaminated by petroleum hydrocarbons. It is a cost-effective *in situ* remedial technology that simultaneously accomplishes LNAPL removal and soil remediation in the vadose zone.	Intended for sites with free product layer.	No (no free product)	Low
Dual-Phase Extraction	A high vacuum system is applied to simultaneously remove various combinations of contaminated groundwater, separate-phase petroleum product, and hydrocarbon vapor from the subsurface.	Intended for sites with free product layer.	No (no free product)	Moderate

Table 3-1

Screening of Technologies and Process Options – Groundwater
Greater Strawberry Point Feasibility Study
Martin State Airport, Middle River, Maryland

Technology Type	Description	Technology Screening Comments	Retained?	Cost
In-Well Stripping	In-well stripping (IWS) technology air is injected into a vertical well that has been screened at two depths. The lower screen is set in the groundwater saturated zone, and the upper screen is in the unsaturated zone. Pressurized air is injected into the well below the water table, aerating the water. The aerated water rises in the well and flows out of the system at the upper screen. Contaminated groundwater is drawn into the system at the lower screen. The VOCs vaporize within the well at the top of the water table, as the air bubbles out of the water. The vapors are drawn off by a soil vapor extraction (SVE) system. The partially treated groundwater is never brought to the surface; it is forced into the unsaturated zone, and the process is repeated as water follows a hydraulic circulation pattern or cell that allows continuous cycling of groundwater. As groundwater circulates through the treatment system *in situ*, contaminant concentrations are gradually reduced.	IWS systems are most effective at treating sites with volatile contaminants with relatively high aqueous solubility and strong biodegradation potential, e.g., halogenated and non-halogenated VOCs. IWS operates more efficiently with horizontal conductivities greater than 10^{-3} cm/sec and a ratio of horizontal to vertical conductivities between 3 and 10 and should not be utilized at sites that have lenses of low-conductivity deposits. Fouling of the system may occur by infiltrating precipitation containing oxidized constituents. Shallow aquifers may limit process effectiveness. Effective IWS installations require a well-defined contaminant plume to prevent the spreading or smearing of the contamination. They should not be applied to sites containing NAPLs to prevent the possibility of smearing the contaminants.	No. Heterogenous saturated soil and clay layer limits the application of the process at site.	Moderate to High
Passive/Reactive Treatment Walls (Permeable Reactive Barriers [PRBs])	PRBs involve emplacement of reactive materials in the subsurface to intercept a contaminant plume, provide a flow path through the reactive media, and transform the contaminant(s) into environmentally acceptable forms to attain PRGs downgradient of the barrier. PRBs have been used to treat a wide range of groundwater contaminants, including chlorinated, non-chlorinated VOCs, and metals.	Best suited for locations where bottom of PRB can be placed in a confining layer. The subsurface is heterogeneous and clay layers are found at depth of 25 to 50 feet bgs. Hydraulic conductivity values are between 1 and 10 feet/year which adds uncertainty to the design and application of PRBs.	No	Moderate to High
Groundwater Extraction	Groundwater extraction uses a pumping system composed of a series of wells that are used to capture contaminated groundwater for treatment. The wells used in the capture system are designed and located to provide optimum efficiency in capturing contaminated groundwater while minimizing the collection of uncontaminated groundwater.	Extraction is effective in collecting contaminated groundwater for subsequent treatment. However, contaminants sorbed to the soil matrix of the aquifer may be released slowly, limiting the final endpoint concentration of the groundwater to a level greater MCLs even as pumping continues. Because of heterogeneity of the shallow groundwater, the effectiveness of removal is uncertain. In addition, there are no off-site risks or impacts, so extraction for containment does not need to be considered.	No	Low

Technology Type	Description	Technology Screening Comments	Retained?	Cost
Physical Barrier	Physical barriers (or slurry walls) are used to contain contaminated groundwater, divert contaminated groundwater from the drinking water intake, divert uncontaminated groundwater flow, and/or provide a barrier for a groundwater treatment system. Slurry walls are typically placed at depths up to 30 meters (100 feet) and are generally 0.6 to 1.2 meters (2 to 4 feet) in thickness. Installation depths over 30 meters (100 feet) are implementable using clam shell bucket excavation. The most effective application of the slurry wall for site remediation or pollution control is to base (or key) the slurry wall 0.6 to 0.9 meters (2 to 3 feet) into a low permeability layer such as clay or bedrock. This "keying-in" provides for an effective foundation with minimum leakage potential. An alternate configuration for slurry wall installation is a "hanging" wall in which the wall projects into the groundwater table to block the movement of lower density or floating contaminants such as oils, fuels, or gases. Hanging walls are used less frequently than keyed-in walls.	Slurry walls contain the groundwater itself, thus treating no particular target group of contaminants. However, the contaminants are not directly addressed. Containment is often most applicable to sites where off-site risks are likely to occur or where high-strength sources are present that may act as a continuing source of downgradient contamination.	No. Plumes are not adversely impacting off-site receptors. Concentrations are not indicative of a concentrated source.	Moderate to High
Hydraulic Barrier	Groundwater extraction wells placed on the downgradient side of the plume prevent migration of contaminants. Extraction rates are limited to that necessary to intercept the plume. Extracted water must be treated prior to discharge or reinjection. Groundwater extraction would continue until PRGs have been met.	Like a physical barrier, there is no treatment except for small quantities which are gradually extracted by the pumping system. Containment is often most applicable to sites where off-site risks are likely to occur or where high-strength sources are present that may act as a continuing source of downgradient contamination.	No. Plumes are not adversely impacting off-site receptors. Concentrations are not indicative of a concentrated source.	High

AS – air sparging
BTEX – benzene, toluene, ethylbenzene, and xylenes
CO_2 – carbon dioxide
COC – contaminant of concern
cVOC – chlorinated volatile organic compound
DNAPL – dense non-aqueous phase liquid
DRO – diesel range organics
ERH – electrical resistance heating
EZVI – emulsified zero valent iron
GRO – gasoline range organics
IWS – in-well stripping
LNAPL – light non-aqueous phase liquid
MCL – maximum contaminant level
µg/L – micrograms per liter
mg/L – milligrams per liter
MNA – monitored natural attenuation
Naph – naphthalene
NAPL – non-aqueous phase liquid
nZVI – nano-sized zero valent iron
ORP – oxidation-reduction potential
PAH – polycyclic aromatic hydrocarbon
PCE – tetrachloroethene
PRB – permeable reactive barrier
PRG – preliminary remediation goals
RCRA – Resource Conservation and Recovery Act
SEAR – surfactant-enhanced aquifer remediation
SVE – soil vapor extraction
SVOC – semivolatile organic compound
TCE – trichloroethene
TPH – total petroleum hydrocarbons
VE – vapor extraction
VOC – volatile organic compound
ZVI – zero-valent iron

Table 3-2

Remedial Action Objectives and General Response Actions - Groundwater
Greater Strawberry Point Feasibility Study
Martin State Airport, Middle River, Maryland

Remedial Action Objectives	General Response Actions	Remedial Technology Types and Process Options*			
		No Action	Institutional Controls	Containment (vertical barrier or hydraulic)	Treatment – *In situ* or *Ex situ*
Prevent exposure of construction workers to trichloroethene (TCE) in groundwater during construction activities that cause unacceptable risk based on a hazard index (HI) greater than 1.	Treatment	X	X		X
	Containment	X		X	
Prevent human exposure (including via showering, drinking, and irrigation) to groundwater containing COC concentrations greater than groundwater criteria.	Treatment	X	X		X
	Containment	X		X	
Prevent the lateral migration of contaminated groundwater into Stansbury Creek and Frog Mortar Creek at concentrations that would cause exceedance of ambient water quality criteria or risk-based exposure criteria.	Treatment	X	X		X
	Containment	X		X	
Prohibit future residential development or use of the site, and prevent exposures to site soil other than those of construction/industrial workers during activities consistent with typical industrial use and maintenance.	Treatment	X	X		
	Containment	X			
Prevent exposure of industrial workers and hypothetical residents to VOCs resulting from vapor intrusion into buildings that cause unacceptable risk (total ILCR greater than 1 x 10^{-5} or HI greater than 1).	Treatment	X	X		X
	Containment	X			

* See Table 3-1 for screening of technologies and process options.

SECTION 4
DESCRIPTION AND DETAILED ANALYSIS OF ALTERNATIVES

This section describes the remedial alternatives developed to remedy soil and groundwater at the Greater Strawberry Point (GSP) area, and evaluates each remedial alternative with respect to the criteria in the United States Environmental Protection Agency's (USEPA) *National (Oil and Hazardous Substances Pollution) Contingency Plan* (NCP) and 40 *Code of Federal Regulations* (CFR) Part 300, as revised in 1990. The criteria and their relative importance in the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (also known as Superfund) process are discussed in Section 4.1, and the description and detailed analysis of alternatives is in Section 4.2. Contaminated groundwater is defined herein as groundwater with trichloroethene (TCE) concentrations greater than the construction-worker exposure-based preliminary remediation goals (PRG) listed in Table 2-4. In addition, PRGs for several volatile organic compounds (VOCs) and metals are conservatively based on residential potable water use, even though groundwater will not be subject to potable use. Contaminants in soil pose no unacceptable risk to current site users; however, land use controls (LUCs) will be required to prevent residential land use, potable water use, and exposure under residential use scenarios. The remedial alternatives in this feasibility study (FS) address both soil and groundwater.

4.1 NCP EVALUATION CRITERIA AND RELATIVE IMPORTANCE OF CRITERIA

NCP evaluation criteria, and their relative importance in the CERCLA process, are described below.

4.1.1 Evaluation Criteria

In accordance with the NCP (40 CFR Part 300.430), the following nine criteria are used to evaluate the suite of remedial alternatives developed in earlier stages of this analysis:

- overall protection of human health and the environment
- compliance with applicable or relevant and appropriate requirement (ARARs)
- long-term effectiveness and permanence
- reduction of toxicity, mobility, or volume through treatment
- short-term effectiveness
- implementability
- cost
- regulatory agency acceptance
- community acceptance

The additional non-CERCLA criterion of sustainability will also be evaluated. Sustainability is an important consideration, so the environmental footprint of each remedial action is quantified and compared to the other alternatives in the remaining steps of this analysis.

4.1.1.1 Overall Protection of Human Health and the Environment

Remedial alternatives are assessed for the degree to which they adequately protect human health and the environment over both the short- and long-term. Remedial alternatives can diminish the unacceptable risks posed by hazardous substances or contaminants at the site by eliminating, reducing, or controlling exposure to COC concentrations exceeding remediation goals.

4.1.1.2 Compliance with ARARs

Remediation of the GSP area is not being conducted under CERCLA, but will follow its general guidance identifying applicable requirements and relevant and appropriate requirements. Remedial alternatives are assessed to determine whether they comply with applicable law and, borrowing from sites remediated under the federal CERCLA statute, attain ARARs. Compliance with Maryland law is required, and consideration of guidance issued by Maryland Department of the Environment is included in the assessment of alternatives. Note that federal, state, and local permits will have to be obtained because the remediation is not subject to CERCLA.

4.1.1.3 Long-Term Effectiveness and Permanence

Remedial alternatives are assessed for their long-term effectiveness and permanence, along with the degree of certainty that the alternative would succeed in achieving the remedial action objectives (RAOs). Factors that are considered, as appropriate, include:

- ***Magnitude of residual risk*—**Residual risk is posed by untreated waste or treatment residuals at the conclusion of remedial activities. The residuals' characteristics are considered to the degree that they remain hazardous, taking into account their volume, toxicity, mobility, and propensity to bioaccumulate.

- ***Adequacy and reliability of controls*—**Controls such as containment systems and institutional controls necessary to manage treatment residuals and untreated waste must be shown to be reliable. In particular, this evaluation considers the uncertainties associated with providing long-term protection from residual contamination, assessment of the potential need to replace technical components of the alternative (such as a surface cover, signs, or treatment system), and potential exposure pathways and risks posed if technical components or the entire remedial action should need to be replaced.

4.1.1.4 Reduction of Toxicity, Mobility, or Volume through Treatment

The degree to which the remedial alternative employs recycling or treatment that reduces the toxicity, mobility, or volume of contamination is assessed. This assessment includes treatment used to address threats posed by the site. Factors to be considered, as appropriate, include the following:

- treatment or recycling processes and the materials treated

- amount of hazardous substances, pollutants, or contaminants that will be destroyed, treated, or recycled

- degree of expected reduction in toxicity, mobility, or volume of waste due to treatment or recycling, and the specification reduction(s) occurring

- degree to which the treatment is irreversible

- type and quantity of residual contamination remaining following treatment, considering the persistence, toxicity, mobility, and propensity to bioaccumulate

- degree to which treatment reduces the inherent hazards posed by principal threats at the site

Note that treatment is a preference under CERCLA. However, the GSP area is not a CERCLA site. The relative weight of this criterion in this evaluation is therefore less than the weight that would be assigned under the evaluation of an actual CERCLA site.

4.1.1.5 Short-Term Effectiveness

Short-term impacts of the remedial alternative are assessed considering the following:

- short-term risks that might be posed to the community during implementation
- potential impacts to workers during remedial action, and effectiveness and reliability of protective measures taken to minimize these impacts
- potential environmental impacts of the remedial action, and the effectiveness and reliability of mitigation measures used during implementation
- time until risk protection is achieved

4.1.1.6 Implementability

The ease or difficulty of implementing the alternative is assessed considering the following, as appropriate:

- technical feasibility, including technical difficulties and unknowns associated with the construction and operation of a technology, its reliability, the ease of undertaking additional remedial actions, and the ability to monitor remedy effectiveness
- administrative feasibility, including coordination with other government offices and agencies, and the time required to obtain approvals and permits (if needed) from other agencies
- availability of services and materials, including the availability of adequate off-site treatment, storage capacity, and disposal capacity and services; availability of necessary equipment, specialists, and additional resources; availability of services and materials; and availability of prospective technologies

4.1.1.7 Sustainability

The sustainability of each alternative will be evaluated using *SiteWise*™ software. Factors to be considered, as appropriate, include the following:

- environmental factors, such as energy use and greenhouse gas emissions
- resource consumption
- waste generation compared to recycling and reuse of materials, and the percentage of contaminants destroyed rather than removed (considered under the reduction of toxicity, mobility, or volume through treatment criterion in CERCLA)
- economic factors, such as life-cycle costs, and the site's post-remediation development potential (considered under the cost criterion in CERCLA)

- social factors, such as traffic and noise (considered under the short-term effectiveness criterion in CERCLA)

Evaluation of sustainability is consistent with Lockheed Martin's corporate "Go Green" program. In this program, Lockheed Martin seeks to reduce adverse impacts on the environment through activities such as improved energy efficiency, and reductions in waste generation and water usage.

4.1.1.8 Cost

Costs for remedial alternatives include both capital costs and annual operation and maintenance (O&M) costs. Capital costs include both direct and indirect costs expected at the time of alternative implementation. Annual O&M costs include periodic costs following alternative implementation, and typically include periodic long-term monitoring and inspections. The current value is equal to the sum of the capital costs and annual O&M costs. The accuracy of the costs estimated at this stage of the FS is +50% to −30% of the actual remedial action cost.

4.1.1.9 Regulatory Agency Acceptance

This criterion reflects the NCP's requirements to provide for substantial and meaningful regulatory agency involvement, so that both federal and state environmental agencies will be given the opportunity to comment on the FS. Formal assessment of regulatory agency acceptance is completed after the regulatory agencies have reviewed and commented on the FS and the selected remedy. In addition, the property owner (Maryland Aviation Administration [MAA]) will also be given the opportunity to comment on the FS.

4.1.1.10 Community Acceptance

This criterion refers to the community comments on remedial alternatives under consideration, where "community" is broadly defined to include all interested parties. These comments are considered throughout the CERCLA process. The community acceptance criterion is evaluated following public review of and comment on the selected remedy.

4.1.2 Relative Importance of Criteria

Two *threshold criteria* must be satisfied for an alternative to be eligible for selection:

- overall protection of human health and the environment
- compliance with ARARs (excluding those that may be waived)

Six primary *balancing criteria* are used to weigh the relative merits of alternatives:

- long-term effectiveness and permanence
- reduction of toxicity, mobility, or volume through treatment
- short-term effectiveness
- implementability
- sustainability
- cost

The remaining two *modifying criteria* are also considered during remedy selection: regulatory agency and community acceptance. They will be evaluated after the FS has been reviewed by the Maryland Department of the Environment (MDE), and after the public comment period for the selected remedy. Therefore, this FS addresses only eight of 10 criteria.

4.1.3 Remedy Selection

Remedy selection is a two-step process. The first is to identify a preferred alternative (see Section 5.3) that meets the following criteria:

- protection of human health and the environment
- compliance with ARARs
- cost effectiveness in protecting human health and environment and complying with ARARs
- use of permanent solutions and alternate treatment technologies, or resource recovery technologies, to the maximum extent practicable; due to the nature of the impacted soil and waste, options to meet this criteria are limited

The second step is to review the public comments received, determine whether or not the preferred alternative continues to be the most appropriate remedial action for the site, and secure approval of the chosen remedial action from MDE.

4.2 DESCRIPTION AND DETAILED ANALYSIS OF REMEDIAL ALTERNATIVES

Remediation alternatives developed for soil and groundwater at the GSP area are based on the screening of technologies and process options described in Section 3. These alternatives range from no action to *in situ* treatment. The following four remedial action alternatives, identified by their primary technologies, were developed to address the soil and groundwater contamination at the GSP area:

- ***Alternative G1:*** no action
- ***Alternative G2:*** monitored natural attenuation
- ***Alternative G3:*** in situ chemical oxidation
- ***Alternative G4:*** in situ enhanced bioremediation

Note that each alternative includes a common LUC component that is not included in the alternative's name. Alternative G1 was developed and analyzed to serve as a baseline for comparison to other alternatives, in accordance with the NCP. Descriptions and detailed analyses of these alternatives are in the following sections. Key features of each alternative are summarized in Table 4-1.

4.2.1 Alternative G1: No Action

4.2.1.1 Description

Under this alternative, no action would be taken to remediate groundwater. Since contaminated groundwater would remain in place, migration of contaminants would not be mitigated. Additionally, no LUCs would be implemented to prevent exposure to or use of contaminated groundwater, or to prevent exposure through vapor intrusion, or to prevent residential uses of the site. The no action alternative is included as a requirement of the NCP, and provides a baseline for comparison. This alternative would not improve existing conditions, and would not reduce the toxicity, volume, or mobility of groundwater COC, other than what would result from natural dispersion, dilution, biodegradation, and other attenuating factors. Risks associated with the no action alternative would be the same as those identified in the human health risk assessment (HHRA). Five-year reviews are also not included under the no action alternative.

4.2.1.2 Detailed Analysis

- ***Overall protection of human health and the environment—***Alternative G1 would provide no protection of human health and the environment. Under current industrial land use, the potential for human and ecological exposure to contaminated groundwater would remain. In addition, unacceptable risks to human receptors from exposure to contaminated groundwater would not be reduced if land use were to change to a residential scenario. Potential off-site migration of COC would not be detected, because no groundwater monitoring would be conducted. Neither would the potential for vapor-intrusion into buildings constructed in the future be considered.

- ***Compliance with ARARs and other guidance—***Alternative G1 would not comply with chemical-specific ARARs or other guidance, because no action would be taken to reduce contaminant concentrations. Chemical-specific ARARs might eventually be met by natural attenuation, but no monitoring would be done to verify such changes. Compliance with location-specific ARARs or other guidance would be purely incidental. Action-specific ARARs or other guidance are not applicable.

- ***Long-term effectiveness and permanence—***Alternative G1 would have little long-term effectiveness and permanence, because contaminated groundwater would remain on-site. With no LUCs, a potential exposure under a residential scenario would be posed. Without LUCs to restrict building construction methods, vapor intrusion could potentially pose unacceptable risks to human receptors. With no groundwater monitoring, potential off-site migration of COC would not be detected. Although COC concentrations might eventually decrease to cleanup goals through natural attenuation, no monitoring would verify this.

- ***Reduction of toxicity, mobility, or volume through treatment—***Alternative G1 would not reduce the toxicity, mobility, or volume of contaminants through treatment, because no treatment would occur. Some reduction of the toxicity and volume of COC might occur through natural dispersion, dilution, or other attenuation processes, but no monitoring would be performed to verify this.

- ***Short-term effectiveness—***Implementation of Alternative G1 would produce no short-term adverse impacts to the local community or the environment from cleanup activities, because no action would be undertaken. Alternative G1 would never achieve the RAOs and, although cleanup goals might eventually be achieved through natural attenuation, this would not be verified through monitoring.

- ***Implementability—***Alternative G1 would be readily implementable, because no action would be undertaken. The technical feasibility criteria, including constructability, operability, and reliability, are not applicable. The implementability of additional administrative measures is also not applicable, because no such measures would be taken.

- ***Sustainability—***This alternative would be highly sustainable from financial and construction-impact perspectives. No energy or resources would be consumed, and no greenhouse gases would be generated, because no action would occur. No additional waste would be generated. Alternative G1 has no costs and poses no increase in social factors, such as traffic and noise. However, contamination could be transported off-site via windblown particles or subsequent migration of groundwater to off-site areas. An economic factor to consider is that the potential for future site development would be limited, because this area is within Martin State Airport (MSA), with attendant Federal Aviation Administration (FAA) and MAA restrictions.

- ***Cost—***No costs would be associated with the no action alternative.

- ***Regulatory agency acceptance—***MDE and MAA acceptance will be addressed following receipt of comments.

- ***Community acceptance*—**Community acceptance will be addressed in the *Record of Decision* following the public comment period.

4.2.2 Alternative G2: Monitored Natural Attenuation

4.2.2.1 Description

Alternative G2 would consist of three major components as follows: (1) monitored natural attenuation (MNA), (2) LUCs, and (3) five-year reviews. Descriptions of these individual components are below.

***Component 1: MNA*—**Naturally occurring processes within the aquifer will reduce concentrations of chlorinated VOCs (cVOCs). cVOC concentrations would be reduced primarily through biological activity, but would also be reduced by dispersion, dilution, and movement through the aquifer, and adsorption onto soil particles. MNA of organic compounds is typically demonstrated through lines of evidence. First, groundwater sampling results must show plume stabilization and/or contaminant-mass reduction. Second, geochemical conditions must be shown to be suitable for biological degradation, such as depletion of electron acceptors and donors, increasing metabolic byproduct concentrations, and increasing daughter-compound concentrations.

Groundwater modeling (Tetra Tech, 2017e) indicates that residential PRGs (see Table 2-4) for VOCs at RECs #8 and #9 would be met by natural attenuation in approximately 40 years. Monitoring would assess natural attenuation effectiveness. Groundwater samples would be collected and analyzed for cVOCs and natural attenuation parameters such as oxidation-reduction potential (ORP), dissolved oxygen, pH, alkalinity, temperature, conductivity, total organic carbon, ferrous and total iron, sulfur compounds (sulfate and sulfide), nitrogen compounds (nitrate and nitrite), orthophosphate, chloride, and metabolic gases (methane, ethane, ethene, and carbon dioxide). Wells upgradient of the plume would be selected, as would wells at locations with high concentrations, wells within the plume, and wells near the downgradient edge of the plume. Additional wells would need to be installed to complete delineation of the plume.

Groundwater modeling suggests that cVOCs will not migrate to surface water. New wells would be installed to a depth of approximately 30 feet, but depths would vary according to specific subsurface conditions, due to heterogeneity. A cluster of three wells screened at multiple depths

would be installed north of REC #8 to further evaluate the extent of TCE (trichloroethylene) and confirm the groundwater modeling results.

The detection of TPH at concentrations greater than residential criteria means that monitoring wells near RECs #8, #10, and #11 would need to be routinely sampled and analyzed for TPH. Similarly, because of the metals present, monitoring wells near RECs #4 through #6 would be sampled and analyzed for metals. Additional monitoring wells would be installed downgradient of the locations exhibiting elevated TPH and metals concentrations, if no existing wells are present. If needed, monitoring wells can be installed near the shore to evaluate potential groundwater impacts to surface water. New well placements would be determined by a direct-push-technology (DPT) investigation. Table 4-2 summarizes the existing wells and new wells that would be sampled for this monitoring program.

A long-term monitoring plan would identify wells to be sampled and the parameters to be analyzed for in each well. Wells would be sampled quarterly during the first year to establish baseline conditions. Natural attenuation processes are expected to be slow, so subsequent sampling would be conducted annually until trends can be identified to refine the estimated period to reach residential PRGs. Annual groundwater sampling and analysis reports will be submitted to the regulators. The groundwater monitoring program would be reviewed at intervals no greater than every five years to determine if changes are needed in sampling frequency, analyses, or the wells to be sampled.

***Component 2: LUCs*—**LUCs would also be implemented as part of the MNA program, because COC concentrations would be at concentrations greater than residential PRGs. LUCs would prevent groundwater use and require appropriate personal protection equipment and controls during intrusive construction at RECs #8, #9, and #11. VOCs are in shallow groundwater, but the risk from vapor intrusion cannot be quantified. Therefore, LUCs would be implemented to require any newly constructed buildings to incorporate measures to prevent vapor intrusion, unless it can be shown that no unacceptable risk from vapor intrusion exists. The LUCs would also address soil contamination and prevent residential use of the site, because of elevated COC concentrations in soil.

***Component 3: five-year reviews*—**At least once every five years, a site review would evaluate its status (i.e., the then-current site use and plans for future use), review environmental laws and regulations in effect at the time of the review, review MNA effectiveness, verify that LUCs are effective, and provide direction for further action, if deemed necessary. Site reviews would be required because this alternative would allow soil and groundwater contaminants to remain on-site at concentrations that are unacceptable for unrestricted use.

4.2.2.2 Detailed Analysis

- ***Overall protection of human health and the environment*—**Alternative G2 would protect human health and the environment by LUC implementation. LUCs would protect human health and the environment until residential PRGs can be met through natural attenuation. Restricting groundwater use would protect human health and the environment by avoiding unacceptable risks of exposure to contaminated groundwater. Exposure to VOCs through vapor intrusion would be controlled by building-construction methods. Preventing site residential uses would also prevent unacceptable risk from exposure to soil. LUCs in the form of environmental covenants and MAA permits would prevent future site development and minimize exposure to contaminated soil and groundwater. Monitoring would be protective by evaluating the effectiveness of the natural attenuation and detecting potential migration of contaminants in groundwater.

- ***Compliance with ARARs and other guidance*—**Alternative G2 would meet chemical-specific ARARs through natural attenuation of COC. Alternative G2 would also comply with location- and action-specific ARARs and guidance.

- ***Long-term effectiveness and permanence*—**Alternative G2 would provide long-term effectiveness and permanence. Groundwater monitoring would verify the extent of contaminant migration and whether contaminants are reaching surface water. Maintenance of LUCs through routine inspections would be necessary for long-term effectiveness. Although contaminated soil and groundwater would remain, LUCs would prevent unacceptable exposure of human receptors to COC. An environmental covenant compliant with Maryland's "Uniform Environmental Covenant Act" (UECA) will help ensure that these land use requirements and restrictions are recognized and enforced, and not inadvertently extinguished. The controls proposed in this alternative are considered reliable.

- ***Reduction of toxicity, mobility, or volume through treatment*—**Alternative G2 would not reduce the toxicity, mobility, or volume of contaminants through treatment, because no treatment would occur. However, the concentrations and mass of contaminants would be reduced through natural processes.

- ***Short-term effectiveness*—**The implementation of Alternative G2 would have no short-term adverse impacts to the local community, workers, or the environment; LUCs would be in place to protect construction workers. Exposure of workers to contamination during installation of monitoring wells and groundwater sampling would be minimized by

compliance with federal Occupational Safety and Health Administration (OSHA) requirements, including wearing appropriate personal protective equipment (PPE) and adherence to site-specific health and safety procedures. Implementation of LUCs and monitoring would not adversely affect the surrounding community or the environment. The alternative would be implemented in less than one year. Residential PRGs for VOCs would be met by natural attenuation in approximately 40 years.

- ***Implementability—***Alternative G2 would be readily implementable. LUCs are readily implementable, assuming continued use of the property as a commercial and military airport. Environmental covenants would ensure continued implementation of LUCs if property ownership changes. The technical feasibility criteria of constructability and operability are not applicable. Administrative measures would be relatively simple to implement, and must be enforced and maintained to be reliable. Sampling and maintenance of monitoring wells can be readily accomplished. The resources, equipment, and materials required for these activities are readily available.

- ***Sustainability—***This alternative would be highly sustainable from a financial-impact perspective, and moderately sustainable from a construction-impact perspective, because of its carbon footprint. The carbon footprint for this alternative is much lower compared to Alternatives G3 and G4. Limited physical action from monitoring well installation and long-term monitoring of the wells would occur, so limited energy or other resources would be consumed, and limited greenhouse gases would be generated. A small amount of waste would be generated during well installation and from each sampling event. Costs would be low for well installation, sampling, and inspections, for LUC preparation, project and public meetings, approvals, travel, and for other administrative requirements that would consume energy and generate greenhouse gases. An economic consideration is that future site development potential is limited, because this area is within the MSA. Properly implemented LUCs would prevent potential exposure to COC in groundwater, or to contaminants volatilizing from groundwater into buildings. The *SiteWise*™ results are in Appendix G.

- ***Cost—***Estimated costs for Alternative G2 (see Appendix F) are:

  - capital: $236,000

  - O&M: $35,000 per year (average)

  - total cost (40 years): $1,613,000

- ***Regulatory agency acceptance***—MDE and MAA acceptance will be addressed following receipt of comments.

- ***Community acceptance—***Community acceptance will be addressed during the public involvement/public comment period.

4.2.3 Alternative G3: *In situ* Chemical Oxidation

4.2.3.1 Description

Alternative G3 would consist of four major components as follows: (1) *in situ* chemical oxidation (ISCO), (2) MNA, (3) LUCs, and (4) five-year reviews. Descriptions of these individual components are below.

Component 1: ISCO—Sodium persulfate would be injected at RECs #8 and #9 (see Figure 4-1) using DPT. Treatment depths would be 10 to 30 feet bgs. Multiple injection rounds may be required, because of the high TCE concentrations initially present in RECs #8 and #9, and because gradual desorption of COC from the soil matrix over time could cause concentration rebound. ISCO will also promote oxidizing conditions and cause the precipitation and co-precipitation of specific metals, such as iron, manganese, and arsenic. Only the area with elevated concentrations of TCE would be treated; the lower concentrations of contaminants downgradient would be managed by natural attenuation.

The use of sodium persulfate was assumed for preliminary purposes. Dosages are based on preliminary quotes from a reagent vendor (Regenesis). An injection-point spacing of 10 feet is assumed because soil permeability is low. An estimated 93,000 pounds of sodium persulfate and 245 injection points would be required (see Appendix E). A bench-scale study would identify the appropriate oxidant and catalyst dosages, and a pilot study before the full-scale design has been implemented would verify the spacing of injection points and confirm oxidant and catalyst dosages.

Component 2: MNA—The MNA component is the same as that described in Alternative G2.

Component 3: LUCs—LUCs would be implemented as that described in Alternative G2.

Component 4: five-year reviews—Five-year reviews would be conducted as described in Alternative G2.

4.2.3.2 Detailed Analysis

- ***Overall protection of human health and the environment—***Alternative G3 would protect human health and the environment by treating and eliminating some of the COC, and by LUC implementation. LUCs would protect human health and the environment until

residential PRGs can be met through natural attenuation. Restricting the groundwater use would protect human health and the environment by avoiding unacceptable risks of exposure to contaminated groundwater. Exposure to VOCs through vapor intrusion would be controlled by building-construction methods. Preventing residential uses of the site would also prevent unacceptable risk from exposure to soil. LUCs in the form of environmental covenants would prevent future site development and minimize exposure to contaminated soil and groundwater. Monitoring would protect human health and the environment by evaluating the effectiveness of the natural attenuation and detecting potential migration of contaminants in groundwater.

- ***Compliance with ARARs and other guidance—***Alternative G3 would meet chemical-specific ARARs through *in situ* treatment and natural attenuation of COC. Alternative G3A would also comply with location- and action-specific ARARs and guidance.

- ***Long-term effectiveness and permanence—***Alternative G3 would provide long-term effectiveness and permanence. ISCO would effectively and permanently remove some groundwater COC. ISCO is a well-established method of groundwater treatment. Groundwater monitoring would verify the extent of contaminant migration and whether contaminants are reaching surface water. Maintaining LUCs through routine inspections would be necessary for long-term effectiveness. Although contaminated soil and groundwater would remain, LUCs would prevent unacceptable exposure of human receptors to COC. Incorporation of these LUCs would be in environmental covenants compliant with Maryland's UECA, and would help ensure that these land use requirements and restrictions are recognized and enforced, and not inadvertently extinguished. The controls proposed in this alternative are considered reliable.

- ***Reduction of toxicity, mobility, or volume through treatment—***Alternative G3 would reduce the toxicity, mobility, or volume of contaminants through treatment. ISCO would permanently and irreversibly eliminate an estimated 15 pounds of TCE, which is approximately 90 percent of the TCE in the treatment zone. Contaminant concentrations would also be reduced through natural processes.

- ***Short-term effectiveness—***Implementation of Alternative G3 would pose no short-term adverse impacts to workers or the environment; LUCs would be in place to protect construction workers. Exposure of workers to contamination and chemicals during ISCO chemical injection, installation of monitoring wells, and groundwater sampling would be minimized by compliance with OSHA requirements, including wearing appropriate PPE and adherence to site-specific health and safety procedures. Implementation of LUCs and monitoring would not adversely affect the surrounding community or the environment. Slight risk would be posed to the surrounding community due to the transport of oxidation chemicals to the site. This alternative would be implemented in less than one year. Residential PRGs for VOCs would be met by natural attenuation in approximately 32 years.

- ***Implementability—***Alternative G3 would be readily implementable. Several qualified contractors provide chemical oxidation chemicals and injection services. LUCs would be

readily implementable, assuming continued use of the property as a commercial and military airport. Environmental covenants would ensure continued implementation of LUCs should property ownership change, and they could be readily implemented. Administrative measures would be relatively simple to implement and would have to be enforced and maintained to be reliable. An underground injection control (UIC) permit would be required for the ISCO injection. Sampling and maintenance of monitoring wells could readily be accomplished. The resources, equipment, and materials required for these activities are readily available.

- ***Sustainability*—**This alternative would be moderately sustainable from a financial-impact perspective, and somewhat sustainable from a construction-impact perspective, because of its substantial carbon footprint and overall cost. Physical actions on-site that would contribute most to energy use and greenhouse gas emissions include the production and transport of ISCO injection chemicals, the use of drilling equipment in the injection, and transportation of personnel for long-term monitoring. A moderate amount of additional waste would be generated during well installation and injection events, and a very limited amount would be generated by each sampling event. Moderate costs would be entailed, along with a moderate increase in traffic and noise associated with well installations, injection, long-term sampling, LUC inspections, and preparing LUCs, meetings, approvals, travel, public meetings, and other administrative requirements that would consume energy and generate greenhouse gases. An economic consideration is that future site development potential is limited, because this area is within the MSA. Properly implemented LUCs would prevent potential exposure to COC in groundwater, or to contaminants volatilizing from groundwater into buildings. The *SiteWise*™ results are in Appendix G.

- ***Cost* —**The estimated costs for Alternative G3 (see Appendix F) are:
  - capital: $1,398,000
  - O&M: $35,000 per year (average)
  - total cost (32 years): $2,487,000

- ***Regulatory agency acceptance*—**MDE and MAA acceptance will be addressed following receipt of comments.

- ***Community acceptance*—**Community acceptance will be addressed during the public involvement/public comment period.

4.2.4 Alternative G4: *In situ* Enhanced Bioremediation

4.2.4.1 Description

This alternative would be the same as Alternative G3, except that, instead of ISCO, the area would be treated with an electron donor (ED) to promote anaerobic biological activity. Alternative G4 would consist of four major components: (1) *in situ* enhanced bioremediation, (2) MNA, (3) LUCs, and (4) five-year reviews. Descriptions of these individual components are below.

Component 1: in situ enhanced bioremediation—An ED would be injected at RECs #8 and #9 (see Figure 4-1) using direct-push technology (DPT). Treatment depths would be 10 to 30 feet bgs. A single injection round that can provide treatment for the gradual desorption of TCE from the soil matrix over time is anticipated, because of the persistence of many EDs. Anaerobic conditions, however, would also promote reducing conditions and cause the release of specific metals, such as iron, manganese, and arsenic. Only the area of elevated TCE concentrations would be treated; lower concentrations of contaminants downgradient would be managed by natural attenuation.

The use of a multicomponent ED was assumed for preliminary purposes. The product, 3-D Microemulsion by Regenesis, contains a mixture of lactate, polylacetate esters, and fatty acids and fatty acid esters that provide ED release in the short- and long-term. Dosages are based on preliminary quotes from Regenesis. An injection-point spacing of 10 feet is assumed, because soil permeability is low. An estimated 16,000 pounds of 3-D Microemulsion and 245 injection points (see Appendix E) would be required. A pilot study before the full-scale design has been implemented would verify the spacing of injection points and confirm ED dosages.

Component 2: MNA—The MNA component is the same as that described in Alternative G2.

Component 3: LUCs—LUCs would be implemented as that described in Alternative G2.

Component 4: five-year reviews—Five-year reviews would be conducted as described in Alternative G2.

4.2.4.2 Detailed Analysis

- ***Overall protection of human health and the environment—***Alternative G4 would protect human health and the environment by treating and eliminating some COC and by LUC implementation. LUCs would protect human health and the environment until residential PRGs can be met through natural attenuation. Restricting groundwater use would protect human health and the environment by avoiding unacceptable risks of exposure to contaminated groundwater. Exposure to VOCs through vapor intrusion would be controlled by building-construction methods. Preventing residential site uses would also prevent unacceptable risk from exposure to soil. LUCs in the form of environmental covenants and MAA permits would prevent future site development and minimize exposure to contaminated soil and groundwater. Monitoring would be protective by evaluating natural attenuation effectiveness and detecting potential migration of contaminants in groundwater.

- ***Compliance with ARARs and other guidance—***Alternative G4 would meet chemical-specific ARARs through *in situ* treatment of COC and natural attenuation of COC. Alternative G4 would also comply with location- and action-specific ARARs and guidance.

- ***Long-term effectiveness and permanence—***Alternative G4 would provide long-term effectiveness and permanence. *In situ* enhanced bioremediation would effectively and permanently remove some of the groundwater COC. *In situ* enhanced bioremediation is a well-established method of groundwater treatment. Groundwater monitoring would verify the extent of contaminant migration. Maintaining LUCs through routine inspections would be necessary for long-term effectiveness. Although contaminated soil and groundwater would remain, LUCs would prevent unacceptable exposure of human receptors to COC. An environmental covenant would help ensure that these land use requirements and restrictions are enforced and not inadvertently extinguished through the operation of real property or bankruptcy laws. The controls proposed in this alternative are considered reliable.

- ***Reduction of toxicity, mobility, or volume through treatment—***Alternative G4 would reduce the toxicity, mobility, or volume of contaminants through treatment. *In situ* enhanced bioremediation would permanently and irreversibly eliminate an estimated 15 pounds of TCE, which is approximately 90% of the TCE in the treatment zone. Contaminant concentrations would also be reduced through natural processes.

- ***Short-term effectiveness—***Implementation of Alternative G4 would pose no short-term adverse impacts to workers or the environment; LUCs would be in place to protect construction workers. Exposure of workers to contamination and chemicals during ED injection, monitoring well installations, and groundwater sampling would be minimized by compliance with OSHA requirements, including wearing appropriate PPE and adherence to site-specific health and safety procedures. LUC implementation and monitoring would not adversely affect the surrounding community or the environment. Slight risk would be posed to the surrounding community, due to the transport of ED chemicals to the site. The alternative would be implemented in less than one year. Residential PRGs for VOCs would be met by natural attenuation in approximately 32 years.

- ***Implementability—***Alternative G4 would be readily implementable. Several qualified contractors provide ED chemicals and injection services. LUCs are readily implementable, assuming continued use of the property as a commercial and military airport. Environmental covenants would ensure continued implementation of LUCs should property ownership change, and they can be readily implemented. The technical feasibility criteria of constructability and operability are not applicable. Administrative measures would be relatively simple to implement and would have to be enforced and maintained to be reliable. A UIC permit would be required for the ED injection. Monitoring well sampling and maintenance could be readily accomplished. The resources, equipment, and materials required for these activities are readily available.

- ***Sustainability—***This alternative would be moderately to somewhat sustainable from financial- and construction-impact perspectives, because of its medium-to-high carbon

footprint and overall cost. Physical actions on-site that would contribute most to energy use and greenhouse gas emissions include the production and transport of ED chemicals, the use of drilling equipment in the ED injections, and transportation of personnel for long-term monitoring. A moderate amount of additional waste would be generated during well installation and injection events, and a very limited amount would be generated with each sampling event. Moderate costs and a moderate increase in traffic and noise would be associated with the well installations, injections, long-term sampling, LUC inspections and preparations, project and public meetings, approvals, travel, and other administrative requirements that consume energy and generate greenhouse gases. An economic consideration is that the potential for future site development is limited, because this area is within MSA. If the FAA and MAA properly implement and uphold LUCs, potential exposure to COC in groundwater or to contaminants volatilizing from the groundwater into buildings would be prevented. The *SiteWise*™ results are in Appendix G.

- ***Cost —***The estimated costs for Alternative G4 (see Appendix F) are:
  - capital: $1,223,000
  - O&M: $35,000 per year (average)
  - total cost (32 years): $2,312,000
- ***Regulatory agency acceptance—***MDE and MAA acceptance will be addressed following receipt of comments.
- ***Community acceptance—***Community acceptance will be addressed during the public involvement/public comment period.

Table 4-1

Key Features of the Alternatives
Greater Strawberry Point Area Feasibility Study
Lockheed Martin, Martin State Airport, Middle River, Maryland

FS Alt No.	Name	Monitored Natural Attenuation	*In situ* Chemical Oxidation	*In situ* Biological Treatment
G1	No action	NA	NA	NA
G2	Monitored Natural Attenuation	X		
G3	*In situ* Chemical Oxidation	X	X	
G4	*In situ* Bioremediation	X		X

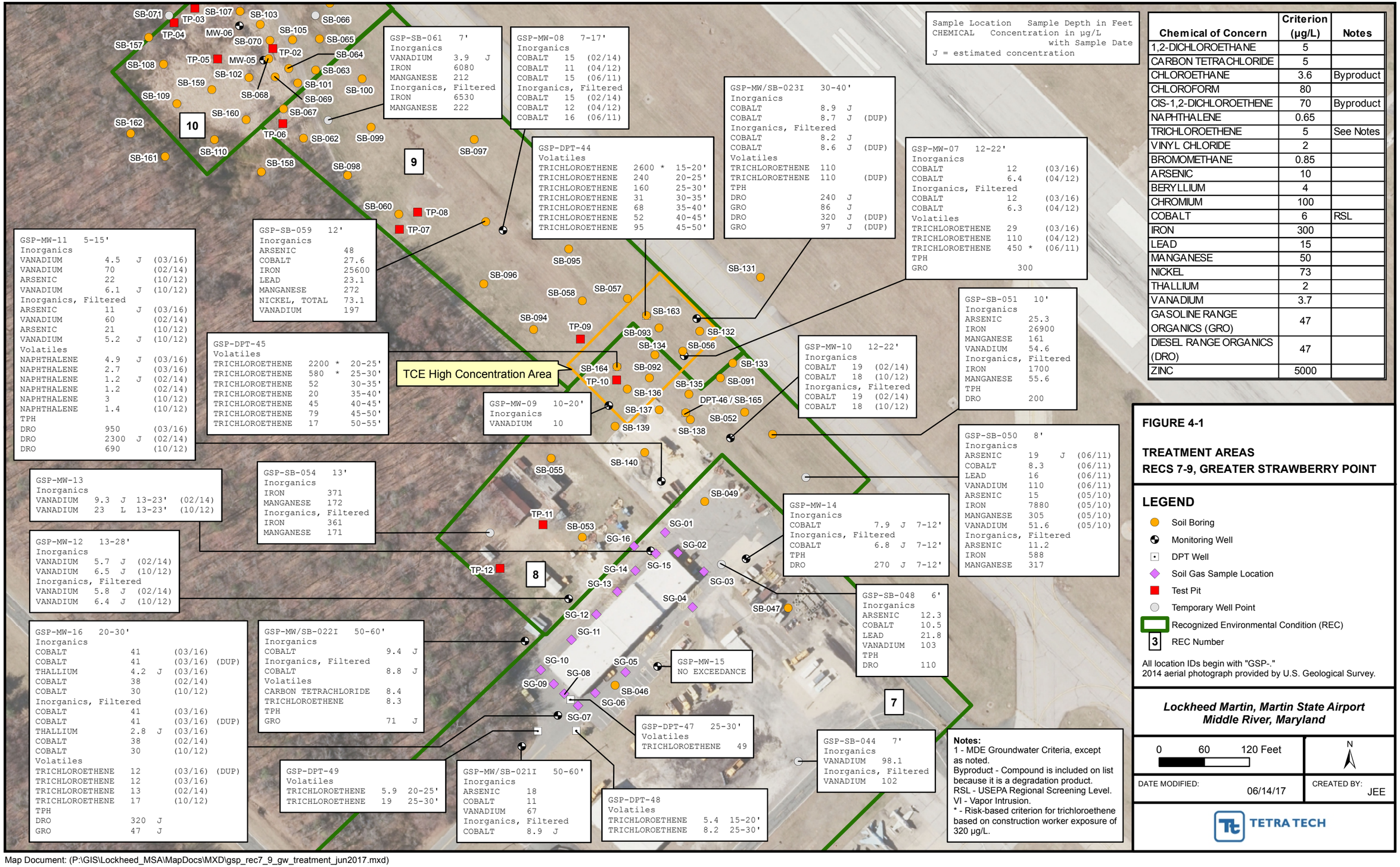
GSP - Greater Strawberry Point
LUCs - land use controls
NA - Not Applicable

Table 4-2

Monitoring Wells for Long-Term Monitoring
Greater Strawberry Point Feasibility Study
Martin State Airport, Middle River, Maryland

Monitoring Well	New or Existing	Depth, feet bgs	Analytes	REC
At REC #6	N	30	Metals	#6
At REC #4	N	30	Metals	#4
Downgradient RECs #4 - #6	N	30	Metals	#4 - #6
Downgradient RECs #4 - #6	N	30	Metals	#4 - #6
Downgradient RECs #4 - #6	N	30	Metals	#4 - #6
GSP-MW-023I	E	40	CVOCs	#8/9
GSP-MW-07	E	22	CVOCs	#8/9
Near RECs #8/9 - Shallow	N	30	CVOCs	#8/9
Near RECs #8/9 - Intermediate	N	55	CVOCs	#8/9
Near RECs #8/9 - Deep	N	80	CVOCs	#8/9
Downgradient REC #8 near FMC	N	30	CVOCs	#8/9
GSP-MW-13	E	30	TPH	#7
Downgradient REC #8	N	30	CVOCs/TPH	#7 - #8
GSP-MW-05	E	40	TPH	#10
GSP-MW-06	E	22	TPH	#10
Downgradient REC #10	N	30	TPH	#10
GSP-MW-01	E	15	TPH	#11
GSP-MW-02	E	31	TPH	#11
GSP-MW-04	E	20.5	TPH	#11
GSP-MW-20	E	30	TPH	#11
GSP-MW-24I	E	55	CVOCs	#11
Downgradient REC #11	N	30	CVOCs/TPH	#11
Downgradient REC #11	N	30	CVOCs/TPH	#11

bgs – below ground surface
CVOCs – chlorinated volatile organic compounds
E - existing
FMC – Frog Mortar Creek
N - new
TPH – total petroleum hydrocarbons



Chemical of Concern	Criterion (µg/L)	Notes
1,2-DICHLOROETHANE	5	
CARBON TETRACHLORIDE	5	
CHLOROETHANE	3.6	Byproduct
CHLOROFORM	80	
CIS-1,2-DICHLOROETHENE	70	Byproduct
NAPHTHALENE	0.65	
TRICHLOROETHENE	5	See Notes
VINYL CHLORIDE	2	
BROMOMETHANE	0.85	
ARSENIC	10	
BERYLLIUM	4	
CHROMIUM	100	
COBALT	6	RSL
IRON	300	
LEAD	15	
MANGANESE	50	
NICKEL	73	
THALLIUM	2	
VANADIUM	3.7	
GASOLINE RANGE ORGANICS (GRO)	47	
DIESEL RANGE ORGANICS (DRO)	47	
ZINC	5000	

FIGURE 4-1

TREATMENT AREAS
RECS 7-9, GREATER STRAWBERRY POINT

LEGEND

- Soil Boring
- Monitoring Well
- DPT Well
- Soil Gas Sample Location
- Test Pit
- Temporary Well Point
- Recognized Environmental Condition (REC)
- 3 REC Number

All location IDs begin with "GSP-."
2014 aerial photograph provided by U.S. Geological Survey.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 60 120 Feet

N

DATE MODIFIED: 06/14/17

CREATED BY: JEE

TETRA TECH

Notes:
1 - MDE Groundwater Criteria, except as noted.
Byproduct - Compound is included on list because it is a degradation product.
RSL - USEPA Regional Screening Level.
VI - Vapor Intrusion.
* - Risk-based criterion for trichloroethene based on construction worker exposure of 320 µg/L.

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\gsp_rec7_9_gw_treatment_jun2017.mxd)
06/14/17 -- JEE

SECTION 5
COMPARATIVE ANALYSIS OF ALTERNATIVES

The four remedial action alternatives were compared by qualitative and quantitative analyses. Both methods use the same evaluation criteria as were used in the detailed analysis of individual alternatives in Section 4 (i.e., the seven federal Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] criteria, plus an eighth criterion—the sustainability impacts of each alternative). As discussed above, this evaluation does not consider the regulatory agency acceptance or community acceptance criteria; these will be evaluated through input from the community and the Maryland Department of the Environment (MDE) following submittal of this feasibility study (FS) for their review and comment. The qualitative analyses of each remedial alternative developed in Section 4 for the Greater Strawberry Point (GSP) area are compared in Section 5.1. *Criterium Decision Plus*® (CDP) decision-tool software was used for the quantitative analysis and is discussed in Section 5.3.

5.1 QUALITATIVE COMPARISON OF ALTERNATIVES BY EVALUATION CRITERIA

The following remedial alternatives for soil and groundwater are compared in this section:

- ***Alternative G1:*** no action
- ***Alternative G2:*** monitored natural attenuation
- ***Alternative G3:*** in situ chemical oxidation
- ***Alternative G4:*** in situ enhanced bioremediation

5.1.1 Overall Protection of Human Health and the Environment

Alternatives G2, G3, and G4 would provide varying degrees of protection to human health and the environment, but Alternative G1 would not. Human receptors could be exposed to contaminated groundwater and potential residential receptors could be exposed to contaminated soil if no site-specific LUCs are implemented. Alternative G2 provides a higher level of protection as

compared to Alternative G1, because land use controls (LUCs) protect workers and restrict land use. Alternatives G3 and G4 would provide more protection than Alternatives G1 and G2, because they would treat and remove some of the chemicals of concern (COC) in groundwater and provide approximately the same level of protection.

5.1.2 Compliance with Applicable or Relevant and Appropriate Requirements

Alternatives G2, G3, and G4 would comply with chemical-specific applicable or relevant and appropriate requirements (ARARs) and other guidance by preventing exposure to contaminated soil and groundwater through a combination of treatment and implementation of land use controls. Chemical-specific state and federal ARARs and "to be considered" (TBC) standards were considered in developing the preliminary remediation goals (PRGs). Alternative G1 would not comply with chemical-specific ARARs. Neither would the no action alternative comply with location- or action-specific ARARs, because no remedial actions would be performed that would trigger these types of ARARs.

5.1.3 Long-Term Effectiveness and Permanence

Alternatives G3 and G4 would provide approximately the same levels of long-term effectiveness and permanence, because they each treat and remove about the same amount of organic contaminants. Groundwater monitoring would verify the extent of contaminant attenuation and migration. The land use controls for these alternatives would also be permanent and effective in the long-term, provided that they are maintained and enforced.

Alternative G2 is permanent and effective in the long-term, but relies entirely on maintenance and enforcement of land use controls. Groundwater monitoring would verify the extent of contaminant attenuation and migration. The permanence and long-term effectiveness of Alternative G1 would be uncertain because there would be no monitoring and changes in COC concentrations would neither be verified nor quantified.

5.1.4 Reduction of Toxicity, Mobility, or Volume through Treatment

Alternatives G3 and G4 would both reduce concentrations of chemicals of concern through treatment. Alternatives G1 and G2 would achieve no reduction of toxicity, mobility, or volume of

chemicals of concern through treatment. Alternatives G1 and G2 would reduce contaminant toxicity and volume through natural attenuation, but under Alternative G1 this reduction would neither be verified nor quantified.

5.1.5 Short-Term Effectiveness

Implementation of Alternative G1 would not pose risks to site workers or adversely affect the surrounding community or environment, because no activities would be performed. Alternative G1 would not achieve remedial action objectives (RAOs), and although the cleanup goals might eventually be attained through natural processes, no monitoring would verify attenuation. Alternative G2 would be effective in the short-term; implementation of this alternative would not adversely affect the surrounding community or the environment. Alternative G2 would achieve remedial action objectives upon implementation of the land use controls by controlling exposure to soil and groundwater. The conservatively selected residential PRGs for volatile organic compounds (VOCs) would be met by natural attenuation in approximately 40 years.

Alternatives G3 and G4 would be effective in the short-term. Exposure of workers to contamination and chemicals during *in situ* chemical oxidation (ISCO) chemical and ED injection, monitoring well installations, and groundwater sampling would be minimized by compliance with Occupational Safety and Health Administration (OSHA) requirements, including wearing appropriate personal protective equipment (PPE) and adherence to site-specific health and safety procedures. Slight risk to the community would be posed during transport of the *in situ* chemical oxidation chemicals to the site. Meeting the residential PRG would take approximately 32 years, because the trichloroethene is being treated. All of these alternatives could be implemented in less than one year.

5.1.6 Implementability

Alternative G1 would be the easiest to implement, because it involves no activities. Technical implementation of Alternative G2 would be the next easiest to implement, because the LUCs and monitoring programs would be relatively simple to implement. This alternative would require no construction. Environmental covenants would ensure continued implementation of land use controls property ownership change, and land use controls would be reviewed annually. Five-year reviews would be conducted to ensure enforcement of administrative controls. Alternatives G3

and G4 would be more difficult to implement, because of the injections, which would require an underground-injection-control (UIC) permit.

5.1.7 Sustainability

Alternative G1 is the most sustainable of all the alternatives considered in this FS. No energy or resources would be consumed, and no greenhouse gases or waste would be generated. It would have no costs or increases in social factors, such as increased traffic and noise. Alternative G2 is similar to Alternative G1, but it would require limited physical action during monitoring well installation and sample collection that would use limited energy or resources, and would produce moderate greenhouse gases. Some additional noise would also be produced while installing the monitoring wells and implementing the LUCs.

Alternative G3 would have the greatest sustainability impacts, much greater than Alternatives G1 and G2, because of the energy use associated with the chemical injections, and greater than Alternative G4, because of the larger amount of chemicals required and differences in producing them. Likewise for these reasons, Alternative G4 is slightly more sustainable than Alternative G3. A summary of *SiteWise*™ modeling results follows (details are in Appendix G):

Alternative	Greenhouse gas (tonnes)[(1)]	NOx (tonnes)	SOx (tonnes)	PM10 (tons)	Energy (MMBTUs)	Water (thousand gallons)	Additional waste generated (tonnes)
G1	None	None	None	None	None	None	None
G2	87.2	2.8E-01	1.8E-01	8.5E-03	1.3E+03	0.69	7.2
G3	158.8	3.3E-01	2.5E-01	1.4E-02	2.7E+03	1.6E+02	7.2
G4	98.4	3.3E-01	1.9E-01	1.4E-02	1.4E+03	8.2	7.2

[(1)]metric tons
MMBTUs—million British Thermal Units
NOx—nitrogen oxides
PM10—particulate matter (less than 10 microns)
SOx—sulfur oxides

5.1.8 Cost

The qualitative comparative analysis of the remedial alternatives is summarized in Table 5-1. The capital, operation and maintenance (O&M) costs, and total costs of each alternative are as follows (details are in Appendix F):

Alternative	Capital	Annual costs	Total cost
G1	$0	$0	$0
G2	$236,000	$35,000	$1,613,000
G3	$1,398,000	$35,000	$2,487,000
G4	$1,223,000	$35,000	$2,312,000

5.2 QUANTITATIVE COMPARATIVE ANALYSIS OF ALTERNATIVES

Criterium Decision Plus® software allows decision-making criteria to be given relative weights and ranks. The software then processes those data to calculate a score for each alternative. The eight evaluation criteria for the Greater Strawberry Point area were entered and individually assigned relative weights; these weights represent the relative importance of each criterion. The process continued as sub-criteria were added to the eight primary criteria, and relative weights were assigned. As a final step, relative rankings, on a scale from 0 to 100, were assigned to each criterion and/or sub-criterion for each alternative. The weightings, rankings, and results of this analysis are summarized in Table 5-2 and presented in Appendix F. In *Criterium Decision Plus*®, higher scores indicate that an alternative is more favorable, and therefore, is more highly ranked in that category.

The four action alternatives evaluated meet the *threshold criteria* (overall protection of human health and the environment and compliance with ARARs) to varying degrees. The six *balancing criteria* are used to differentiate between the alternatives and determine the preferred alternative:

- ***Long-term effectiveness and permanence—***Alternative G2 ranks highest in this category, due to the natural degradation of groundwater contaminants over the long term, without the possible uncertainty and long-term maintenance associated with active remediation alternatives. Monitored natural attenuation is a demonstrated and reliable approach that avoids *in situ* treatment-optimization steps, thereby lowering residual risk.

- ***Reduction of toxicity, mobility, or volume by treatment—***Given this consideration, Alternatives G3 and G4 rank highest in terms of reduction of toxicity, mobility, or volume by treatment, because they use *in situ* treatment technologies to reduce contaminant toxicity and volume.

- ***Short-term effectiveness—***Short-term effectiveness has several contributing factors, including the length of time to achieve RAOs, minimizing environmental impacts, and protecting construction workers and the community. Alternatives G2, G3, and G4 all rank equally in this category, in part because they effect more long-term than short-term improvement in groundwater quality. Alternative G2 is considered slightly more beneficial in the short term at minimizing environmental impacts than either G3 and G4, because it

would not require clearing any areas to install the injection wells (e.g., trichloroethene at REC #11). However, the *in situ* groundwater treatment alternatives (G3 and G4) would achieve RAOs slightly faster than Alternative G2.

- ***Implementability—***Alternative G2 ranks the highest of the alternatives in this category, because the remedy would consist of minimal tasks (e.g., periodic groundwater sampling and reporting). Alternatives G3 and G4 rank moderately high in implementability, because they would require no permanent infrastructure other than monitoring wells, and injections and/or sampling would cause minimal, temporary disturbance to Martin State Airport and tenant operations at Greater Strawberry Point.

- ***Sustainability—***Alternative G2 ranks highest in sustainability, because it requires minimal actions, and has the least carbon footprint (i.e., intrusive activities associated with groundwater monitoring only).

- ***Cost—***Alternative G1 ranks highest (lowest cost) in this category, followed by Alternative G2, because minimal actions would be implemented. Of the active alternatives, G3 ranks highest in cost.

The *Criterium Decision Plus*® scoring is as follows (alternatives ranked preferentially, by score):

- ***Alternative G2***—0.319

- ***Alternative G3***—0.303

- ***Alternative G4***—0.296

- ***Alternative G1***—0.083

5.3 SUSTAINABILITY PRACTICES

Sustainability was considered in selecting the preferred alternative. These considerations, in conjunction with Lockheed Martin's "Go Green" program, would also be applied in implementing Alternative G2. In general, sustainable practices are practices that consider economic and natural resources, ecology, human health and safety, and quality of life.

For remediation projects, sustainability means implementing projects in a manner that not only meets the traditional requirements of remediation (e.g., protecting human health and the environment and complying with ARARs), but also considers sustainable practices, with a goal of minimizing the overall environmental "footprint." *Environmental footprint* relates to direct or indirect impacts to environmental media and society as a consequence of performing the remedial action. Minimizing a specific project's environmental footprint might involve reducing toxic air and greenhouse gas emissions (e.g., carbon dioxide, methane, and nitrous oxides); reducing

unnecessary or inefficient energy use; promoting renewable energy over conventional sources; reducing soil erosion and nutrient depletion; reducing impacts to ecological receptors and ecosystems; and reducing water consumption or waste generation.

To improve the overall net environmental benefit of the remedial action, implementation of the selected remedial alternative would follow best management practices for sustainability. This would include resource management practices that minimize material demands, water consumption, energy usage, toxicity, and emissions of greenhouse gases and criteria pollutants. Considerations to encourage remedial action sustainability might include the following:

- Consider construction materials during equipment/material specification. Select compatible materials that are recycled or were produced by manufacturing processes that emit lower greenhouse gas and criteria pollutants, and require less energy and water demand.
- Combine monitoring events at Greater Strawberry Point with other monitoring events at Martin State Airport.
- Use low-emission construction equipment and recycle used oil as practicable. Use bio-diesel for equipment when available and economic.
- As much as possible, use paperless systems for laboratory and regulatory submittals.
- Dispose of investigation-derived waste at the nearest compatible, Lockheed Martin-approved disposal facility.

5.4 SELECTION OF ALTERNATIVE

Alternative G2 (monitored natural attenuation) is chosen as the preferred remedial action based on the qualitative and quantitative comparisons of the alternatives. This alternative meets the remedial action objectives in that it prevents future unacceptable risk to human receptors through land use controls, monitors contaminant migration in groundwater, and allows for degradation and removal of contaminants from groundwater by natural processes. This alternative is economical in comparison to Alternatives G3 and G4, and the length of time for Alternative G2 to attain goals is only eight years more than Alternatives G3 and G4. Alternative G2 is only moderately sustainable, but its sustainability is greater than that of Alternatives G3 and G4. Groundwater modeling also suggests that chlorinated VOCs will naturally degrade to concentrations less than residential PRGs before reaching surface water.

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Table 5-1

Comparative Analysis of Alternatives
Greater Strawberry Point Feasibility Study
Martin State Airport, Middle River, Maryland

Evaluation Criterion	Alternative G1 No Action	Alternative G2 Monitored Natural Attenuation	Alternative G3 *In situ* Chemical Oxidation	Alternative G4 *In situ* Bioremediation
Overall Protection of Human Health and Environment	Not protective	Protective. LUCs would prevent exposure to COC. Monitoring would verify that surface water is not affected.	Protective. *In situ* chemical oxidation (ISCO) would treat some of the COC. LUCs would prevent exposure to COC. Monitoring would verify that surface water is not affected.	Protective. *In situ* bioremediation would treat some of the COC. LUCs would prevent exposure to COC. Monitoring would verify that surface water is not affected.
Compliance with ARARs/TBCs:				
Chemical-Specific	Would not comply	Would comply	Would comply	Would comply
Location-Specific	Incidental compliance	Would comply	Would comply	Would comply
Action-Specific	Not applicable.	Would comply	Would comply	Would comply
Long-Term Effectiveness and Permanence	Not effective	Would effectively prevent exposure via ingestion, inhalation, and dermal contact, but requires enforcement of LUCs	Would effectively and permanently remove some COC through ISCO treatment. LUCs would effectively prevent exposure via ingestion, inhalation, and dermal contact, but requires enforcement of LUCs.	Would effectively and permanently remove some COC through anaerobic treatment. LUCs would effectively prevent exposure via ingestion, inhalation, and dermal contact, but requires enforcement of LUCs.
Reduction of Contaminant Toxicity, Mobility, or Volume through Treatment	No reduction because no treatment would be conducted	No treatment would be conducted, although COC concentrations would be reduced through natural processes.	ISCO would treat and remove some of the TCE.	Anaerobic bioremediation would treat and remove some of the TCE.
Short-Term Effectiveness	No short-term risks; would not achieve RAOs	Short-term risks associated with worker exposure during monitoring well installation and sampling, but these risks would be reduced through appropriate use of personal protection equipment and implementation health and safety practices. LUCs and monitoring would be implemented within 1 year.	Short-term risks associated with worker exposure during chemical injection, monitoring well installation, and sampling, but these risks would be reduced through appropriate use of personal protection equipment and implementation health and safety practices. There would be a slight risk to the community during transport of ISCO chemicals to the site. The alternative would be implemented within 1 year.	Short-term risks associated with worker exposure during chemical injection, monitoring well installation, and sampling, but these risks would be reduced through appropriate use of personal protection equipment and implementation health and safety practices. There would be a slight risk to the community during transport of bioremediation chemicals to the site. The alternative would be implemented within 1 year.
Implementability	Readily implementable because there would be no action to implement	LUCs and LTM plan could be readily developed and implemented, and LUC inspections and reviews could be readily performed	Would be readily implementable because there are several qualified ISCO contractors. LUCs and LTM plan could be readily developed and implemented, and LUC inspections and reviews could be readily performed. An UIC permit would be required.	Would be readily implementable because there are several qualified injection contractors. LUCs and LTM plan could be readily developed and implemented, and LUC inspections and reviews could be readily performed. A UIC permit would be required.
Sustainability	Highly sustainable because no action would occur	Fairly sustainable-limited physical action would occur, so minimal energy or resources would be consumed, and minimal greenhouse gases would be generated. However, transportation of personnel for long-term monitoring and drilling of new wells would contribute to the carbon footprint.	Less sustainable than Alternative G4. Significant carbon footprint due to the production of chemicals for ISCO injections, transportation, and equipment use. Much less sustainable compared to Alternatives G1 and G2.	Somewhat less sustainable than Alternative G2, and more sustainable than Alternative G3. Medium-to-significant carbon footprint due to the production of chemicals for bioremediation, transportation, and equipment use. Much less sustainable compared to Alternatives G1 and G2.
Costs:				
Capital	$0	$236,000	$1,398,000	$1,223,000
O&M (Years)	$0 (30)	$35,000 (40)	$35,000 (32)	$35,000 (32)
Current Value	$0 (30)	$1,613,000	$2,487,000	$2,312,000

ARARs - applicable or relevant and appropriate requirements
COC - chemical(s) of concern
GSP - Greater Strawberry Point
ISCO - *in situ* chemical oxidation
LUCs - land use controls
LTM - long-term monitoring
MNA - monitored natural attenuation
O&M - operations and maintenance
RAOs - response action objectives
TBCs - to be considered (criteria)
TCE - trichloroethene
UIC - Underground Injection Control

Table 5-2

Quantitative Analysis Using Criterium Decision Plus
Greater Strawberry Point Feasibility Study
Martin State Airport, Middle River, Maryland

Weights	Rating Set	Weights	Rating Set	Weights	Rating Set	G1 - No Action Rating	G2 - MNA Rating	G3 - ISCO Rating	G4 - *In situ* Bioremediation Rating
90	Overall Protection of Human Health and the Environment					0	50	50	50
90	Compliance with ARARs					0	65	65	65
90	Long Term Effectiveness and Permanence	90	Technology's Reliability to Meet Objectives			0	100	50	40
		40	Potential Residual Risk			0	50	55	55
75	Reduction of TMV Through Treatment	50	Destruction of Hazardous Constituents			0	35	50	50
		40	Irreversibility of Treatment			0	35	50	50
50	Short Term Effectiveness	50	Time To Achieve RAOs			20	40	45	45
		50	Un-mitigatable Adverse Impacts	90	Minimize Environmental Impacts	25	50	50	50
				80	Protect Construction Workers	25	55	50	50
				70	Protect Community	0	50	50	50
80	Implementability	75	Obtaining Other Approvals			25	90	50	50
		100	Constructability			100	100	50	50
		35	Adaptability to Modify/Update			75	100	40	40
		25	Availability of Experts and Technology			25	100	50	50
		60	Effectiveness of Monitoring			0	100	50	50
75	Acceptance	100	State and Local Agency			0	50	55	50
		75	Community			0	25	55	50
50	Environmental	75	Energy Use/Sustainability			100	100	75	75
		25	Air Emissions	80	Greenhouse Gas Emissions	100	99	90	80
				75	NO_x Emissions	100	100	30	30
				50	SO_x Emissions	100	100	30	30
				30	Particulate Matter	100	99	55	50
		90	Impact on Water Resources			10	65	70	70
40	Corporate Considerations	25	Corporate Brand			0	20	80	80
		25	Cost Volatility			100	100	70	65
		25	Risk Mitigation			0	20	50	50
90	Costs	90	Capital			100	80	70	75
		25	O&M			60	60	60	60

ARAR – applicable or relevant and appropriate requirement
ISCO – *in situ* chemical oxidation
MNA – monitored natural attenuation
NOx – nitrogen oxides
O&M – operation and maintenance
RAO – response action objective
SOx – sulfur oxides
TMV – toxicity, mobility, or volume

SECTION 6
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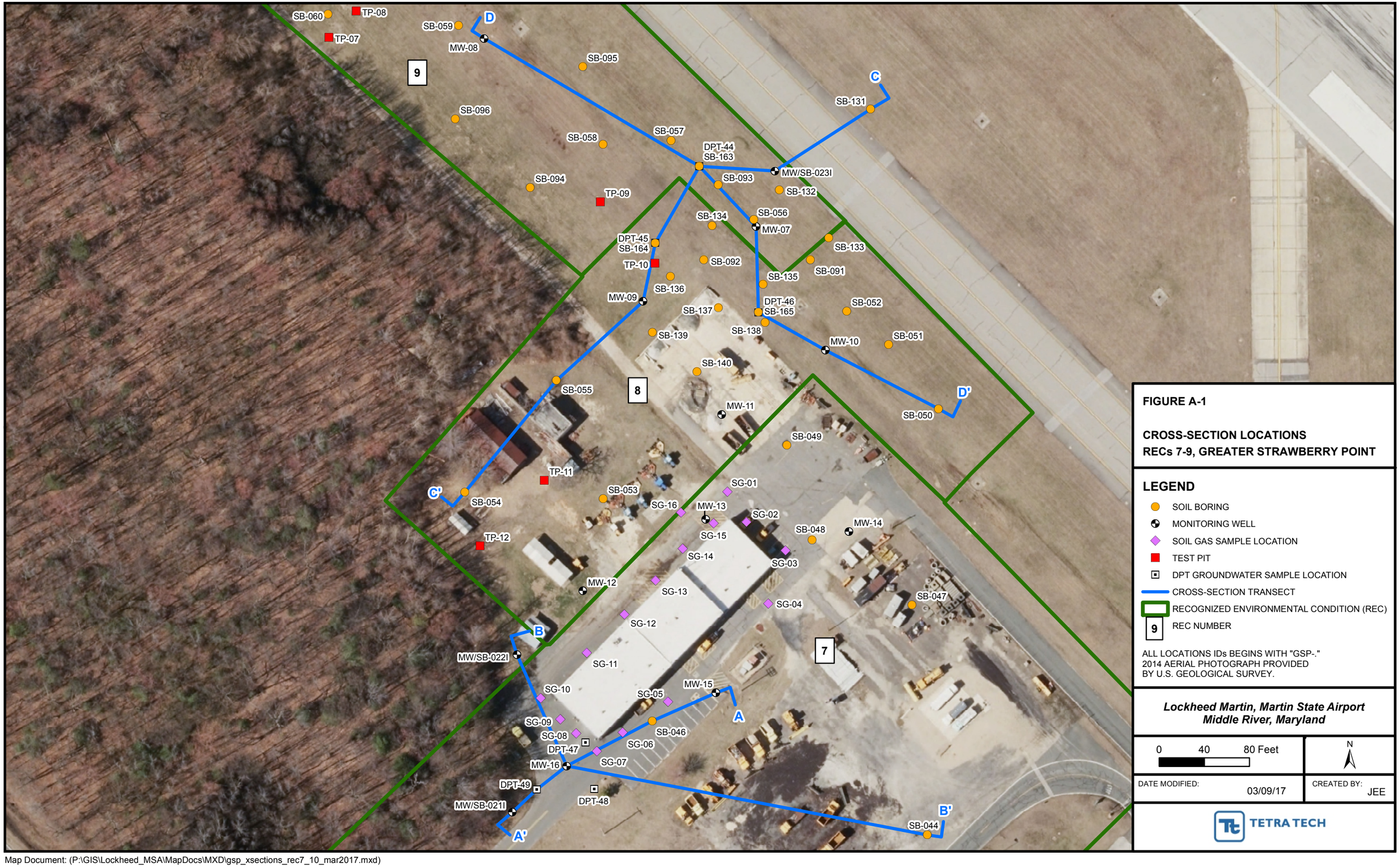


FIGURE A-1

CROSS-SECTION LOCATIONS
RECs 7-9, GREATER STRAWBERRY POINT

LEGEND

- SOIL BORING
- MONITORING WELL
- SOIL GAS SAMPLE LOCATION
- TEST PIT
- DPT GROUNDWATER SAMPLE LOCATION
- CROSS-SECTION TRANSECT
- RECOGNIZED ENVIRONMENTAL CONDITION (REC)
- 9 REC NUMBER

ALL LOCATIONS IDs BEGINS WITH "GSP-."
2014 AERIAL PHOTOGRAPH PROVIDED BY U.S. GEOLOGICAL SURVEY.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 40 80 Feet

N

DATE MODIFIED: 03/09/17

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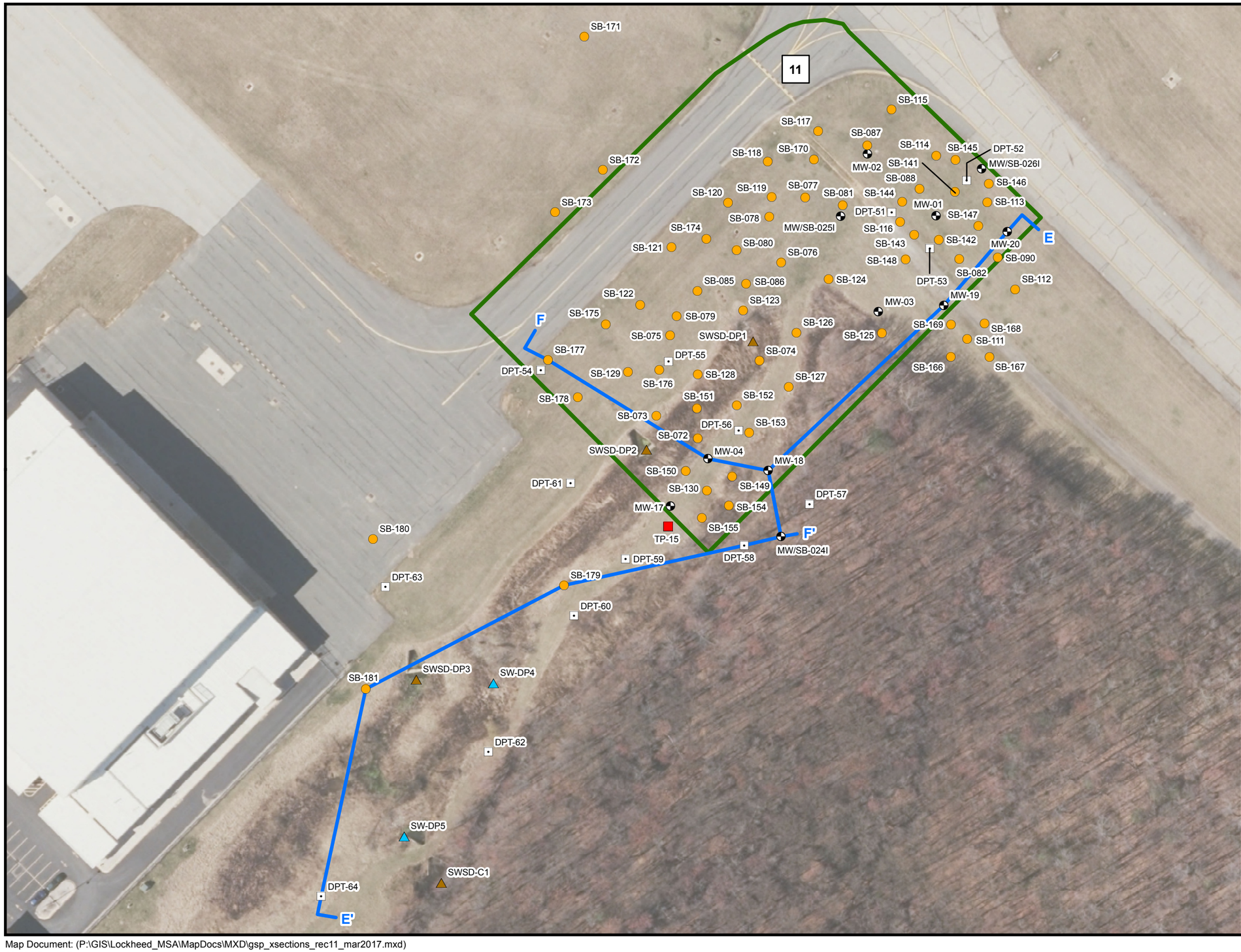


FIGURE A-2

CROSS SECTION LOCATIONS
REC 11, GREATER STRAWBERRY POINT

LEGEND

- SOIL BORING
- MONITORING WELL
- DPT GROUNDWATER SAMPLE LOCATION
- SOIL GAS SAMPLE LOCATION
- SEDIMENT SAMPLE LOCATION
- SURFACE WATER SAMPLE LOCATION
- TEST PIT
- CROSS-SECTION TRANSECT
- RECOGNIZED ENVIRONMENTAL CONDITION (REC)
- 11 REC NUMBER

ALL LOCATION IDs BEGIN WITH "GSP-."
2014 AERIAL PHOTOGRAPH PROVIDED BY U.S. GEOLOGICAL SURVEY.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 40 80 Feet

N

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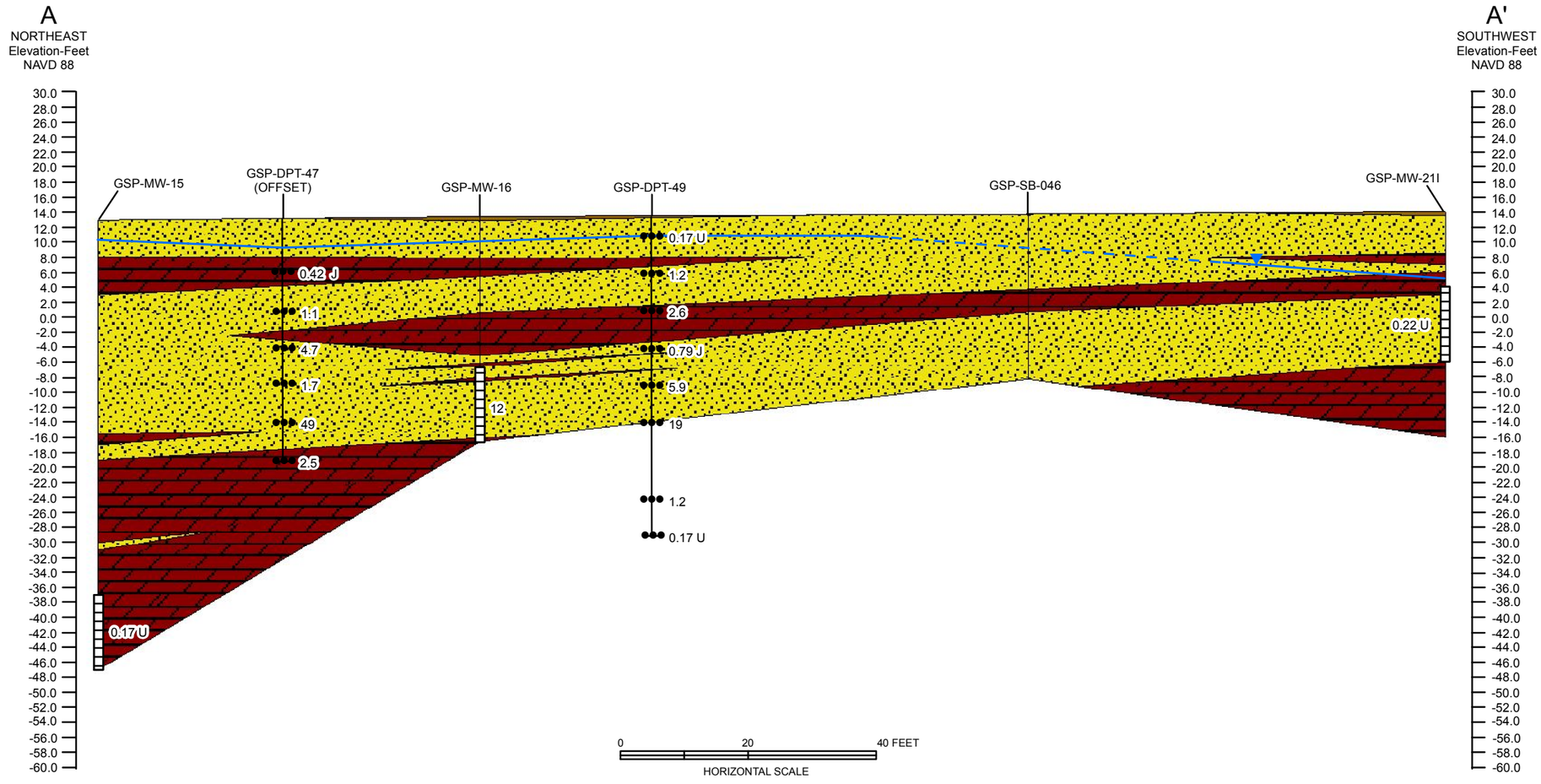


FIGURE A-3

GEOLOGIC CROSS-SECTION A-A' WITH TCE CONCENTRATIONS IN GROUNDWATER RECs 7-9, GREATER STRAWBERRY POINT

LEGEND

- CLAY AND CLAY-SILT-SAND MIXTURES
- SAND, SILT AND SAND-SILT MIXTURES
- WELL SCREEN
- SOIL OR WELL BORING
- GROUNDWATER SURFACE (DASHED WHERE INFERRED)
- DPT WELL SCREEN LEVEL (MIDPOINT)

49 = TCE CONCENTRATION IN GROUNDWATER - 2016 (UG/L)
J = ESTIMATED VALUE
U = NOT DETECTED AT CONCENTRATION LEFT OF THE LETTER

DPT = DIRECT PUSH TECHNOLOGY
MW = MONITORING WELL
NAVD 88= NORTH AMERICAN VERTICAL DATUM 1988
UG/L = MICROGRAMS PER LITER

Lockheed Martin, Martin State Airport
Middle River, Maryland

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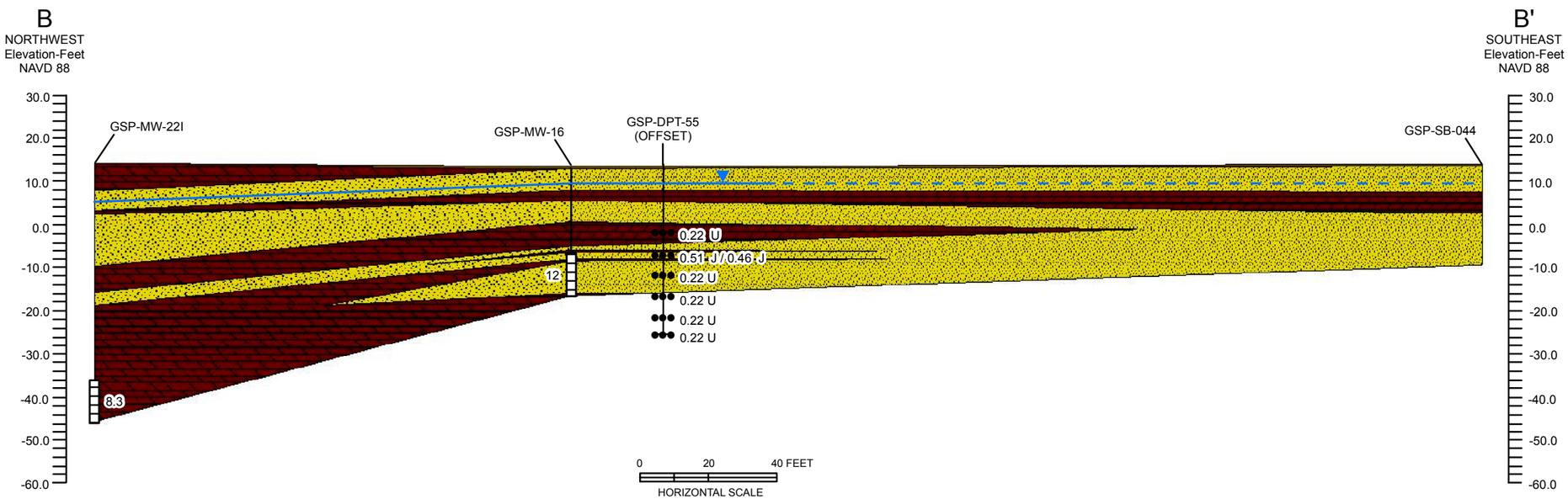


FIGURE A-4

GEOLOGIC CROSS-SECTION B-B' WITH TCE CONCENTRATIONS IN GROUNDWATER RECs 7-9, GREATER STRAWBERRY POINT

LEGEND

- CLAY AND CLAY-SILT-SAND MIXTURES
- SAND, SILT AND SAND-SILT MIXTURES
- WELL SCREEN
- SOIL OR WELL BORING
- GROUNDWATER SURFACE (DASHED WHERE INFERRED)
- DPT WELL SCREEN LEVEL

49 = TCE CONCENTRATION IN GROUNDWATER - 2016 (UG/L)
J = ESTIMATED VALUE
U = NOT DETECTED AT CONCENTRATION LEFT OF THE LETTER

DPT = DIRECT PUSH TECHNOLOGY
MW = MONITORING WELL
NAVD 88= NORTH AMERICAN VERTICAL DATUM 1988
UG/L = MICROGRAMS PER LITER

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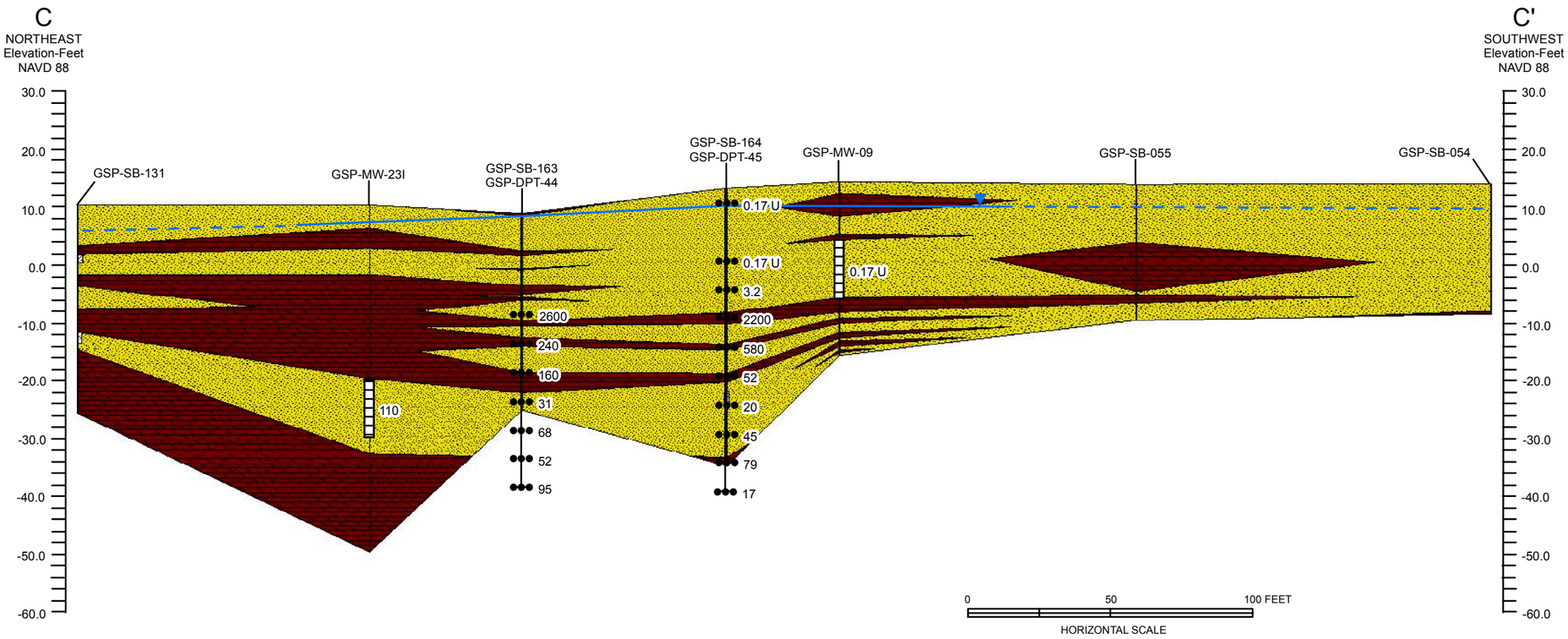


FIGURE A-5

GEOLOGIC CROSS-SECTION C-C' WITH TCE CONCENTRATIONS IN GROUNDWATER RECS 7-9, GREATER STRAWBERRY POINT

LEGEND

- CLAY AND CLAY-SILT-SAND MIXTURES
- SAND, SILT AND SAND-SILT MIXTURES
- WELL SCREEN
- SOIL OR WELL BORING
- GROUNDWATER SURFACE (DASHED WHERE INFERRED)
- DPT WELL SCREEN LEVEL (MIDPOINT)

52 = TCE CONCENTRATION IN GROUNDWATER - 2016 (UG/L)
U = NOT DETECTED AT CONCENTRATION LEFT OF THE LETTER

DPT = DIRECT PUSH TECHNOLOGY
MW = MONITORING WELL
NAVD 88= NORTH AMERICAN VERTICAL DATUM 1988
UG/L = MICROGRAMS PER LITER

VERTICAL EXAGGERATION IS 2x.

Lockheed Martin, Martin State Airport
Middle River, Maryland

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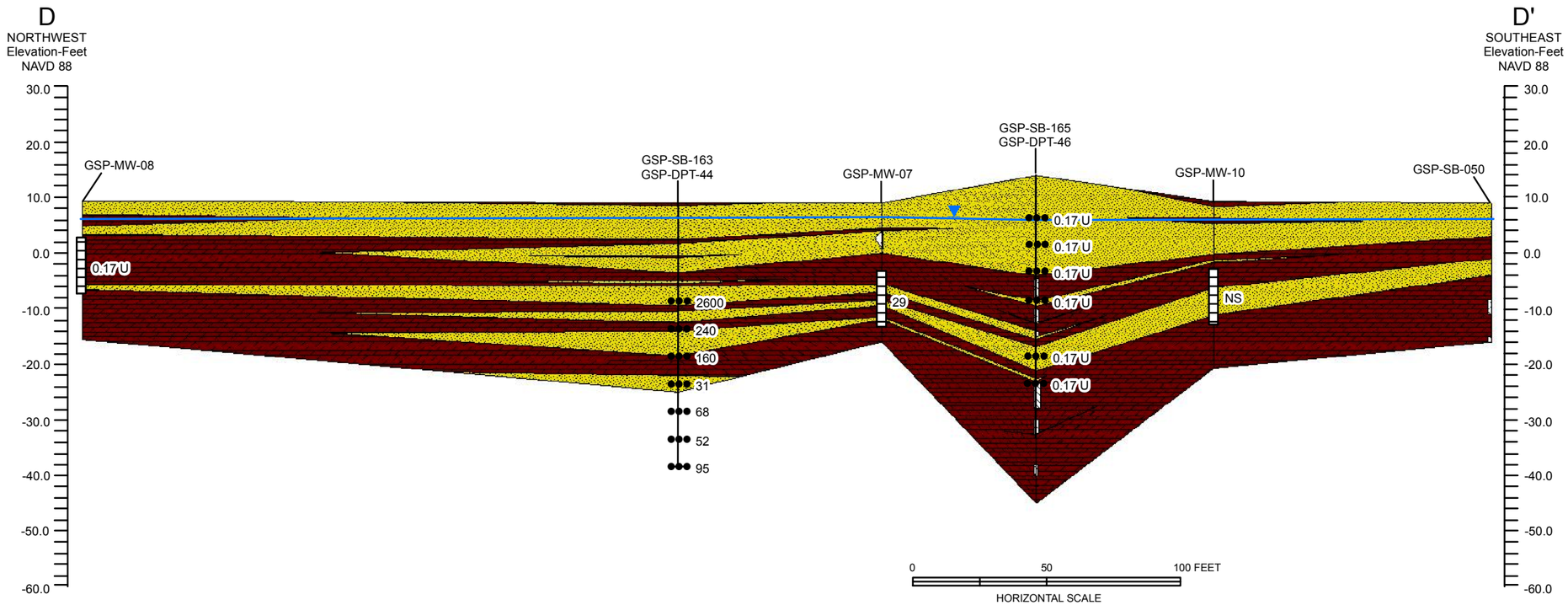


FIGURE A-6

GEOLOGIC CROSS-SECTION D-D' WITH TCE CONCENTRATIONS IN GROUNDWATER RECS 7-9, GREATER STRAWBERRY POINT

LEGEND

- CLAY AND CLAY-SILT-SAND MIXTURES
- SAND, SILT AND SAND-SILT MIXTURES
- WELL SCREEN
- SOIL OR WELL BORING
- GROUNDWATER SURFACE (DASHED WHERE INFERRED)
- DPT WELL SCREEN LEVEL (MIDPOINT)

29 = TCE CONCENTRATION IN GROUNDWATER - 2016 (UG/L)
NS = NOT SAMPLED IN 2016
U = NOT DETECTED AT CONCENTRATION LEFT OF THE LETTER

DPT = DIRECT PUSH TECHNOLOGY
MW = MONITORING WELL
NAVD 88= NORTH AMERICAN VERTICAL DATUM 1988
UG/L = MICROGRAMS PER LITER

VERTICAL EXAGGERATION IS 2x.

Lockheed Martin, Martin State Airport
Middle River, Maryland

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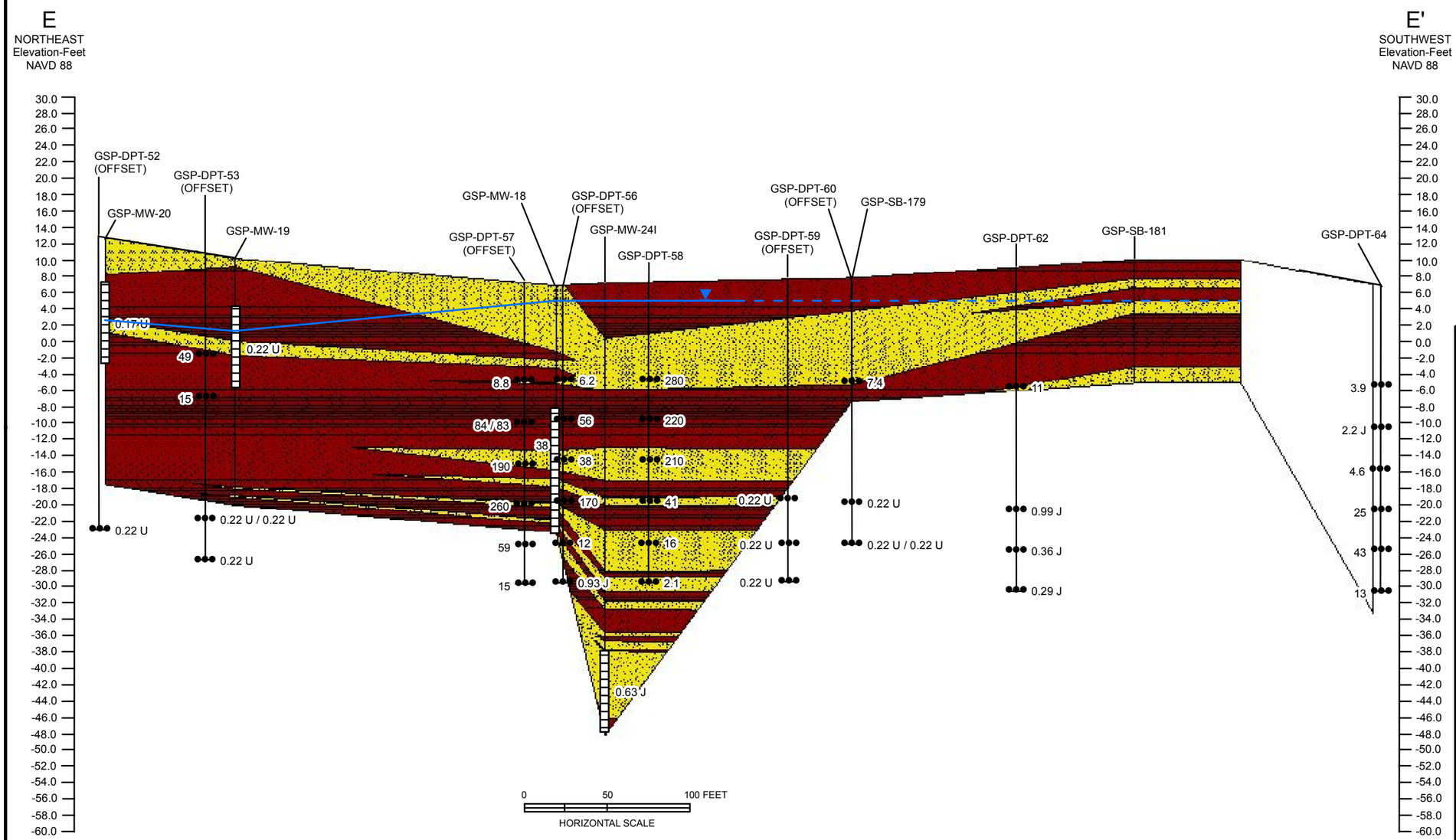


FIGURE A-7

GEOLOGIC CROSS-SECTION E-E' WITH TCE CONCENTRATIONS IN GROUNDWATER REC 11, GREATER STRAWBERRY POINT

LEGEND

- CLAY AND CLAY-SILT-SAND MIXTURES
- SAND, SILT AND SAND-SILT MIXTURES
- WELL SCREEN
- SOIL OR WELL BORING
- GROUNDWATER SURFACE (DASHED WHERE INFERRED)
- DPT WELL SCREEN LEVEL (MIDPOINT)

25 = TCE CONCENTRATION IN GROUNDWATER - 2016 (UG/L)
J = ESTIMATED VALUE
U = NOT DETECTED AT CONCENTRATION LEFT OF THE LETTER

DPT = DIRECT PUSH TECHNOLOGY
MW = MONITORING WELL
NAVD 88= NORTH AMERICAN VERTICAL DATUM 1988
UG/L = MICROGRAMS PER LITER

VERTICAL EXAGGERATION IS 5x.

Lockheed Martin, Martin State Airport
Middle River, Maryland

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F

NORTHWEST
Elevation-Feet
NAVD 88

F'

SOUTHEAST
Elevation-Feet
NAVD 88

20.0 18.0 16.0 14.0 12.0 10.0 8.0 6.0 4.0 2.0 0.0 -2.0 -4.0 -6.0 -8.0 -10.0 -12.0 -14.0 -16.0 -18.0 -20.0 -22.0 -24.0 -26.0 -28.0 -30.0 -32.0 -34.0 -36.0 -38.0 -40.0 -42.0 -44.0 -46.0 -48.0 -50.0

SB-177
GSP-DPT-54
GSP-DPT-55 (OFFSET)
GSP-MW-4
GSP-DPT-56 (OFFSET)
GSP-MW-18
GSP-DPT-57 (OFFSET)
GSP-MW-24I
GSP-DPT-58 (OFFSET)

19
9
0.22 U
0.22 U
0.22 U
0.22 U
0.22 U
0.51 J / 0.46 J
0.22 U
0.22 U
0.22 U
4
6.2
56
38
170
12
0.93 J
38
8.8
280
84 / 83
220
190
210
260
41
59
16
15
2.1
0.63 J

0 25 50 FEET
HORIZONTAL SCALE

FIGURE A-8

GEOLOGIC CROSS-SECTION F-F' WITH TCE CONCENTRATIONS IN GROUNDWATER REC 11, GREATER STRAWBERRY POINT

LEGEND

- CLAY AND CLAY-SILT-SAND MIXTURES
- SAND, SILT AND SAND-SILT MIXTURES
- WELL SCREEN
- SOIL OR WELL BORING
- GROUNDWATER SURFACE (DASHED WHERE INFERRED)
- DPT WELL SCREEN LEVEL (MIDPOINT)

56 = TCE CONCENTRATION IN GROUNDWATER - 2016 (UG/L)
J = ESTIMATED VALUE
U = NOT DETECTED AT CONCENTRATION LEFT OF THE LETTER

DPT = DIRECT PUSH TECHNOLOGY
MW = MONITORING WELL
NAVD 88= NORTH AMERICAN VERTICAL DATUM 1988
UG/L = MICROGRAMS PER LITER

VERTICAL EXAGGERATION IS 2x.

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APPENDIX B—HUMAN HEALTH RISK ASSESSMENT

Human Health Risk Assessment
Greater Strawberry Point
701 Wilson Point Road
Martin State Airport
Middle River, Maryland

Prepared for:

Lockheed Martin Corporation

Prepared by:

Tetra Tech, Inc.

September 2017



Michael Martin, P.G.
Regional Manager



Amy McGivney
Project Manager

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ACRONYMS

θ_w	water-filled-soil porosity
θ_a	air-filled-soil porosity
ρ_b	dry bulk-soil-particle density
τ	lag time
A	trench area
ABS	absorption factor
ABS_{GI}	absorption efficiency in the gastrointestinal tract
ACH	air changes per hour
ADAF	age-dependent adjustment factor
AF	skin adherence factor
AST	aboveground storage tank
AT	averaging time
ATC	anticipated typical concentration
atm-m^3/mole	atmospheres-cubic meter per mole
ATSDR	Agency for Toxic Substances and Disease Registry
B	dimensionless ratio of the permeability coefficient of a compound through the stratum corneum relative to its permeability coefficient across the viable epidermis
BaPEq	benzo(a)pyrene equivalents
BMD	benchmark dose
bgs	below ground surface
BW	body weight
C_{air}	concentration of chemical in air
Cal/EPA	California Environmental Protection Agency
CDI	chronic daily intake
CEC	cation-exchange capacity
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CF	conversion factor
C_{gw}	chemical concentration in groundwater
cm	centimeter
cm/sec	centimeters per second
cm^2/sec	square centimeters per second

COC	chemical(s) of concern
COPC	chemical(s) of potential concern
C_s	chemical concentration in soil
CSF	cancer slope factor
CSM	conceptual site model
D_a	apparent diffusivity
DAD	dermally absorbed chemical dose from water
DA_{event}	dermally absorbed dose per event
DAF	dilution attenuation factor
days/year	days per year
D_i	diffusivity in air
DoD	United States Department of Defense
DRO	diesel range organics
D_s	shower duration
D_t	total time in bathroom
D_w	diffusivity in water
EC	exposure concentration
ED	exposure duration
EF	exposure frequency
Eh	redox potential
EPC	exposure point concentration
EU	exposure unit
EV	exposure event frequency
FA	fraction absorbed
FI	fraction ingested
g/cm^3	grams per cubic centimeter
g/mole	grams per mole
g/m^2-sec per kg/m^3	grams per square-meter-second per kilogram per cubic meter
GRO	gasoline range organics
GSP	Greater Strawberry Point
H	Henry's Law constant
HASP	health and safety plan
HEAST	Health Effects Assessment Summary Tables
HHRA	human health risk assessment
HI	hazard index (indices)
HQ	hazard quotient
ICLR	incremental lifetime cancer risk

IR	ingestion rate
IRIS	Integrated Risk Information System
IR_w	groundwater ingestion rate
IRs	soil ingestion rate
IUR	inhalation unit risk
°K	degrees Kelvin
K	mass-transfer coefficient
K_d	soil-water-partition coefficient
kg	kilogram
kG,H2O	gas phase mass transfer coefficient of water vapor at 25°C
kg/day	kilogram(s) per day
K_i	contaminant's overall mass transfer coefficient
k_iG	gas phase mass transfer coefficient
k_iL	liquid phase mass transfer coefficient
kL,O2	liquid phase mass transfer coefficient of oxygen at 25°C
K_p	permeability coefficient of water through skin
L/day	liters per day
LOAEL	lowest observed adverse effect level
Lockheed Martin	Lockheed Martin Corporation
m	meter
MAA	Maryland Aviation Administration
MCL	maximum contaminant level
MDE	Maryland Department of the Environment
µg/kg	micrograms per kilogram
µg/l	micrograms per liter
mg/day	milligrams per day
mg/kg	milligrams per kilogram
mg/kg-day	milligrams per kilogram per day
mg/L	milligrams per liter
mg/m^3	milligrams per cubic meter
mL/hour	milliliters per hour
MRC	Middle River Complex
MSA	Martin State Airport
MTBE	methyl tert butyl ether
MW	molecular weight
n	total soil porosity
NAVD88	North American Vertical Datum 1988

NCEA	National Center for Environmental Assessment
OPPTS	Office of Prevention, Pesticides, and Toxic Substances
ORNL	Oak Ridge National Laboratory
OSWER	Office of Solid Waste and Emergency Response
π	pi
PAH	polycyclic (or polynuclear) aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PEF	particulate emission factor
PPRTV	Provisional Peer Reviewed Toxicity Values
PRG	preliminary remediation goal
Q/C	inverse of the mean concentration at the center of source
R	rejected data
Ra	air exchange rate
RAGS	Risk Assessment Guide for Superfund
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Conditions
RfC	reference concentration
RfD	reference dose
RME	reasonable maximum exposure
RSL	regional screening level
S	volatile chemical generation rate
SA	surface area
SDWA	Safe Drinking Water Act
SQL	sample quantitation limit
SSL	soil screening level
SVOC	semivolatile organic compound
SwSL	surface water screening level
TCE	trichloroethene
TCLP	toxicity characteristic leaching procedure
TEF	toxicity equivalency factor
Tetra Tech	Tetra Tech, Inc.
t_{event}	event duration
TPH	total petroleum hydrocarbon
UCL	upper confidence limit
USEPA	United States Environmental Protection Agency
V	trench volume
VDEQ	Virginia Department of Environmental Quality

VF	volatilization factor
VISL	vapor intrusion screening level
VOC	volatile organic compound

Section 1
Introduction

The baseline human health risk assessment (HHRA) evaluates whether detected concentrations of chemicals in the Greater Strawberry Point (GSP) study area pose a significant health risk to potential human receptors under current and/or future land uses. Potential risks to human receptors are estimated assuming that no actions are taken to control contaminant releases. This risk assessment is an update to the human health risk assessment presented in the *Additional Phase II Site Investigation Report* (Tetra Tech, 2014). The risk assessment was updated because:

- Additional soil and groundwater samples have been collected at the site.
- New United States Environmental Protection Agency (USEPA) default exposures assumptions (used to estimate risks) have been published for some receptors.
- New and revised toxicity criteria have been released by USEPA for some site-related contaminants.
- The USEPA regional screening levels (RSL) used to identify chemicals of potential concern (COPC) have been updated.

The following current USEPA guidance documents were used to develop the framework for the baseline human health risk assessment:

- *Risk Assessment Guidance for Superfund (RAGS): Volume I, Human Health Evaluation Manual (Part A)* (USEPA, 1989)
- *Exposure Factors Handbook: 2011 Edition* (USEPA, 2011).
- *Supplemental Soil Screening Level Guidance* (USEPA, 2002a)
- *Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites* (USEPA, 2002b)
- *Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment)* (USEPA, 2004)
- *Guidelines for Carcinogen Risk Assessment* (USEPA, 2005a)

- *Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens* (USEPA, 2005b)

- *Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment)* (USEPA, 2009)

The risk assessment protocols in the following technical documents, which were prepared for Lockheed Martin Corporation (Lockheed Martin) sites at Martin State Airport (MSA) site as well as for the Middle River Complex (MRC), were also considered:

- *Revised Human Health Risk Assessment, MSA, Middle River, Maryland*. Prepared for Lockheed Martin Corporation (Tetra Tech, Inc. [Tetra Tech], 2006a)

- *Site Characterization Report, Lockheed Martin MRC, 2323 Eastern Boulevard, Middle River, Maryland* (Tetra Tech, 2006b)

- *Remedial Investigation Report, MSA, Middle River, Maryland*. Prepared for Lockheed Martin Corporation (Tetra Tech, 2010)

- *Human Health Risk Assessment for Blocks D, E, F, G, and H Soils, Lockheed Martin MRC, 2323 Eastern Boulevard, Middle River, Maryland*. Prepared for Lockheed Martin Corporation (Tetra Tech, 2011)

A human health risk assessment provides the framework for developing risk information necessary to assist in developing potential remedial alternatives for a site. This human health risk assessment consists of the following six components (see Sections 2 through 7 for a more complete discussion):

- data evaluation
- exposure assessment
- toxicity assessment
- risk characterization
- uncertainty analysis
- development of remedial goals

Three major aspects of chemical contamination and environmental fate and transport must be considered to evaluate potential risks: (1) contaminants with toxic characteristics must be found in environmental media and must be released by either natural processes or by human action; (2) potential exposure points must exist; and (3) human receptors must be present at the point of exposure. Risk is a function of both toxicity and exposure. If any one of these factors is absent

for a site, the exposure pathway is incomplete, and no potential risks are considered to exist for human receptor.

The original baseline human health risk assessment assessed risks for all current and future land uses including residential and recreational use. For this update, the focus is on actual foreseeable current and future land use, with the goal of developing remedial goals to be used in the feasibility study. Current land use in the Greater Strawberry Point area is commercial/industrial (Martin State Airport is an operating airport) and expected to remain so in the future. Therefore, the risk assessment is focused on risks to industrial workers and construction workers, consistent with the current industrial land use at the site within Martin State Airport.

Section 2
Data Evaluation

Data evaluation, the first component of a baseline human health risk assessment (HHRA), is a medium-specific task involving compilation of analytical data as the first step. The second step and main objective of data evaluation is to develop a medium-specific list of chemicals of potential concern (COPC) that will be used to quantitatively and/or qualitatively determine potential human health risks for site media. COPC are selected based on a toxicity screen (i.e., a comparison of site contaminant concentrations to conservative toxicity screening values) and a background screen (i.e., a comparison of site concentrations to background concentrations).

2.1 DATA USABILITY

The HHRA is based on validated data collected during environmental investigations conducted between 2010 and 2016. Surface soil is defined as samples collected from 0 to 2 feet below ground surface (bgs) interval. Samples collected from depths of 1 to 3 feet and 0 to 3 feet bgs were evaluated as surface soil as well for the purposes of the HHRA.

Shallow subsurface soil is defined as samples collected from greater than 2 feet to less than or equal to 15 feet bgs. The depth to groundwater in the study area ranges from three to 15 feet below grade. Therefore, data for these samples are representative of conditions in the unsaturated (vadose) zone and upper saturated-zone soil. It is assumed that direct contact with the deeper saturated-zone soil (i.e., soil samples greater than 15 feet below grade) is very unlikely; therefore, this HHRA does not quantitatively evaluate direct-contact exposure to deeper saturated-zone soil. This assumption is consistent with Maryland Department of the Environment (MDE) guidance that requires soil characterization down to a depth of 15 feet (MDE, 2008). The uncertainty analysis (see Section 5.5) presents a qualitative evaluation of contaminants detected in saturated-zone soil.

Groundwater samples collected from temporary and permanent monitoring wells screened in the 0 to 20 feet bgs interval were used in this HHRA. Samples from deeper wells were not used because the receptors evaluated in this HHRA (industrial workers, construction workers) are not expected to have contact with deep groundwater.

2.2 DERIVATION OF SCREENING CRITERIA

The primary COPC screening criteria for the study area soil were derived from Maryland Department of the Environment (MDE) *Cleanup Levels for Soil and Groundwater* (MDE, 2008) and United States Environmental Protection Agency (USEPA) regional screening levels (RSLs) (USEPA, 2016a). The more conservative of these values were used to select COPC. These risk-based concentrations are based on exposure pathways for which generally accepted methods, models, and assumptions have been developed (i.e., ingestion, dermal contact, inhalation) for specific land uses (residential, industrial). The COPC screening levels used in the HHRA to evaluate soil and groundwater data are listed in Tables 2-1 and 2-2, respectively, and defined in the following narrative.

Screening levels for soil—Screening levels to select COPC for direct human contact exposures to surface and subsurface soil are based on the following criteria:

- *Interim Final Guidance from the State of Maryland, Department of the Environment, Cleanup Standards for Soil and Groundwater* (MDE, 2008)
- *Regional Screening Levels for Residential Soil* (USEPA, 2016a)

COPC screening levels from the MDE cleanup standards that were derived from risk-based concentrations correspond to a systemic hazard quotient (HQ) of 0.1 for noncarcinogens or an incremental lifetime cancer-risk (ILCR) of 1×10^{-6} (i.e., a one in a million probability) for carcinogens. USEPA RSLs are also based on an HQ of 0.1 for noncarcinogens and an ILCR of 1×10^{-6} for carcinogens. Soil screening levels derived from both of these sources were used for direct contact COPC selection. As noted above, the more conservative (lower) of the available values were used for COPC selection.

Maximum chemical concentrations in soil were also compared to MDE cleanup levels for groundwater protection (as published in MDE, 2008) as well as to federal soil screening levels

(SSLs) for groundwater protection, which are designed to protect groundwater at most sites (as published in the USEPA RSL table). These groundwater-protection SSLs allow an initial qualitative evaluation of toxicity resulting from potential chemical migration from soil to groundwater. MDE cleanup levels for groundwater protection are based on a dilution attenuation factor (DAF) of 20, whereas federal SSLs for groundwater protection are based on a DAF of 1. The MDE cleanup levels for groundwater protection and the federal SSLs for groundwater protection are based on an ILCR of 1×10^{-6} and a hazard index (HI) of 1. Chemicals migrating from soil to groundwater in sufficient quantities with concentrations exceeding MDE groundwater protection criteria or the SSLs' criteria may potentially pose groundwater quality problems. Chemicals detected at concentrations exceeding MDE groundwater protection criteria or federal SSLs for groundwater protection, but at concentrations less than COPC screening levels for direct-contact risk, will not be evaluated quantitatively in the HHRA. However, these chemicals will be further evaluated qualitatively using the approach presented in Section 5.4.3.

Screening levels for groundwater—To be conservative, groundwater at the site was evaluated assuming potential residential groundwater use. COPC screening levels for groundwater are based on MDE cleanup standards for groundwater (MDE, 2008), USEPA RSLs for tap water (USEPA, 2016a), USEPA vapor intrusion screening levels (VISL) (USEPA, 2016b), and the federal primary Safe Drinking Water Act (SDWA) maximum contaminant levels (MCLs) (USEPA, 2012).

The MDE cleanup standards for groundwater that were derived from risk-based concentrations correspond to a systemic HQ of 0.1 for noncarcinogens or an ILCR of 1×10^{-6} for carcinogens. The USEPA RSLs for tap water correspond to a systemic HQ of 0.1 for noncarcinogens or an ILCR of 1×10^{-6} for carcinogens.

Screening levels from USEPA VISL Calculator Version 3.5.1 (USEPA, 2016b) were used for evaluating the vapor intrusion pathway (i.e., the migration of volatile organic chemicals from groundwater to indoor air). The values correspond to a target cancer-risk level of $1x10^{-6}$ for carcinogens, or a HQ of 0.1 for noncarcinogens. The vapor intrusion screening criteria were derived to identify chemical concentrations in groundwater that may adversely affect the indoor air quality of a building overlying subsurface volatile organic compound (VOC) contamination.

Federal SDWA MCLs for public drinking water supplies are enforceable standards designed to protect human health and promulgated under the federal SDWA. Primary MCLs are based on laboratory or epidemiological studies, and apply to public water systems. A public water system is defined as a system providing water to the public for human consumption that either has at least 15 service connections, or regularly serves an average of 25 individuals daily, for at least 60 days per year.

Primary MCLs are designed to prevent adverse human health effects, but also reflect the technical feasibility of removing a contaminant from water. Primary (i.e., health based) and secondary (i.e., aesthetic based) MCLs are promulgated under the SDWA. Secondary MCLs are non-enforceable standards and therefore are not used in COPC selection or included on the COPC selection tables.

2.3 DECISION RULES FOR ESTABLISHING CHEMICALS OF POTENTIAL CONCERN

The following decision rules were used to select COPC for the GSP soil and groundwater evaluated:

- A chemical detected in soil or groundwater was selected as a COPC for the HHRA if the maximum detected chemical concentration exceeded its relevant screening level for soil or groundwater.

- Surrogate COPC screening levels were used for some chemicals. For example, risk-based COPC screening levels are not currently available from USEPA for some chemicals that have been detected in study area soil and groundwater [e.g., 1,3-dichlorobenzene, m+p xylenes, tertiary-butyl alcohol, acenaphthylene, benzo(g,h,i)perylene, phenanthrene] due to the lack of toxicity criteria. For purposes of COPC selection, 1,4-dichlorobenzene was used as a surrogate for 1,3-dichlorobenzene; acenaphthene was used as a surrogate for acenaphthylene; isobutyl alcohol was used as a surrogate for tertiary-butyl alcohol, and pyrene was used as a surrogate for both benzo(g,h,i)perylene and phenanthrene.

- Some chemicals (i.e., naphthalene) are reported in both the VOC and semivolatile organic compound (SVOC) fractions, so naphthalene results in both fractions were evaluated in COPC selection. See Section 5.5.1 for a discussion of uncertainty related to naphthalene results used in this HHRA.

- Per current USEPA guidance (USEPA, 1993), cancer risk estimates for benzo(a)pyrene and six other polycyclic aromatic hydrocarbons (PAHs) [benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene,

dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene] were calculated in terms of benzo(a)pyrene equivalent (BaPEq) concentrations using USEPA-recommended toxicity equivalency factors (TEFs). TEFs are based on the potency of each of these PAH compounds relative to that of benzo(a)pyrene. TEFs are used to convert each individual PAH concentration into an equivalent concentration of benzo(a)pyrene. The sum of these six equivalent concentrations (for the six PAHs mentioned above) plus the benzo(a)pyrene concentration is the BaPEq concentration. Exposure point concentrations (EPC) for these PAHs were derived using BaPEq concentrations calculated for each sample.

BaPEq were calculated two ways: (1) the BaPEq-½-non-detect value was calculated using one-half of the detection limit to represent non-detect results in the calculation, and (2) the BaPEq-positive-results value was calculated using a value of zero to represent non-detect PAH results. In either BaPEq calculation, if no PAHs were detected in a sample, then the sample quantitation limit for benzo(a)pyrene was used as the equivalent concentration for that sample. Values for both BaPEq calculations are presented in the COPC-selection tables.

For the datasets evaluated in this HHRA, both values calculated for BaPEq are similar; therefore, the BaPEq-½-non-detect values were used in the risk assessment, since these values are slightly more conservative due to the incorporation of non-detects. Using one-half of the detection limit for non-detects recognizes that the concentration of a PAH in a specific sample may be greater than zero even though the result is considered non-detected (i.e., the PAH may be present at a concentration between zero and the sample quantitation limit). The fact that the BaPEq results for both the ½-non-detect and positive-results-only calculations are similar indicates that elevated detection limits are not resulting in biased-high BaPEq results for the ½-non-detect calculation.

2.4 COPC SELECTED FOR THE HHRA

COPC for GSP were selected for surface and subsurface soil and groundwater using the COPC screening levels described in the preceding narrative. COPC selection was based on samples from all recognized environmental conditions (RECs) [i.e., RECs #2 through #11] combined to produce a list of "global" COPC. Global COPC were further evaluated on an exposure unit (EU)-specific basis as part of the quantitative risk assessment, based on whether the COPC were detected in a specific EU (EU is defined in the exposure assessment, Section 5.3). Thus, if a global COPC was not detected in a particular EU, it was not evaluated in that EU. This method was used instead of assigning surrogate concentration values [e.g., sample quantitation limits (SQLs)] to global COPC that were never detected in a particular EU. A discussion of the

chemicals identified as global COPC and the rationale for their selection as global COPC is provided in the following subsections. Global COPC selection tables for surface and subsurface soil are presented in Tables 2-3 through 2-6. Global COPC selection for the deep subsurface soil (not evaluated quantitatively in the HHRA) is presented in Table 2-7. Global COPC selection for groundwater-associated direct contact and vapor intrusion are presented in Tables 2-8 and 2-9, respectively. Chemicals retained as global COPC for GSP are presented in Table 2-10.

2.4.1 Surface Soil (0–2 Feet below Grade)

A comparison of the maximum detected surface soil concentrations to screening levels (based on MDE cleanup levels and RSLs) is presented in Table 2-3. The following chemicals were detected in surface soil at maximum concentrations exceeding the direct-contact risk-based COPC screening-levels, and were retained as global COPC for surface soil:

- ***SVOCs:*** benzo(a)pyrene equivalents, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, and n-nitroso-di-n-propylamine
- ***Polychlorinated biphenyls (PCBs):*** Aroclor-1260
- ***Metals:*** arsenic, chromium, cobalt, iron, manganese, thallium, and vanadium
- ***Petroleum hydrocarbons:*** diesel range organics (DRO)

Total chromium was selected as a COPC based on hexavalent chromium screening criteria; chromium would not be a COPC if trivalent screening criteria were used for COPC selection. Uncertainty associated with chromium toxicity is further discussed in Section 5.5.

A comparison of maximum detected surface soil concentrations to MDE cleanup goals for groundwater protection and to USEPA SSLs for chemical migration from soil to groundwater is presented in Table 2-4. The following chemicals were detected in surface soil at maximum concentrations exceeding the COPC screening-levels for migration from soil to groundwater, and were retained as global COPC for surface soil:

- ***VOCs:*** 1,2,4-trichlorobenzene, 1,3-dichlorobenzene, benzene, chloroform, cis-1,2-dichloroethene, methyl tert-butyl ether, methylene chloride, naphthalene, trichloroethene, and vinyl chloride

- ***SVOCs:*** 1,1-biphenyl, 2-methylnaphthalene, benzaldehyde, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, butyl benzyl phthalate, carbazole, chrysene, dibenz(a,h)anthracene, dibenzofuran, indeno(1,2,3-cd)pyrene, naphthalene, n-nitroso-di-n-propylamine, phenanthrene, and pyrene

- ***PCBs:*** Aroclor-1260

- ***Metals:*** antimony, arsenic, barium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, nickel, selenium, silver, thallium, and vanadium

Total chromium was selected as a COPC for migration from soil to groundwater based on hexavalent chromium screening criteria. Chromium would not be a COPC for migration from soil to groundwater if trivalent chromium screening criteria were used. The potential for chemical migration from soil to groundwater is more fully evaluated in Section 5.4.

2.4.2 Shallow Subsurface Soil (Greater than 2–15 Feet below Grade)

A comparison of maximum detected subsurface soil concentrations to screening levels (based on MDE cleanup levels and USEPA RSLs) is presented in Table 2-5. The following chemicals were detected in shallow subsurface soil at maximum concentrations exceeding the direct contact risk-based COPC screening-levels and were retained as global COPC for shallow subsurface soil:

- ***VOCs:*** naphthalene

- ***PAHs:*** benzo(a)pyrene equivalents, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, and naphthalene

- ***PCBs:*** Aroclor-1260

- ***Metals:*** arsenic, chromium, cobalt, iron, manganese, thallium, and vanadium

- ***Petroleum hydrocarbons:*** DRO

No COPC screening levels based on MDE cleanup standards or USEPA RSLs are available for 4-isopropyltoluene and tert-amyl methyl ether. Chemicals lacking screening criteria are qualitatively evaluated in the uncertainty analysis (see Section 5.5). Total chromium was selected as a COPC based on hexavalent chromium screening criteria; chromium would not be a COPC if

trivalent screening criteria were used for COPC selection. Uncertainty associated with chromium toxicity is further discussed in Section 5.5.

Table 2-6 compares the maximum detected shallow subsurface soil concentrations to MDE cleanup goals for groundwater protection and to USEPA SSLs for chemical migration from soil to groundwater. The following chemicals were detected in subsurface soil at maximum concentrations exceeding COPC screening-levels for migration from soil to groundwater and were retained as global COPC for subsurface soil:

- ***VOCs:*** 1,2,3-trimethylbenzene, 1,2,4-trimethylbenzene, 1,2-dichloroethane, benzene, carbon tetrachloride, cis-1,2-dichloroethene, ethylbenzene, m+p-xylenes, methyl tert-butyl ether, methylene chloride, naphthalene, o-xylene, total xylenes, trichloroethene, and vinyl chloride
- ***SVOCs:*** 1,1-biphenyl, 2,4-dichlorophenol, 2-methylnaphthalene, acenaphthene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, carbazole, chrysene, dibenz(a,h)anthracene, dibenzofuran, fluorene, indeno(1,2,3-cd)pyrene, isophorone, naphthalene, pentachlorophenol, phenanthrene, and pyrene
- ***PCBs:*** Aroclor-1242 and Aroclor-1260
- ***Metals:*** antimony, arsenic, barium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, and vanadium

Total chromium was selected as a COPC for migration from soil to groundwater based on hexavalent chromium screening criteria. Chromium would not be a COPC for migration from soil to groundwater if trivalent chromium screening criteria were used. A more refined evaluation of the potential for chemical migration from soil to groundwater is provided in Section 5.4.

2.4.3 Deep Subsurface Soil (Greater than 15 Feet below Grade)

The HHRA for GSP assumes that direct human contact with deep subsurface soil is very unlikely. Therefore, risk estimates are not presented for direct contact with this medium. However, to be complete, Table 2-7 compares the maximum detected concentrations to the direct contact COPC selection criteria for soil. The maximum detected concentrations are not compared to USEPA SSLs for groundwater protection because deep subsurface soil is in the saturated soil zone. Any remediation of COPC in this zone would be based on contamination actually observed

in groundwater, and not on contamination detected in deep, saturated soil. The following chemicals were detected at concentrations exceeding direct-contact COPC screening-levels:

- ***VOCs:*** trichloroethene
- ***PAHs:*** benzo(a)pyrene equivalents, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene
- ***Metals:*** arsenic, chromium, cobalt, copper, iron, manganese, nickel, thallium, and vanadium
- ***Petroleum hydrocarbons:*** DRO

The uncertainty analysis (Section 5.5) contains a more detailed qualitative evaluation of the global COPC selected for deep subsurface soil. Total chromium was selected as a COPC based on hexavalent chromium screening criteria; chromium would not be a COPC if trivalent screening criteria were used for COPC selection. Uncertainty associated with chromium toxicity is further discussed in Section 5.5.

2.4.4 Groundwater

Table 2-8 compares the maximum detected groundwater concentrations to screening levels based on MDE cleanup standards, USEPA RSLs for tap water, and USEPA MCLs. The following chemicals were detected at concentrations exceeding direct-contact COPC screening-levels:

- ***VOCs:*** 1,2-dibromo-3-chloropropane, 1,2-dichloroethane, 1,4-dichlorobenzene, benzene, carbon tetrachloride, chloroform, cis-1,2-dichloroethene, ethylbenzene, methyl tert-butyl ether, naphthalene, trichloroethene, and vinyl chloride
- ***SVOC:*** 2,4-dinitrotoluene, 2,6-dinitrotoluene, 2-methylnaphthalene, bis(2-ethylhexyl)phthalate, carbazole, dibenzofuran, naphthalene, and n-nitrosodimethylamine,
- ***Dissolved metals:*** antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, hexavalent chromium, iron, manganese, molybdenum, nickel, selenium, thallium, vanadium, and zinc
- ***Total metals:*** antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, hexavalent chromium, iron, lead, manganese, nickel, selenium, thallium, vanadium, and zinc

- ***Petroleum hydrocarbons:*** DRO and gasoline range organics (GRO)

Total chromium was selected as a COPC based on hexavalent chromium screening criteria; chromium would not be a COPC if trivalent screening criteria were used for COPC selection. Uncertainty associated with chromium toxicity is further discussed in Section 5.5.

Table 2-9 compares the maximum detected groundwater concentrations to USEPA VISL (USEPA, 2016b). The following chemicals were detected at concentrations exceeding vapor intrusion COPC screening-levels:

- ***VOCs:*** 1,2-dibromo-3-chloropropane, 1,2-dichloroethane, benzene, carbon tetrachloride, chloroform, ethylbenzene, naphthalene, trichloroethene, and vinyl chloride
- ***SVOCs:*** naphthalene

These chemicals were also selected as direct contact COPC for groundwater. Chemicals present in groundwater exceeding vapor intrusion COPC screening levels are further evaluated in Section 5.3.4.

Section 3
Exposure Assessment

The exposure assessment component of a human health risk assessment (HHRA) defines and evaluates, either quantitatively or qualitatively, the type and magnitude of human exposure to chemicals at or migrating from a site. It depicts the site's physical setting, identifies potentially exposed populations and applicable exposure pathways, calculates concentrations of chemicals of potential concern (COPC) to which receptors might be exposed, and estimates chemical intakes under the identified exposure scenarios. Actual or potential exposures at a site depend on the most likely pathways of contaminant release and transport, as well as on patterns of human activity. A complete exposure pathway has four components: a *source* of chemicals that can be released to the environment, a *contaminant-transport route* through an environmental medium, an *exposure* or *contact point* for a human receptor, and an *exposure route*.

3.1 CONCEPTUAL SITE MODEL

A conceptual site model (CSM) facilitates consistent and comprehensive evaluation of potential risks to human health by creating a framework for identifying the pathways by which human receptors may come in contact with environmental media contaminated by site activities. A CSM depicts the relationships among the following elements, which are necessary for defining complete exposure pathways:

- site sources of contamination
- contaminant-release mechanisms and transport/migration pathways
- potential receptors
- exposure routes

These CSM elements establish the manner and degree to which a potential receptor may be exposed to chemicals present at a site. The degree of risk incurred by a potential receptor varies according to the means and duration of exposure, and the specific chemical to which the receptor is exposed. An exposure, however long in duration, does not necessarily result in a regulatory

"unacceptable" health or environmental risk, although risks generally increase with increased frequency and/or duration of exposure.

Section 2 discusses the nature and extent of contamination at Greater Strawberry Point (GSP). The results from this section identified sources of possible contamination, which are discussed in Section 3.1.1. Sections 3.1.2 and 3.1.3 discuss contaminant-release mechanisms and transport and migration pathways, respectively. Section 3.1.4 and Table 3-1 provide a site-specific summary of potential receptors and exposure pathways to be evaluated for GSP. Table 3-2 summarizes the exposure routes (addressed quantitatively for each human receptor). Figure 3-1 illustrates the CSM for the GSP HHRA.

3.1.1 Site Sources of Contamination

The GSP area is in the southwestern portion of Martin State Airport (MSA) and is bounded by a runway to the east and Stansbury Creek to the west. Stansbury Creek is a wide, brackish, tidal tributary of the Chesapeake Bay (Figure 3-2). Studies at the nearby Dump Road Area of MSA indicate that the soil consists of artificial fill composed of heterogeneous layers of sands, silts, and clays. Artificial fill comprises the uppermost 10–20 feet of soil at the site. Scrap metal, wood, brick, etc., indications of fill, have been noted during past environmental investigations (see Section 1). The uppermost native soil beneath the artificial fill are composed of sands, silts, and clays.

Site investigations took place at GSP from 2007 to present. In the Phase II Site Investigation report (Tetra Tech, 2010), ten recognizable environmental conditions (RECs) were identified (Figure 3-3). REC #2 is the Fuel Storage Tank Farm, encompassing approximately 1.6 acres in the southernmost portion of GSP and MSA. REC #2 is comprised of manicured grass and 13 fuel aboveground storage tanks (ASTs) behind Buildings 2 and 4. Buildings 2 and 4 currently serve as the Baltimore County Marine Police operations building and a fuel pumping station, respectively. The ASTs have a total storage capacity of 95,000 gallons and store Jet-A fuel, aviation gasoline, unleaded gasoline, diesel fuel, and waste oil.

REC #3 is the Old Wastewater Treatment Plant, and encompasses approximately 1.7 acres in the southernmost portion of GSP and MSA. REC #3 is southeast of and adjacent to the Maryland State

Police helicopter hanger (Building 7). REC #3 is comprised of manicured grass and a former wastewater treatment plant. A small fuel tank and underground sanitary-sewer and water lines are also present in REC #3.

REC #4 is the former Solvent Storage Area encompassing approximately three acres in the southernmost portion of GSP and MSA. REC #4 is currently comprised of a large building constructed in 1989–90, currently used to store and maintain Maryland State Police aircraft. This building lies on top of concrete. Concrete covers most of the REC except for a small strip of manicured grass along the southwest edge of the area. Water lines, an underground sanitary sewer, sanitary pipes, a small fuel tank, and two large fuel tanks (12,000-gallons each) are also currently located in REC #4 behind the Maryland State Police Hangar.

REC #5 encompasses approximately 0.2 acres on the southwest edge of REC #6 and is the location of a former electrical transformer pad in the south-central portion of GSP. REC #5 currently consists of an open area covered by reinforced concrete. A storm sewer pipe underlies this portion of the concrete lot and private airplane hangars have been set up to the north.

REC #6 is comprised of the former Delivery Hangar (Building ND, also designated as Building 11) and General Storage Building (Building 12), encompassing approximately 1.8 acres between Taxiway S and the Maryland State Police Hangar in the south-central portion of GSP. This REC is currently an open area covered with reinforced concrete. Underground storm sewer pipes run along the northeastern edge of REC #6. Private airplane hangars are in the western portion of the REC.

REC #7 includes the Facility Maintenance Area, encompassing approximately 9.2 acres in the central portion of GSP. This REC includes salt and sand storage domes (Buildings 49 and 50), the Facility Maintenance Building (Building 22, formerly the Propulsion Test Building), three drum storage areas, three tanks, oil-filled operational equipment, and underground electric and sanitary lines. These structures were constructed in the early 1990s. The remainder of this REC is used for parking areas for the airport maintenance fleet.

REC #8 contains the former Control House (Building 14), former Noise Suppression Building (Building 15), former Jet Test Shed (Building 16), former Storage Building

(Building 17), former Compressor Shed (Building 23), and former Engine Test Building (Building 24), encompassing approximately 2.3 acres in the central portion of GSP. Buildings 14–17 have been removed, but Buildings 23 and 24 remain. They are in poor condition but are still used by MSA facility maintenance for storage.

REC #9 is the former Propellant Storage Building (Building 18), former Acetylene Storage Building (Building 20), and former Furnace Building (Building 19), an area encompassing approximately 2.8 acres in the central portion of GSP. REC #9 is adjacent to REC #8 along the southern edge of Taxiway F. The former Vanguard Tower (Building 21) and former Hyper-Therm Test Facilities (Building 25) are in the northwestern portion of REC #9. These buildings were built in the mid-1950s, judging from historical aerial photographs, but have since been demolished.

REC #10 is the former Coupon Test Sheds (Buildings 27, 28, and 29) and former Block House (Building 26) area, and encompasses approximately 1.4 acres in the northern portion of GSP. REC #11 is the former Critical-Test Building (Building 36/KC), former Radioisotope Lab (Building 35/KJ), and former Transformer Pad areas, encompassing 1.8 acres in the northern portion of GSP at the intersection of Taxiways J and F. The KJ and KC buildings, constructed in the early 1950s, were used for radiological research and testing under an NRC permit. The buildings were decontaminated in the late 1980s, and NRC terminated the licenses in 1995.

The depth to groundwater at GSP (measured from the top of the well casings) at recognized environmental conditions (RECs) #7–10 vary widely, and range from at or near the ground surface to around eight feet. Groundwater depths (measured from the top of the well casings) in REC #11 range from approximately 3.5–10 feet. Corresponding groundwater elevations reported in North American Vertical Datum 1988 (NAVD88), relative to mean sea level, range from approximately 1.5–10 feet. At GSP, groundwater flow is generally to the southeast, and is consistent with regional groundwater flow toward the southeastern tip of MSA, where Frog Mortar Creek and Stansbury Creek converge. Localized groundwater flow at REC #11 is influenced by the drainage swale and stormwater-detention basins between the wooded area and Taxiway J; groundwater there flows southwest to a wetland adjoining Stansbury Creek.

Contamination at GSP likely has multiple sources, with different relative origins in time. Some site contaminants may be attributable to urban fill used in the 1940s as an original ground cover to raise the elevation and support site development. Other contaminants may be related to historical and/or continued industrial use of the property as an airport. Former land use at GSP under Lockheed Martin's predecessor companies was similar to current land use, and included airplane runways, aircraft repairs, fueling, operation, and runway maintenance. Additional operations at GSP in the 1940s and 1950s consisted of Naval research (performed by Martin companies under contract with the Navy) for airplane and missile propulsion systems. For example, a portion of the building currently used as the MSA maintenance building in REC #7 (e.g., the northern part constructed in 1955) was formerly known as the "Propulsion Test Building." The REC #9 area housed a set of former Vanguard missile testing facilities in the 1950s. REC #11 housed the former airport maintenance facilities as well as a set of nuclear propulsion research facilities. These buildings, constructed in the early 1950s, were all demolished around 2000 by the Maryland Aviation Administration (MAA), the current landowner. The REC #11 area currently contains fill brought in by an MAA contractor to construct a new taxiway and stormwater control features as part of the 1998-2000 improvements. Reportedly, REC #10 also contains remnants of a soil borrow pile (i.e., "fill") placed there during this construction project. Some portions of GSP have been surfaced in primarily grass (e.g., RECs #2, #3, and #8-10), with the exception of buildings and roads, since the 1940s. Other portions of GSP (e.g., RECs #4 through 7) have been predominantly surfaced in concrete/tarmac since the 1960s.

3.1.2 Potential Contaminant Release Mechanisms and Transport Pathways

Chemicals may migrate within an environmental medium (e.g., soil) or migrate to another environmental medium (e.g., air) once released. This section discusses potential contaminant-release mechanisms and transport pathways. Potential contaminant-release mechanisms and transport pathways are similar for all the RECs. For example, soil data collected in each REC indicate that past activities have released contaminants to the surrounding environment.

Contaminants in surface soil could migrate to air through wind erosion or through volatile emissions. Subsurface soil is not currently exposed at the site; however, if future construction were

to bring subsurface soil to the surface, contaminants in subsurface soil could be transported into the air through wind erosion or through volatile emissions. Surface soil contaminants could also be transported to surface water bodies (e.g., Stansbury Creek) through overland runoff and erosion.

As noted previously, multiple drainage outfalls in the GSP area drain the GSP study area and surrounding areas. These drainage outfalls discharge to Frog Mortar Creek or Stansbury Creek. Therefore, contaminant transport from soil to surface water could potentially occur. Although subsurface soil is currently not exposed, if future construction were to bring subsurface soil to the surface, contaminants in subsurface soil could then be transported through overland runoff and erosion to surface water bodies. Overland runoff at the study area may not be a significant contaminant transport mechanism due to the generally low-relief site topography. Much of the study area is vegetated, which facilitates infiltration and evapo-transpiration. Infiltration is therefore expected to dominate surface runoff.

Contaminants can migrate from both surface and subsurface soil to groundwater through leaching of chemicals in the soil. At the nearby Dump Road Area, groundwater flows northeast from the airport runway and taxiway toward Frog Mortar Creek. Groundwater in the intermediate surficial-aquifer also flows northeast from the runway and taxiway toward Frog Mortar Creek. Groundwater flows south in the southern portion of the Dump Road Area. Groundwater potentiometric levels in the lower surficial-aquifer are similar to those of the intermediate surficial-aquifer.

Both the intermediate and lower surficial-aquifers have northern components of flow in the northern portion of the site and southern groundwater flow in the southern portion of the site. Groundwater flows from the northwest to the southeast in the deep confined-aquifer. Groundwater in the surficial aquifer at the GSP area is also expected to follow the surface topography and flow from the watershed divide near the airport runway area to the southwest and west toward Stansbury Creek, and to the southeast toward Frog Mortar Creek.

3.1.3 Fate and Transport of Primary Site COPC

Brief overviews of the fate and transport of metals, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and volatile organic compounds (VOCs) follow:

***Metals*—**The fate and transport of inorganics (metals) are controlled mainly by the mobility of soil particles and their dissolution into water present in the immediate environment. Metals do not undergo the sort of degradation reactions that most organic chemicals do; they are therefore considered persistent. The major fate mechanisms for metals are adsorption to the soil matrix and bioaccumulation.

The mobility of metals is influenced primarily by their physical and chemical properties, in combination with the physical and chemical characteristics of the soil matrix. Factors that help predict the mobility of inorganic species are the soil/pore-water pH (a measure of hydrogen-ion concentration used to express the acidity or alkalinity of a solution), soil/pore-water redox potential (Eh, referring to electron activity in soil), and cation-exchange capacity. pH and Eh allow us to understand the oxidation state of a metal in the environment. The oxidation state of a metal allows us to predict, to a certain extent, the mobility of the metal. The cation-exchange capacity (CEC) is one predictor of the tendency of metals to "bind" to the soil matrix thus limiting the potential for migration.

PAHs are fairly immobile chemicals in the environment. PAHs are large molecules with low solubilities, vapor pressures, and Henry's Law constants that have high partitioning coefficients. Both vapor pressure and water solubility are useful for determining volatilization rates from surface water bodies and groundwater. The measured ratio of these two parameters under equilibrium conditions (the Henry's Law Constant) is used to calculate the equilibrium chemical concentrations in the vapor (air) phase compared to the liquid (water) phase for the dilute solutions commonly encountered in environmental settings. In general, chemicals having a Henry's Law Constant less than $1x10^{-5}$ atmospheres-cubic meter per mole (atm-m^3/mole), such as PAHs, should volatilize very little and should be present only in minute amounts in the atmosphere or soil vapor. PAHs in soil are much more likely to bind to soil, and be transported via mass-transport mechanisms than through dissolution. These compounds, when found in surface soil, generally do not tend to migrate vertically. Instead, they are more likely to adhere to soil particles and be removed from the site via surface water runoff and erosional processes, especially in the absence of pavement or if erosion controls are absent or not functioning properly.

PCBs are considered very persistent organic chemicals with a great affinity for particulates and organic matter (i.e., soil). However, PCBs may be mobilized via particulate transport due to erosion of contaminated surface soil.

VOCs that may have been released/spilled onto surface soil would likely have volatilized over time. The lack of significant residual contamination in surface soil is evidence that this transport mechanism is not currently significant for surface soil. VOCs not lost to the atmosphere may have migrated to subsurface strata and underlying groundwater via transport mechanisms such as infiltration with precipitation. VOCs with low molecular weights and low adsorption potential are considered very mobile in the environment. Trichloroethene is a primary VOC COPC, selected as a direct-contact COPC for groundwater and for migration to groundwater.

3.1.4 Potential Current and Future Receptors of Concern and Exposure Pathways

Current land use in the GSP area is commercial/industrial (MSA is an operating airport) and expected to remain so for the foreseeable future. The area surrounding MSA consists of suburban developments, industrial/commercial developments, and woodlands. The area surrounding GSP includes the MSA Main Terminal to the north, a runway to the east, Stansbury Creek to the west, and the Strawberry Point wooded area to the south. Groundwater is not currently used as a source of potable or industrial water at the site, and such use in the future is not anticipated. This HHRA considers receptor exposure under non-residential (e.g., industrial) land use scenarios.

Current and/or potential/hypothetical future land uses suggest the following potential receptors are the most likely to be exposed to impacted environmental media at GSP:

- *Construction workers*—Construction workers are plausible on-site adult receptors under current and future land uses. Construction workers could be exposed to chemicals in surface and subsurface soil (0–2 feet below grade and 2–15 feet below grade, respectively) through incidental ingestion and dermal contact, and through inhalation of airborne contaminants emanating from soil. Groundwater in the study area is within approximately 15 feet of the ground surface. Direct contact with the deeper (saturated-zone) soil is assumed limited and, thus, direct contact with soil deeper than approximately 15 feet below ground surface (bgs) will not be evaluated quantitatively. Such soil (i.e., the saturated-zone soil) will be evaluated qualitatively in the uncertainty analysis. Construction workers could also be exposed to chemicals in shallow

groundwater (e.g., the shallow groundwater seeping into an excavation ditch) through incidental ingestion and dermal contact, and through inhalation of airborne contaminants emanating from groundwater.

- *Industrial workers*—Industrial workers are plausible on-site adult receptors under current and future land uses. These receptors could be directly exposed to chemicals in surface soil (0–2 feet below grade) through incidental ingestion, dermal contact, and inhalation of airborne particulates and vapors emitted from the soil. Industrial-worker exposure to subsurface soil (2–15 feet below grade) is unlikely. However, exposure to subsurface soil via incidental ingestion, dermal contact, and inhalation will be evaluated for this receptor to aid in risk management decisions because future construction could potentially bring subsurface soil to the surface. This receptor is expected to be exposed to soil less intensively, but with a longer exposure duration than would be the case for the construction worker.

  Industrial workers are not expected to be exposed to chemicals in groundwater because groundwater is not used as a source of either drinking water or process water, and because industrial workers are not expected to directly contact groundwater in their day-to-day work. If this receptor were to work in an on-site structure, they could be exposed to VOCs migrating from contaminated subsurface soil or groundwater into the indoor air of a building via vapor intrusion. However, industrial workers' exposure to chemicals through vapor intrusion would likely be less intensive than residential exposure to chemicals through vapor intrusion.

3.2 EXPOSURE-POINT CONCENTRATIONS

Exposure-point concentrations (EPC) calculated for COPC (both site-related and naturally occurring) are estimates of chemical concentrations in an exposure unit (EU); EPCs are used to estimate exposure intakes. An EU is the area over which receptor activity is expected. The following paragraphs discuss the EUs that will be evaluated in the HHRA, and the guidelines for calculating EPCs.

Three EUs were evaluated in this HHRA. RECs #2-6 were evaluated as one EU due to their proximity to each other. Likewise, RECs #7-10 were also evaluated as one EU due to their proximity to each other. REC #11 is geographically distinct from the other RECs; therefore, it was evaluated as a separate EU.

The following guidelines were used to calculate EPCs for COPC concentrations in each EU:

- For soil data-sets containing at least 10 samples, the 95% upper confidence-limit (UCL) on the arithmetic mean, which is based on the distribution of the data set, was selected as the EPC unless the UCL value exceeded the maximum detected concentration. In that case, the maximum detected concentration was used as the EPC. The maximum concentration was also used as the EPC if an insufficient number of detections (i.e., less than three positive detections in a data set) were available to calculate a 95% UCL, in accordance with USEPA guidance (USEPA, 2015). EPCs were calculated according to USEPA's *Calculating Upper Confidence-Limits for Exposure-Point Concentrations at Hazardous Waste Sites* (USEPA, 2002b) and using USEPA's *ProUCL* software version 5.1.002 (USEPA, 2015).

- For groundwater, the 95% UCL for the monitoring wells located in the center of the groundwater plume is recommended as the EPC (USEPA, 2014). There was no discernable groundwater plume; therefore, the maximum detected concentration was used as the EPC for groundwater.

- Non-detected values were evaluated in accordance with the ProUCL guidance using Kaplan-Meier statistics. Duplicates were averaged for purposes of calculating EPCs for COPC in environmental media. In calculating the averages, when a positive result was reported for one sample in a duplicate pair, but a non-detect result was reported for the other sample in the duplicate pair *and* the non-detect result (i.e., the "U" qualified value) exceeded the positive result, the positive result was selected to represent the sample. If the detection limit was less than the detected value, then the average of the detected value and one-half the detection limit was used.

- Naphthalene was selected as a global COPC for subsurface soil and groundwater in both the VOC and semivolatile organic compound (SVOC) fractions. EPCs were calculated for naphthalene for each fraction; the higher EPC was evaluated in the HHRA. Uncertainty associated with this method is discussed in the uncertainty analysis.

- Section 5.1 notes that total chromium was selected as a COPC in surface soil, subsurface soil, and groundwater using hexavalent chromium screening criteria for COPC selection because no hexavalent chromium data were available for GSP. The *Remedial Investigation Report for Martin State Airport* (Tetra Tech, 2010) evaluated the Dump Road Area and used available hexavalent chromium data to estimate the approximate percentage of hexavalent chromium in MSA soil. The results of that investigation show that approximately 1% of total chromium in MSA soil is in the hexavalent state. The remedial investigation conservatively assumed that 100% of the chromium detected in the Dump Road Area groundwater was in the hexavalent state (Tetra Tech, 2010). These Dump Road Area assumptions are also used in this GSP HHRA, as follows, because no

hexavalent chromium data are available for GSP: 1% of the total chromium EPC will be evaluated as hexavalent chromium for soil, and 100% of the total chromium EPC will be evaluated as hexavalent chromium for groundwater. Uncertainty associated with the assessment of chromium toxicity is discussed in Section 5.5.

3.3 CHEMICAL INTAKE ESTIMATION

Methodologies and techniques for estimating exposure intakes are presented in this section. Intakes for the potential receptor groups identified were calculated using current MDE and USEPA risk assessment guidance. The same methodology is used to calculate intakes for the construction workers and industrial workers. Only the exposure assumptions differ. Exposure assumptions are presented in Table 3-3.

Noncarcinogenic intakes are typically estimated using the concept of an average annual exposure. Carcinogenic intakes are calculated as an incremental lifetime exposure, which assumes a life expectancy of 70 years. The exposure assumptions reflect current MDE guidance (MDE, 2008), and its default assumptions were used to develop most of the exposure assumptions used to estimate chemical intakes. Several USEPA guidance documents (e.g., USEPA, 1989, 2014) were also consulted, as necessary. The following paragraphs discuss the non-default, receptor-specific exposure assumptions used in the risk assessment.

3.3.1 Incidental Ingestion of Soil

Direct physical contact with soil in the study area may result in the incidental ingestion of chemicals. Daily chemical intakes, expressed in units of milligrams per kilogram per day (mg/kg/day), for the incidental ingestion of soil are estimated as follows (USEPA, 1989):

$$\text{Intake} = \frac{(C_s)(IR)(FI)(EF)(ED)(CF)}{(BW)(AT)}$$

where:

Intake = chemical intake from soil (milligrams per kilogram per day [mg/kg/day])

C_s = chemical concentration in soil (milligrams per kilogram [mg/kg])

IR = ingestion rate (milligrams per day [mg/day])

FI = fraction ingested from contaminated source (dimensionless)

EF = exposure frequency (days/year)

ED = exposure duration (year)

CF = conversion factor (1×10^{-6} kg/mg)

BW = body weight (kg)

AT = averaging time (days)

for noncarcinogens, AT = ED×365 days/year

for carcinogens, AT = 70 years×365 days/year

Most of the exposure assumptions used to estimate chemical intakes from incidental ingestion of soil are based on default assumptions described in the MDE or USEPA guidance. They are summarized in Table 3-3. It was assumed that construction workers assigned to future excavation projects in the study area would be exposed to soil for 125 days per year (days/year) over a one year period.

3.3.2 Dermal Contact with Soil

Direct physical contact with soil may result in dermal absorption of chemicals. Exposure associated with dermal contact with soil is estimated as follows (USEPA, 2004):

$$\text{Intake} = \frac{(C_s)(SA)(AF)(ABS)(CF)(EV)(EF)(ED)}{(BW)(AT)}$$

where:

Intake = amount of chemical absorbed during contact with soil (mg/kg/day)

C_s = chemical concentration in soil (mg/kg)

SA = skin surface area available for contact (centimeters^2 [cm^2])

AF = skin adherence factor (mg/cm^2-event)

ABS = absorption factor (dimensionless)

CF = conversion factor (1×10^{-6} kg/mg)

EV = exposure event frequency (event/day)

EF = exposure frequency (days/year)

ED = exposure duration (year)

BW = body weight (kg)

AT = averaging time (days)

for noncarcinogens, AT = ED×365 days/year

for carcinogens, AT = 70 years×365 days/year

Most of the exposure assumptions used to estimate chemical intakes from dermal contact with soil are based on the default assumptions described in the standard MDE or USEPA guidance. They are summarized in Table 3-3. The same exposure frequencies and durations recommended for evaluating incidental ingestion of soil are used to estimate chemical intakes for dermal contact with soil.

For chemicals identified as COPC in soil, chemical specific dermal absorption factors in *RAGS Part E* (USEAP, 2004) were used. USEPA Region 3 dermal guidance (USEPA, 2003a) was consulted if chemical specific absorption factors are not available in *RAGS Part E*.

3.3.3 Inhalation of Air Containing Fugitive Dust/Volatiles Emitted from Soil

Intakes of both particulates and vapors/gases are calculated using the same equation, as follows (USEPA, 2009):

$$EC = \frac{(C_{air})(ET)(EF)(ED)}{AT \times 24\ hrs/day}$$

where:

EC = exposure concentration (milligrams per cubic meter [mg/m^3])

C_{air} = concentration of chemical in air (mg/m^3)

ET = exposure time (hours/day)

EF = exposure frequency (days/year)

ED = exposure duration (year)

AT = averaging time (days)

for noncarcinogens, AT = ED×365 days/year

for carcinogens, AT = 70 years×365 days/year

Most of the exposure assumptions used to estimate chemical intakes from inhalation of fugitive dusts/volatile emissions from surface and subsurface soil are based on default assumptions described in the Maryland guidance or the standard USEPA guidance, and are summarized in Table 3-3. The same exposure frequencies and durations used to estimate incidental ingestion of soil intakes for industrial workers were used to estimate exposure via inhalation of fugitive dust/volatile emissions for surface and subsurface soil.

The concentrations of chemicals in air resulting from emissions from soil are developed following procedures presented in USEPA Supplement *Soil Screening Guidance* (USEPA, 2002a). The chemical concentration in air is calculated from:

$$C_{air} = C_s \times \left[\frac{1}{PEF} + \frac{1}{VF}\right]$$

where:

C_{air} = chemical concentration in air, mg/m^3

C_s = chemical concentration in soil, mg/kg

PEF = particulate emission factor, m^3/kg

VF = volatilization factor, m^3/kg

The particulate emissions factor (PEF) relates the concentration of the chemical in soil to the concentration of dust particles in air. A PEF value of $3.23\times10^{+9}$ cubic meters per kilogram (m^3/kg) was obtained from USEPA's regional screening level (RSL) Web site (https://www.epa.gov/risk/regional-screening-levels-rsls). This is the default value for Philadelphia, Pennsylvania, which is the closest city to the MSA listed on the web site. A separate PEF is used for the construction scenario because air emissions resulting from fugitive

dust emissions at non-construction settings differ from dust emissions generated by construction. The PEF for construction workers ($7.58\times10^{+8}$ m^3/kg) was calculated using the equations presented in the supplemental SSL guidance document (USEPA, 2002b). Appendix A discusses how the PEF for construction workers was derived.

Ambient air concentrations resulting from COPC volatilization from soil are chemical dependent, and are calculated using the following equation from USEPA's soil-screening guidance:

$$VF = \frac{Q/C \times (3.14 \times D_a \times T)^{0.5} \times 10^{-4} \ (m^2 / cm^2)}{(2 \times \rho_b \times D_a)}$$

and

$$D_a = \frac{[(\theta_a^{10/3} \times D_i \times H' + \theta_w^{10/3} \times D_w)/n^2]}{\rho_b \times K_d + \theta_w + \theta_a \times H'}$$

where:

VF = volatilization factor (m^3-air/kg-soil)

Q/C = inverse of the mean concentration at the center of source (grams per square-meter-second per kilogram per cubic meter [g/m^2-sec per kg/m^3])

D_a = apparent diffusivity, chemical specific, (cm^2/sec)

T = exposure interval, exposure-specific, (seconds)

ρ_b = dry bulk-soil-particle density (grams per cubic centimeter [g/cm^3])

θ_a = air-filled-soil porosity (L_{air}/L_{soil})

D_i = diffusivity in air, chemical specific, (square centimeters per second [cm^2/sec])

n = total soil porosity (L_{pore}/L_{soil})

θ_w = water-filled-soil porosity (L_{air}/L_{soil})

D_w = diffusivity in water, chemical specific, (cm^2/sec)

K_d = soil-water-partition coefficient, chemical specific

H' = dimensionless Henry's Law constant, chemical specific

3.3.4 Incidental Ingestion of Groundwater

Incidental ingestion of shallow groundwater (e.g., pooling at the bottom of an excavation ditch) by construction workers may occur during construction or excavations. Intakes associated with groundwater ingestion will be evaluated using the following equation (USEPA, 1989):

$$\text{Intake} = \frac{(C_w)(IR_w)(EF)(ED)}{(BW)(AT)}$$

where:

Intake	=	chemical intake from groundwater (mg/kg/day)
C_w	=	chemical concentration in groundwater (mg/L)
IR_w	=	groundwater-ingestion rate (L/day)
EF	=	exposure frequency (days/yr)
ED	=	exposure duration (yr)
BW	=	body weight (kg)
AT	=	averaging time (days)
		for noncarcinogens, AT = ED×365 days/year
		for carcinogens, AT = 70 years×365 days/year

For construction workers, an ingestion rate of 0.2 liters per day [L/day] (or 50 milliliters per hour [mL/hr] for 4 hours) was assumed. Construction workers only be exposed to groundwater for the part of the construction project (i.e., during excavation for building foundations); therefore, is was assumed exposure to groundwater would occur for 90 days per year, for an exposure duration of one year. An exposure frequency of 90 days per year assumes that construction workers contact groundwater approximately three months per year. A summary of the receptor-specific input values used to estimate chemical intakes from incidental ingestion of groundwater is presented in Table 3-3.

3.3.5 Dermal Contact with Groundwater

Dermal contact with groundwater at the GSP is limited to exposure that would occur under a construction scenario. Short-term dermal exposure is assumed to occur for the construction worker during excavation activities.

The following equation is used to assess exposures from dermal contact with groundwater (USEPA, 2004):

$$DAD = \frac{(DA_{event})(EV)(ED)(EF)(SA)}{(BW)(AT)}$$

where:

DAD = dermally absorbed chemical-dose from water (mg/kg/day)

DA_{event} = dermally absorbed dose per event (mg/cm^2-event)

EV = event frequency (events/day)

ED = exposure duration (year)

EF = exposure frequency (days/year)

SA = skin-surface area available for contact (cm^2)

BW = body weight (kg)

AT = averaging time (days)

for noncarcinogens, AT = ED×365 days/year

for carcinogens, AT = 70 years×365 days/year

Most of the exposure assumptions used to estimate chemical intakes from dermal contact with groundwater are based on default assumptions described in the standard MDE or USEPA guidance, and summarized in Table 3-3.

USEPA has not established default exposure frequency assumptions for a construction worker exposed to groundwater. Consequently, we assume that the construction worker would be exposed to groundwater for four hours per day, 90 days per year. A shorter exposure frequency is recommended for a construction worker exposed to groundwater than that recommended for

exposure to soil, because it is unlikely that a construction worker would have direct contact with groundwater on a daily basis during a construction project.

The absorbed dose per event (DA_{event}) was estimated using a non-steady-state approach for organic compounds and a traditional steady-state approach for inorganics. For organics, the following equations apply:

$$\text{If } t_{event} < t^*, \text{ then: } DA_{event} = (2)(K_p)(FA)(C_w)(CF)\left(\sqrt{\frac{6\,\tau\,t_{event}}{\pi}}\right)$$

$$\text{If } t_{event} > t^*, \text{ then: } DA_{event} = (K_p)(FA)(C_w)(CF)\left(\frac{t_{event}}{1+B} + 2\,\tau\left(\frac{1+3B+3B^2}{(1+B)^2}\right)\right)$$

where:

t_{event}	=	event duration (hour/event)
t*	=	time to reach steady-state conditions (hour)
K_p	=	permeability coefficient of water through skin (cm/hour)
FA	=	chemical-specific fraction absorbed (dimensionless)
C_w	=	chemical concentration in water (mg/L)
τ	=	lag time (hour)
π	=	Pi (dimensionless; equal to 3.1416)
CF	=	conversion factor (0.001 L/cm^3)
B	=	dimensionless ratio of the permeability of the stratum corneum relative to permeability across the viable epidermis

Values for the chemical-specific parameters (t*, K_p, FA, τ, and B) were obtained from the current dermal guidance (USEPA, 2004, Exhibit B-3). If published values are not available for a particular compound, they were calculated using equations provided in the USEPA dermal guidance.

The following steady-state equation was used to estimate DA_{event} for inorganics:

$$DA_{event} = (K_p)(C_{wi})(t_{event})$$

The dermal permeability (K_p) values recommended in the USEPA dermal guidance (USEPA, 2004) were used to calculate DA_{event} for inorganic COPC.

3.3.6 Inhalation of Volatiles in Groundwater

If VOCs are present, groundwater exposure may also result in chemical intake through inhalation if the water resource is exposed during construction activities. Inhalation exposures for the construction worker were estimated using an air-intake estimation model, as follows (USEPA, 2009):

$$EC = \frac{(C_{air})(ET)(EF)(ED)}{(AT)(24hrs/day)}$$

where:

EC	=	exposure concentration (mg/m^3)
C_{air}	=	chemical concentration in air (mg/m^3)
ET	=	exposure time (hours/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (year)
AT	=	averaging time (days)
		for noncarcinogens, AT = ED×365 days/year
		for carcinogens, AT = 70 year×365 days/year

Construction workers may be exposed to COPC that have volatilized from groundwater when an excavation exposes the shallow water table. The same exposure frequencies and times used to estimate intake from dermal contact with groundwater are used to evaluate intake from inhalation of VOCs from groundwater during construction.

No well-established models are available for estimating migration of volatiles from groundwater into a construction or utility trench. To estimate the EPC for air in a construction trench, the

HHRA uses an approach suggested by the Virginia Department of Environmental Quality (VDEQ) (2016), which is based on a combination of a vadose zone model (to estimate volatilization of gases from contaminated groundwater into a trench) and a box model (to estimate contaminant dispersion from the air inside the trench to the above ground atmosphere). The VDEQ methodology is described in the following paragraphs. The airborne concentration of a contaminant in a trench can be estimated using the following equation:

$$C_{air} = C_{gw} \times VF$$

where:

C_{air}	=	contaminant concentration in air in the trench µg/m^3
C_{gw}	=	concentration of contaminant in groundwater µg/L
VF	=	volatilization factor L/m^3

It was assumed that a construction project at the site could excavate 15 feet below grade or less. If the depth to groundwater at a site is less than 15 feet, the VDEQ model assumes that a worker would encounter groundwater when digging an excavation or trench. The worker would then be directly exposed to the groundwater. The worker would also be exposed to airborne contaminants inside the trench due to volatilization from groundwater pooling in the trench bottom. The following equation is used to calculate the VF for a trench less than 15 feet deep:

$$VF = (Ki \times A \times F \times 10^{-3} \times 10^{4} \times 3{,}600)/(ACH \times V)$$

where:

VF	=	volatilization factor (L/m^3)
Ki	=	contaminant's overall mass-transfer coefficient (cm/s)
A	=	trench area (m^2)
F	=	fraction of floor through which contaminant can enter (unitless)
ACH	=	air changes per hour (h^{-1}) = 360 h^{-1}
V	=	trench volume (m^3)
10^{-3}	=	conversion factor (L/cm^3)

10^4 = conversion factor (cm^2/m^2)

3,600 = conversion factor (seconds/hour)

Studies of urban canyons suggest that if the ratio of trench width, relative to wind direction and trench depth, is less than or equal to 1, a circulation cell(s) will be created in the trench, limiting the degree of gas exchanged with the atmosphere. Thus, measured building-ventilation rates lead to an assumption of two air changes per hour (ACH). If the width to depth ratio of the trench is greater than 1, the air exchange between the trench and above ground atmosphere is unrestricted, based on the ratio of trench depth to average wind speed, so the ACH is assumed to be 360. The exposure assessment in this HHRA assumes that the width-to-trench depth ratio is greater than 1; thus, the ACH is set at 360.

K_i is calculated using the following equation:

$$K_i = 1/\{(1/k_iL) + [(RT)/(H_i\ k_iG)]\}$$

where:

K_i = containment's overall mass-transfer coefficient (cm/sec)

k_iL = liquid-phase mass-transfer coefficient of i (cm/sec)

R = ideal gas-constant (atm-m^3/mole-°K) = 8.2×10^{-5}

T = average system absolute-temperature (°K) (Default = 298°K)

H_i = Henry's Law constant of i (atm-m^3/mole)

k_iG = gas-phase mass-transfer coefficient of i (cm/sec)

Formulae for calculating k_iL and k_iG are as follows:

$$k_iL = (MWO_2/MW_i)^{0.5}\times(T/298)\times kL,O_2$$

where:

k_iL = liquid-phase mass-transfer coefficient of component i (cm/sec)

MWO_2 = molecular weight of oxygen (g/mole)

MW_i = molecular weight of component i (g/mole)

kL,O_2 = liquid-phase mass-transfer coefficient of oxygen at 25°C (cm/sec) = 0.002 cm/sec

$$k_iG = (MWH_2O/MW_i)^{0.335} \times (T/298)^{1.005} \times kG,H_2O$$

where:

k_iG = gas-phase mass-transfer coefficient of component i (cm/s)

MWH_2O = molecular weight of water (g/mole)

kG,H_2O = gas-phase mass-transfer coefficient of water vapor at 25°C (cm/s) = 0.833 cm/s (*Superfund Exposure Assessment Manual*, USEPA, 1988)

3.4 VAPOR INTRUSION INTO BUILDINGS

Current/future industrial workers could be exposed to COPC that have volatilized from groundwater and migrated into indoor air through future building foundations. USEPA's vapor intrusion screening level (VISL) calculator version 3.5.1 was used to evaluate potential exposures via vapor intrusion.

Section 4
Toxicity Assessment

The toxicity assessment seeks to identify potential adverse health effects in exposed populations. Quantitative estimates of the relationship between the magnitude and type of exposures, and the severity or probability of human health effects, are defined for the identified constituents of concern. Quantitative toxicity values determined during this component of the risk assessment are integrated with exposure-assessment outputs to characterize the potential occurrence of adverse health effects for each receptor group.

The reference dose (RfD) is the toxicity value used to evaluate noncarcinogenic health effects for ingestion and dermal exposures. The reference concentration (RfC) is used to evaluate noncarcinogenic health effects for inhalation exposures. The RfD and RfC estimate a daily exposure level for a human population that is unlikely to pose an appreciable risk during a portion or for all of a human lifetime. It is based on a review of animal and/or human toxicity data with adjustments for various data uncertainties. Carcinogenic effects are quantified using the cancer slope factor (CSF) for ingestion and dermal exposures, and using inhalation-unit risks (IURs) for inhalation exposure that are plausible upper bound estimates of the probability of developing cancer per unit intake of the chemical over a lifetime. These are typically based on dose-response data from human and/or animal studies.

4.1 TOXICITY CRITERIA FOR ORAL AND INHALATION EXPOSURES

Oral RfDs and CSFs and inhalation RfCs and IURs used in the risk assessment of the study area were obtained from the following primary United States Environmental Protection Agency (USEPA) sources (USEPA, 2003b):

- ***Tier 1 - Integrated Risk Information System (IRIS)—***USEPA's online database

- ***Tier 2 - USEPA's* Provisional Peer Reviewed Toxicity Values *(PPRTVs)*—**USEPA's Office of Research and Development/National Center for Environmental Assessment (NCEA) Superfund Health Risk Technical Support Center develops chemical specific PPRTVs when requested by USEPA's Superfund program

- ***Tier 3 - Other toxicity values*—**These sources include, but are not limited to, California Environmental Protection Agency (Cal/EPA) toxicity values, federal Agency for Toxic Substances and Disease Registry (ATSDR) values, and USEPA's *Health Effects Assessment Summary Tables* (HEAST).

Although toxicity criteria can be found in several toxicological sources, USEPA's *IRIS* online database is the preferred source of toxicity values. This database is continuously updated and its values are verified by USEPA.

4.2 TOXICITY CRITERIA FOR DERMAL EXPOSURE

RfDs and CSFs in the scientific literature are typically expressed as "administered" (i.e., not absorbed) doses. Therefore, these values are considered inappropriate for estimating risks associated with dermal exposures without adjustment to account for incomplete absorption. Oral dose-response parameters based on administered doses must be adjusted to absorbed doses before they can be compared to estimated dermal-exposure intakes.

When oral absorption is essentially complete (i.e., 100%), an absorbed dose is equivalent to the administered dose, so no toxicity adjustment is necessary. Conversely, when the gastrointestinal absorption of a chemical is poor (e.g., 1%), the absorbed dose is smaller than the administered dose; thus, toxicity factors based on absorbed dose should be adjusted to account for the difference in the absorbed dose relative to the administered dose. USEPA (2004) recommends a 50% absorption cut-off to reflect the intrinsic variability in analyzing absorption studies. Therefore, the adjustment from administered to absorbed dose was only performed when the chemical specific gastrointestinal-absorption efficiency was less than 50%. The adjustment from administered to absorbed dose was made using chemical specific gastrointestinal-absorption efficiencies published in numerous sources of guidance (e.g., USEPA 2004 [the primary reference], IRIS, ATSDR toxicological profiles, etc.), using the following equations:

$$RfD_{dermal} = (RfD_{oral})\ (ABS_{GI})$$

$$CSF_{dermal} = (CSF_{oral}) / (ABS_{GI})$$

where:

ABS_{GI}	=	absorption efficiency in the gastrointestinal tract
RfD_{dermal}	=	reference dose for dermal exposures
RfD_{oral}	=	reference dose for oral exposures
CSF_{dermal}	=	cancer slope-factor for dermal exposures
CSF_{oral}	=	cancer slope-factor of oral exposures

As noted, the preceding adjustment of the oral-toxicity criteria (i.e., RfDs, CSFs) is necessary so that the dermal route of exposure may be quantitatively evaluated in the baseline risk assessment. Further explanation of this procedure and its necessity are presented in Appendix A of USEPA *Risk Assessment Guide for Superfund (RAGS) Part A.*

4.3 INHALATION TOXICITY VALUES FOR CONSTRUCTION WORKERS

Under the guidelines established by the Superfund program, exposures to construction workers of one year or less are classified as subchronic exposures. Risks for noncarcinogenic effects associated with subchronic exposures should incorporate toxicity values for subchronic and not chronic effects.

4.4 CHROMIUM TOXICITY

Toxicity criteria are available for different forms of chromium, which is considered more toxic in the hexavalent state. In the USEPA's most recent regional screening level (RSL) table, hexavalent chromium is listed as a carcinogen that has been determined to act "mutagenically," and the corresponding RSL for residential soil is less than 1 mg/kg. USEPA's *Guidelines for Carcinogen Risk Assessment* (USEPA, 2005a) and *Supplemental Guidance on Assessing Susceptibility from Early Life Exposure to Carcinogens* (USEPA, 2005b) specify the use of age-dependent adjustment factors (ADAFs) for carcinogens such as hexavalent chromium, that act mutagenically. In contrast, the RSL for residential soil for trivalent chromium (not listed as a carcinogen/mutagen) is 120,000 mg/kg.

No hexavalent chromium data were available for Greater Strawberry Point (GSP). Hexavalent chromium criteria were conservatively used to evaluate total chromium in chemical of potential concern (COPC) selection, and chromium was selected as a COPC for surface soil, subsurface soil, and groundwater on this basis. The *Remedial Investigation for Martin State Airport* (Tetra Tech, 2010), which evaluated the Dump Road Area, assumed that one percent of the reported total chromium result in soil was attributed to hexavalent chromium; this percentage was based on comparing the analytical results for total and hexavalent concentrations in soil. Therefore, the same assumption was used in this human health risk assessment (HHRA) for GSP. The assumption that one percent of the total chromium concentration is present as hexavalent chromium is conservative, as available hexavalent chromium results indicate that hexavalent chromium, when detected, is most often much less than one percent of the total chromium in soil. As discussed in the uncertainty section, this overestimates the risks of exposure to chromium, but does not affect overall HHRA conclusions. For groundwater, total chromium data were conservatively evaluated using hexavalent chromium toxicity criteria. Uncertainty associated with chromium data in groundwater is discussed in the uncertainty section.

4.5 TOXICITY CRITERIA FOR POLYCYCLIC AROMATIC HYDROCARBONS (PAHS)

USEPA has recently updated the toxicity criteria for benzo(a)pyrene in IRIS (USEPA, 2017). The updated CSF is 1.0 $(mg/kg/day)^{-1}$. Previously IRIS did not publish an inhalation unit risk (IUR) for benzo(a)pyrene. Instead, a value developed by Cal/EPA was used to derive the USEPA RSL and calculate risks for benzo(a)pyrene. The updated toxicity criteria in IRIS includes an IUR of 6E-04 $(m^3/\mu g)^{-1}$ for inhalation exposures. Also, noncarcinogenic toxicity criteria are now available for benzo(a)pyrene. The oral RfD is 3E-04 mg/kg/day and the RfC is 2E-06 mg/m^3. The currently published RSLs are based on the previous toxicity criteria and were used for screening to identify COPC in this HHRA. However, updated toxicity criteria were used to estimate cancer risks and hazard indices in the HHRA.

Limited toxicity values are available to evaluate the potential carcinogenic effects from exposure to PAHs. Benzo(a)pyrene is the most extensively studied PAH, and the USEPA has published a cancer slope factor for this PAH in IRIS (USEPA, 2017). However, CSFs have not been published in IRIS for other PAH compounds. Alternatively, for a sub-set of related PAH

chemicals (benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a)anthracene, and indeno(1,2,3-cd)pyrene), USEPA recommends that risk evaluations be conducted using toxic equivalency factors (TEFs) developed for and used by the Agency to relate the potency of each of these PAHs to that of benzo(a)pyrene (USEPA, 1993). Specifically, the TEFs are used to convert the individual PAH concentrations into an equivalent concentration of benzo(a)pyrene, referred to as the benzo(a)pyrene equivalent (BaPEq).

Section 5
Risk Characterization

This section characterizes the potential human health risks associated with exposures to chemicals of potential concern (COPC) at Greater Strawberry Point (GSP). Potential risks (noncarcinogenic and carcinogenic) for human receptors from exposures, as outlined in the exposure assessment, were quantitatively determined during the risk characterization component of this human health risk assessment (HHRA). Sections 5.1 and 5.2 outline the methods used to quantitatively estimate the type and magnitude of potential risks to human receptors. The methodology used to estimate hazard indices and cancer risks follows the methodology presented in Section 5.15 of the regional screening level (RSL) user guide. Summaries of the risk characterization for GSP are provided in Section 5.4.3.

5.1 QUANTITATIVE ANALYSIS OF CONSTITUENTS

Non-carcinogenic risk estimates are presented in the form of hazard quotients (HQs). The HQ was derived by dividing the exposure point concentration by the non-carcinogenic risk-based concentration (RBC) for a particular medium (e.g., soil). Compounds potentially resulting in non-carcinogenic (systemic) effects will be evaluated using the following equations:

$$HQ_i = \frac{C_i}{RBC}$$

$$HI = \sum_{i=1}^{n} HQ_i$$

where: HQ_i = Hazard quotient for compound i

C_i = Exposure point concentration (mg/kg) for compound i

RBC = Risk-based concentration (mg/kg) for compound i. The RBC is set equal to a hazard quotient of 1

HI = Hazard index

The HQs for all COPC were summed to account for potential non-carcinogenic effects associated with multiple chemical exposures (i.e., the hazard index [HI] was calculated).

Carcinogenic risks are expressed in the form of dimensionless probabilities, referred to as the incremental lifetime cancer risk (ILCR). The ILCR was derived by dividing the exposure point concentration by the carcinogenic RBC for a particular medium (e.g., soil). COPC potentially resulting in carcinogenic effects were evaluated using the following equation:

$$ILCR = \sum_{i=1}^{n} \left(\frac{C_i}{RBC_i} \times 10^{-6} \right)$$

where: ILCR = Incremental lifetime cancer risk.

C_i = Exposure point concentration (mg/kg) for compound i.

RBC = Risk-based concentration (mg/kg) for compound i. The RBC represents the 10^{-6} risk level.

10^{-6} = Risk assessment point of departure risk level.

Risk-based concentrations were derived using the methodology presented in Section 3.3 and Section 4. A copy of the risk-based concentrations are presented in Appendix B.

5.2 INTERPRETATION OF RISK ASSESSMENT RESULTS

To interpret the quantitative risk estimates and aid risk managers in determining the need for remediation, quantitative risk estimates are compared to typical Maryland Department of the Environment (MDE) and United States Environmental Protection Agency (USEPA) risk benchmarks. Calculated ILCRs are interpreted using the MDE risk benchmark (1×10^{-5}) for cumulative risk and the USEPA target cancer-risk range (1×10^{-4} to 1×10^{-6}); HIs are evaluated using a value of 1.

USEPA defines the range of 1×10^{-4} to 1×10^{-6} as the ILCR target range for hazardous waste facilities addressed under the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA). Individual

or cumulative ILCRs greater than 1×10^{-4} are generally considered "unacceptable" by USEPA. Risk management decisions are necessary when the ILCR is within 1×10^{-4} to 1×10^{-6}. USEPA typically does not require remediation when the cumulative ILCR is less than 1×10^{-6}. Similarly, cumulative ILCRs greater than 1×10^{-5} are generally considered "unacceptable" by MDE; remediation may or may not be necessary when the cumulative ILCR exceeds 1×10^{-5}.

An HI exceeding unity (1) indicates that noncarcinogenic health risks may be associated with exposure. If an HI exceeds unity, target-organ effects associated with exposure to COPC are considered. Only those HQs for chemicals affecting the same target organ(s) or exhibiting similar critical effect(s) are regarded as truly additive. Consequently, the cumulative HI could exceed 1, but no adverse health effects would be anticipated unless the COPC affect the same target organ or exhibit the same critical effect (i.e., unless target-organ-/critical-effect-specific HIs exceed 1).

5.3 RISK CHARACTERIZATION RESULTS

This section presents risk characterization results for COPC detected in soil and groundwater in each of the three exposure units (EUs) evaluated (i.e., RECs #2-6, RECs #7-10, and REC # 11). Potential risks from direct-contact exposures to soil and groundwater, as well as a refined evaluation of the potential for chemical migration from soil to groundwater, are provided. Uncertainties associated with these risk estimates are discussed in Section 5.5. Potential risks from direct-contact exposures to soil and groundwater are discussed in Sections 5.3.1 and 5.3.2. Diesel-range organics (DRO) and gasoline-range organics (GRO) are discussed in Section 5.3.3. The risks from vapor intrusion are discussed in Section 5.3.4. A refined evaluation of the potential for chemical migration from soil to groundwater is presented in Section 5.3.5.

5.3.1 Noncarcinogenic Hazards

Cumulative HIs for receptors hypothetically exposed to COPC in surface soil, subsurface soil, and groundwater are presented in Tables 5-1 to 5-15 and summarized below. Chemicals contributing to target-organ-specific HIs greater than one are considered chemicals of concern (COC). The "risk drivers" listed in the following table are the predominant COPC contributing to the medium-specific cumulative risk estimates:

	Media	Hazard Index	Primary Risk Driver[(1)]
RECs #2-6			
Construction Workers	Surface Soil (SS)	0.5	SS: No COC[(2)]
	Subsurface Soil (SB)	0.3	SB: No COC[(2)]
	Groundwater (GW)	1	GW: No COC[(2)]
	Receptor Total (SS + GW)	2	--
	Receptor Total (SB + GW)	1	--
Industrial Worker	Surface Soil	0.2	SS: No COC[(2)]
	Subsurface Soil	0.1	SB: No COC[(2)]
RECs #7-10			
Construction Workers	Surface Soil	0.4	SS: No COC[(2)]
	Subsurface Soil	0.2	SB: No COC[(2)]
	Groundwater	8	TCE
	Receptor Total (SS + GW)	8	--
	Receptor Total (SB + GW)	8	--
Industrial Worker	Surface Soil	0.2	SS: No COC[(2)]
	Subsurface Soil	0.06	SB: No COC[(2)]
REC #11			
Construction Workers	Surface Soil	0.2	SS: No COC[(2)]
	Subsurface Soil	0.2	SB: No COC[(2)]
	Groundwater	1	GW: No COC[(2)]
	Receptor Total (SS + GW)	1	--
	Receptor Total (SB + GW)	1	--
Industrial Worker	Surface Soil	0.1	SS: No COC[(2)]
	Subsurface Soil	0.08	SB: No COC[(2)]

[1] The following abbreviations are used: TCE: trichloroethene; GW: groundwater; SB: subsurface soil; SS: surface soil.

[2] Hazard indices (HIs) calculated on a target-organ-specific basis do not exceed 1. Therefore, no chemicals of concern (COC) were identified for this medium.

HIs calculated on a target-organ-specific basis do not exceed 1 for industrial workers and construction workers exposure to surface soil and subsurface soil. HIs on a target organ specific basis do exceed 1 for the construction worker exposed to COPC in groundwater. These exceedances are primarily due to trichloroethene (TCE).

5.3.2 Carcinogenic Risks

Cancer risk estimates for receptors hypothetically exposed to COPC in surface soil, subsurface soil, and groundwater are presented in Tables 5-1 to 5-15 and summarized below. Chemicals are considered COC if the cumulative-risk estimate for the environmental medium exceeds $1x10^{-5}$ and the chemical-specific cancer risk exceeds $1x10^{-6}$. The "risk drivers" listed in the following table are the predominant COPC contributing to the medium-specific cumulative cancer-risk estimates:

	Media	Cancer Risk	Primary Risk Driver
RECs #2-6			
Construction Workers	Surface Soil (SS)	$1x10^{-7}$	SS: No COC*(1)*
	Subsurface Soil (SB)	$2x10^{-7}$	SB: No COC*(1)*
	Groundwater (GW)	$2x10^{-6}$	GW: No COC*(1)*
	Receptor Total (SS + GW)	$2x10^{-6}$	--
	Receptor Total (SB + GW)	$2x10^{-6}$	--
Industrial Worker	Surface Soil	$1x10^{-6}$	SS: No COC*(1)*
	Subsurface Soil	$1x10^{-6}$	SB: No COC*(1)*
RECs #7-10			
Construction Workers	Surface Soil	$7x10^{-7}$	SS: No COC*(1)*
	Subsurface Soil	$2x10^{-7}$	SB: No COC*(1)*
	Groundwater	$5x10^{-6}$	GW: No COC*(1)*
	Receptor Total (SS + GW)	$6x10^{-6}$	--
	Receptor Total (SB + GW)	$5x10^{-6}$	--
Industrial Worker	Surface Soil	$6x10^{-6}$	SS: No COC*(1)*
	Subsurface Soil	$2x10^{-6}$	SB: No COC*(1)*

REC #11			
Construction Workers	Surface Soil	$4x10^{-7}$	SS: No COC[(1)]
	Subsurface Soil	$2x10^{-7}$	SB: No COC[(1)]
	Groundwater	$3x10^{-6}$	GW: No COC[(1)]
	Receptor Total (SS + GW)	$3x10^{-6}$	--
	Receptor Total (SB + GW)	$3x10^{-6}$	--
Industrial Worker	Surface Soil	$3x10^{-6}$	SS: No COC[(1)]
	Subsurface Soil	$1x10^{-6}$	SB: No COC[(1)]

[1] ILCRs do not exceed $1x10^{-5}$. Therefore, no chemicals of concern (COC) were identified for this medium.
GW: groundwater; SB: subsurface soil; SS: surface soil

No medium-specific ILCRs for receptors exposed to surface soil, subsurface soil, and groundwater exceed either USEPA or MDE cancer risk benchmarks.

5.3.3 GRO/DRO

Risk estimates and HIs could not be developed for DRO and GRO due to a lack of toxicity criteria. DRO was selected as a COPC for surface soil, subsurface soil, and groundwater. Maximum detected DRO concentrations in surface soil and subsurface soil exceed the MDE residential-soil cleanup criterion of 230 mg/kg, and the non-residential-soil cleanup criterion of 620 mg/kg, at RECs #7-10 and REC #11. DRO concentrations in groundwater also exceed the MDE groundwater cleanup criterion of 47 µg/L at RECs #2-6, #7-10, and #11. GRO was selected as a COPC for groundwater only. GRO concentrations exceed the MDE cleanup criterion of 47 µg/L in RECs #2-6 and #7-10, but do not exceed it in REC #11. *GRO and DRO are evaluated in more detail in Section 6.3*.

5.3.4 Vapor Intrusion

As discussed in Section 5.1, several volatile organic compounds (VOCs) were detected in groundwater samples at concentrations exceeding USEPA screening levels for VOC migration from groundwater to soil gas (and subsequently through building foundations into the interior air). USEPA's vapor-intrusion screening level (VISL) calculator was used to evaluate vapor intrusion COPC for each site. Note that the analysis presented is only for *hypothetical* future industrial structures. Outputs from the VISL calculator are included in Appendix C. No

structures exist in or downgradient of the study areas. The following chemicals were detected in all groundwater samples at concentrations exceeding residential screening-criteria for vapor intrusion and, therefore, were evaluated as COPC: 1,2-dibromo-3-chloropropane, 1,2-dichloroethane, benzene, carbon tetrachloride, chloroform, ethylbenzene, naphthalene, TCE, and vinyl chloride.

Industrial Exposure to Vapor Intrusion			
Exposure Unit	**Cancer Risk**	**Hazard Index**	**Primary Risk Driver**
RECs #2-6	$1x10^{-8}$	0.0004	no chemicals of concern
RECs #7-10	$4x10^{-4}$	120	trichloroethene
REC 11	$9x10^{-5}$	13	chloroform, 1,2-dibromo-3-chloropropane, trichloroethene, vinyl chloride

ILCRs and HIs for industrial exposures via vapor intrusion at RECs #2-6 were within acceptable levels. ILCRs and HIs for industrial exposures via vapor intrusion at RECs #7-10 and REC #11 exceeded USEPAs and MDE target benchmarks.

5.3.5 Refined Evaluation of Chemical Migration from Soils to Groundwater

COPC for migration from soil to groundwater were selected as described in Section 2.4. However, a more refined evaluation of the potential for such migration is included in this section based on the following considerations:

- Does the maximum-detected soil concentration exceed the groundwater-protection screening-criterion at a dilution attenuation factor (DAF) of 20?
- Does the mean of positive detections in soil exceed the groundwater-protection screening-criterion at a DAF of 20?
- What is the frequency of detections exceeding the groundwater-protection screening-criterion at a DAF of 20?
- Was the chemical selected as a COPC in groundwater?
- Does the maximum concentration in groundwater exceed the federal SDWA MCL?

- What is the frequency of detections in groundwater exceeding the MDE screening level for groundwater or the USEPA RSL for tap water (based on an ILCR of 1×10^{-6} or an HI of 0.1)?

These factors are considered when selecting COC for groundwater protection. Chemicals selected as COPC for migration from soil to groundwater in the initial screening were not retained as COC if any of the following was true:

- The maximum soil concentration is less than the groundwater-protection criterion based on a DAF of 20.

  ***Rationale*:** As mentioned previously, a DAF of 1 is conservative; a DAF of 20 is assumed more accurate at most sites. Note that the MDE groundwater-protection criteria are based on a DAF of 20 and the USEPA SSLs for groundwater protection are based on a DAF of 1. The USEPA SSLs were adjusted (i.e., multiplied by 20) for this evaluation.

- The frequency of detections greater than the groundwater-protection screening-criterion at a DAF of 20 is less than 5% (when at least 20 samples are available).

  ***Rationale*:** Chemicals are unlikely to pose risks to water quality through leaching from soil to groundwater if they are detected infrequently (i.e., less than 5%) in soil.

- The chemical was not selected as a COPC in groundwater.

  ***Rationale*:** If a chemical was not selected as a COPC in site groundwater, the data do not indicate that water quality has been adversely affected. This is an important consideration, because the contamination events in the study area are presumed to have occurred more than 20 years ago. Thus, given the passage of time, groundwater concentrations likely reflect the potential for chemical migration from soil to groundwater.

- The maximum concentration in groundwater is less than the Safe Drinking Water Act (SDWA) maximum contaminant level (MCL).

  ***Rationale*:** SDWA MCLs are federally enforceable drinking-water standards. Concentrations of chemicals in groundwater less than their corresponding SDWA MCLs indicate that groundwater has not been adversely affected.

- The frequency of detections greater than the MDE groundwater screening-level or the USEPA tap water RSL is less than 5% (when at least 20 samples are included in the data set).

  ***Rationale*:** Chemicals are unlikely to pose risks to water quality through leaching from soil to groundwater if they are detected infrequently (i.e., less than 5%) in groundwater.

EU-specific comparisons of soil data to MDE groundwater-protection criteria and adjusted USEPA SSLs for groundwater protection are included in Tables 5-16, 5-17, 5-19, 5-20, 5-22, and 5-23 for surface soil and subsurface soil. EU-specific comparisons of groundwater data to MDE groundwater cleanup standards and USEPA RSLs for tap water are included Tables 5-18, 5-21, and 5-24 for groundwater. Table 5-25 lists the chemicals retained as COCs for migration from soil to groundwater. COCs identified in this section will be further evaluated in the Feasibility Study.

Filtered-groundwater metals results were evaluated instead of total metals results, because total (unfiltered) metals results can be artificially elevated as a consequence of high sample-turbidity often observed in unfiltered samples. However, in most cases, metals results appear similar between the filtered and total metals fractions. Thus, the evaluation of filtered groundwater results (versus unfiltered metals results) does not greatly affect overall conclusions.

The global COPC selected in Section 2.4 for the migration to groundwater pathway are:

Surface soil:

- *VOCs:* 1,2,4-trichlorobenzene, 1,3-dichlorobenzene, benzene, chloroform, cis-1,2-dichloroethene, methyl tert-butyl ether, methylene chloride, naphthalene, trichloroethene, and vinyl chloride

- *Semivolatile organic compounds (SVOCs):* 1,1-biphenyl, 2-methylnaphthalene, benzaldehyde, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, butyl benzyl phthalate, carbazole, chrysene, dibenz(a,h)anthracene, dibenzofuran, indeno(1,2,3-cd)pyrene, naphthalene, n-nitroso-di-n-propylamine, phenanthrene, and pyrene

- *Polychlorinated biphenyls (PCBs):* Aroclor-1260

- *Metals:* antimony, arsenic, barium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, nickel, selenium, silver, thallium, and vanadium

Subsurface soil:

- *VOCs:* 1,2,3-trimethylbenzene, 1,2,4-trimethylbenzene, 1,2-dichloroethane, benzene, carbon tetrachloride, cis-1,2-dichloroethene, ethylbenzene, m+p-xylenes, methylene chloride, methyl tert-butyl ether, naphthalene, o-xylene, total xylenes, trichloroethene, and vinyl chloride

- *SVOCs:* 1,1-biphenyl, 2,4-dichlorophenol, 2-methylnaphthalene, acenaphthene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, carbazole, chrysene, dibenz(a,h)anthracene, dibenzofuran, indeno(1,2,3-cd)pyrene, Isophorone, naphthalene, pentachlorophenol, phenanthrene, and pyrene

- *PCBs:* Aroclor-1242 and Aroclor-1260

- *Metals:* antimony, arsenic, barium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, and vanadium

Note that 1,2,4-trichlorobenzene, 1,2,3-trimethylbenzene, 1,1-biphenyl, 2,4-dichlorophenol, benzaldehyde, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, Aroclor-1242, Aroclor-1260, and silver, selected as migration to groundwater COPC, were not detected in the groundwater samples. Therefore, these chemicals are not retained as COC for the migration from soil to groundwater pathway and are not discussed further in this section.

RECs #2-6 surface soil—As presented on Table 5-16, the "global" groundwater protection COPC 1,2,4-trimethylbenzene, benzene, cis-1,2-dichloroethene, ethylbenzene, m+p xylenes, methyl tert-butyl ether, methylene chloride, naphthalene, o-xylene, total xylenes, trichloroethene, 2-methylnaphthalene, carbazole, dibenzofuran, phenanthrene, pyrene, and all metals COPC were detected in RECs #2-6 surface soil. 1,2,4-Trimethylbenzene, benzene, cis-1,2-dichloroethene, ethylbenzene, m+p xylenes, methyl tert-butyl ether, methylene chloride, o-xylene, total xylenes, 2-methylnaphthalene, acenaphthene, carbazole, dibenzofuran, phenanthrene, pyrene, antimony, barium, cadmium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, and vanadium were not detected in surface soil at concentrations exceeding their respective MDE groundwater-protection criteria or the USEPA SSL at a DAF of 20. They are therefore eliminated as COC.

Trichloroethene was detected in only one of 34 surface soil samples at RECs #2-6. Trichloroethene has not been detected in groundwater in RECs #2-6. Therefore, trichloroethene is not retained as a COC. Naphthalene was detected in 6 of 34 surface soil samples, and exceeded its groundwater protection criteria (developed at a DAF of 20) in five of those samples. Naphthalene was only detected in one groundwater sample, and its detected concentration exceeded the tap water RSL based on a cancer risk of $1x10^{-6}$. The detected concentration of

naphthalene did not exceed the RSL based on a cancer risk of $1x10^{-5}$; therefore, naphthalene is not retained as a COC.

Reported concentrations of arsenic, chromium (screened against criteria for hexavalent chromium), iron, manganese, and thallium exceed their respective groundwater protection criteria developed using a DAF of 20. These chemicals have also been detected in filtered groundwater in RECs #2-6, at concentrations exceeding MDE or USEPA direct-contact screening levels. Chromium concentrations in groundwater are less than the MCL for total chromium. For the purposes of risk characterization, 100% of total chromium in groundwater was assumed to be in the hexavalent state; however, this is very unlikely. Concentrations of thallium exceeded the tap water RSL, but were less than the MDE cleanup standard. Concentrations of arsenic, iron, and manganese concentrations in groundwater exceed the MDE cleanup standard and the tap water RSL.

Summary/conclusions for RECs #2-6 surface soil—The analysis presented above suggests that arsenic, chromium, iron, manganese, and thallium should be retained as migration to groundwater COC. Total chromium and thallium concentrations in groundwater are less than the MCL. Concentrations of arsenic only exceed the MCL in one of nine samples. Note that most of the arsenic, chromium, iron, manganese, and thallium concentrations detected in surface soil may reflect background conditions. Concentrations of these metals exceed background at a few locations, but there is not large source area for these metals. (See Section 6.1 for further discussion of background soil concentrations.) Consequently, no chemicals are retained for further evaluation as COC for migration from surface soil to groundwater at RECs #2-6.

RECs #2-6 subsurface soil— As presented on Table 5-17, the "global" groundwater protection COPC benzene, methylene chloride, 2-methylnaphthalene, naphthalene, phenanthrene, pyrene, and all metals COPC were detected in RECs #2-6 subsurface soil. VOCs, SVOCs, antimony, barium, cadmium, mercury, molybdenum, nickel, selenium, and vanadium were not detected in subsurface soil at concentrations exceeding their respective MDE groundwater-protection criteria or the USEPA SSL at a DAF of 20. They are therefore eliminated as COC.

Arsenic, chromium (evaluated using hexavalent criteria), cobalt, iron, manganese, and thallium exceed groundwater protection criteria based on a DAF of 20 in more than 5% of samples.

Concentrations of thallium exceeded the tap water RSL, but was less than the MDE cleanup standard. Arsenic, chromium, cobalt, iron, and manganese have been detected in filtered groundwater at concentrations exceeding direct-contact screening criteria. However, concentrations of chromium are less than the total chromium MCL. Although 100% of chromium in groundwater was assumed to be in the hexavalent state, this assumption is very conservative. No MCL is available for cobalt, iron, and manganese.

Summary/conclusions for RECs #2-6 subsurface soil—The analysis above suggests retaining arsenic, chromium, cobalt, iron, manganese, and thallium as migration to groundwater COC. However, chromium and thallium concentrations in groundwater are less than the MCL. Concentrations of arsenic only exceed the MCL in one of nine samples. Note that most of the arsenic, chromium, cobalt, iron, manganese, and thallium concentrations detected in subsurface soil likely reflect background conditions. Concentrations of these metals exceed background at a few locations but there is not large source area for these metals. (See Section 6.1 for further discussion of background soil concentrations.) Consequently, no chemicals are retained for further evaluation as COC for migration from subsurface soil to groundwater at RECs #2-6.

RECs #7-10 surface soil— As presented on Table 5-19, the "global" groundwater protection COPC include methyl tert-butyl ether, methylene chloride, naphthalene, trichloroethene, 2-methylnaphthalene, carbazole, dibenzofuran, phenanthrene, pyrene, and all the metals COPC detected in RECs #7-10 surface soil. Methyl tert-butyl ether, methylene chloride, trichloroethene, 2-methylnaphthalene, carbazole, dibenzofuran, phenanthrene, pyrene, antimony, barium, cadmium, copper, lead, mercury, nickel, selenium, and vanadium were not detected in surface soil at concentrations exceeding their respective MDE groundwater-protection criteria or the USEPA SSL at a DAF of 20. They are therefore eliminated as COC.

Naphthalene concentrations exceed direct contact RSLs in less than 5% of groundwater samples. Also, the maximum concentration of naphthalene did not exceed the RSL based on a cancer risk of $1x10^{-5}$; therefore, naphthalene is not retained as a COC.

Reported concentrations of arsenic, chromium (screened against criteria for hexavalent chromium), cobalt, iron, manganese, and thallium do exceed their respective groundwater protection criteria developed using a DAF of 20. These chemicals have also been detected in

filtered groundwater in RECs #7-10 at concentrations exceeding MDE or USEPA direct-contact screening levels. Chromium concentrations in groundwater are less than the MCL for total chromium. For the purposes of risk characterization, 100% of total chromium in groundwater was assumed to be in the hexavalent state; however, this is very unlikely. Concentrations of thallium exceeded the tap water RSL but were less than the MDE cleanup standard. Concentrations of arsenic, cobalt, iron, and manganese concentrations in groundwater exceed the MDE cleanup standard and the tap water RSL.

Summary/conclusions for RECs #7-10 surface soil—The analysis presented above suggests that arsenic, cobalt, chromium, iron, manganese, and thallium should be retained as migration to groundwater COC. However, total chromium and thallium concentrations in groundwater are less than the MCL. The maximum detected arsenic concentration (11 µg/L) only slightly exceeds the MCL (10 µg/L) and the average concentration is less than the MCL. Note that most of the arsenic, chromium, cobalt, iron, manganese, and thallium concentrations detected in surface soil may reflect background conditions. (See Section 6.1 for further discussion of background soil concentrations.) Consequently, no chemicals are retained as COC for migration from surface soil to groundwater at RECs #7-10.

RECs #7-10 subsurface soil— As presented on Table 5-20, the "global" groundwater protection COPC include 1,2,4-trimethylbenzene, benzene, ethylbenzene, m+p xylenes, methylene chloride, naphthalene, o-xylene, trichloroethene, 2-methylnaphthalene, acenaphthene, carbazole, dibenzofuran, phenanthrene, pyrene, and all metals COPC detected in RECs #7-10 subsurface soil. The benzene, m+p xylenes, methylene chloride, o-xylene, acenaphthene, phenanthrene, pyrene,, antimony, barium, cadmium, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, and vanadium were not detected in subsurface soil at concentrations exceeding their respective MDE groundwater-protection criteria or the USEPA SSL (using a DAF of 20). 1,2,4-Trimethylbenzene and carbazole were not detected in groundwater at RECs #7-10. Concentrations of ethylbenzene, m+p xylenes, methylene chloride, total xylenes, 2-methylnaphthalene, acenaphthene, phenanthrene, and pyrene in groundwater were less than the MDE cleanup standard or USEPA RSL. They are therefore eliminated as COC.

Trichloroethene concentrations in subsurface soil exceed groundwater protection criteria (based on a DAF of 20) in four of 63 samples, and exceed the MDE groundwater-protection cleanup standard in 10 samples. Trichloroethene was detected in 27 of 48 groundwater samples. Trichloroethene concentrations exceed the USEPA tap water RSL in 28 samples and the MDE groundwater cleanup standard in 20 samples. Therefore, trichloroethene is retained as a COC. Naphthalene and dibenzofuran were detected in less than 5% of groundwater samples. Concentrations of benzene in groundwater exceeded the USEPA RSL, but were below the MDE cleanup standard and the MCL. Therefore, naphthalene, dibenzofuran, and benzene are not retained as COC.

The metals arsenic, chromium (evaluated using hexavalent criteria), cobalt, and thallium exceed groundwater protection criteria (based on a DAF of 20) in more than 5% of samples. Concentrations of thallium exceeded the tap water RSL, but were less than the MDE cleanup standard. Arsenic, chromium, and cobalt have been detected in filtered groundwater at concentrations exceeding direct-contact screening criteria. However, concentrations of chromium are less than the total chromium MCL. Although 100% of chromium in groundwater was assumed to be in the hexavalent state, this assumption is very conservative. No MCL is available for cobalt.

Summary/conclusions for RECs #7-10 subsurface soil— The analysis presented above suggests that trichloroethene, arsenic, chromium, cobalt, and thallium should be retained as migration to groundwater COC. Total chromium and thallium concentrations in groundwater are less than the MCL. The maximum detected arsenic concentration (11 µg/L) only slightly exceeds the MCL (10 µg/L), and its average concentration is less than the MCL. Note that most of the arsenic, chromium, cobalt, and thallium concentrations detected in surface soil may reflect background conditions. (See Section 6.1 for further discussion of background soil concentrations.) Consequently, only trichloroethene is recommended for further evaluation.

REC #11 surface soil— As presented on Table 5-22, the "global" groundwater protection COPC include benzene, cis-1,2-dichloroethene, naphthalene, trichloroethene, vinyl chloride, 2-methylnaphthalene, bis(2-ethylhexyl)phthalate, butyl benzyl phthalate, carbazole, dibenzofuran, n-nitrso-di-n-propylamine, phenanthrene, pyrene, and all the metals COPC

detected in RECs #11 surface soil. However, reported detections for benzene, cis-1,2-dichloroethene, 2-methylnaphthalene, bis(2-ethylhexyl)phthalate, butyl benzyl phthalate, carbazole, dibenzofuran, phenanthrene, pyrene, antimony, barium, copper, lead, nickel, selenium, and vanadium do not exceed groundwater protection criteria based on a DAF of 20. N-nitrso-di-n-was detected in only one of 51 soil samples, and was not detected in groundwater. These chemicals are therefore not retained as COC.

Trichloroethene and vinyl chloride were detected in less than 5% of surface soil samples. This indicates there is not a larger source area for these chemicals; consequently, they are eliminated as COC. Naphthalene were detected in groundwater samples at concentrations exceeding direct-contact screening criteria, and was therefore retained as a COC.

Thallium concentrations exceed the USEPA SSL (using a DAF of 20) in less than 5% of the samples, so thallium is not retained as a COC. Concentrations of arsenic, chromium, cobalt, iron, manganese, and mercury in filtered groundwater exceed direct-contact screening criteria. However, the maximum concentration of mercury is less than the MCL. Thus, mercury is not retained as a COC.

Concentrations of chromium in groundwater exceed the hexavalent chromium direct-contact criterion. However, it is unlikely that all chromium in groundwater is present in the hexavalent state. Chromium concentrations in groundwater are less than direct-contact criterion for trivalent chromium and are less than the MCL for total chromium. No MCLs are available for cobalt, iron, and manganese.

Summary/conclusions for REC #11 surface soil—The preceding analysis suggests retaining the following chemicals as COC: naphthalene, chromium, cobalt, iron, and manganese.

Note that most of the chromium, cobalt, iron, and manganese concentrations detected likely reflect background conditions. (See Section 6.1 for further discussion of background soil concentrations.) Chromium concentrations in groundwater are less than the direct-contact criterion for trivalent chromium, and less than the MCL for total chromium. Consequently, the chromium, cobalt, iron, and manganese are not recommended for further evaluation. Naphthalene, however, is recommended for further evaluation.

REC #11 subsurface soil— As presented on Table 5-23, the "global" groundwater protection COPC benzene, 1,2,4-trimethylbenzene, 1,2-dichloroethane, carbon tetrachloride, cis-1,2-dichloroethene, ethylbenzene, m+p xylene, methyl chloride, naphthalene, o-xylene, total xylenes, trichloroethene, vinyl chloride, 2-methylnaphthalene, acenaphthene, carbazole, dibenzofuran, isophorone, pentachlorophenol, phenanthrene, pyrene, and all metals COPC were detected in RECs #11 subsurface soil. However, benzene, 1,2,4-trimethylbenzene, cis-1,2-dichloroethene, ethylbenzene, m+p xylene, o-xylene, total xylenes, 2-methylnaphthalene, acenaphthene, dibenzofuran, isophorone, pentachlorophenol, antimony, barium, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, and vanadium have not been detected in subsurface soil at concentrations exceeding groundwater protection criteria using a DAF of 20. Isophorone and pentachlorophenol were not detected in groundwater samples. These parameters are therefore not retained as COC.

1,2-Dichloroethane, methylene chloride, trichloroethene, vinyl chloride, and naphthalene were selected as a COPC in groundwater. Carbon tetrachloride, 1,2-dichloroethane, dibenzofuran, and methylene chloride were detected in less than 5% of groundwater samples, therefore these chemicals are not retained as COC. Concentrations of trichloroethene and vinyl chloride in REC #11 groundwater exceed the MCL. Therefore, trichloroethene and vinyl chloride are retained as COC.

The metals arsenic, chromium, cobalt, iron, manganese, and thallium have subsurface soil concentrations exceeding the relevant groundwater protection criteria (based on a DAF of 20) and have been detected in groundwater at REC #11. However, thallium concentrations exceed the USEPA SSL in less than 5% of the samples. Concentrations of these metals in groundwater also exceed the applicable direct-contact criteria in most samples. It is unlikely that 100% of total chromium is present in the hexavalent state in groundwater, and the maximum concentration of chromium in groundwater is less than the MCL for total chromium. Iron and manganese concentrations in groundwater exceed the MDE groundwater cleanup standard and the USEPA tap water RSL.

Summary/conclusions for REC #11 subsurface soil—The preceding analysis supports retaining the following chemicals as migration-to-groundwater COC: trichloroethene, vinyl chloride,

naphthalene, arsenic, chromium, cobalt, iron, and manganese. Note that most of the chromium, cobalt, iron, and manganese concentrations detected likely reflect background conditions. (See Section 6.1 for further discussion of background soil concentrations.) Consequently, chromium, cobalt, iron, and manganese are not recommended for further evaluation. Trichloroethene, vinyl chloride, and naphthalene are recommended for further evaluation.

Section 6
Uncertainty Analysis

The uncertainty analysis component of this human health risk assessment (HHRA) summarizes uncertainties inherent in the risk assessment, and includes a discussion of how they may affect the quantitative risk estimates and risk analysis conclusions. The baseline HHRA for the study area was done in accordance with current United States Environmental Protection Agency (USEPA) guidance. However, varying degrees of uncertainty are associated with any baseline HHRA. A brief discussion of uncertainty issues that must generally be considered in an HHRA is provided in the following narrative.

Uncertainty in selecting chemicals of potential concern (COPC) is related to the status of the available databases, the grouping of samples, the numbers, types, and distributions of samples, data quality, and the procedures used to include or exclude constituents as COPC. Uncertainty associated with the exposure assessment can stem from the values used as input variables for a given intake route or scenario, the assumptions made to determine exposure point concentrations (EPCs), and the predictions made regarding future land uses and population characteristics. Uncertainty in the toxicity assessment stems from the quality of the existing toxicity data needed to support dose-response relationships, and the weight of evidence used to determine the carcinogenicity of COPC. Uncertainty in risk characterization is associated with receptor exposure to multiple chemicals, and the cumulative uncertainty arising from combining conservative assumptions made in earlier steps of the risk assessment.

Whereas various sources of random uncertainty and bias exist, the magnitude of bias and uncertainty and the direction of bias are influenced by the assumptions made throughout the risk assessment, including selection of COPC, and values associated with dose-response relationships. Throughout the risk assessment, assumptions that consider safety factors must be made to overestimate the final calculated risks. Risk assessments generally carry two types of uncertainty: *measurement* and *informational* uncertainty.

Measurement uncertainty refers to the usual variance that accompanies scientific measurements. For example, this type of uncertainty is associated with the analytical data collected for each site. The risk assessment reflects the accumulated variances of the individual values used.

Informational uncertainty stems from inadequate availability of information needed to complete the toxicity and exposure assessments. This gap is often significant, such as the absence of information on the effects of human exposure to low doses of a chemical, the biological mechanism of chemical action, or the behavior of a chemical in soil. After the risk assessment is complete, the results must be reviewed and evaluated to identify the type and magnitude of uncertainty involved. Relying on risk assessment results without considering the uncertainties, limitations, and assumptions inherent in the process can be misleading. For example, to account for uncertainties in developing exposure assumptions, conservative estimates must be made to ensure that the particular assumptions protect sensitive subpopulations or maximally exposed individuals.

If a number of conservative assumptions are combined in an exposure model, the resulting calculations can propagate the uncertainties associated with those assumptions, thereby producing much larger uncertainty in the results. This uncertainty is biased toward over estimating both carcinogenic and noncarcinogenic risks. Thus, both the results of the risk assessment and the uncertainties associated with them must be considered when making risk management decisions.

This interpretation of uncertainty is especially relevant when the risks exceed the point of departure for defining regulatory "acceptable" risk. For example, when risks calculated using a high degree of uncertainty are less than an "acceptable" risk level (i.e., 10^{-6}), the interpretation of "no significant risk" is typically straightforward. However, when risks calculated with a high degree of uncertainty exceed a regulatory acceptable risk level (i.e., 10^{-4}); reaching a conclusion can be difficult unless uncertainty is considered. The HHRA was prepared using the May 2016 regional screening levels (RSLs). However, the RSLs are "evergreen" screening values, and subject to change as new toxicity information becomes available and is evaluated by USEPA. Consequently, the COPC could change if the RSLs change.

6.1 UNCERTAINTY IN COPC SELECTION

The most significant issues related to uncertainty in COPC selection at the subject Greater Strawberry Point (GSP) recognized environmental conditions (RECs) are the usability of existing databases (only validated data were used in the risk assessment), the COPC screening levels used, and the absence of screening levels for a few chemicals detected in site environmental media. A brief discussion of each of these issues is provided in the remainder of this section.

Usability and completeness of existing databases—As discussed in Section 2.1, data from samples collected in field investigations from 2010 to 2016 were used to assess risks to potential human receptors from exposure to contaminated environmental media. These data were validated according to USEPA data-validation guidelines. Only fixed-base analytical results (i.e., results from a fixed-base laboratory, as opposed to field analytical results) from the field investigations were used in the quantitative risk evaluation. Data regarded as rejected (i.e., qualified as "R" during data validation) were not used in the quantitative risk assessment. Elimination of data qualified as "R" may increase uncertainty in the risk assessment.

Soil samples collected from 0–15 feet bgs were included in the quantitative risk evaluation. Data for soil samples collected at depths greater than 15 feet bgs (i.e., deep subsurface soil) were excluded from the quantitative risk assessment because these samples are likely saturated; however, COPC were selected for informational purposes. Table 2-7 displays the results of the COPC selection for deep subsurface soil. The list of COPC is similar to those for surface soil and shallower subsurface soil. COPC in deep subsurface soil are trichloroethene, benzo(a)pyrene equivalent (BaPEq) and its constituents, arsenic, chromium (if evaluated using hexavalent chromium screening criteria), cobalt, copper, nickel, thallium, vanadium, and diesel-range organics (DRO).

Maximum concentrations of all of these chemicals, except for trichloroethene and cobalt, are greater in the shallower soil depths than in deep subsurface soil, and the concentrations of trichloroethene and cobalt in deep subsurface soil are not significantly greater than (i.e., they are within one order of magnitude of) those found in shallower soil depths. Thus, excluding deep subsurface soil from the quantitative risk evaluation is not a significant source of uncertainty.

***COPC screening levels*—**By using risk-based screening values based on conservative land use scenarios (i.e., residential land use for soil), corresponding to incremental lifetime cancer risks (ILCRs) of 10^{-6} and hazard indices (His) of 0.1, the risk analyst ensures that all significant contributors to risk at a site are evaluated. Eliminating chemicals present at concentrations that correspond to ILCRs less than 10^{-6} and HIs less than 0.1 should not affect the risk assessment's final conclusions, because those chemicals are not expected to pose potential health concerns at the concentrations detected.

***Background soil database*—**Comprehensive site-specific background soil databases are not available for the subject RECs. The lack of site-specific background levels for various chemicals may result in an overestimation of evaluated site-related risks for RECs, since no chemical was eliminated as a COPC based on a background screen (i.e., a comparison of site concentrations to site-specific background concentrations). The lack of such data may also affect the selection of remedial goals for inorganics typically detected at background concentrations above common risk benchmarks (e.g., arsenic).

Anticipated typical concentrations (ATCs) are available from the State of Maryland for arsenic and manganese in soil (MDE, 2008) for Eastern, Central, and Western Maryland. Martin State Airport (MSA) is located in the Eastern Maryland geological province, as defined by the Maryland guidance (MDE, June 2008). A comparison of the EPCs to ATCs for arsenic, chromium, iron, manganese, thallium, and vanadium is presented in Table 6-1.

- EPCs (i.e., the 95% UCLs) calculated for arsenic in surface and subsurface soil do exceed the Eastern Maryland ATC at RECS #2-6, but are less than the ATCs for Central and Western Maryland. The EPCs for arsenic in surface and subsurface soil at RECs #7-10 and REC #11 are less than the ATCs for Eastern, Central, and Western Maryland. The EPC for chromium in surface soil at RECs #2-6 and RECs #7-10 slightly exceed the ATC for Eastern and Central Maryland, and is less than the ATC for Western Maryland.

- The EPCs for chromium in subsurface soil at RECs #2-6 and surface soil and subsurface soil at RECs #7-10 and REC #11 are less than the ATCs for Eastern, Central, and Western Maryland.

- EPCs for iron in surface soil at RECs #2-6, RECs #7-10, and REC #11 are less than the ATCs for Eastern, Central, and Western Maryland. The EPCs for iron in subsurface soil at RECs #2-6 and RECs #7-10 exceed the ATCs for Eastern and Western Maryland, but are less than the ATCs for Western Maryland.

- The EPC for manganese in surface soil at RECs #2-6 exceeds the ATC for Eastern, Central, and Western Maryland. The EPC for manganese is subsurface soil at RECs #2-6 exceeds the ATC for Eastern Maryland, and is less than the ATC for Central and Western Maryland. The EPCs for manganese in surface soil at RECs #7-10 and subsurface soil at REC #11 exceed the ATC for Eastern Maryland, and arre less than the ATC for Central and Western Maryland. The EPCs for manganese in subsurface soil at RECs #7-10 and REC #11 are less than the ATCs for Eastern, Central, and Western Maryland.

- The EPCs for thallium in surface and subsurface soil at RECs #2-6 and REC #11, and in subsurface soil at RECs #7-10, are less than the ATCs for Eastern, Central, and Western, Maryland. The EPC for thallium in surface soil at RECs #7-10 slightly exceeds the ATC for Central Maryland, and is less than the ATC for Eastern and Western Maryland.

- The EPC for vanadium in surface soil at RECs #2-6 exceeds the ATC for Eastern Maryland, and is less than the ATC for Central and Western Maryland. The EPCs for vanadium in subsurface soil at RECs #2-6, and surface and subsurface soil at RECs #7-10 and REC #11, are less than the ATC for Eastern, Central, and Western Maryland.

- Concentrations of arsenic, chromium, cobalt, iron, manganese, thallium, and vanadium across GSP are within the range of background values reported by Schacklette and Boerngen (1984).

Consequently, while there may be some individual locations with metal concentrations exceeding background levels, the majority of the metal concentrations are within background levels at GSP.

Contaminants without established direct-contact screening levels—Risk-based screening levels are currently not available for some constituents detected at GSP. Appropriate surrogates for some of these chemicals, based on similar chemical structures, were selected if available. In the COPC screening for soil, 1,4-dichlorobenzene was used as a surrogate for 1,3-dichlorobenzene; acenaphthene was used as a surrogate for acenaphthylene; isobutyl alcohol was used as a surrogate for tertiary-butyl alcohol, and pyrene was used as a surrogate for both benzo(g,h,i)perylene and phenanthrene. Applying the toxicity values of one compound to another increases uncertainty in the risk assessment, both with regard to COPC selection and the calculated risks. The direction of the uncertainty is unknown.

Appropriate screening levels or surrogates were not available for several organic chemicals detected in soil and groundwater. 4-Isopropyltoluene, dimethyl phthalate, and tert-amyl methyl ether lacked COPC selection criteria in surface soil; and 4-isopropyltoluene and tert-amyl methyl

ether lacked COPC selection criteria in subsurface soil. In groundwater, tert-amyl methyl ether lacked COPC selection criteria. These chemicals had frequencies of detection less than 5% in all media. Given that risk-based screening levels are available for most of the primary contaminants (in terms of concentration and frequency of detection), the lack of risk-based screening levels for some contaminants should not affect risk management decisions for GSP.

Use of USEPA generic SSLs for transfers from soil to groundwater for COPC selection— Several chemicals were selected as COPC because their maximum concentrations exceed USEPA generic soil screening level (SSLs) for soil to groundwater contaminant migration (dilution attenuation factor [DAF] = 1.0). However, USEPA's *Soil Screening Guidance* (USEPA, 1996a) states that "the USEPA has selected a default DAF of 20 to account for contaminant dilution and attenuation during transport through the saturated zone to a compliance point (i.e., a receptor well). At most sites, this adjustment will more accurately reflect a contaminant's threat to groundwater resources than assuming a DAF of 1 (i.e., no dilution or attenuation)." The guidance further states that "a DAF of 20 is protective for sources up to 0.5 acres in size" and "can be protective of larger sources as well." Consequently, the use of SSLs based on a DAF of 1 is very conservative. A more refined evaluation of the potential for chemical migration from surface and subsurface soil is provided in Section 5.4. Chemicals of concern (COC) were selected based on that analysis.

6.2 EXPOSURE ASSESSMENT UNCERTAINTY

Uncertainty in the exposure assessment arose because of the methods used to calculate EPCs, the determination of land use conditions, the selection of receptors and scenarios, and the selection of exposure parameters. Each of these is discussed below:

Land use—Current land use patterns for the GSP area are well established, thereby limiting uncertainty associated with land use assumptions. Land use is currently limited to industrial/commercial uses, and the area will most likely remain commercial/industrial in the future, as MSA is an operational airport.

Although residential land use is an unlikely scenario, the following table presents cancer risks and hazard indices for purposes of completeness and to assist the risk managers regarding the need for deed restrictions. A copy of the risk-based concentrations are presented in Appendix E.

Summary of Residential Risks

Exposure Unit	Surface Soil		Subsurface Soil	
	Cancer Risk	Hazard Index	Cancer Risk	Hazard Index
RECs #2-6	8E-06	3	1E-05	3(1)
RECs #7-10	1E-04	5	3E-05	1
RECs #11	3E-05	2(1)	2E-05	1

1 - Target organ HI less than 1.

Cancer risks and hazard indices for residential exposures would be unacceptable for surface soil at RECs #2-6; surface soil and subsurface soil at RECs #7-10; and surface and subsurface soil at REC #11.

***Exposure-point concentrations*—**Uncertainty is associated with the use of the 95% upper confidence limit (UCL) on the mean concentration as the EPC. By using the 95% UCL, estimations of potential risk for the reasonable maximum exposure (RME) scenario are most likely overstated because it represents the upper limit that potential receptors would be exposed to over the entire exposure period. In some cases (because data sets contained less than ten samples, because less than three positive detections occurred, or because the UCL was greater than the maximum concentration), the maximum concentration was used as the EPC. Using the maximum concentration tends to overestimate potential risks because receptors are assumed to be continuously exposed to the maximum concentration for the entire exposure period.

EPCs for construction workers hypothetically exposed to volatile organic compounds (VOCs) migrating from shallow groundwater to air were estimated using a Virginia Department of Environmental Quality (VDEQ) model for exposure of construction workers to vapors accumulating in an excavation trench. Site-specific parameters such as groundwater concentrations were used in the model. However, the model's default values had to be used for most of the other input parameters. Using the model's default values tends to increase

uncertainty in the calculated risks. The direction of the uncertainty is not known, although the model default values are generally conservative and tend to overestimate air concentrations.

Exposure routes and receptor identification—Determination of various receptor groups and exposure routes of potential concern is based on observed current and anticipated future land use at the site. Therefore, uncertainty associated with selecting exposure routes and potential receptors is minimal because they are considered well defined.

Exposure parameters—Each exposure factor selected for use in the risk assessment had some associated uncertainty. Exposure factors are generally based on surveys of physiological and lifestyle profiles across the United States. The attributes and activities studied in these surveys are generally broadly distributed. In most cases, to avoid underestimating exposure, USEPA guidelines on the RME receptor were used. These generally specify using the 95^{th}-percentile value for most parameters. Therefore, the values selected for the RME receptor represent an upper bound of the observed or expected habits of most of the population. Maryland Department of the Environment (MDE) exposure assumptions were used when available and applicable.

While the exposure assumptions for construction workers are upper bound values they are also very conservative. Significant exposure to groundwater by a construction worker is unlikely because if a construction worker were to have prolonged contact with groundwater or surface water, then he/she would most likely wear protective clothing such as rubber boots and/or hip waders, which would limit exposure. In addition, most excavation activities would utilize construction equipment such as a back hoe, which would limit exposure. Also, if significant exposure to groundwater was encountered during an excavation such as from a trench or foundation, the groundwater would most likely be pumped out of the excavation so that the construction activities could be completed.

Uncertainty can generally be assessed quantitatively for many of the assumptions made in determining factors with which to calculate exposures and intakes. Many of these parameters were determined from statistical analyses of human population characteristics. Often, the database used to derive a particular exposure parameter (e.g., body weight) is relatively large. Consequently, the values chosen for such variables in the RME scenario have low uncertainty.

Many of the exposure parameters used to calculate exposures and risks in this report were selected from a distribution of possible values, including MDE guidance (MDE, 2008) and USEPA guidance (USEPA, 1989, 2004, 2011, 2014). For the RME scenario, the value representing the 95th percentile was generally selected for each parameter to ensure that the assessment bounds most actual risks posed by a postulated exposure. This risk number is used in risk management decisions, but it does not indicate what an average and more-representative exposure might be, or what risk range might be expected for individuals in the exposed population.

6.3 UNCERTAINTY IN THE TOXICOLOGICAL EVALUATION

Uncertainties associated with the toxicity assessment (determination of reference doses (RfDs) and cancer slope factors (CSFs) and use of available criteria) are below.

Derivation of toxicity criteria—Uncertainty associated with the toxicity assessment is related to the hazard assessment and dose-response evaluations for the COPC. The hazard assessment characterizes the nature and strength of causal evidence or the likelihood that a chemical that induces adverse effects in animals will do likewise in humans. A hazard assessment of carcinogenicity was evaluated as a weight-of-evidence determination using USEPA methods. Positive animal-cancer test data suggest that humans contain tissue(s) that may manifest a carcinogenic response; however, animal data cannot necessarily be used to predict the target tissue in humans. In the hazard assessment of noncarcinogenic effects, however, positive animal data often suggest the nature of the effects (i.e., the target tissues and type of effects) to be anticipated in humans.

Uncertainty in hazard assessment arises from the nature and quality of the animal and human data. Uncertainty is reduced when:

- similar effects are observed across species, strain, sex, and exposure route
- the magnitude of the response is clearly dose related
- pharmacokinetic data indicate a similar fate in humans and animals
- postulated mechanisms of toxicity are similar for humans and animals

- the COC are structurally similar to other chemicals for which toxicity is more completely characterized

Uncertainty in the dose-response evaluation includes determining a CSF for the carcinogenic assessment and deriving an RfD for the noncarcinogenic assessment. Uncertainty is introduced from interspecies (animal to human) extrapolation, which, in the absence of quantitative pharmacokinetic or mechanistic data, is usually based on consideration of interspecies differences in basal metabolic rate. Uncertainty also results from intraspecies variation. Most toxicity experiments are performed on animals similar in age and genotype to minimize intragroup biological variation.

In contrast, the human population of concern may reflect a great deal of heterogeneity, including unusual sensitivity or tolerance to the COPC. Even toxicity data from human occupational exposures reflect a bias, because only those individuals sufficiently healthy to regularly attend work (the "healthy worker effect") and those not unusually sensitive to the chemical are likely to be occupationally exposed. Finally, uncertainty arises from the quality of the key study from which the quantitative estimate is derived and which produced the database used. For cancer effects, the uncertainty associated with dose-response factors was mitigated by assuming the 95% upper bound for the slope factor.

Another source of uncertainty in carcinogenic assessment is the method by which data from high doses in animal studies are extrapolated to the dose range expected for environmentally exposed humans. The linearized multi-stage model, which is used in nearly all quantitative estimations of human risk based on animal data, is based on a nonthreshold assumption of carcinogenesis. Evidence suggests, however, that epigenetic carcinogens, as well as many genotoxic carcinogens, have a threshold below which they are noncarcinogenic. Therefore, using the linearized multi-stage model is conservative for chemicals that exhibit a threshold for carcinogenicity.

For noncarcinogenic effects, additional uncertainty factors may have been applied to derive the RfD to mitigate the poor quality of the key study or gaps in the resultant database. Additional uncertainty for noncarcinogenic effects arises from using an effect level in estimating an RfD, because this estimate is predicated on the assumption of a threshold less than that at which

adverse effects are not expected. Therefore, an uncertainty factor is usually applied to estimate a no effect level.

Additional uncertainty arises in estimating an RfD for chronic exposure from subchronic data. Unless empirical data indicated that effects do not worsen with increasing exposure duration, an additional uncertainty factor was applied to the no effect level in the subchronic study. Uncertainty in deriving RfDs was mitigated by using uncertainty and modifying factors that normally range from 3–10. The resulting combination of uncertainty and modifying factors may have reached 1,000 or more. Deriving dermal RfDs and CSFs from oral-exposure values may also have caused uncertainty. This is particularly the case when no gastrointestinal absorption rates are available in the literature, or when only qualitative statements regarding absorption are available.

Use of chronic toxicity values for construction workers – Under the guidelines established by the Superfund program, exposures to construction workers of one year or less are classified as subchronic exposures. Risks for noncarcinogenic effects associated with subchronic exposures should incorporate toxicity values for subchronic and not chronic effects. Subchronic toxicity values used in this risk assessment were obtained from USEPA's Provisional Peer Reviewed Toxicity Values (PPRTV) internet site. Agency for Toxic Substances and Disease Registry (ATSDR) minimal risk levels (MRLs) were used as subchronic toxicity values when PPRTV values were not available. Unfortunately, subchronic toxicity values are not as widely available as chronic values. Therefore, chronic toxicity values were used when subchronic toxicity values were not available. As discussed below, the lack of subchronic toxicity values is a significant source of uncertainty for receptors anticipated to have limited exposure durations (e.g., the construction worker).

The toxicity criteria used to calculate the manganese hazard index (HI) for the construction worker included a reference concentration (RfC) of 5×10^{-5} mg/m^3 (from USEPA's Integrated Risk Information System [IRIS]). This RfC is for *chronic* exposures [i.e., long-term exposures extending over a period of time (seven or more years)]; for the construction worker scenario, subchronic toxicity values are more appropriate because the exposure duration assumed for the construction worker is one year (i.e., the assumed length of a typical construction project).

However, a subchronic RfC is not currently available from IRIS or other USEPA literature sources cited in the hierarchy specified in USEPA guidance (2003b). ATSDR's inhalation MRL for manganese is $3x10^{-4}$ mg/m^3. The ATSDR MRLs fall within EPA's hierarchy for consideration in defining a contaminant's toxicity factor (USEPA 2003b). It was derived based upon chronic inhalation exposure and used the same data that USEPA used to derive its RfD. ATSDR used a benchmark dose (BMD) model to derive its MRL, and applied an uncertainty factor of 100 to the BMD: a factor of 10 to account for enhanced susceptibility of the elderly, infants, and children, and a factor of 10 for use of a lowest-observed adverse-effect level (LOAEL). In contrast, USEPA (in its IRIS toxicological profile) used a geometric mean integrated respirable dose to derive the LOAEL. The ATSDR value is almost an order of magnitude higher (indicating it is less toxic) than the USEPA value, and considers sensitive subpopulations (i.e., elderly, infants, and children).. Construction workers are not a part of these subpopulations, consequently the ATSDR value could be higher ($3x10^{--3}$ mg/m^3) for construction workers, or approximately two orders of magnitude higher than the USEPA value ($5x10^{-5}$ mg/m^3). Therefore, the risks from inhalation of manganese in fugitive dust by construction workers are mostly likely overestimated.

Uncertainty in the toxicity criteria for Aroclor-1260—Aroclor-1260 was selected as a global direct-contact COPC in both surface and subsurface soil. No noncarcinogenic toxicity criteria are available for Aroclor-1260, and this lack causes uncertainty. However, a noncarcinogenic RfD is available for Aroclor-1254, a related compound that was not detected in study area media. The noncarcinogenic industrial soil RSL for Aroclor-1254 is 15,000 µg/kg and a noncarcinogenic preliminary remediation goal (PRG) for the construction worker would be 19,000 µg/kg. The EPCs calculated for Aroclor-1260 detected in RECs #2-6 surface soil (i.e., 20 µg/kg), RECs #7-10 surface and subsurface soil (i.e., 630 µg/kg and 64 µg/kg, respectively), and REC #11 surface and subsurface soil (i.e., 2,310 µg/kg and 36 µg/kg, respectively) are less than the noncarcinogenic screening level for Aroclor-1260. Aroclor-1260 was not a COPC for subsurface soil at RECs #2-6. Using the Aroclor-1254 RfD for Aroclor-1260 would not lead to HIs exceeding 1 on a target organ basis for construction workers or industrial workers. Therefore, the lack of noncarcinogenic toxicity criteria for Aroclor-1260 does not change overall risk assessment conclusions.

Refined risk evaluation of GRO/DRO concentrations—The risk evaluation in Section 5.4 includes a qualitative discussion of gasoline-range organics (GRO) and DRO concentrations adhering to guidance provided in the MDE *Generic Numeric Cleanup Standards for Soil (MDE, 2008).* DRO and GRO were not evaluated quantitatively in Section 5.4 because USEPA has not published toxicity criteria (e.g., RfDs or CSFs) for these parameters. However, as noted in the 2008 MDE *Guidance for Cleanup Standards for Soil and Groundwater*, some state regulators have established protocols for the quantitative risk assessment of these parameters.

An example of such protocols is found in Massachusetts' final policy #WSC-02-411 (*Characterizing Risks Posed by Petroleum Contaminated Sites: Implementation of the MADEP VPH/EPH Approach*) (Massachusetts Department of Environmental Protection [MADEP], 2002). This methodology is cited in the referenced MDE guidelines as the basis of the published generic standards for soil. Although quantitative risk estimates based on this methodology (and the associated toxicity criteria) are more uncertain than those based on USEPA recommended toxicity criteria, for purposes of completeness, the following tables provide non-cancer risk estimates (HIs) for GRO/DRO based on a simple comparison of EPCs to risk-based concentrations developed using the methodology endorsed by MDE to develop the generic standards (see Appendix C). The evaluation indicates that although some isolated detected concentrations of GRO/DRO clearly exceed the MDE generic standards (see Section 5.4), risk estimates based on the EPCs do not indicate that these parameters are major contributors to noncancer risk for hypothetical exposure to GSP soil by industrial workers. Furthermore, the evaluation is limited in that it does not consider the potential carcinogenic effects of the GRO/DRO constituents (e.g., benzo(a)pyrene and related chemicals). However, the chemical-specific risk assessment in Section 5.4 does account for a number of these constituents.

RECs #2-6 - Refined Evaluation of GRO/DRO (Hazard Indices)

RECs #2-6	Surface soil DRO	Subsurface soil DRO	Groundwater DRO	Groundwater GRO
EPC (mg/kg or µg/L)	39	66	200	33
Ratio of EPC to industrial RBC [61,000 mg/kg]	<0.1	<0.1	NA	NA

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

RECs #7-10 - Refined Evaluation of GRO/DRO (Hazard Indices)

RECs #7-10	Surface soil DRO	Subsurface soil DRO	Groundwater DRO	Groundwater GRO
EPC (mg/kg or µg/L)	275	160	380	60
Ratio of EPC to industrial RBC [61,000 mg/kg]	<0.1	<0.1	NA	NA

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

REC #11—Refined Evaluation of GRO/DRO (Hazard Indices)

REC #11	Surface soil DRO	Subsurface soil DRO	Groundwater DRO	Groundwater GRO
EPC (mg/kg or µg/L)	1,015	1,080	52	3,000
Ratio of EPC to industrial RBC [61,000 mg/kg]	<0.1	<0.1	NA	NA

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

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

6.4 UNCERTAINTY IN THE RISK CHARACTERIZATION

Uncertainty in risk characterization resulted from assumptions made regarding additivity of effects from exposure to multiple COPC via various exposure routes. High uncertainty exists when summing noncarcinogenic risks for several substances across different exposure pathways. This assumes that each substance has a similar effect and/or mode of action. Even when compounds affect the same target organs, they may have different mechanisms of action or differ in their fate in the body, so additivity may not be an appropriate assumption in all cases. However, the assumption of additivity was considered because in most cases it represents a

conservative estimate of risk. Risks to any individual may also have been overestimated by summing multiple assumed exposure pathway risks for any single receptor. Although every effort was made to develop reasonable scenarios, not all individual receptors may be exposed via all pathways considered.

Finally, the risk characterization does not consider antagonistic or synergistic effects. Little or no information is available to determine the potential for antagonism or synergism among the COPC. The likelihood of over- or under-predicting risks could not be defined because chemical-specific interactions could not be predicted; however, the methodology used is based on current USEPA guidance.

Section 7
Remedial Goal Options

Cleanup goals were developed for those environmental media with incremental lifetime cancer risks (ILCRs) greater than 1×10^{-5} or a total hazard index (HI) greater than 1. Cleanup goals were derived for those chemicals of concern (COC) that contribute significantly to the cancer risk and/or HI for each exposure pathway in a given land-use scenario for a receptor group. Chemicals were not considered significant contributors to risk, and were therefore not included as COC, if their individual carcinogenic risk contribution was less than or equal to 1×10^{-6} and their noncarcinogenic hazard quotient (HQ) was less than or equal to 0.1. Cleanup goals were calculated using the following equation:

$$\text{Cleanup Goal [chemical i]} = \text{EPC[chemical i]} \times \text{Target Risk/Calculated Risk[chemical i]}$$

where:

Cleanup goal [chemical i]	=	chemical specific cleanup goal
EPC [chemical i]	=	exposure point concentration used in risk assessment calculations
Target risk	=	target risk for carcinogens or the target hazard quotient for noncarcinogens
Calculated risk [chemical i]	=	total risk calculated for a specific chemical in the risk assessment

No COC were identified for soil. Trichloroethene was identified as a COC for construction workers exposed to groundwater at RECs #7-10. Cleanup goals calculated for groundwater are included in Table 7-1. The table also include potential United States Environmental Protection Agency (USEPA) regional screening level (RSL) criteria and maximum contaminant levels (MCLs), when available.

Section 8
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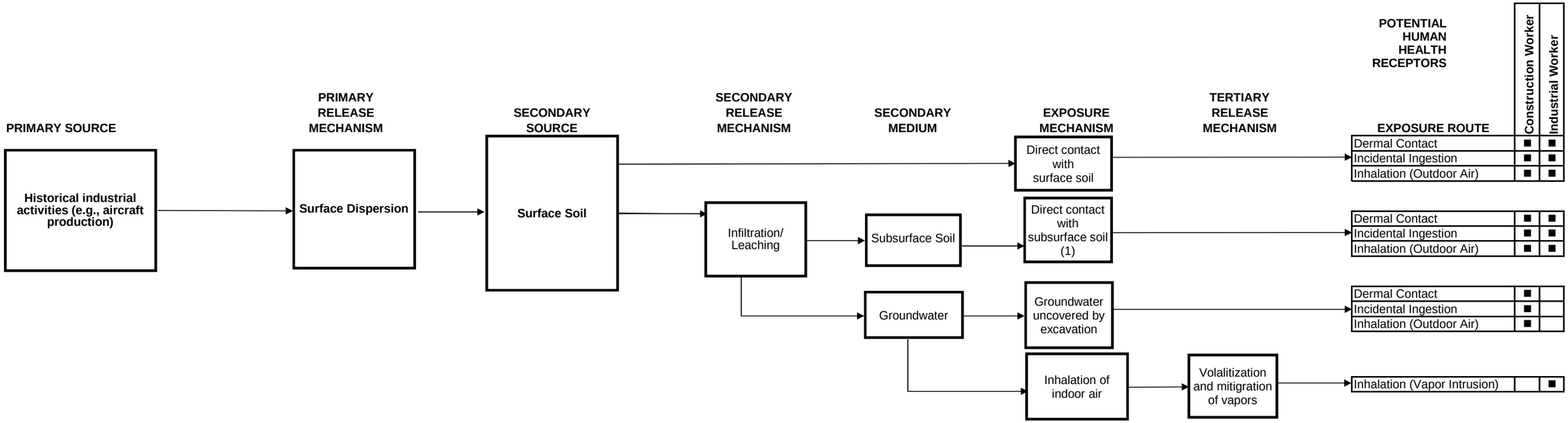
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FIGURE

Figure 3-1

Human Health Conceptual Site Model
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland



■ = POTENTIALLY COMPLETE EXPOSURE PATHWAY

1. Direct contact with subsurface soil (2 to 15 feet below ground surface) is not expected for industrial workers, trespassers, recreational users, and hypothetical residents. Direct exposure to subsurface soil would not be likely unless future construction activities brought subsurface soil to the surface. However, this pathway was evaluated to aid in risk-management decisions.

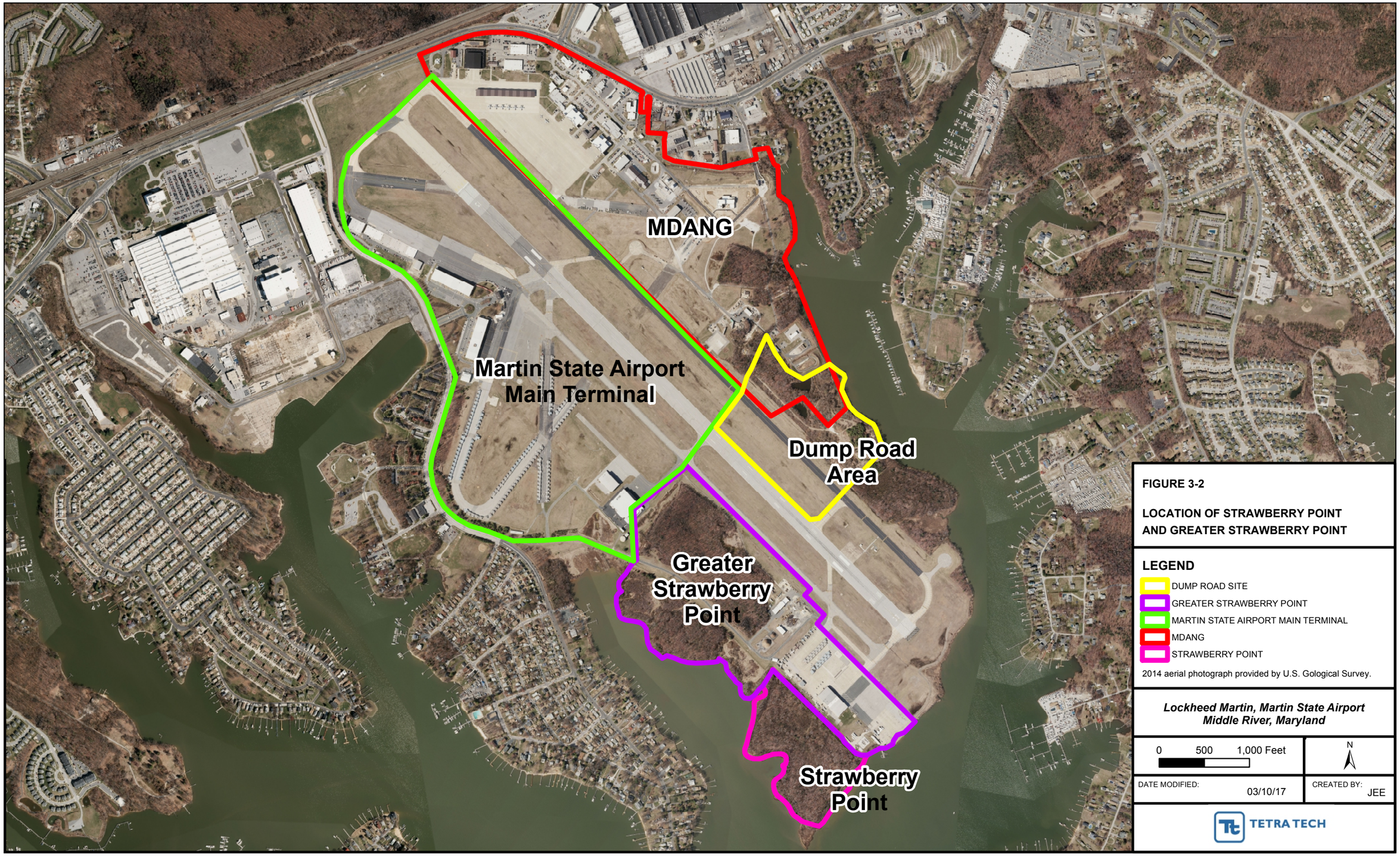


FIGURE 3-2

LOCATION OF STRAWBERRY POINT AND GREATER STRAWBERRY POINT

LEGEND

- DUMP ROAD SITE
- GREATER STRAWBERRY POINT
- MARTIN STATE AIRPORT MAIN TERMINAL
- MDANG
- STRAWBERRY POINT

2014 aerial photograph provided by U.S. Gological Survey.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 500 1,000 Feet

N

DATE MODIFIED: 03/10/17

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\msa_study_sites_201703.mxd)
03/10/17 -- JEE



FIGURE 3-3

RECOGNIZED ENVIRONMENTAL CONDITION BOUNDARIES GREATER STRAWBERRY POINT

LEGEND

Recognized Environmental Condition (REC)

2 REC Number

2014 aerial photograph provided by U.S. Geological Survey.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 187.5 375 Feet

N

DATE MODIFIED: 03/10/17

CREATED BY: JEE

TETRA TECH

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TABLES

Table 2-1

Screening Criteria for Soil
Greater Strawberry Point
Lcokheed Martin, Martin State Airport
Middle River, Maryland

CAS No.	Chemical	USEPA regional screening levels[1]		MDE cleanup standards[2]	
		Direct Contact Residential[3]	Protection of Groundwater[4]	Residential Soil	Groundwater Protection
Volatile organic compounds (mg/kg)					
75-35-4	1,1-Dichloroethene	23 N	0.1 N	390	2.9
87-61-6	1,2,3-Trichlorobenzene	6.3 N	0.021 N	NA	NA
526-73-8	1,2,3-Trimethylbenzene	4.9 N	0.015 N	NA	NA
120-82-1	1,2,4-Trichlorobenzene	5.8 N	0.0034 C	78	2.4
95-63-6	1,2,4-Trimethylbenzene	5.8 N	0.021 N	NA	NA
95-50-1	1,2-Dichlorobenzene	180 N	0.3 N	700	4.6
107-06-2	1,2-Dichloroethane	0.46 C	0.000048 C	7	0.001
541-73-1	1,3-Dichlorobenzene	2.6 C[4]	0.00046 C[4]	23	0.29
106-46-7	1,4-Dichlorobenzene	2.6 C	0.00046 C	27	0.0042
78-93-3	2-Butanone	2,700 N	1.2 N	4,700	29
591-78-6	2-Hexanone	20 N	0.0088 N	NA	NA
99-87-6	4-Isopropyltoluene	NA	NA	NA	NA
108-10-1	4-Methyl-2-Pentanone	3,300 N	1.4 N	NA	59
67-64-1	Acetone	6,100 N	2.9 N	7,000	22
71-43-2	Benzene	1.2 C	0.00023 C	12	0.0019
76-22-2	Camphor	NA	NA	NA	NA
75-15-0	Carbon Disulfide	77 N	0.24 N	780	19
56-23-5	Carbon Tetrachloride	0.65 C	0.00018 C	4.9	0.0021
108-90-7	Chlorobenzene	28 N	0.053 N	160	0.68
67-66-3	Chloroform	0.32 C	0.000061 C	78	0.00091
74-87-3	Chloromethane	11 N	0.049 N	NA	0.93
156-59-2	cis-1,2-Dichloroethene	16 N	0.011 N	78	NA
100-41-4	Ethylbenzene	5.8 C	0.0017 C	780	15
98-82-8	Isopropylbenzene	190 N	0.74 N	780	64
TTNUS054	m+p-Xylenes	55 N[5]	0.19 N[5]	1,600 [6]	3 [6]
1634-04-4	Methyl Tert-Butyl Ether	47 C	0.0032 C	160	0.012
75-09-2	Methylene Chloride	35 N	0.0029 C	85	0.019
91-20-3	Naphthalene	3.8 C	0.00054 C	160	0.15
104-51-8	N-Butylbenzene	390 N	3.2 N	NA	NA
103-65-1	N-Propylbenzene	380 N	1.2 N	NA	NA
95-47-6	o-Xylene	65 N	0.19 N	1,600 [6]	3 [6]
135-98-8	sec-Butylbenzene	780 N	5.9 N	NA	NA
100-42-5	Styrene	600 N	1.3 N	1,600	57
994-05-8	Tert-Amyl Methyl Ether	NA	NA	NA	NA
98-06-6	Tert-Butylbenzene	780 N	1.6 N	NA	NA
75-65-0	Tertiary-Butyl Alcohol	2,300 N[5]	1.2 N[5]	NA	NA
127-18-4	Tetrachloroethene	8.1 N	0.0051 C	1.2	0.0047
108-88-3	Toluene	490 N	0.76 N	630	27
1330-20-7	Total Xylenes	58 N	0.19 N	1600	3
156-60-5	trans-1,2-Dichloroethene	160 N	0.11 N	160	0.72
79-01-6	Trichloroethene	0.41 N	0.00018 C	1.6	0.00026
75-01-4	Vinyl Chloride	0.059 C	0.0000065 C	0.09	0.00012

Table 2-1

Screening Criteria for Soil
Greater Strawberry Point
Lcokheed Martin, Martin State Airport
Middle River, Maryland

CAS No.	Chemical	USEPA regional screening levels[1]		MDE cleanup standards[2]	
		Direct Contact Residential[3]	Protection of Groundwater[4]	Residential Soil	Groundwater Protection
Semivolatile organic compounds (mg/kg)					
92-52-4	1,1-Biphenyl	4.7 N	0.0087 N	NA	NA
120-83-2	2,4-Dichlorophenol	19 N	0.023 N	23	1.2
95-57-8	2-Chlorophenol	39 N	0.089 N	39	NA
91-57-6	2-Methylnaphthalene	24 N	0.19 N	31	4.4
TTNUS042	3&4-Methylphenol	320 N[6]	0.74 N[6]	39 [6]	NA
83-32-9	Acenaphthene	360 N	5.5 N	470	100
208-96-8	Acenaphthylene	360 N[7]	5.5 N[7]	470	100
120-12-7	Anthracene	1,800 N	58 N	2,300	470
CALC055	BaPEq-Halfnd	0.016 C[8]	0.004 C[8]	0.022 [8]	0.12 [8]
CALC049	BaPEq-Pos	0.016 C[8]	0.004 C[8]	0.022 [8]	0.12 [8]
100-52-7	Benzaldehyde	170 C	0.0041 C	NA	NA
56-55-3	Benzo(a)anthracene	0.16 C	0.0042 C	0.22	0.48
50-32-8	Benzo(a)pyrene	0.016 C	0.004 C	0.022	0.12
205-99-2	Benzo(b)fluoranthene	0.16 C	0.041 C	0.22	1.5
191-24-2	Benzo(g,h,i)perylene	180 N[9]	13 N[9]	230	680
207-08-9	Benzo(k)fluoranthene	1.6 C	0.4 C	2.2	15
117-81-7	Bis(2-ethylhexyl)phthalate	39 C	1.3 C	46	2,900
85-68-7	Butyl Benzyl Phthalate	290 C	0.24 C	NA	NA
105-60-2	Caprolactam	3,100 N	2.5 N	NA	NA
86-74-8	Carbazole	NA	NA	32	0.47
218-01-9	Chrysene	16 C	1.2 C	22	48
53-70-3	Dibenz(a,h)anthracene	0.016 C	0.013 C	0.022	0.46
132-64-9	Dibenzofuran	7.3 N	0.15 N	7.8	NA
84-66-2	Diethyl Phthalate	5,100 N	6.1 N	6300	450
131-11-3	Dimethyl Phthalate	NA	NA	NA	NA
84-74-2	di-n-Butyl Phthalate	630 N	2.3 N	780	5,000
206-44-0	Fluoranthene	240 N	89 N	310	6,300
86-73-7	Fluorene	240 N	5.4 N	310	140
193-39-5	Indeno(1,2,3-cd)pyrene	0.16 C	0.13 C	0.22	4.2
78-59-1	Isophorone	570 C	0.026 C	670	0.41
91-20-3	Naphthalene	3.8 C	0.00054 C	160	0.15
621-64-7	N-Nitroso-di-n-Propylamine	0.078 C	0.0000081 C	0.091	0.000047
87-86-5	Pentachlorophenol	1 C	0.000057 C	5.3	NA
85-01-8	Phenanthrene	180 N[9]	13 N[9]	2,300	470
108-95-2	Phenol	1,900 N	3.3 N	2,300	67
129-00-0	Pyrene	180 N	13 N	230	680
Polychlorinated biphenyls (mg/kg)					
53469-21-9	Aroclor-1242	0.23 C	0.0012 C	0.32	NA
11096-82-5	Aroclor-1260	0.24 C	0.0055 C	0.32	NA
1336-36-3	Total Aroclor	0.23 C[10]	0.0068 C[11]	0.32	NA

Table 2-1

Screening Criteria for Soil
Greater Strawberry Point
Lcokheed Martin, Martin State Airport
Middle River, Maryland

CAS No.	Chemical	USEPA regional screening levels[1]		MDE cleanup standards[2]	
		Direct Contact Residential[3]	Protection of Groundwater[4]	Residential Soil	Groundwater Protection
Metals (mg/kg)					
7440-36-0	Antimony	3.1 N	0.35 N	3.1	13
7440-38-2	Arsenic	0.68 C	0.0015 C	0.43	0.026
7440-39-3	Barium	1,500 N	160 N	1,600	6,000
7440-41-7	Beryllium	16 N	19 N	16	1,200
7440-43-9	Cadmium	7.1 N	0.69 N	3.9	27
7440-47-3	Chromium	0.3 C[12]	0.00067 C[12]	23	42
7440-48-4	Cobalt	2.3 N	0.27 N	NA	NA
7440-50-8	Copper	310 N	28 N	310	11000
7439-89-6	Iron	5500 N	350 N	5,500	NA
7439-92-1	Lead	400	14 [13]	400	NA
7439-96-5	Manganese	180 N	28 N	160	950
7439-97-6	Mercury	2.3 N[14]	0.033 N[15]	2.3	NA
7439-98-7	Molybdenum	39 N	2 N	NA	NA
7440-02-0	Nickel	150 N	26 N	160	NA
7782-49-2	Selenium	39 N	0.52 N	39	19
7440-22-4	Silver	39 N	0.8 N	39	31
7440-28-0	Thallium	0.078 N	0.014 N	0.55	3.6
7440-62-2	Vanadium	39 N	86 N	7.8	730
7440-66-6	Zinc	2,300 N	370 N	2,300	14,000
Petroleum hydrocarbons (mg/kg)					
TTNUS004	Diesel Range Organics	NA	NA	230	NA
TTNUS005	Gasoline Range Organics	NA	NA	230	NA
TTNUS634	TPH (C06-C10)	NA	NA	NA	NA
TTNUS827	TPH (C10-C32)	NA	NA	NA	NA

Footnotes:
1 - USEPA regional screening levels, May 2016.
2 - MDE Cleanup Standards for Soil and Groundwater, June 2008.
3 - Carcinogenic values represent an incremental cancer risk of $1x10^{6}$. Noncarcinogenic values correspond to a hazard quotient of 0
4 - Risk-based soil SSLs are based on a dilution attenuation factor of 1. Carcinogenic values represent an incremental cancer risk of 1x10-6. Noncarcinogenic values correspond to a hazard quotient of 1.
5 - Value is for 1,4-dichloroethene.
4 - Value is for m-xylene.
5 - Value is for isobutyl alcohol.
6 - Value is for 4-methylphenol.
7 - Value is for acenaphthene.
8 - Value is for benzo(a)pyrene.
9 - Value is for pyrene.
10 - Value is for polychlorinated biphenyls (high risk).
11 - Value is for polychlorinated biphenyls (low risk).
12 - Value is for hexavalent chromium.
13 - Value is MCL based soil screening level.
14 - Value is for mercuric chloride (and other mercury salts).
15 - No SSL is available for mercuric chloride; value is for elemental mercury.
16 - Value is for total xylenes.

Definitions
BaPEq - benzo(a)pyrene equivalents
C - carcinogen
CAS - Chemical Abstract Service
MCL - maximum contaminant level
MDE - Maryland Department of the Environment
mg/kg - milligram per kilogram
N - noncarcinogen
NA - not available
SSL - soil screening level
USEPA - United States Environmental Protection Agency

Table 2-2

Screening Criteria for Gropundwater
Greater Strawberry Point
Lcokheed Martin, Martin State Airport
Middle River, Maryland

Cas No.	Chemical	USEPA Regional Screening Level[1] Tap Water	USEPA Maximum Contaminant Level[2]	MDE Cleanup Standard[3] Groundwater	USEPA VISL[12]
Volatile organic compounds (µg/L)					
75-34-3	1,1-Dichloroethane	2.8 C	NA	90	7.6 C
75-35-4	1,1-Dichloroethene	28 N	7	7	20 N
95-63-6	1,2,4-Trimethylbenzene	1.5 N	NA	NA	2.9 N
96-12-8	1,2-Dibromo-3-Chloropropane	0.00033 C	0.2	NA	0.028 C
95-50-1	1,2-Dichlorobenzene	30 N	600	600	270 N
107-06-2	1,2-Dichloroethane	0.17 C	5	5	2.2 C
78-87-5	1,2-Dichloropropane	0.44 C	5	5	2.4 C
541-73-1	1,3-Dichlorobenzene	0.48 C[5]	NA	1.8	2.6 C[5]
106-46-7	1,4-Dichlorobenzene	0.48 C	75	75	2.6 C
78-93-3	2-Butanone	560 N	NA	700	220,000 N
591-78-6	2-Hexanone	3.8 N	NA	NA	820 N
67-64-1	Acetone	1,400 N	NA	550	2,300,000 N
71-43-2	Benzene	0.46 C	5	5	1.6 C
74-83-9	Bromomethane	0.75 N	NA	0.85	1.7 N
75-15-0	Carbon Disulfide	81 N	NA	100	120 N
56-23-5	Carbon Tetrachloride	0.46 C	5	5	0.41 C
108-90-7	Chlorobenzene	7.8 N	100	100	41 N
67-66-3	Chloroform	0.22 C	80	80	0.81 C
74-87-3	Chloromethane	19 N	NA	19	26 N
156-59-2	cis-1,2-Dichloroethene	3.6 N	70	70	NA
100-41-4	Ethylbenzene	1.5 C	700	700	3.5 C
--	m+p-Xylenes	19 N[6]	NA	10,000 [7]	36 N[6]
1634-04-4	Methyl Tert-Butyl Ether	14 C	NA	20	450 C
75-09-2	Methylene Chloride	11 N	5	5	470 N
91-20-3	Naphthalene	0.17 C	NA	0.65	4.6 C
95-47-6	o-Xylene	19 N	NA	10,000 [7]	49 N
100-42-5	Styrene	120 N	100	100	930 N
994-05-8	Tert-Amyl Methyl Ether	NA	NA	NA	NA
75-65-0	Tertiary-Butyl Alcohol	590 N[8]	NA	NA	NA
108-88-3	Toluene	110 N	1,000	1,000	1,900 N
1330-20-7	Total Xylenes	19 N	10,000	10000	38 N
156-60-5	trans-1,2-Dichloroethene	36 N	100	100	NA
79-01-6	Trichloroethene	0.28 N	5	5.0	0.52 N
75-69-4	Trichlorofluoromethane	520 N	NA	NA	NA
75-01-4	Vinyl Chloride	0.019 C	2	2	0.15 C
Semivolatile organic compounds (µg/L)					
105-67-9	2,4-Dimethylphenol	36 N	NA	73	NA
121-14-2	2,4-Dinitrotoluene	0.24 C	NA	7.3	NA
606-20-2	2,6-Dinitrotoluene	0.049 C	NA	3.7	NA
91-57-6	2-Methylnaphthalene	3.6 N	NA	2.4	NA
95-48-7	2-Methylphenol	93 N	NA	180	NA
88-75-5	2-Nitrophenol	NA	NA	NA	NA
106-44-5	4-Methylphenol	190 N	NA	18	NA
108-10-1	4-Methyl-2-Pentanone	630 N	NA	NA	55,000 N
83-32-9	Acenaphthene	53 N	NA	37	NA
98-86-2	Acetophenone	190 N	NA	NA	NA
120-12-7	Anthracene	180 N	NA	180	NA
117-81-7	Bis(2-ethylhexyl)phthalate	5.6 C	6	6	NA
85-68-7	Butyl Benzyl Phthalate	290 C	NA	NA	NA
105-60-2	Caprolactam	990 N	NA	NA	NA
86-74-8	Carbazole	NA	NA	3.3	NA
132-64-9	Dibenzofuran	0.79 N	NA	3.7	NA
84-66-2	Diethyl Phthalate	1500 N	NA	2,900	NA
84-74-2	di-n-Butyl Phthalate	90 N	NA	370	NA
206-44-0	Fluoranthene	80 N	NA	150	NA
86-73-7	Fluorene	29 N	NA	24	NA
78-59-1	Isophorone	78 N	NA	70	NA
91-20-3	Naphthalene	0.17 C	NA	0.7	4.6 C

Table 2-2

Screening Criteria for Gropundwater
Greater Strawberry Point
Lcokheed Martin, Martin State Airport
Middle River, Maryland

Cas No.	Chemical	USEPA Regional Screening Level[1] Tap Water	USEPA Maximum Contaminant Level[2]	MDE Cleanup Standard[3] Groundwater	USEPA VISL[12]
86-30-6	N-Nitrosodimethylamine	12 C	NA	14.0	NA
85-01-8	Phenanthrene	12 N[9]	NA	180	NA
108-95-2	Phenol	580 N	NA	1,100	NA
129-00-0	Pyrene	12 N	NA	18	NA
Metals (µg/L)					
7440-36-0	Antimony	0.78 N	6	6	NA
7440-38-2	Arsenic	0.052 C	10	10	NA
7440-39-3	Barium	380 N	2,000	2,000	NA
7440-41-7	Beryllium	2.5 N	4	4	NA
7440-43-9	Cadmium	0.92 N	5	5	NA
7440-47-3	Chromium	0.035 C[10]	100 [11]	100 [11]	NA
7440-48-4	Cobalt	0.6 N	NA	NA	NA
7440-50-8	Copper	80 N	1,300	1,300	NA
7439-89-6	Iron	1,400 N	NA	300	NA
7439-92-1	Lead	15	15	15	NA
7439-96-5	Manganese	43 N	NA	50	NA
7439-97-6	Mercury	0.57 N[12]	2	2	NA
7439-98-7	Molybdenum	10 N	NA	NA	NA
7440-02-0	Nickel	39 N	NA	73	NA
7782-49-2	Selenium	10 N	50	50	NA
7440-22-4	Silver	9.4 N	NA	100	NA
7440-28-0	Thallium	0.02 N	2	2	NA
7440-62-2	Vanadium	8.6 N	NA	3.7	NA
7440-66-6	Zinc	600 N	NA	5,000	NA
Miscellaneous parameters (µg/L)					
18540-29-9	Hexavalent Chromium	0.035 C	NA	100	NA
14797-73-0	Perchlorate	1.4 N	15	2.6	NA
Petroleum hydrocarbons (µg/L)					
--	Diesel Range Organics	NA	NA	47	NA
--	Gasoline Range Organics	NA	NA	47	NA
--	TPH (C06-C10)	NA	NA	NA	NA
--	TPH (C10-C32)	NA	NA	NA	NA

Footnotes:

1 - USEPA Regional Screening Levels, May 2016. [Cancer benchmark value = $1x10^{-6}$, Hazard index (HI) = 0.1].
2 - 2012 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2012).
3 -Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
4 - USEPA's vapor intrusion screening level (VISL) calculator, Version 3.5.1, July 2016. [Cancer benchmark value = 1x10-6, Hazard index (HI) = 0.1
5 - Value is for 1,4-dichlorobenzene.
6 - Value is for m-xylene.
7 - Value is for total xylene.
8 - Value is for isobutyl alcohol.
9 - Value is for pyrene.
10 - Value is for hexavalent chromium.
11 - Value is for total chromium.
12 - Value is for mercuric chloride.

Definitions:

C - Carcinogen
CAS - Chemical Abstract Service.
MCL - maximum contaminant level
MDE - Maryland Department of the Environment
µg/L - micrograms per liter
N - Noncarcinogen.
NA - Not available.
USEPA - United States Environmental Protection Agency.

Table 2-3

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Direct Contact with Surface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
Volatile organic compounds													
75-35-4	1,1-Dichloroethene	0.71 J	0.77 J	ug/kg	GSP-SB-28-0-2	3/140	0.29 - 16	0.77	NA	23,000 N	390,000	No	BSL
526-73-8	1,2,3-Trimethylbenzene	0.16 J	9	ug/kg	GSP-SB-6-0-2	8/140	0.095 - 0.65	9	NA	4,900 N	NA	No	BSL
120-82-1	1,2,4-Trichlorobenzene	4.2 J	4.2 J	ug/kg	GSP-SB-119-0-2	1/140	0.15 - 6.4	4.2	NA	5,800 N	78,000	No	BSL
95-63-6	1,2,4-Trimethylbenzene	0.99 J	15	ug/kg	GSP-SB-6-0-2	3/140	0.36 - 4.4	15	NA	5,800 N	NA	No	BSL
95-50-1	1,2-Dichlorobenzene	0.35 J	15	ug/kg	GSP-SB-30-0-2	3/140	0.2 - 7.6	15	NA	180,000 N	700,000	No	BSL
541-73-1	1,3-Dichlorobenzene	6.6	6.6	ug/kg	GSP-SB-119-0-2	1/140	0.2 - 4.2	6.6	NA	2,600 C[8]	23,000 [8]	No	BSL
78-93-3	2-Butanone	1.4 J	44 J	ug/kg	GSP-SB-165-0-5	25/140	0.82 - 4.7	44	NA	2,700,000 N	4,700,000	No	BSL
99-87-6	4-Isopropyltoluene	0.42 J	1.9 J	ug/kg	GSP-SB-6-0-2	3/140	0.12 - 4.2	1.9	NA	NA	NA	No	NTX
108-10-1	4-Methyl-2-Pentanone	0.58 J	0.71 J	ug/kg	GSP-SB-150-02	2/140	0.3 - 42	0.71	NA	3,300,000 N	NA	No	BSL
67-64-1	Acetone	5.9 J	2,200 J	ug/kg	GSP-SB-64-0-2	34/140	3.9 - 150	2,200	NA	6,100,000 N	7,000,000	No	BSL
71-43-2	Benzene	0.32 J	0.55 J	ug/kg	GSP-SB-77-1-3	3/140	0.13 - 11	0.55	NA	1,200 C	12,000	No	BSL
76-22-2	Camphor	40 NJ	40 NJ	ug/kg	GSP-SB-180-SS	1/1	-	40	NA	NA	NA	No	NTX
75-15-0	Carbon Disulfide	0.46 J	3.7 J	ug/kg	GSP-SB-28-0-2	12/140	0.25 - 11	3.7	NA	77,000 N	780,000	No	BSL
108-90-7	Chlorobenzene	0.36 J	0.36 J	ug/kg	GSP-SB-119-0-2	1/140	0.18 - 5.6	0.36	NA	28,000 N	160,000	No	BSL
67-66-3	Chloroform	0.58 J	0.58 J	ug/kg	GSP-SB-33-0-2	1/140	0.16 - 7.7	0.58	NA	320 C	78,000	No	BSL
156-59-2	cis-1,2-Dichloroethene	0.96 J	32	ug/kg	GSP-SB-28-0-2	3/140	0.2 - 6.1	32	NA	16,000 N	78,000	No	BSL
100-41-4	Ethylbenzene	0.21 J	0.97 J	ug/kg	GSP-SB-6-0-2	4/140	0.16 - 4.8	0.97	NA	5,800 C	780,000	No	BSL
98-82-8	Isopropylbenzene	0.14 J	2.2 J	ug/kg	GSP-SB-6-0-2	2/140	0.09 - 5.7	2.2	NA	190,000 N	780,000	No	BSL
--	m+p-Xylenes	0.79 J	2.5 J	ug/kg	GSP-SB-180-SS	4/140	0.31 - 8	2.5	NA	55,000 N[9]	1,600,000 [10]	No	BSL
1634-04-4	Methyl Tert-Butyl Ether	0.67 J	4.4 J	ug/kg	GSP-SB-44-0-2	4/140	0.24 - 6.2	4.4	NA	47,000 C	160,000	No	BSL
75-09-2	Methylene Chloride	1 J	3.6 J	ug/kg	GSP-SB-97-0-2	6/140	0.47 - 68	3.6	NA	35,000 N	85,000	No	BSL
91-20-3	Naphthalene	0.76 J	32	ug/kg	GSP-SB-121-0-3	4/140	0.11 - 5.9	32	NA	3,800 C	160,000	No	BSL
103-65-1	N-Propylbenzene	0.24 J	2.4 J	ug/kg	GSP-SB-6-0-2	2/140	0.25 - 12	2.4	NA	380,000 N	NA	No	BSL
95-47-6	o-Xylene	0.32 J	2 J	ug/kg	GSP-SB-6-0-2	5/140	0.2 - 7.5	2	NA	65,000 N	1,600,000 [10]	No	BSL
135-98-8	sec-Butylbenzene	2.1 J	2.1 J	ug/kg	GSP-SB-6-0-2	1/140	0.1 - 4.1	2.1	NA	780,000 N	NA	No	BSL
100-42-5	Styrene	5.9 J	5.9 J	ug/kg	GSP-SB-165-0-5	1/140	0.084 - 0.57	5.9	NA	600,000 N	1,600,000	No	BSL
994-05-8	Tert-Amyl Methyl Ether	0.95 J	0.95 J	ug/kg	GSP-SB-44-0-2	1/140	0.21 - 0.61	0.95	NA	NA	NA	No	NTX
98-06-6	Tert-Butylbenzene	0.5 J	0.5 J	ug/kg	GSP-SB-6-0-2	1/140	0.16 - 5.7	0.5	NA	780,000 N	NA	No	BSL
75-65-0	Tertiary-Butyl Alcohol	8.1 J	13 J	ug/kg	GSP-SB-164-0-5	2/15	4.2 - 210	13	NA	2,300,000 N[11]	NA	No	BSL
127-18-4	Tetrachloroethene	0.74 J	1 J	ug/kg	GSP-MW-13-0-2	2/140	0.29 - 11	1	NA	8,100 N	1,200	No	BSL
108-88-3	Toluene	0.26 J	3.1 J	ug/kg	GSP-SB-180-SS	26/140	0.15 - 15	3.1	NA	490,000 N	630,000	No	BSL
1330-20-7	Total Xylenes	0.56 J	3.7 J	ug/kg	GSP-SB-6-0-2	6/140	0.29 - 8	3.7	NA	58,000 N	1,600,000	No	BSL
156-60-5	trans-1,2-Dichloroethene	0.5 J	1.2 J	ug/kg	GSP-SB-28-0-2	2/140	0.23 - 8.1	1.2	NA	160,000 N	160,000	No	BSL
79-01-6	Trichloroethene	0.33 J	50	ug/kg	GSP-SB-28-0-2	5/140	0.24 - 8.5	50	NA	410 N	1,600	No	BSL
75-01-4	Vinyl Chloride	0.73 J	0.73 J	ug/kg	GSP-SB-180-SS	1/140	0.22 - 16	0.73	NA	59 C	90	No	BSL

Table 2-3

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Direct Contact with Surface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
Semivolatile organic compounds													
92-52-4	1,1-Biphenyl	5.9 J	13 J	ug/kg	GSP-SB-177-SS	2/144	3.8 - 820	13	NA	4,700 N	NA	No	BSL
91-57-6	2-Methylnaphthalene	4 J	1,700	ug/kg	GSP-SB-68-0-2	59/145	0.55 - 39	1,700	NA	24,000 N	31,000	No	BSL
83-32-9	Acenaphthene	3.6 J	3,300	ug/kg	GSP-SB-68-0-2	64/145	0.83 - 35	3,300	NA	360,000 N	470,000	No	BSL
208-96-8	Acenaphthylene	4.8 J	3,100	ug/kg	GSP-SB-68-0-2	57/145	0.38 - 35	3,100	NA	360,000 N[12]	470,000	No	BSL
120-12-7	Anthracene	4.6 J	7,600	ug/kg	GSP-SB-68-0-2	87/145	0.85 - 19	7,600	NA	1,800,000 N	2,300,000	No	BSL
--	**Bap Equivalent-Halfnd**	1.269	19,285	ug/kg	GSP-SB-68-0-2	109/145	0.7 - 8	19,285	NA	**16 C[13]**	**22 [13]**	**Yes**	ASL
--	**Bap Equivalent-Pos**	0.48	19,235	ug/kg	GSP-SB-68-0-2	109/145	0.7 - 8	19,235	NA	**16 C[13]**	**22 [13]**	**Yes**	ASL
100-52-7	Benzaldehyde	16 J	44 J	ug/kg	GSP-SB-153-02	3/144	12 - 360	44	NA	170,000 C	NA	No	BSL
56-55-3	**Benzo(a)anthracene**	6.6 J	17,000	ug/kg	GSP-SB-68-0-2	104/145	0.69 - 19	17,000	NA	**160 C**	**220**	**Yes**	ASL
50-32-8	**Benzo(a)pyrene**	5.7 J	15,000	ug/kg	GSP-SB-68-0-2	101/145	0.7 - 19	15,000	NA	**16 C**	**22**	**Yes**	ASL
205-99-2	**Benzo(b)fluoranthene**	4.8 J	17,000	ug/kg	GSP-SB-68-0-2	107/145	0.64 - 8	17,000	NA	**160 C**	**220**	**Yes**	ASL
191-24-2	Benzo(g,h,i)perylene	7.9	9,400	ug/kg	GSP-SB-68-0-2	98/145	0.38 - 19	9,400	NA	180,000 N[14]	230,000	No	BSL
207-08-9	**Benzo(k)fluoranthene**	8.8	6,800	ug/kg	GSP-SB-68-0-2	93/145	0.74 - 19	6,800	NA	**1,600 C**	**2,200**	**Yes**	ASL
117-81-7	Bis(2-ethylhexyl)phthalate	21 J	2,300	ug/kg	GSP-SB-38-0-2	36/144	20 - 620	2,300	NA	39,000 C	46,000	No	BSL
85-68-7	Butyl Benzyl Phthalate	30 J	250	ug/kg	GSP-SB-86-0-2	2/144	10 - 300	250	NA	290,000 C	NA	No	BSL
105-60-2	Caprolactam	50 J	50 J	ug/kg	GSP-SB-111-0-2	1/144	38 - 1100	50	NA	3,100,000 N	NA	No	BSL
86-74-8	Carbazole	30 J	2,000	ug/kg	GSP-SB-68-0-2	30/144	28 - 590	2,000	NA	NA	32,000	No	BSL
218-01-9	**Chrysene**	6.5 J	17,000	ug/kg	GSP-SB-68-0-2	104/145	1.2 - 6.4	17,000	NA	**16,000 C**	22,000	**Yes**	ASL
53-70-3	**Dibenz(a,h)anthracene**	6.3 J	1,400	ug/kg	GSP-SB-71-0-2	53/145	0.72 - 100	1,400	NA	**16 C**	**22**	**Yes**	ASL
132-64-9	Dibenzofuran	3.8 J	1,200 J	ug/kg	GSP-SB-68-0-2	32/145	0.72 - 300	1,200	NA	7,300 N	7,800	No	BSL
84-66-2	Diethyl Phthalate	45 J	45 J	ug/kg	GSP-SB-104-0-2	1/144	17 - 490	45	NA	5,100,000 N	6,300,000	No	BSL
131-11-3	Dimethyl Phthalate	19 J	190	ug/kg	GSP-MW-9-0-2	3/144	18 - 520	190	NA	NA	NA	No	NTX
84-74-2	di-n-Butyl Phthalate	16 J	46 J	ug/kg	GSP-SB-153-02	12/145	15 - 460	46	NA	630,000 N	780,000	No	BSL
206-44-0	Fluoranthene	5.2 J	33,000	ug/kg	GSP-SB-68-0-2	110/145	0.6 - 8	33,000	NA	240,000 N	310,000	No	BSL
86-73-7	Fluorene	9.4	3,600	ug/kg	GSP-SB-68-0-2	61/145	0.58 - 35	3,600	NA	240,000 N	310,000	No	BSL
193-39-5	**Indeno(1,2,3-cd)pyrene**	8.7	7,500	ug/kg	GSP-SB-68-0-2	95/145	0.38 - 19	7,500	NA	**160 C**	**220**	**Yes**	ASL
91-20-3	Naphthalene	4.6 J	1,900	ug/kg	GSP-SB-68-0-2	62/145	0.89 - 35	1,900	NA	3,800 C	160,000	No	BSL
621-64-7	**N-Nitroso-di-n-Propylamine**	120	120	ug/kg	GSP-SB-72-0-2	1/144	6.9 - 820	120	NA	**78 C**	**91**	**Yes**	ASL
85-01-8	Phenanthrene	5.3 J	27,000	ug/kg	GSP-SB-68-0-2	107/145	0.8 - 19	27,000	NA	180,000 N[14]	2,300,000	No	BSL
129-00-0	Pyrene	5.3 J	34,000	ug/kg	GSP-SB-68-0-2	109/145	0.48 - 8	34,000	NA	180,000 N	230,000	No	BSL
Polychlorinated biphenyls													
11096-82-5	**Aroclor-1260**	15 J	12,000	ug/kg	GSP-SB-78-0-2	33/123	18 - 23	12,000	NA	**240 C**	**320**	**Yes**	ASL

Table 2-3

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Direct Contact with Surface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
Metals													
7440-36-0	Antimony	0.029 J	1.6 L	mg/kg	GSP-SB-19-0-2	56/145	0.026 - 1.2	1.6	NA	3.1 N	3.1	No	BSL
7440-38-2	**Arsenic**	0.71	11 J	mg/kg	GSP-SB-141-02	144/145	0.32 - 0.32	11	3.6	**0.68 C**	**0.43**	**Yes**	ASL
7440-39-3	Barium	2.5 J	708	mg/kg	GSP-SB-28-0-2	145/145	-	708	NA	1,500 N	1,600	No	BSL
7440-41-7	Beryllium	0.032 J	3.4 J	mg/kg	GSP-SB-10-0-2, GSP-SB-27-0-2	125/145	0.03 - 0.45	3.4	NA	16 N	16	No	BSL
7440-43-9	Cadmium	0.035 J	3.2	mg/kg	GSP-SB-19-0-2	58/145	0.0027 - 0.18	3.2	NA	7.1 N	3.9	No	BSL
7440-47-3	**Chromium**	2.1 J	206	mg/kg	GSP-SB-28-0-2	145/145	-	206	28	**0.3 C[15]**	**23**	**Yes**	ASL
7440-48-4	**Cobalt**	0.22 J	27.5 J	mg/kg	GSP-SB-16-0-2	144/145	0.17 - 0.17	27.5	NA	**2.3 N**	NA	**Yes**	ASL
7440-50-8	Copper	1.1 J	81	mg/kg	GSP-SB-178-SS	143/145	0.79 - 1.9	81	NA	310 N	310	No	BSL
7439-89-6	**Iron**	866 J	20,400	mg/kg	GSP-SB-43-0-2	73/73	-	20,400	15000	**5,500 N**	**5,500**	**Yes**	ASL
7439-92-1	Lead	0.78 J	181 J	mg/kg	GSP-SB-19-0-2	145/145	-	181	NA	400	400	No	BSL
7439-96-5	**Manganese**	2.5 J	8,030 J	mg/kg	GSP-SB-27-0-2	73/73	-	8,030	480	**180 N**	**160**	**Yes**	ASL
7439-97-6	Mercury	0.013 J	0.67	mg/kg	GSP-SB-155-02	78/145	0.011 - 0.057	0.67	NA	2.3 N[16]	2.3	No	BSL
7439-98-7	Molybdenum	0.051 J	1	mg/kg	GSP-SB-63-0-2, GSP-SB-67-0-2	69/145	0.12 - 1.1	1	NA	39 N	NA	No	BSL
7440-02-0	Nickel	0.47	32.7 J	mg/kg	GSP-SB-33-0-2	144/145	0.58 - 0.58	32.7	NA	150 N	160	No	BSL
7782-49-2	Selenium	0.041 J	4.7 J	mg/kg	GSP-SB-28-0-2	98/145	0.08 - 1.2	4.7	NA	39 N	39	No	BSL
7440-22-4	Silver	0.02 J	1.3	mg/kg	GSP-MW-11-0-2	39/145	0.0017 - 0.21	1.3	NA	39 N	39	No	BSL
7440-28-0	**Thallium**	0.17	2.3 K	mg/kg	GSP-SB-101-0-2	10/145	0.014 - 0.86	2.3	3.9	**0.078 N**	**0.55**	**Yes**	ASL
7440-62-2	**Vanadium**	2.2	339 J	mg/kg	GSP-SB-27-0-2	145/145	-	339	30	**39 N**	**7.8**	**Yes**	ASL
7440-66-6	Zinc	1.6 J	99.1 J	mg/kg	GSP-SB-19-0-2	137/145	1.9 - 5.7	99.1	NA	2,300 N	2,300	No	BSL
Petroleum hydrocarbons													
--	**Diesel Range Organics**	3.6 J	1,800 J	mg/kg	GSP-SB-83-0-2	90/112	3 - 72	1,800	NA	NA	**230**	**Yes**	ASL
--	Gasoline Range Organics	0.033 J	0.089 J	mg/kg	GSP-SB-78-0-2	11/112	0.026 - 0.038	0.089	NA	NA	230	No	BSL
--	TPH (C06-C10)	0.056 J	0.45	mg/kg	GSP-SB-180-SS	2/30	0.047 - 0.14	0.45	NA	NA	NA	No	NTX
--	TPH (C10-C32)	17 J	1,700	mg/kg	GSP-SB-180-SS	22/30	10 - 53	1,700	NA	NA	NA	No	NTX

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, June 2008. Appendix 2 - Attachment 2.
5 - USEPA Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
6 - Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
7 - The chemical is selected as a checmial of potential concern (COPC) if the maximum detected concentration exceeds the risk-based COPC screening level.
8 - Value is for 1,4-dichlorobenzene.
9 - Value is for m-xylene.
10 - Value is for total xylenes.
11 - Value is for isobutyl alcohol.
12 - Value is for acenaphthene.
13 - Value is for benzo(a)pyrene. Bap Equivalent-Halfnd was calculated using one-half the detection limit for non-detected values. Bap Equivalent-Pos was calculated using zero for non-detected values.
14 - Value is for pyrene.
15 - Value is for hexavalent chromium.
16 - Value is for mercuric chloride (and other mercury salts).
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Definitions:
C = carcinogen
COPC = chemical of potential concern
J = estimated value
mg/kg = milligrams per kilogram
N = noncarcinogen
NA = not applicable/not available
TPH = total petroleum hydrocarbons
µg/kg = micrograms per kilogram

Rationale Codes:
For selection as a COPC:
ASL = above screening level and site background.

For elimination as a COPC:
BSL = below COPC screening level
NUT = essential nutrient
NTX = no toxicity criteria

Table 2-4

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Migration from Surface Soil to Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Migration from Soil to Groundwater[5]	MDE Cleanup Standard - Groundwater Protection[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
Volatile Organic Compounds													
75-35-4	1,1-Dichloroethene	0.71 J	0.77 J	ug/kg	GSP-SB-28-0-2	3/140	0.29 - 16	0.77	NA	100 N	2,900	No	BSL
526-73-8	1,2,3-Trimethylbenzene	0.16 J	9	ug/kg	GSP-SB-6-0-2	8/140	0.095 - 0.65	9	NA	15 N	NA	No	BSL
120-82-1	**1,2,4-Trichlorobenzene**	4.2 J	4.2 J	ug/kg	GSP-SB-119-0-2	1/140	0.15 - 6.4	4.2	NA	**3.4 C**	2,400	**Yes**	ASL
95-63-6	1,2,4-Trimethylbenzene	0.99 J	15	ug/kg	GSP-SB-6-0-2	3/140	0.36 - 4.4	15	NA	21 N	NA	No	BSL
95-50-1	1,2-Dichlorobenzene	0.35 J	15	ug/kg	GSP-SB-30-0-2	3/140	0.2 - 7.6	15	NA	300 N	4,600	No	BSL
541-73-1	**1,3-Dichlorobenzene**	6.6	6.6	ug/kg	GSP-SB-119-0-2	1/140	0.2 - 4.2	6.6	NA	**0.46 C**[8]	290	**Yes**	ASL
78-93-3	2-Butanone	1.4 J	44 J	ug/kg	GSP-SB-165-0-5	25/140	0.82 - 4.7	44	NA	1,200 N	29,000	No	BSL
99-87-6	4-Isopropyltoluene	0.42 J	1.9 J	ug/kg	GSP-SB-6-0-2	3/140	0.12 - 4.2	1.9	NA	NA	NA	No	NTX
108-10-1	4-Methyl-2-Pentanone	0.58 J	0.71 J	ug/kg	GSP-SB-150-02	2/140	0.3 - 42	0.71	NA	1,400 N	59,000	No	BSL
67-64-1	Acetone	5.9 J	2200 J	ug/kg	GSP-SB-64-0-2	34/140	3.9 - 150	2,200	NA	2,900 N	22,000	No	BSL
71-43-2	**Benzene**	0.32 J	0.55 J	ug/kg	GSP-SB-77-1-3	3/140	0.13 - 11	0.55	NA	**0.23 C**	1.9	**Yes**	ASL
76-22-2	Camphor	40 NJ	40 NJ	ug/kg	GSP-SB-180-SS	1/1	-	40	NA	NA	NA	No	NTX
75-15-0	Carbon Disulfide	0.46 J	3.7 J	ug/kg	GSP-SB-28-0-2	12/140	0.25 - 11	3.7	NA	240 N	19,000	No	BSL
108-90-7	Chlorobenzene	0.36 J	0.36 J	ug/kg	GSP-SB-119-0-2	1/140	0.18 - 5.6	0.36	NA	53 N	680	No	BSL
67-66-3	**Chloroform**	0.58 J	0.58 J	ug/kg	GSP-SB-33-0-2	1/140	0.16 - 7.7	0.58	NA	**0.061 C**	0.91	**Yes**	ASL
156-59-2	**cis-1,2-Dichloroethene**	0.96 J	32	ug/kg	GSP-SB-28-0-2	3/140	0.2 - 6.1	32	NA	**11 N**	NA	**Yes**	ASL
100-41-4	Ethylbenzene	0.21 J	0.97 J	ug/kg	GSP-SB-6-0-2	4/140	0.16 - 4.8	0.97	NA	1.7 C	15,000	No	BSL
98-82-8	Isopropylbenzene	0.14 J	2.2 J	ug/kg	GSP-SB-6-0-2	2/140	0.09 - 5.7	2.2	NA	740 N	64,000	No	BSL
--	m+p-Xylenes	0.79 J	2.5 J	ug/kg	GSP-SB-180-SS	4/140	0.31 - 8	2.5	NA	190 N[9]	3,000 [10]	No	BSL
1634-04-4	**Methyl Tert-Butyl Ether**	0.67 J	4.4 J	ug/kg	GSP-SB-44-0-2	4/140	0.24 - 6.2	4.4	NA	**3.2 C**	12	**Yes**	ASL
75-09-2	**Methylene Chloride**	1 J	3.6 J	ug/kg	GSP-SB-97-0-2	6/140	0.47 - 68	3.6	NA	**2.9 C**	19	**Yes**	ASL
91-20-3	**Naphthalene**	0.76 J	32	ug/kg	GSP-SB-121-0-3	4/140	0.11 - 5.9	32	NA	**0.54 C**	150	**Yes**	ASL
103-65-1	N-Propylbenzene	0.24 J	2.4 J	ug/kg	GSP-SB-6-0-2	2/140	0.25 - 12	2.4	NA	1,200 N	NA	No	BSL
95-47-6	o-Xylene	0.32 J	2 J	ug/kg	GSP-SB-6-0-2	5/140	0.2 - 7.5	2	NA	190 N	3,000 [10]	No	BSL
135-98-8	sec-Butylbenzene	2.1 J	2.1 J	ug/kg	GSP-SB-6-0-2	1/140	0.1 - 4.1	2.1	NA	5,900 N	NA	No	BSL
100-42-5	Styrene	5.9 J	5.9 J	ug/kg	GSP-SB-165-0-5	1/140	0.084 - 0.57	5.9	NA	1,300 N	57,000	No	BSL
994-05-8	Tert-Amyl Methyl Ether	0.95 J	0.95 J	ug/kg	GSP-SB-44-0-2	1/140	0.21 - 0.61	0.95	NA	NA	NA	No	NTX
98-06-6	Tert-Butylbenzene	0.5 J	0.5 J	ug/kg	GSP-SB-6-0-2	1/140	0.16 - 5.7	0.5	NA	1,600 N	NA	No	BSL
75-65-0	Tertiary-Butyl Alcohol	8.1 J	13 J	ug/kg	GSP-SB-164-0-5	2/15	4.2 - 210	13	NA	1,200 N[11]	NA	No	BSL
127-18-4	Tetrachloroethene	0.74 J	1 J	ug/kg	GSP-MW-13-0-2	2/140	0.29 - 11	1	NA	5.1 C	4.7	No	BSL
108-88-3	Toluene	0.26 J	3.1 J	ug/kg	GSP-SB-180-SS	26/140	0.15 - 15	3.1	NA	760 N	27,000	No	BSL
1330-20-7	Total Xylenes	0.56 J	3.7 J	ug/kg	GSP-SB-6-0-2	6/140	0.29 - 8	3.7	NA	190 N	3,000	No	BSL
156-60-5	trans-1,2-Dichloroethene	0.5 J	1.2 J	ug/kg	GSP-SB-28-0-2	2/140	0.23 - 8.1	1.2	NA	110 N	720	No	BSL
79-01-6	**Trichloroethene**	0.33 J	50	ug/kg	GSP-SB-28-0-2	5/140	0.24 - 8.5	50	NA	**0.18 C**	**0.26**	**Yes**	ASL
75-01-4	**Vinyl Chloride**	0.73 J	0.73 J	ug/kg	GSP-SB-180-SS	1/140	0.22 - 16	0.73	NA	**0.0065 C**	**0.12**	**Yes**	ASL
Semivolatile Organic Compounds													
92-52-4	**1,1-Biphenyl**	5.9 J	13 J	ug/kg	GSP-SB-177-SS	2/144	3.8 - 820	13	NA	**8.7 N**	NA	**Yes**	ASL
91-57-6	**2-Methylnaphthalene**	4 J	1700	ug/kg	GSP-SB-68-0-2	59/145	0.55 - 39	1,700	NA	**190 N**	4,400	**Yes**	ASL
83-32-9	Acenaphthene	3.6 J	3300	ug/kg	GSP-SB-68-0-2	64/145	0.83 - 35	3,300	NA	5,500 N	100,000	No	BSL
208-96-8	Acenaphthylene	4.8 J	3100	ug/kg	GSP-SB-68-0-2	57/145	0.38 - 35	3,100	NA	5,500 N[12]	100,000	No	BSL
120-12-7	Anthracene	4.6 J	7600	ug/kg	GSP-SB-68-0-2	87/145	0.85 - 19	7,600	NA	58,000 N	470,000	No	BSL
100-52-7	**Benzaldehyde**	16 J	44 J	ug/kg	GSP-SB-153-02	3/144	12 - 360	44	NA	**4.1 C**	NA	**Yes**	ASL
56-55-3	**Benzo(a)anthracene**	6.6 J	17000	ug/kg	GSP-SB-68-0-2	104/145	0.69 - 19	17,000	NA	**4.2 C**	**480**	**Yes**	ASL

Table 2-4

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Migration from Surface Soil to Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Migration from Soil to Groundwater[5]	MDE Cleanup Standard - Groundwater Protection[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
50-32-8	**Benzo(a)pyrene**	5.7 J	15000	ug/kg	GSP-SB-68-0-2	101/145	0.7 - 19	15,000	NA	**4 C**	**120**	**Yes**	ASL
205-99-2	**Benzo(b)fluoranthene**	4.8 J	17000	ug/kg	GSP-SB-68-0-2	107/145	0.64 - 8	17,000	NA	**41 C**	**1,500**	**Yes**	ASL
191-24-2	Benzo(g,h,i)perylene	7.9	9400	ug/kg	GSP-SB-68-0-2	98/145	0.38 - 19	9,400	NA	13,000 N[14]	680,000	No	BSL
207-08-9	**Benzo(k)fluoranthene**	8.8	6800	ug/kg	GSP-SB-68-0-2	93/145	0.74 - 19	6,800	NA	**400 C**	15,000	**Yes**	ASL
117-81-7	**Bis(2-ethylhexyl)phthalate**	21 J	2300	ug/kg	GSP-SB-38-0-2	36/144	20 - 620	2,300	NA	**1,300 C**	2,900,000	**Yes**	ASL
85-68-7	**Butyl Benzyl Phthalate**	30 J	250	ug/kg	GSP-SB-86-0-2	2/144	10 - 300	250	NA	**240 C**	NA	**Yes**	ASL
105-60-2	Caprolactam	50 J	50 J	ug/kg	GSP-SB-111-0-2	1/144	38 - 1100	50	NA	2,500 N	NA	No	BSL
86-74-8	**Carbazole**	30 J	2000	ug/kg	GSP-SB-68-0-2	30/144	28 - 590	2,000	NA	NA	**470**	**Yes**	ASL
218-01-9	**Chrysene**	6.5 J	17000	ug/kg	GSP-SB-68-0-2	104/145	1.2 - 6.4	17,000	NA	**1,200 C**	48,000	**Yes**	ASL
53-70-3	**Dibenz(a,h)anthracene**	6.3 J	1400	ug/kg	GSP-SB-71-0-2	53/145	0.72 - 100	1,400	NA	**13 C**	**460**	**Yes**	ASL
132-64-9	**Dibenzofuran**	3.8 J	1200 J	ug/kg	GSP-SB-68-0-2	32/145	0.72 - 300	1,200	NA	**150 N**	NA	**Yes**	ASL
84-66-2	Diethyl Phthalate	45 J	45 J	ug/kg	GSP-SB-104-0-2	1/144	17 - 490	45	NA	6,100 N	450,000	No	BSL
131-11-3	Dimethyl Phthalate	19 J	190	ug/kg	GSP-MW-9-0-2	3/144	18 - 520	190	NA	NA	NA	No	NTX
84-74-2	di-n-Butyl Phthalate	16 J	46 J	ug/kg	GSP-SB-153-02	12/145	15 - 460	46	NA	2,300 N	5,000,000	No	BSL
206-44-0	Fluoranthene	5.2 J	33000	ug/kg	GSP-SB-68-0-2	110/145	0.6 - 8	33,000	NA	89,000 N	6,300,000	No	BSL
86-73-7	Fluorene	9.4	3600	ug/kg	GSP-SB-68-0-2	61/145	0.58 - 35	3,600	NA	5,400 N	140,000	No	BSL
193-39-5	**Indeno(1,2,3-cd)pyrene**	8.7	7500	ug/kg	GSP-SB-68-0-2	95/145	0.38 - 19	7,500	NA	**130 C**	**4,200**	**Yes**	ASL
91-20-3	**Naphthalene**	4.6 J	1900	ug/kg	GSP-SB-68-0-2	62/145	0.89 - 35	1,900	NA	**0.54 C**	**150**	**Yes**	ASL
621-64-7	**N-Nitroso-di-n-Propylamine**	120	120	ug/kg	GSP-SB-72-0-2	1/144	6.9 - 820	120	NA	**0.0081 C**	**0.047**	**Yes**	ASL
85-01-8	**Phenanthrene**	5.3 J	27000	ug/kg	GSP-SB-68-0-2	107/145	0.8 - 19	27,000	NA	**13,000 N**[14]	470,000	**Yes**	ASL
129-00-0	**Pyrene**	5.3 J	34000	ug/kg	GSP-SB-68-0-2	109/145	0.48 - 8	34,000	NA	**13,000 N**	680,000	**Yes**	ASL
PCBs													
11096-82-5	**Aroclor-1260**	15 J	12000	ug/kg	GSP-SB-78-0-2	33/123	18 - 23	12,000	NA	**5.5 C**	NA	**Yes**	ASL
Metals													
7440-36-0	**Antimony**	0.029 J	1.6 L	mg/kg	GSP-SB-19-0-2	56/145	0.026 - 1.2	1.6	NA	**0.35 N**	13	**Yes**	ASL
7440-38-2	**Arsenic**	0.71	11 J	mg/kg	GSP-SB-141-02	144/145	0.32 - 0.32	11	3.6	**0.0015 C**	**0.026**	**Yes**	ASL
7440-39-3	**Barium**	2.5 J	708	mg/kg	GSP-SB-28-0-2	145/145	-	708	NA	**160 N**	6,000	**Yes**	ASL
7440-41-7	Beryllium	0.032 J	3.4 J	mg/kg	GSP-SB-10-0-2, GSP-SB-27-0-2	125/145	0.03 - 0.45	3.4	NA	19 N	1,200	No	BSL
7440-43-9	**Cadmium**	0.035 J	3.2	mg/kg	GSP-SB-19-0-2	58/145	0.0027 - 0.18	3.2	NA	**0.69 N**	27	**Yes**	ASL
7440-47-3	**Chromium**	2.1 J	206	mg/kg	GSP-SB-28-0-2	145/145	-	206	28	**0.00067 C**[15]	**42**	**Yes**	ASL
7440-48-4	**Cobalt**	0.22 J	27.5 J	mg/kg	GSP-SB-16-0-2	144/145	0.17 - 0.17	27.5	NA	**0.27 N**	NA	**Yes**	ASL
7440-50-8	**Copper**	1.1 J	81	mg/kg	GSP-SB-178-SS	143/145	0.79 - 1.9	81	NA	**28 N**	11,000	**Yes**	ASL
7439-89-6	**Iron**	866 J	20400	mg/kg	GSP-SB-43-0-2	73/73	-	20,400	15000	**350 N**	NA	**Yes**	ASL
7439-92-1	**Lead**	0.78 J	181 J	mg/kg	GSP-SB-19-0-2	145/145	-	181	NA	**14** [16]	NA	**Yes**	ASL
7439-96-5	**Manganese**	2.5 J	8030 J	mg/kg	GSP-SB-27-0-2	73/73	-	8,030	480	**28 N**	**950**	**Yes**	ASL
7439-97-6	**Mercury**	0.013 J	0.67	mg/kg	GSP-SB-155-02	78/145	0.011 - 0.057	0.67	NA	**0.033 N**[17]	NA	**Yes**	ASL
7439-98-7	Molybdenum	0.051 J	1	mg/kg	GSP-SB-63-0-2, GSP-SB-67-0-2	69/145	0.12 - 1.1	1	NA	2 N	NA	No	BSL
7440-02-0	**Nickel**	0.47	32.7 J	mg/kg	GSP-SB-33-0-2	144/145	0.58 - 0.58	32.7	NA	**26 N**	NA	**Yes**	ASL
7782-49-2	**Selenium**	0.041 J	4.7 J	mg/kg	GSP-SB-28-0-2	98/145	0.08 - 1.2	4.7	NA	**0.52 N**	19	**Yes**	ASL
7440-22-4	**Silver**	0.02 J	1.3	mg/kg	GSP-MW-11-0-2	39/145	0.0017 - 0.21	1.3	NA	**0.8 N**	31	**Yes**	ASL
7440-28-0	**Thallium**	0.17	2.3 K	mg/kg	GSP-SB-101-0-2	10/145	0.014 - 0.86	2.3	3.9	**0.014 N**	3.6	**Yes**	ASL
7440-62-2	**Vanadium**	2.2	339 J	mg/kg	GSP-SB-27-0-2	145/145	-	339	30	**86 N**	730	**Yes**	ASL

Table 2-4

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Migration from Surface Soil to Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Migration from Soil to Groundwater[5]	MDE Cleanup Standard - Groundwater Protection[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
7440-66-6	Zinc	1.6 J	99.1 J	mg/kg	GSP-SB-19-0-2	137/145	1.9 - 5.7	99.1	NA	370 N	14,000	No	BSL
Petroleum Hydrocarbons													
--	Diesel Range Organics	3.6 J	1800 J	mg/kg	GSP-SB-83-0-2	90/112	3 - 72	1,800	NA	NA	NA	No	NTX
--	Gasoline Range Organics	0.033 J	0.089 J	mg/kg	GSP-SB-78-0-2	11/112	0.026 - 0.038	0.089	NA	NA	NA	No	NTX
--	TPH (C06-C10)	0.056 J	0.45	mg/kg	GSP-SB-180-SS	2/30	0.047 - 0.14	0.45	NA	NA	NA	No	NTX
--	TPH (C10-C32)	17 J	1700	mg/kg	GSP-SB-180-SS	22/30	10 - 53	1,700	NA	NA	NA	No	NTX

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, June 2008. Appendix 2 - Attachment 2.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2016. Carcinogenic values represent an incremental cancer risk of $1x10^{-6}$.
6 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008. Noncarcinogenic correspond to a target hazard quotient of 1.
7 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
8 - Value is for 1,4-dichlorobenzene.
9 - Value is for m-xylene.
10 - Value is for total xylenes.
11 - Value is for isobutyl alcohol.
12 - Value is for acenaphthene.
13 - Value is for benzo(a)pyrene. Bap Equivalent-Halfnd was calculated using one-half the detection limit for non-detected values. Bap Equivalent-Pos was calculated using zero for non-detected values.
14 - Value is for pyrene.
15 - Value is for hexavalent chromium.
16 - Value is MCL based soil screening level.
17 - No SSL is available for mercuric chloride. Value is for elemental mercury.

Definitions:
C = carcinogen
COPC = chemical of potential concern
J = estimated value
mg/kg = milligrams per kilogram
N = noncarcinogen
NA = not applicable/not available
TPH = total petroleum hydrocarbons
µg/kg = micrograms per kilogram

Rationale Codes:
For selection as a COPC:
ASL = above screening level and site background.

For elimination as a COPC:
BSL = below COPC screening level
NUT = essential nutrient
NTX = no toxicity criteria

Table 2-5

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Direct Contact with Shallow Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
Volatile organic compounds													
75-35-4	1,1-Dichloroethene	0.47 J	6	ug/kg	GSP-MW-14-8-10	8/158	0.29 - 110	6	NA	23,000 N	390,000	No	BSL
526-73-8	1,2,3-Trimethylbenzene	0.15 J	620 J	ug/kg	GSP-TP-5E-10-12	9/158	0.096 - 12	620	NA	4,900 N	NA	No	BSL
95-63-6	1,2,4-Trimethylbenzene	0.44 J	940 J	ug/kg	GSP-TP-5E-10-12	11/158	0.37 - 12	940	NA	5,800 N	NA	No	BSL
95-50-1	1,2-Dichlorobenzene	1.3 J	1.3 J	ug/kg	GSP-SB-37-12-14	1/158	0.2 - 54	1.3	NA	180,000 N	700,000	No	BSL
107-06-2	1,2-Dichloroethane	0.35 J	36	ug/kg	GSP-SB-181-12-14	6/158	0.19 - 63	36	NA	460 C	7,000	No	BSL
78-93-3	2-Butanone	1.3 J	97 J	ug/kg	GSP-TP-5W-10-12	33/158	0.76 - 270	97	NA	2,700,000 N	4,700,000	No	BSL
591-78-6	2-Hexanone	1.1 J	1.1 J	ug/kg	GSP-TP-6-4-6	1/158	0.36 - 130	1.1	NA	20,000 N	NA	No	BSL
99-87-6	4-Isopropyltoluene	0.24 J	190 J	ug/kg	GSP-TP-5E-10-12	9/158	0.12 - 23	190	NA	NA	NA	No	NTX
108-10-1	4-Methyl-2-Pentanone	0.82 J	0.82 J	ug/kg	GSP-TP-10-10-12	1/158	0.3 - 300	0.82	NA	3,300,000 N	NA	No	BSL
67-64-1	Acetone	6.2 J	370 J	ug/kg	GSP-SB-165-10-15	36/158	3.9 - 1100	370	NA	6,100,000 N	7,000,000	No	BSL
71-43-2	Benzene	0.26 J	1.5 J	ug/kg	GSP-SB-13-4-6	3/158	0.13 - 75	1.5	NA	1,200 C	12,000	No	BSL
75-15-0	Carbon Disulfide	0.4 J	12 J	ug/kg	GSP-TP-5W-10-12	19/158	0.3 - 75	12	NA	77,000 N	780,000	No	BSL
56-23-5	Carbon Tetrachloride	60 J	60 J	ug/kg	GSP-SB-179-4-6	1/158	0.21 - 40	60	NA	650 C	4,900	No	BSL
108-90-7	Chlorobenzene	0.49 J	1.6 J	ug/kg	GSP-SB-135-10.5'-12'	2/158	0.19 - 40	1.6	NA	28,000 N	160,000	No	BSL
74-87-3	Chloromethane	1.4 J	1.4 J	ug/kg	GSP-MW-9-8-10	1/158	0.23 - 88	1.4	NA	11,000 N	NA	No	BSL
156-59-2	cis-1,2-Dichloroethene	0.31 J	69	ug/kg	GSP-SB-181-12-14	15/158	0.2 - 43	69	NA	16,000 N	78,000	No	BSL
100-41-4	Ethylbenzene	0.26 J	270 J	ug/kg	GSP-TP-5E-10-12	13/158	0.15 - 32	270	NA	5,800 C	780,000	No	BSL
98-82-8	Isopropylbenzene	0.19 J	58 J	ug/kg	GSP-TP-5W-10-12	3/158	0.09 - 41	58	NA	190,000 N	780,000	No	BSL
--	m+p-Xylenes	0.48 J	310 J	ug/kg	GSP-TP-5E-10-12	9/158	0.29 - 56	310	NA	55,000 N[8]	1,600,000 [9]	No	BSL
1634-04-4	Methyl Tert-Butyl Ether	0.45 J	6.4 J	ug/kg	GSP-SB-5-5-7	2/158	0.24 - 45	6.4	NA	47,000 C	160,000	No	BSL
75-09-2	Methylene Chloride	1.3 J	160 J	ug/kg	GSP-SB-177-8-10, GSP-SB-180-12-14	8/158	0.46 - 820	160	NA	35,000 N	85,000	No	BSL
91-20-3	**Naphthalene**	0.85 J	42,000	ug/kg	GSP-TP-5E-10-12	19/158	0.11 - 25	42,000	NA	**3,800 C**	160,000	**Yes**	ASL
104-51-8	N-Butylbenzene	0.66 J	270 J	ug/kg	GSP-TP-5E-10-12	6/158	0.13 - 19	270	NA	390,000 N	NA	No	BSL
103-65-1	N-Propylbenzene	0.39 J	200 J	ug/kg	GSP-TP-5E-10-12	4/158	0.23 - 56	200	NA	380,000 N	NA	No	BSL
95-47-6	o-Xylene	0.29 J	230 J	ug/kg	GSP-TP-5E-10-12	7/158	0.2 - 16	230	NA	65,000 N	1,600,000 [9]	No	BSL
135-98-8	sec-Butylbenzene	0.23 J	150 J	ug/kg	GSP-TP-5E-10-12	6/158	0.1 - 15	150	NA	780,000 N	NA	No	BSL
100-42-5	Styrene	88 J	88 J	ug/kg	GSP-SB-165-10-15	1/158	0.085 - 35	88	NA	600,000 N	1,600,000	No	BSL
994-05-8	Tert-Amyl Methyl Ether	1.1 J	1.1 J	ug/kg	GSP-SB-5-5-7	1/158	0.21 - 39	1.1	NA	NA	NA	No	NTX
98-06-6	Tert-Butylbenzene	1.9 J	1.9 J	ug/kg	GSP-SB-5-5-7	1/158	0.16 - 41	1.9	NA	780,000 N	NA	No	BSL
75-65-0	Tertiary-Butyl Alcohol	10 J	600 J	ug/kg	GSP-SB-165-10-15	2/52	3.9 - 770	600	NA	2,300,000 N[10]	NA	No	BSL
127-18-4	Tetrachloroethene	0.72 J	0.72 J	ug/kg	GSP-MW-12-10-12	1/158	0.29 - 75	0.72	NA	8,100 N	1,200	No	BSL
108-88-3	Toluene	0.23 J	580	ug/kg	GSP-SB-145-06	56/158	0.15 - 110	580	NA	490,000 N	630,000	No	BSL
1330-20-7	Total Xylenes	0.59 J	540 J	ug/kg	GSP-TP-5E-10-12	9/158	0.29 - 52	540	NA	58,000 N	1,600,000	No	BSL
156-60-5	trans-1,2-Dichloroethene	0.41 J	2 J	ug/kg	GSP-SB-180-4-6	4/158	0.22 - 58	2	NA	160,000 N	160,000	No	BSL
79-01-6	Trichloroethene	0.33 J	360	ug/kg	GSP-SB-93-12-14	27/158	0.24 - 61	360	NA	410 N	1,600	No	BSL
75-01-4	Vinyl Chloride	0.36 J	49	ug/kg	GSP-SB-181-12-14	7/158	0.21 - 110	49	NA	59 C	90	No	BSL
Semivolatile organic compounds													
92-52-4	1,1-Biphenyl	12 J	1,100 J	ug/kg	GSP-TP-5E-10-12	8/163	3.9 - 760	1,100	NA	4,700 N	NA	No	BSL
120-83-2	2,4-Dichlorophenol	25 J	25 J	ug/kg	GSP-SB-173-8-10	1/162	21 - 1000	25	NA	19,000 N	23,000	No	BSL
95-57-8	2-Chlorophenol	17 J	17 J	ug/kg	GSP-SB-173-8-10	1/162	9.1 - 760	17	NA	39,000 N	39,000	No	BSL
91-57-6	2-Methylnaphthalene	5.7 J	13,000	ug/kg	GSP-TP-5E-10-12	28/163	0.55 - 47	13,000	NA	24,000 N	31,000	No	BSL
--	3&4-Methylphenol	43 J	340 J	ug/kg	GSP-SS-160-6-8	2/141	21 - 1000	340	NA	320,000 N[11]	39,000 [11]	No	BSL
83-32-9	Acenaphthene	3.8 J	15,000	ug/kg	GSP-SB-159-12-14	31/163	0.84 - 36	15,000	NA	360,000 N	470,000	No	BSL
208-96-8	Acenaphthylene	9	1,900	ug/kg	GSP-SB-109-6-8	21/163	0.39 - 47	1,900	NA	360,000 N[12]	470,000	No	BSL
120-12-7	Anthracene	3.9 J	13,000	ug/kg	GSP-SB-159-12-14	37/163	0.86 - 9.3	13,000	NA	1,800,000 N	2,300,000	No	BSL
--	**Bap Equivalent-Halfnd**	4.889	29,216	ug/kg	GSP-SB-159-12-14	55/163	0.72 - 9.3	29,216	NA	**16 C[13]**	**22 [13]**	**Yes**	ASL

Table 2-5

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Direct Contact with Shallow Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
--	**Bap Equivalent-Pos**	0.52	29,216	ug/kg	GSP-SB-159-12-14	55/163	0.72 - 9.3	29,216	NA	**16 C**[13]	**22** [13]	**Yes**	ASL
56-55-3	**Benzo(a)anthracene**	5.6 J	23,000	ug/kg	GSP-SB-159-12-14	50/163	0.71 - 9.3	23,000	NA	**160 C**	**220**	**Yes**	ASL
50-32-8	**Benzo(a)pyrene**	4.8 J	20,000	ug/kg	GSP-SB-159-12-14	50/163	0.72 - 9.3	20,000	NA	**16 C**	**22**	**Yes**	ASL
205-99-2	**Benzo(b)fluoranthene**	4.1 J	26,000	ug/kg	GSP-SB-159-12-14	53/163	0.67 - 9.3	26,000	NA	**160 C**	**220**	**Yes**	ASL
191-24-2	Benzo(g,h,i)perylene	8.9	12,000	ug/kg	GSP-SB-159-12-14	42/163	0.39 - 9.3	12,000	NA	180,000 N[14]	230,000	No	BSL
207-08-9	**Benzo(k)fluoranthene**	6.9 J	9,400	ug/kg	GSP-SB-159-12-14	41/163	0.75 - 9.3	9,400	NA	**1,600 C**	**2,200**	**Yes**	ASL
117-81-7	Bis(2-ethylhexyl)phthalate	21 J	170	ug/kg	GSP-SB-29-13-15	28/163	20 - 980	170	NA	39,000 C	46,000	No	BSL
85-68-7	Butyl Benzyl Phthalate	20 J	72 J	ug/kg	GSP-MW-19-12-14	2/163	11 - 520	72	NA	290,000 C	NA	No	BSL
105-60-2	Caprolactam	43 J	77 J	ug/kg	GSP-TP-15-W-3-4-B	2/163	40 - 1900	77	NA	3,100,000 N	NA	No	BSL
86-74-8	Carbazole	30 J	7,500	ug/kg	GSP-SB-159-12-14	14/163	29 - 760	7,500	NA	NA	32,000	No	BSL
218-01-9	**Chrysene**	6.3 J	22,000	ug/kg	GSP-SB-159-12-14	50/163	1.2 - 3.1	22,000	NA	**16,000 C**	22,000	**Yes**	ASL
53-70-3	**Dibenz(a,h)anthracene**	10	3,100	ug/kg	GSP-SB-159-12-14	23/163	0.73 - 36	3,100	NA	**16 C**	**22**	**Yes**	ASL
132-64-9	Dibenzofuran	11 J	5,100	ug/kg	GSP-SB-159-12-14	22/163	0.73 - 450	5,100	NA	7,300 N	7,800	No	BSL
84-74-2	di-n-Butyl Phthalate	18 J	34 J	ug/kg	GSP-SB-114-6-8	6/163	16 - 780	34	NA	630,000 N	780,000	No	BSL
206-44-0	Fluoranthene	4.1 J	54,000	ug/kg	GSP-SB-159-12-14	58/163	0.62 - 9.3	54,000	NA	240,000 N	310,000	No	BSL
86-73-7	Fluorene	5 J	9,200	ug/kg	GSP-SB-159-12-14	33/163	0.59 - 36	9,200	NA	240,000 N	310,000	No	BSL
193-39-5	**Indeno(1,2,3-cd)pyrene**	5.5 J	11,000	ug/kg	GSP-SB-159-12-14	41/163	0.39 - 9.3	11,000	NA	**160 C**	**220**	**Yes**	ASL
78-59-1	Isophorone	31 J	53 J	ug/kg	GSP-SB-177-12-14	3/163	14 - 670	53	NA	570,000 C	670,000	No	BSL
91-20-3	**Naphthalene**	4 J	17,000	ug/kg	GSP-TP-5E-10-12	36/163	0.91 - 47	17,000	NA	**3,800 C**	160,000	**Yes**	ASL
87-86-5	Pentachlorophenol	15 J	16 J	ug/kg	GSP-TP-15-W-3-4-B	2/162	10 - 2300	16	NA	1,000 C	5,300	No	BSL
85-01-8	Phenanthrene	5.5 J	48,000	ug/kg	GSP-SB-159-12-14	53/163	0.82 - 9.3	48,000	NA	180,000 N[14]	2,300,000	No	BSL
108-95-2	Phenol	19 J	130 J	ug/kg	GSP-SB-120-6-8	7/162	8.1 - 760	130	NA	1,900,000 N	2,300,000	No	BSL
129-00-0	Pyrene	4.5 J	43,000	ug/kg	GSP-SB-159-12-14	62/163	0.5 - 9.3	43,000	NA	180,000 N	230,000	No	BSL
Polychlorinated biphenyls													
53469-21-9	Aroclor-1242	21 J	130	ug/kg	GSP-SB-121-6-8	3/120	12 - 150	130	NA	230 C	320	No	BSL
11096-82-5	**Aroclor-1260**	12 J	2,700	ug/kg	GSP-SB-119-6-8	14/120	10 - 100	2,700	NA	**240 C**	**320**	**Yes**	ASL
Metals													
7440-36-0	Antimony	0.061 J	1.1 J	mg/kg	GSP-SB-177-4-6	18/178	0.019 - 2.4	1.1	NA	3.1 N	3.1	No	BSL
7440-38-2	**Arsenic**	0.4 J	52	mg/kg	GSP-SB-111-6-8	171/179	0.32 - 0.45	52	3.6	**0.68 C**	**0.43**	**Yes**	ASL
7440-39-3	Barium	1.1 J	250	mg/kg	GSP-SB-110-6-8	168/179	2.7 - 18	250	NA	1,500 N	1,600	No	BSL
7440-41-7	Beryllium	0.045 J	1.6	mg/kg	GSP-SB-26-2-4	49/179	0.021 - 0.39	1.6	NA	16 N	16	No	BSL
7440-43-9	Cadmium	0.021 J	0.85	mg/kg	GSP-TP-4-3-5	33/179	0.0019 - 0.17	0.85	NA	7.1 N	3.9	No	BSL
7440-47-3	**Chromium**	0.48 J	120	mg/kg	GSP-MW-14-10-12	179/179	-	120	28	**0.3 C**[15]	**23**	**Yes**	ASL
7440-48-4	**Cobalt**	0.045 J	19.8	mg/kg	GSP-SB-26-2-4	161/179	0.15 - 0.2	19.8	NA	**2.3 N**	NA	**Yes**	ASL
7440-50-8	Copper	0.73 J	170	mg/kg	GSP-TP-2-10-12	170/179	0.71 - 0.93	170	NA	310 N	310	No	BSL
7439-89-6	**Iron**	183	36,300	mg/kg	GSP-SB-15-6-8	21/21	-	36,300	15,000	**5,500 N**	**5,500**	**Yes**	ASL
7439-92-1	Lead	0.3 J	59	mg/kg	GSP-SB-169-6-8	171/179	0.65 - 1.1	59	NA	400	400	No	BSL
7439-96-5	**Manganese**	0.98	1,300	mg/kg	GSP-SB-15-6-8	21/21	-	1,300	480	**180 N**	**160**	**Yes**	ASL
7439-97-6	Mercury	0.011 J	0.19	mg/kg	GSP-SB-177-4-6	62/179	0.011 - 0.099	0.19	NA	2.3 N[16]	2.3	No	BSL
7439-98-7	Molybdenum	0.15 J	5.1	mg/kg	GSP-SB-164-5-10	32/179	0.051 - 2.4	5.1	NA	39 N	NA	No	BSL
7440-02-0	Nickel	0.16 J	31.3	mg/kg	GSP-SB-26-2-4	127/179	0.11 - 3.5	31.3	NA	150 N	160	No	BSL
7782-49-2	Selenium	0.051 J	2.6	mg/kg	GSP-SB-15-6-8	41/179	0.27 - 2.2	2.6	NA	39 N	39	No	BSL
7440-22-4	Silver	0.052 J	0.18 J	mg/kg	GSP-SB-130-6-8	11/179	0.0017 - 0.31	0.18	NA	39 N	39	No	BSL
7440-28-0	**Thallium**	0.18 J	1.5 J	mg/kg	GSP-SB-110-6-8	13/179	0.014 - 0.69	1.5	3.9	**0.078 N**	**0.55**	**Yes**	ASL
7440-62-2	**Vanadium**	0.51 J	300	mg/kg	GSP-SB-111-6-8	178/179	3.7 - 3.7	300	30	**39 N**	**7.8**	**Yes**	ASL
7440-66-6	Zinc	0.7 J	100	mg/kg	GSP-MW-19-14-16, GSP-SB-158-12-14	155/179	0.88 - 5.2	100	NA	2,300 N	2,300	No	BSL

Table 2-5

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Direct Contact with Shallow Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
Petroleum Hydrocarbons													
--	**Diesel Range Organics**	3.7 J	5,200	mg/kg	GSP-SB-81-2-4	34/75	3.2 - 27	5,200	NA	NA	**230**	**Yes**	ASL
--	Gasoline Range Organics	0.036 J	88	mg/kg	GSP-TP-5E-10-12	12/75	0.027 - 0.053	88	NA	NA	230	No	BSL
--	TPH (C06-C10)	0.051 J	0.94	mg/kg	GSP-SB-181-4-6	15/85	0.049 - 0.19	0.94	NA	NA	NA	No	NTX
--	TPH (C10-C32)	8.1 J	3,800	mg/kg	GSP-SB-159-12-14	19/85	7.2 - 51	3,800	NA	NA	NA	No	NTX

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
6 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
5 - USEPA Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1 Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
6 - Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
7 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
8 - Value is for m-xylene.
9 - Value is for total xylenes.
10 - Value is for isobutyl alcohol.
11 - Value is for 4-methylphenol.
12 - Value is for acenaphthene.
13 - Value is for benzo(a)pyrene. Bap Equivalent-Halfnd was calculated using one-half the detection limit for non-detected values. Bap Equivalent-Pos was calculated using zero for non-detected values.
14 - Value is for pyrene.
15 - Value is for hexavalent chromium.
16 - Value is for mercuric chloride (and other mercury salts).
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Definitions:
C = carcinogen
COPC = chemical of potential concern
J = estimated value
mg/kg = milligrams per kilogram
N = noncarcinogen
NA = not applicable/not available
TPH = total petroleum hydrocarbons
µg/kg = micrograms per kilogram

Rationale Codes:
For selection as a COPC:
ASL = above screening level and site background.

For elimination as a COPC:
BSL = below COPC screening level
NUT = essential nutrient
NTX = no toxicity criteria

Table 2-6

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Migration from Shallow Subsurface Soil to Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Migration from Soil to Groundwater[5]	MDE Cleanup Standard - Groundwater Protection[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
Volatile organic compounds													
75-35-4	1,1-Dichloroethene	0.47 J	6	ug/kg	GSP-MW-14-8-10	8/158	0.29 - 110	6	NA	100 N	2,900	No	BSL
526-73-8	**1,2,3-Trimethylbenzene**	0.15 J	620 J	ug/kg	GSP-TP-5E-10-12	9/158	0.096 - 12	620	NA	**15 N**	NA	**Yes**	ASL
95-63-6	**1,2,4-Trimethylbenzene**	0.44 J	940 J	ug/kg	GSP-TP-5E-10-12	11/158	0.37 - 12	940	NA	**21 N**	NA	**Yes**	ASL
95-50-1	1,2-Dichlorobenzene	1.3 J	1.3 J	ug/kg	GSP-SB-37-12-14	1/158	0.2 - 54	1.3	NA	300 N	4,600	No	BSL
107-06-2	**1,2-Dichloroethane**	0.35 J	36	ug/kg	GSP-SB-181-12-14	6/158	0.19 - 63	36	NA	**0.048 C**	**1**	**Yes**	ASL
78-93-3	2-Butanone	1.3 J	97 J	ug/kg	GSP-TP-5W-10-12	33/158	0.76 - 270	97	NA	1,200 N	29,000	No	BSL
591-78-6	2-Hexanone	1.1 J	1.1 J	ug/kg	GSP-TP-6-4-6	1/158	0.36 - 130	1.1	NA	8.8 N	NA	No	BSL
99-87-6	4-Isopropyltoluene	0.24 J	190 J	ug/kg	GSP-TP-5E-10-12	9/158	0.12 - 23	190	NA	NA	NA	No	NTX
108-10-1	4-Methyl-2-Pentanone	0.82 J	0.82 J	ug/kg	GSP-TP-10-10-12	1/158	0.3 - 300	0.82	NA	1,400 N	59,000	No	BSL
67-64-1	Acetone	6.2 J	370 J	ug/kg	GSP-SB-165-10-15	36/158	3.9 - 1100	370	NA	2,900 N	22,000	No	BSL
71-43-2	**Benzene**	0.26 J	1.5 J	ug/kg	GSP-SB-13-4-6	3/158	0.13 - 75	1.5	NA	**0.23 C**	1.9	**Yes**	ASL
75-15-0	Carbon Disulfide	0.4 J	12 J	ug/kg	GSP-TP-5W-10-12	19/158	0.3 - 75	12	NA	240 N	19,000	No	BSL
56-23-5	**Carbon Tetrachloride**	60 J	60 J	ug/kg	GSP-SB-179-4-6	1/158	0.21 - 40	60	NA	**0.18 C**	**2.1**	**Yes**	ASL
108-90-7	Chlorobenzene	0.49 J	1.6 J	ug/kg	GSP-SB-135-10.5'-12'	2/158	0.19 - 40	1.6	NA	53 N	680	No	BSL
74-87-3	Chloromethane	1.4 J	1.4 J	ug/kg	GSP-MW-9-8-10	1/158	0.23 - 88	1.4	NA	49 N	930	No	BSL
156-59-2	**cis-1,2-Dichloroethene**	0.31 J	69	ug/kg	GSP-SB-181-12-14	15/158	0.2 - 43	69	NA	**11 N**	NA	**Yes**	ASL
100-41-4	**Ethylbenzene**	0.26 J	270 J	ug/kg	GSP-TP-5E-10-12	13/158	0.15 - 32	270	NA	**1.7 C**	15,000	**Yes**	ASL
98-82-8	Isopropylbenzene	0.19 J	58 J	ug/kg	GSP-TP-5W-10-12	3/158	0.09 - 41	58	NA	740 N	64,000	No	BSL
--	**m+p-Xylenes**	0.48 J	310 J	ug/kg	GSP-TP-5E-10-12	9/158	0.29 - 56	310	NA	**190 N**[8]	3,000 [9]	**Yes**	ASL
1634-04-4	**Methyl Tert-Butyl Ether**	0.45 J	6.4 J	ug/kg	GSP-SB-5-5-7	2/158	0.24 - 45	6.4	NA	**3.2 C**	12	**Yes**	ASL
75-09-2	**Methylene Chloride**	1.3 J	160 J	ug/kg	GSP-SB-177-8-10, GSP-SB-180-12-14	8/158	0.46 - 820	160	NA	**2.9 C**	**19**	**Yes**	ASL
91-20-3	**Naphthalene**	0.85 J	42,000	ug/kg	GSP-TP-5E-10-12	19/158	0.11 - 25	42,000	NA	**0.54 C**	**150**	**Yes**	ASL
104-51-8	N-Butylbenzene	0.66 J	270 J	ug/kg	GSP-TP-5E-10-12	6/158	0.13 - 19	270	NA	3,200 N	NA	No	BSL
103-65-1	N-Propylbenzene	0.39 J	200 J	ug/kg	GSP-TP-5E-10-12	4/158	0.23 - 56	200	NA	1,200 N	NA	No	BSL
95-47-6	**o-Xylene**	0.29 J	230 J	ug/kg	GSP-TP-5E-10-12	7/158	0.2 - 16	230	NA	**190 N**	3,000 [9]	**Yes**	ASL
135-98-8	sec-Butylbenzene	0.23 J	150 J	ug/kg	GSP-TP-5E-10-12	6/158	0.1 - 15	150	NA	5,900 N	NA	No	BSL
100-42-5	Styrene	88 J	88 J	ug/kg	GSP-SB-165-10-15	1/158	0.085 - 35	88	NA	1,300 N	57,000	No	BSL
994-05-8	Tert-Amyl Methyl Ether	1.1 J	1.1 J	ug/kg	GSP-SB-5-5-7	1/158	0.21 - 39	1.1	NA	NA	NA	No	NTX
98-06-6	Tert-Butylbenzene	1.9 J	1.9 J	ug/kg	GSP-SB-5-5-7	1/158	0.16 - 41	1.9	NA	1,600 N	NA	No	BSL
75-65-0	Tertiary-Butyl Alcohol	10 J	600 J	ug/kg	GSP-SB-165-10-15	2/52	3.9 - 770	600	NA	1,200 N[10]	NA	No	BSL
127-18-4	Tetrachloroethene	0.72 J	0.72 J	ug/kg	GSP-MW-12-10-12	1/158	0.29 - 75	0.72	NA	5.1 C	4.7	No	BSL
108-88-3	Toluene	0.23 J	580	ug/kg	GSP-SB-145-06	56/158	0.15 - 110	580	NA	760 N	27,000	No	BSL
1330-20-7	**Total Xylenes**	0.59 J	540 J	ug/kg	GSP-TP-5E-10-12	9/158	0.29 - 52	540	NA	**190 N**	3,000	**Yes**	ASL
156-60-5	trans-1,2-Dichloroethene	0.41 J	2 J	ug/kg	GSP-SB-180-4-6	4/158	0.22 - 58	2	NA	110 N	720	No	BSL
79-01-6	**Trichloroethene**	0.33 J	360	ug/kg	GSP-SB-93-12-14	27/158	0.24 - 61	360	NA	**0.18 C**	**0.26**	**Yes**	ASL
75-01-4	**Vinyl Chloride**	0.36 J	49	ug/kg	GSP-SB-181-12-14	7/158	0.21 - 110	49	NA	**0.0065 C**	**0.12**	**Yes**	ASL

Table 2-6

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Migration from Shallow Subsurface Soil to Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Migration from Soil to Groundwater[5]	MDE Cleanup Standard - Groundwater Protection[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
Semivolatile organic compounds													
92-52-4	**1,1-Biphenyl**	12 J	1,100 J	ug/kg	GSP-TP-5E-10-12	8/163	3.9 - 760	1,100	NA	**8.7 N**	NA	**Yes**	ASL
120-83-2	**2,4-Dichlorophenol**	25 J	25 J	ug/kg	GSP-SB-173-8-10	1/162	21 - 1000	25	NA	**23 N**	1,200	**Yes**	ASL
95-57-8	2-Chlorophenol	17 J	17 J	ug/kg	GSP-SB-173-8-10	1/162	9.1 - 760	17	NA	89 N	NA	No	BSL
91-57-6	**2-Methylnaphthalene**	5.7 J	13,000	ug/kg	GSP-TP-5E-10-12	28/163	0.55 - 47	13,000	NA	**190 N**	**4,400**	**Yes**	ASL
--	3&4-Methylphenol	43 J	340 J	ug/kg	GSP-SS-160-6-8	2/141	21 - 1000	340	NA	740 N[11]	NA	No	BSL
83-32-9	**Acenaphthene**	3.8 J	15,000	ug/kg	GSP-SB-159-12-14	31/163	0.84 - 36	15,000	NA	**5,500 N**	100,000	**Yes**	ASL
208-96-8	Acenaphthylene	9	1,900	ug/kg	GSP-SB-109-6-8	21/163	0.39 - 47	1,900	NA	5,500 N[12]	100,000	No	BSL
120-12-7	Anthracene	3.9 J	13,000	ug/kg	GSP-SB-159-12-14	37/163	0.86 - 9.3	13,000	NA	58,000 N	470,000	No	BSL
56-55-3	**Benzo(a)anthracene**	5.6 J	23,000	ug/kg	GSP-SB-159-12-14	50/163	0.71 - 9.3	23,000	NA	**4.2 C**	**480**	**Yes**	ASL
50-32-8	**Benzo(a)pyrene**	4.8 J	20,000	ug/kg	GSP-SB-159-12-14	50/163	0.72 - 9.3	20,000	NA	**4 C**	**120**	**Yes**	ASL
205-99-2	**Benzo(b)fluoranthene**	4.1 J	26,000	ug/kg	GSP-SB-159-12-14	53/163	0.67 - 9.3	26,000	NA	**41 C**	**1,500**	**Yes**	ASL
191-24-2	Benzo(g,h,i)perylene	8.9	12,000	ug/kg	GSP-SB-159-12-14	42/163	0.39 - 9.3	12,000	NA	13,000 N[14]	680,000	No	BSL
207-08-9	**Benzo(k)fluoranthene**	6.9 J	9,400	ug/kg	GSP-SB-159-12-14	41/163	0.75 - 9.3	9,400	NA	**400 C**	15,000	**Yes**	ASL
117-81-7	Bis(2-ethylhexyl)phthalate	21 J	170	ug/kg	GSP-SB-29-13-15	28/163	20 - 980	170	NA	1,300 C	2,900,000	No	BSL
85-68-7	Butyl Benzyl Phthalate	20 J	72 J	ug/kg	GSP-MW-19-12-14	2/163	11 - 520	72	NA	240 C	NA	No	BSL
105-60-2	Caprolactam	43 J	77 J	ug/kg	GSP-TP-15-W-3-4-B	2/163	40 - 1900	77	NA	2,500 N	NA	No	BSL
86-74-8	**Carbazole**	30 J	7,500	ug/kg	GSP-SB-159-12-14	14/163	29 - 760	7,500	NA	NA	**470**	**Yes**	ASL
218-01-9	**Chrysene**	6.3 J	22,000	ug/kg	GSP-SB-159-12-14	50/163	1.2 - 3.1	22,000	NA	**1,200 C**	48,000	**Yes**	ASL
53-70-3	**Dibenz(a,h)anthracene**	10	3,100	ug/kg	GSP-SB-159-12-14	23/163	0.73 - 36	3,100	NA	**13 C**	**460**	**Yes**	ASL
132-64-9	**Dibenzofuran**	11 J	5,100	ug/kg	GSP-SB-159-12-14	22/163	0.73 - 450	5,100	NA	**150 N**	NA	**Yes**	ASL
84-74-2	di-n-Butyl Phthalate	18 J	34 J	ug/kg	GSP-SB-114-6-8	6/163	16 - 780	34	NA	2,300 N	5,000,000	No	BSL
206-44-0	Fluoranthene	4.1 J	54,000	ug/kg	GSP-SB-159-12-14	58/163	0.62 - 9.3	54,000	NA	89,000 N	6,300,000	No	BSL
86-73-7	**Fluorene**	5 J	9,200	ug/kg	GSP-SB-159-12-14	33/163	0.59 - 36	9,200	NA	**5,400 N**	140,000	**Yes**	ASL
193-39-5	**Indeno(1,2,3-cd)pyrene**	5.5 J	11,000	ug/kg	GSP-SB-159-12-14	41/163	0.39 - 9.3	11,000	NA	**130 C**	**4,200**	**Yes**	ASL
78-59-1	**Isophorone**	31 J	53 J	ug/kg	GSP-SB-177-12-14	3/163	14 - 670	53	NA	**26 C**	410	**Yes**	ASL
91-20-3	**Naphthalene**	4 J	17,000	ug/kg	GSP-TP-5E-10-12	36/163	0.91 - 47	17,000	NA	**0.54 C**	**150**	**Yes**	ASL
87-86-5	**Pentachlorophenol**	15 J	16 J	ug/kg	GSP-TP-15-W-3-4-B	2/162	10 - 2300	16	NA	**0.057 C**	NA	**Yes**	ASL
85-01-8	**Phenanthrene**	5.5 J	48,000	ug/kg	GSP-SB-159-12-14	53/163	0.82 - 9.3	48,000	NA	**13,000 N**[14]	470,000	**Yes**	ASL
108-95-2	Phenol	19 J	130 J	ug/kg	GSP-SB-120-6-8	7/162	8.1 - 760	130	NA	3,300 N	67,000	No	BSL
129-00-0	**Pyrene**	4.5 J	43,000	ug/kg	GSP-SB-159-12-14	62/163	0.5 - 9.3	43,000	NA	**13,000 N**	680,000	**Yes**	ASL
Polychlorinated biphenyls													
53469-21-9	**Aroclor-1242**	21 J	130	ug/kg	GSP-SB-121-6-8	3/120	12 - 150	130	NA	**1.2 C**	NA	**Yes**	ASL
11096-82-5	**Aroclor-1260**	12 J	2,700	ug/kg	GSP-SB-119-6-8	14/120	10 - 100	2,700	NA	**5.5 C**	NA	**Yes**	ASL
Metals													
7440-36-0	**Antimony**	0.061 J	1.1 J	mg/kg	GSP-SB-177-4-6	18/178	0.019 - 2.4	1.1	NA	**0.35 N**	13	**Yes**	ASL
7440-38-2	**Arsenic**	0.4 J	52	mg/kg	GSP-SB-111-6-8	171/179	0.32 - 0.45	52	3.6	**0.0015 C**	**0.026**	**Yes**	ASL
7440-39-3	**Barium**	1.1 J	250	mg/kg	GSP-SB-110-6-8	168/179	2.7 - 18	250	NA	**160 N**	6,000	**Yes**	ASL
7440-41-7	Beryllium	0.045 J	1.6	mg/kg	GSP-SB-26-2-4	49/179	0.021 - 0.39	1.6	NA	19 N	1,200	No	BSL
7440-43-9	**Cadmium**	0.021 J	0.85	mg/kg	GSP-TP-4-3-5	33/179	0.0019 - 0.17	0.85	NA	**0.69 N**	27	**Yes**	ASL
7440-47-3	**Chromium**	0.48 J	120	mg/kg	GSP-MW-14-10-12	179/179	-	120	28	**0.00067 C**[15]	**42**	**Yes**	ASL
7440-48-4	**Cobalt**	0.045 J	19.8	mg/kg	GSP-SB-26-2-4	161/179	0.15 - 0.2	19.8	NA	**0.27 N**	NA	**Yes**	ASL

Table 2-6

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Migration from Shallow Subsurface Soil to Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Migration from Soil to Groundwater[5]	MDE Cleanup Standard - Groundwater Protection[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
7440-50-8	**Copper**	0.73 J	170	mg/kg	GSP-TP-2-10-12	170/179	0.71 - 0.93	170	NA	**28 N**	11,000	**Yes**	ASL
7439-89-6	**Iron**	183	36,300	mg/kg	GSP-SB-15-6-8	21/21	-	36,300	15,000	**350 N**	NA	**Yes**	ASL
7439-92-1	**Lead**	0.3 J	59	mg/kg	GSP-SB-169-6-8	171/179	0.65 - 1.1	59	NA	**14 [16]**	NA	**Yes**	ASL
7439-96-5	**Manganese**	0.98	1,300	mg/kg	GSP-SB-15-6-8	21/21	-	1,300	480	**28 N**	**950**	**Yes**	ASL
7439-97-6	**Mercury**	0.011 J	0.19	mg/kg	GSP-SB-177-4-6	62/179	0.011 - 0.099	0.19	NA	**0.033 N[17]**	NA	**Yes**	ASL
7439-98-7	**Molybdenum**	0.15 J	5.1	mg/kg	GSP-SB-164-5-10	32/179	0.051 - 2.4	5.1	NA	**2 N**	NA	**Yes**	ASL
7440-02-0	**Nickel**	0.16 J	31.3	mg/kg	GSP-SB-26-2-4	127/179	0.11 - 3.5	31.3	NA	**26 N**	NA	**Yes**	ASL
7782-49-2	**Selenium**	0.051 J	2.6	mg/kg	GSP-SB-15-6-8	41/179	0.27 - 2.2	2.6	NA	**0.52 N**	19	**Yes**	ASL
7440-22-4	Silver	0.052 J	0.18 J	mg/kg	GSP-SB-130-6-8	11/179	0.0017 - 0.31	0.18	NA	0.8 N	31	No	BSL
7440-28-0	**Thallium**	0.18 J	1.5 J	mg/kg	GSP-SB-110-6-8	13/179	0.014 - 0.69	1.5	3.9	**0.014 N**	3.6	**Yes**	ASL
7440-62-2	**Vanadium**	0.51 J	300	mg/kg	GSP-SB-111-6-8	178/179	3.7 - 3.7	300	30	**86 N**	730	**Yes**	ASL
7440-66-6	Zinc	0.7 J	100	mg/kg	GSP-MW-19-14-16, GSP-SB-158-12-14	155/179	0.88 - 5.2	100	NA	370 N	14,000	No	BSL
Petroleum hydrocarbons													
--	Diesel Range Organics	3.7 J	5,200	mg/kg	GSP-SB-81-2-4	34/75	3.2 - 27	5,200	NA	NA	NA	No	NTX
--	Gasoline Range Organics	0.036 J	88	mg/kg	GSP-TP-5E-10-12	12/75	0.027 - 0.053	88	NA	NA	NA	No	NTX
--	TPH (C06-C10)	0.051 J	0.94	mg/kg	GSP-SB-181-4-6	15/85	0.049 - 0.19	0.94	NA	NA	NA	No	NTX
--	TPH (C10-C32)	8.1 J	3,800	mg/kg	GSP-SB-159-12-14	19/85	7.2 - 51	3,800	NA	NA	NA	No	NTX

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
6 - Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2016. Carcinogenic values represent an incremental cancer risk of $1x10^{-6}$.

4 - Noncarcinogens correspond to a target hazard quotient of 1.
6 - Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
7 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
8 - Value is for m-xylene.
9 - Value is for total xylenes.
10 - Value is for isobutyl alcohol.
11 - Value is for 4-methylphenol.
12 - Value is for acenaphthene.
13 - Value is for benzo(a)pyrene. Bap Equivalent-Halfnd was calculated using one-half the detection limit for non-detected values. Bap Equivalent-Pos was calculated

14 - Value is for pyrene.
using zero for non-detected values.
15 - Value is for hexavalent chromium.
16 - Value is MCL based soil screening level.
17 - No SSL is available for mercuric chloride. Value is for elemental mercury.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Definitions:
C = carcinogen
COPC = chemical of potential concern
J = estimated value
mg/kg = milligrams per kilogram
N = noncarcinogen
NA = not applicable/not available
TPH = total petroleum hydrocarbons
µg/kg = micrograms per kilogram

Rationale Codes:
For selection as a COPC:
ASL = above screening level and site background.

For elimination as a COPC:
BSL = below COPC screening level
NUT = essential nutrient
NTX = no toxicity criteria

Table 2-7

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Direct Contact with Deep Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
Volatile organic compounds													
75-35-4	1,1-Dichloroethene	0.55 J	0.88 J	ug/kg	GSP-SB-40-18-20-D	2/158	0.3 - 22	0.88	NA	23,000 N	390,000	No	BSL
87-61-6	1,2,3-Trichlorobenzene	0.36 J	0.36 J	ug/kg	GSP-SB-119-20-22	1/158	0.22 - 12	0.36	NA	6,300 N	NA	No	BSL
526-73-8	1,2,3-Trimethylbenzene	0.1 J	0.78 J	ug/kg	GSP-SB-119-20-22	5/158	0.11 - 0.46	0.78	NA	4,900 N	NA	No	BSL
120-82-1	1,2,4-Trichlorobenzene	8 J	17 J	ug/kg	GSP-SB-134-25'-27'	3/158	0.16 - 8.4	17	NA	5,800 N	78,000	No	BSL
95-63-6	1,2,4-Trimethylbenzene	1.2 J	1.2 J	ug/kg	GSP-SB-119-20-22	1/158	0.37 - 13	1.2	NA	5,800 N	NA	No	BSL
107-06-2	1,2-Dichloroethane	0.65 J	5.4	ug/kg	GSP-MW-18-22-24	7/158	0.2 - 12	5.4	NA	460 C	7,000	No	BSL
541-73-1	1,3-Dichlorobenzene	6.3 J	10	ug/kg	GSP-SB-119-20-22	3/158	0.2 - 5.5	10	NA	2,600 C[8]	23,000	No	BSL
106-46-7	1,4-Dichlorobenzene	0.61 J	0.61 J	ug/kg	GSP-SB-119-20-22	1/158	0.24 - 9.8	0.61	NA	2,600 C	27,000	No	BSL
78-93-3	2-Butanone	1.5 J	84 J	ug/kg	GSP-SB-56-20-22	10/158	0.81 - 53	84	NA	2,700,000 N	4,700,000	No	BSL
99-87-6	4-Isopropyltoluene	0.36 J	1.3 J	ug/kg	GSP-SB-121-18-20	2/158	0.14 - 5.9	1.3	NA	NA	NA	No	NTX
67-64-1	Acetone	6.2 J	660 J	ug/kg	GSP-SB-87-22-25	49/158	4.2 - 210	660	NA	6,100,000 N	7,000,000	No	BSL
71-43-2	Benzene	0.2 J	2.4 J	ug/kg	GSP-SB-52-22-24	12/158	0.15 - 15	2.4	NA	1,200 C	12,000	No	BSL
75-15-0	Carbon Disulfide	0.44 J	6.7 J	ug/kg	GSP-SB-33-20-22	9/158	0.25 - 15	6.7	NA	77,000 N	780,000	No	BSL
56-23-5	Carbon Tetrachloride	3.3 J	3.3 J	ug/kg	GSP-SB-164-45-50	1/158	0.21 - 7.9	3.3	NA	650 C	4,900	No	BSL
108-90-7	Chlorobenzene	0.26 J	0.64 J	ug/kg	GSP-SB-139-20-23	2/158	0.19 - 7.9	0.64	NA	28,000 N	160,000	No	BSL
67-66-3	Chloroform	0.27 J	0.89 J	ug/kg	GSP-MW-18-22-24	2/158	0.17 - 11	0.89	NA	320 C	78,000	No	BSL
74-87-3	Chloromethane	1.5 J	1.5 J	ug/kg	GSP-SB-21I-30-32	1/158	0.24 - 17	1.5	NA	11,000 N	NA	No	BSL
156-59-2	cis-1,2-Dichloroethene	0.31 J	25	ug/kg	GSP-MW-18-22-24	19/158	0.21 - 8.5	25	NA	16,000 N	78,000	No	BSL
100-41-4	Ethylbenzene	0.24 J	0.53 J	ug/kg	GSP-SB-121-18-20	3/158	0.17 - 6.6	0.53	NA	5,800 C	780,000	No	BSL
--	m+p-Xylenes	6.5 J	59 J	ug/kg	GSP-SB-165-35-40	3/158	0.35 - 57	59	NA	55,000 N[9]	1,600,000 [10]	No	BSL
1634-04-4	Methyl Tert-Butyl Ether	7.4 J	7.4 J	ug/kg	GSP-SB-2-23-25	1/158	0.25 - 8.7	7.4	NA	47,000 C	160,000	No	BSL
75-09-2	Methylene Chloride	0.72 J	3.1 J	ug/kg	GSP-SB-96-22-24	3/158	0.45 - 570	3.1	NA	35,000 N	85,000	No	BSL
91-20-3	Naphthalene	0.58 J	38	ug/kg	GSP-SB-120-18-20	7/158	0.13 - 28	38	NA	3,800 C	160,000	No	BSL
95-47-6	o-Xylene	0.36 J	0.65 J	ug/kg	GSP-SB-120-18-20	3/158	0.23 - 10	0.65	NA	65,000 N	1,600,000 [10]	No	BSL
100-42-5	Styrene	0.17 J	0.19 J	ug/kg	GSP-SB-163-25-30	2/158	0.086 - 6.9	0.19	NA	600,000 N	1,600,000	No	BSL
75-65-0	Tertiary-Butyl Alcohol	13 J	14 J	ug/kg	GSP-SB-62-20-22	2/28	4.8 - 280	14	NA	2,300,000 N[11]	NA	No	BSL
127-18-4	Tetrachloroethene	0.53 J	0.53 J	ug/kg	GSP-MW-16-16-18	1/158	0.3 - 15	0.53	NA	8,100 N	1,200	No	BSL
108-88-3	Toluene	0.25 J	23 J	ug/kg	GSP-SB-165-35-40	30/158	0.18 - 21	23	NA	490,000 N	630,000	No	BSL
1330-20-7	Total Xylenes	0.65 J	59 J	ug/kg	GSP-SB-165-35-40	2/158	0.28 - 10	59	NA	58,000 N	1,600,000	No	BSL
156-60-5	trans-1,2-Dichloroethene	0.79 J	0.79 J	ug/kg	GSP-MW-18-22-24	1/158	0.24 - 11	0.79	NA	160,000 N	160,000	No	BSL
79-01-6	**Trichloroethene**	0.49 J	3900	ug/kg	GSP-SB-134-25'-27'	44/158	0.24 - 9.9	3,900	NA	**410 N**	**1,600**	**Yes**	ASL
75-01-4	Vinyl Chloride	0.45 J	4 J	ug/kg	GSP-MW-18-22-24	10/158	0.22 - 22	4	NA	59 C	90	No	BSL
Semivolatile organic compounds													
91-57-6	2-Methylnaphthalene	9.9	460	ug/kg	GSP-SB-120-18-20	7/140	0.58 - 4.4	460	NA	24,000 N	31,000	No	BSL
83-32-9	Acenaphthene	5.7 J	2,000	ug/kg	GSP-SB-120-18-20	7/140	0.89 - 4.4	2,000	NA	360,000 N	470,000	No	BSL
208-96-8	Acenaphthylene	16	430	ug/kg	GSP-SB-120-18-20	3/140	0.41 - 4.4	430	NA	360,000 N[12]	470,000	No	BSL
120-12-7	Anthracene	5.3 J	7,400	ug/kg	GSP-SB-120-18-20	7/140	0.91 - 4.4	7,400	NA	1,800,000 N	2,300,000	No	BSL
--	**Bap Equivalent-Halfnd**	6.201	12,725	ug/kg	GSP-SB-120-18-20	17/140	0.75 - 4.4	12,725	NA	**16 C[13]**	**22 [13]**	**Yes**	ASL
--	**Bap Equivalent-Pos**	1.98	12,725	ug/kg	GSP-SB-120-18-20	17/140	0.75 - 4.4	12,725	NA	**16 C[13]**	**22 [13]**	**Yes**	ASL
100-52-7	Benzaldehyde	200	200	ug/kg	GSP-SB-21I-30-32	1/140	13 - 300	200	NA	170,000 C	NA	No	BSL
56-55-3	**Benzo(a)anthracene**	7.5 J	11,000	ug/kg	GSP-SB-120-18-20	11/140	0.73 - 4.4	11,000	NA	**160 C**	**220**	**Yes**	ASL
50-32-8	**Benzo(a)pyrene**	6 J	8,700	ug/kg	GSP-SB-120-18-20	12/140	0.75 - 4.4	8,700	NA	**16 C**	**22**	**Yes**	ASL
205-99-2	**Benzo(b)fluoranthene**	7.5 J	9,200	ug/kg	GSP-SB-120-18-20	17/140	0.69 - 4.4	9,200	NA	**160 C**	**220**	**Yes**	ASL

Table 2-7

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Direct Contact with Deep Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
191-24-2	Benzo(g,h,i)perylene	4.4 J	4,500	ug/kg	GSP-SB-120-18-20	12/140	0.41 - 4.4	4,500	NA	180,000 N[14]	230,000	No	BSL
207-08-9	**Benzo(k)fluoranthene**	5.6 J	6,400	ug/kg	GSP-SB-120-18-20	9/140	0.79 - 4.4	6,400	NA	**1,600 C**	**2,200**	**Yes**	ASL
117-81-7	Bis(2-ethylhexyl)phthalate	23 J	5,500	ug/kg	GSP-SB-61-20-22	17/140	21 - 470	5,500	NA	39,000 C	46,000	No	BSL
85-68-7	Butyl Benzyl Phthalate	16 J	20 J	ug/kg	GSP-SB-33-20-22	3/140	11 - 250	20	NA	290,000 C	NA	No	BSL
105-60-2	Caprolactam	77 J	77 J	ug/kg	GSP-SB-132-30'-32'	1/140	40 - 910	77	NA	3,100,000 N	NA	No	BSL
86-74-8	Carbazole	130	920 J	ug/kg	GSP-SB-120-18-20	2/140	29 - 36	920	NA	NA	32,000	No	BSL
218-01-9	Chrysene	6.8 J	11,000	ug/kg	GSP-SB-120-18-20	11/140	1.2 - 1.5	11,000	NA	16,000 C	22,000	No	BSL
53-70-3	**Dibenz(a,h)anthracene**	74	1,500	ug/kg	GSP-SB-120-18-20	2/140	0.77 - 4.4	1,500	NA	**16 C**	**22**	**Yes**	ASL
132-64-9	Dibenzofuran	6.2 J	1,800	ug/kg	GSP-SB-120-18-20	3/140	0.77 - 27	1,800	NA	7,300 N	7,800	No	BSL
84-74-2	di-n-Butyl Phthalate	18 J	27 J	ug/kg	GSP-SB-129-20-22	12/140	16 - 370	27	NA	630,000 N	780,000	No	BSL
206-44-0	Fluoranthene	7.2 J	28,000	ug/kg	GSP-SB-120-18-20	17/140	0.64 - 4.4	28,000	NA	240,000 N	310,000	No	BSL
86-73-7	Fluorene	5.8 J	3,900	ug/kg	GSP-SB-120-18-20	6/140	0.62 - 4.4	3,900	NA	240,000 N	310,000	No	BSL
193-39-5	**Indeno(1,2,3-cd)pyrene**	4.1 J	4,300	ug/kg	GSP-SB-120-18-20	12/140	0.41 - 4.4	4,300	NA	**160 C**	**220**	**Yes**	ASL
91-20-3	Naphthalene	4.4 J	730	ug/kg	GSP-SB-120-18-20	10/140	0.96 - 4.4	730	NA	3,800 C	160,000	No	BSL
85-01-8	Phenanthrene	8.7	26,000	ug/kg	GSP-SB-120-18-20	14/140	0.85 - 4.4	26,000	NA	180,000 N[14]	2,300,000	No	BSL
129-00-0	Pyrene	5.9 J	20,000	ug/kg	GSP-SB-120-18-20	19/140	0.51 - 4.4	20,000	NA	180,000 N	230,000	No	BSL
Metals													
7440-36-0	Antimony	0.024 J	1.2 J	mg/kg	GSP-SB-1-20-22	43/127	0.0081 - 2.2	1.2	NA	3.1 N	3.1	No	BSL
7440-38-2	**Arsenic**	0.37 J	382	mg/kg	GSP-SB-11-22-25	123/127	0.35 - 1.7	382	3.6	**0.68 C**	**0.43**	**Yes**	ASL
7440-39-3	Barium	1.3 K	298 J	mg/kg	GSP-SB-38-20-22	127/127	-	298	NA	1,500 N	1,600	No	BSL
7440-41-7	Beryllium	0.03 J	10	mg/kg	GSP-SB-14-22-25	88/127	0.013 - 0.37	10	NA	16 N	16	No	BSL
7440-43-9	Cadmium	0.018 J	1.7 J	mg/kg	GSP-SB-40-18-20	29/127	0.0029 - 0.3	1.7	NA	7.1 N	3.9	No	BSL
7440-47-3	**Chromium**	2.1	103 J	mg/kg	GSP-SB-1-20-22	126/126	-	103	28	**0.3 C**[15]	**23**	**Yes**	ASL
7440-48-4	**Cobalt**	0.084 J	182 J	mg/kg	GSP-SB-16-20-22	116/127	0.13 - 0.19	182	NA	**2.3 N**	NA	**Yes**	ASL
7440-50-8	**Copper**	0.88 J	481	mg/kg	GSP-SB-78-20-22	121/127	0.56 - 1.5	481	NA	**310 N**	**310**	**Yes**	ASL
7439-89-6	**Iron**	171 J	104,000	mg/kg	GSP-SB-38-20-22	86/86	-	104,000	15,000	**5,500 N**	**5,500**	**Yes**	ASL
7439-92-1	Lead	0.38	39	mg/kg	GSP-SB-1-20-22	127/127	-	39	NA	400	400	No	BSL
7439-96-5	**Manganese**	0.75	4,270	mg/kg	GSP-SB-12-20-22	86/86	-	4,270	480	**180 N**	**160**	**Yes**	ASL
7439-97-6	Mercury	0.021 J	0.21	mg/kg	GSP-SB-3-22-24	31/127	0.015 - 0.042	0.21	NA	2.3 N[16]	2.3	No	BSL
7439-98-7	Molybdenum	0.032 J	1.5	mg/kg	GSP-SB-40-18-20	54/127	0.017 - 1.5	1.5	NA	39 N	NA	No	BSL
7440-02-0	**Nickel**	0.25 K	276	mg/kg	GSP-SB-11-22-25	108/127	0.15 - 0.64	276	NA	**150 N**	**160**	**Yes**	ASL
7782-49-2	Selenium	0.065 J	20	mg/kg	GSP-SB-18-22-24	87/127	0.11 - 2.6	20	NA	39 N	39	No	BSL
7440-22-4	Silver	0.026 J	0.15 J	mg/kg	GSP-SB-11-22-25	14/127	0.0017 - 0.56	0.15	NA	39 N	39	No	BSL
7440-28-0	**Thallium**	0.15	0.54	mg/kg	GSP-SB-40-18-20-D	9/127	0.015 - 0.68	0.54	3.9	**0.078 N**	0.55	**Yes**	ASL
7440-62-2	**Vanadium**	3.1 K	133 J	mg/kg	GSP-SB-1-20-22	127/127	-	133	30	**39 N**	**7.8**	**Yes**	ASL
7440-66-6	Zinc	1.1 J	579 J	mg/kg	GSP-SB-40-18-20	92/127	0.91 - 4.9	579	NA	2,300 N	2,300	No	BSL

Table 2-7

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Direct Contact with Deep Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	Minimum Concentration[(1)]	Maximum Concentration[(1)]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[(2)]	Concentration Used for Screening[(3)]	Range of Background Concentrations[(4)]	USEPA RSL Residential Soil[(5)]	MDE Cleanup Standard - Residential Soil[(6)]	COPC Flag	Rationale for Contaminant Deletion or Selection[(7)]
Petroleum hydrocarbons													
--	**Diesel Range Organics**	3.3 J	320 J	mg/kg	GSP-SB-119-20-22	58/105	3.1 - 16	320	NA	NA	**230**	**Yes**	ASL
--	Gasoline Range Organics	0.034 J	0.61	mg/kg	GSP-SB-24-20-22	10/105	0.03 - 0.038	0.61	NA	NA	230	No	BSL
--	TPH (C06-C10)	0.06 J	0.24	mg/kg	GSP-SB-134-25'-27'	5/41	0.05 - 0.061	0.24	NA	NA	NA	No	NTX
--	TPH (C10-C32)	19 J	71	mg/kg	GSP-SB-143-26	3/41	7.5 - 19	71	NA	NA	NA	No	NTX

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, June 2008. Appendix 2 - Attachment 2.
5 - USEPA Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values (denoted with a "N" flag) corresponds to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
6 - Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
7 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
8 - Value is for 1,4-dichlorobenzene
9 - Value is for m-xylene.
10 - Value is for total xylenes.
11 - Value is for isobutyl alcohol.
12 - Value is for acenaphthene.
13 - Value is for benzo(a)pyrene. Bap Equivalent-Halfnd was calculated using one-half the detection limit for non-detected values. Bap Equivalent-Pos was calculated using zero for non-detected values.
14 - Value is for pyrene.
15 - Value is for hexavalent chromium.
16 - Value is for mercuric chloride (and other mercury salts).
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Definitions:
C = carcinogen
COPC = chemical of potential concern
J = estimated value
mg/kg = milligrams per kilogram
N = noncarcinogen
NA = not applicable/not available
TPH = total petroleum hydrocarbons
µg/kg = micrograms per kilogram

Rationale Codes:
For selection as a COPC:
ASL = above screening level and site background.

For elimination as a COPC:
BSL = below COPC screening level
NUT = essential nutrient
NTX = no toxicity criteria

Table 2-8

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Direct Contact with Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Tapwater[5]	USEPA MCL[6]	MDE Cleanup Standard - Groundwater[7]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
Volatile organic compounds														
75-34-3	1,1-Dichloroethane	1.5	1.5 J	µg/L	GSP-DPT-64-10-15-020816, GSP-DPT-64-15-20-020816	4/124	0.15 - 15	1.5	NA	2.8 C	NA	90	No	BSL
75-35-4	1,1-Dichloroethene	0.45 J	1.3 J	µg/L	GSP-DPT-53-10-15, GSP-SB/WP-89-20100528	6/124	0.19 - 19	1.3	NA	28 N	7	7	No	BSL
95-63-6	1,2,4-Trimethylbenzene	0.26 J	0.87 J	µg/L	GSP-SB-80-W	5/124	0.12 - 12	0.87	NA	1.5 N	NA	NA	No	BSL
96-12-8	**1,2-Dibromo-3-Chloropropane**	2.9 J	2.9 J	µg/L	GSP-SB-80-W	3/124	0.67 - 67	2.9	NA	**0.00033 C**	**0.2**	NA	**Yes**	ASL
95-50-1	1,2-Dichlorobenzene	1.2	1.2	µg/L	GSP-SB-30-W	3/124	0.13 - 13	1.2	NA	30 N	600	600	No	BSL
107-06-2	**1,2-Dichloroethane**	0.28 J	110	µg/L	GSP-DPT-62-10-15-020916	20/124	0.22 - 22	110	NA	**0.17 C**	**5**	**5**	**Yes**	ASL
78-87-5	1,2-Dichloropropane	0.23 J	0.23 J	µg/L	GSP-SB-30-W	2/124	0.18 - 18	0.23	NA	0.44 C	5	5	No	BSL
541-73-1	1,3-Dichlorobenzene	0.16 J	0.16 J	µg/L	GSP-DPT-46-15	2/124	0.14 - 14	0.16	NA	0.48 C[9]	NA	1.8	No	BSL
106-46-7	**1,4-Dichlorobenzene**	0.83 J	0.83 J	µg/L	GSP-DPT-46-15	2/124	0.13 - 13	0.83	NA	**0.48 C**	75	75	**Yes**	ASL
78-93-3	2-Butanone	0.68 J	57	µg/L	GSP-DPT-54-15-20	30/124	0.53 - 57	57	NA	560 N	NA	700	No	BSL
591-78-6	2-Hexanone	0.58 J	2.5 J	µg/L	GSP-DPT-54-15-20	4/124	0.41 - 41	2.5	NA	3.8 N	NA	NA	No	BSL
108-10-1	4-Methyl-2-Pentanone	1.6 J	1.6 J	µg/L	GSP-SB/WP-33-20100527	1/124	0.32 - 32	1.6	NA	630 N	NA	630	No	BSL
67-64-1	Acetone	1.4 J	160 J	µg/L	GSP-SB/WP-33-20100527	43/124	0.94 - 110	160	NA	1400 N	NA	550	No	BSL
71-43-2	**Benzene**	0.13 J	4.1	µg/L	GSP-MW10-022714, GSP-MW10-100912	25/124	0.13 - 13	4.1	NA	**0.46 C**	5	5	**Yes**	ASL
74-83-9	Bromomethane	0.48 J	0.72 J	µg/L	GSP-MW19-101112	2/124	0.41 - 41	0.72	NA	0.75 N	NA	0.85	No	BSL
75-15-0	Carbon Disulfide	0.15 J	0.65 J	µg/L	GSP-DPT-49-25	22/124	0.13 - 13	0.65	NA	81 N	NA	100	No	BSL
56-23-5	**Carbon Tetrachloride**	0.45 J	0.71 J	µg/L	GSP-MW16-101012	2/124	0.13 - 13	0.71	NA	**0.46 C**	5	5	**Yes**	ASL
108-90-7	Chlorobenzene	0.19 J	4.1 J	µg/L	GSP-DPT-58-15-20-021016	12/124	0.15 - 15	4.1	NA	7.8 N	100	100	No	BSL
67-66-3	**Chloroform**	0.19 J	84	µg/L	GSP-DPT-64-15-20-020816	17/124	0.16 - 16	84	NA	**0.22 C**	**80**	**80**	**Yes**	ASL
74-87-3	Chloromethane	0.42 J	0.67 J	µg/L	GSP-MW19-101112	4/124	0.3 - 30	0.67	NA	19 N	NA	19	No	BSL
156-59-2	**cis-1,2-Dichloroethene**	0.21 J	58	µg/L	GSP-DPT-58-10-15-021016	56/124	0.17 - 17	58	NA	**3.6 N**	70	70	**Yes**	ASL
100-41-4	**Ethylbenzene**	0.19 J	21	µg/L	GSP-SB-80-W	4/124	0.17 - 17	21	NA	**1.5 C**	700	700	**Yes**	ASL
--	m+p-Xylenes	0.33 J	2.9 J	µg/L	GSP-SB-80-W	8/124	0.24 - 24	2.9	NA	19 N[10]	NA	10,000 [11]	No	BSL
1634-04-4	**Methyl Tert-Butyl Ether**	0.17 J	100 J	µg/L	GSP-SB/WP-2-20100525	18/124	0.17 - 17	100	NA	**14 C**	NA	**20**	**Yes**	ASL
75-09-2	**Methylene Chloride**	0.43 J	120	µg/L	GSP-DPT-64-15-20-020816	5/124	0.33 - 33	120	NA	**11 N**	**5**	**5**	**Yes**	ASL
91-20-3	**Naphthalene**	0.47 J	110	µg/L	GSP-SB-80-W	19/124	0.24 - 24	110	NA	**0.17 C**	NA	**0.65**	**Yes**	ASL
95-47-6	o-Xylene	0.27 J	1.8 J	µg/L	GSP-SB-80-W	5/124	0.14 - 14	1.8	NA	19 N	NA	10,000 [11]	No	BSL
100-42-5	Styrene	1.8 J	1.8 J	µg/L	GSP-SB-80-W	1/124	0.11 - 11	1.8	NA	120 N	100	100	No	BSL
994-05-8	Tert-Amyl Methyl Ether	0.11 J	0.27 J	µg/L	GSP-MW16-101012	4/124	0.067 - 6.7	0.27	NA	NA	NA	NA	No	NTX
75-65-0	Tertiary-Butyl Alcohol	6.9 J	10 J	µg/L	GSP-DPT-49-25	6/70	3.9 - 390	10	NA	590 N[12]	NA	NA	No	BSL
108-88-3	Toluene	0.13 J	22	µg/L	GSP-SB-WP-66-062311	22/124	0.13 - 13	22	NA	110 N	1,000	1,000	No	BSL
1330-20-7	Total Xylenes	0.85 J	4.7 J	µg/L	GSP-SB-80-W	5/124	0.14 - 14	4.7	NA	19 N	10,000	10,000	No	BSL
156-60-5	trans-1,2-Dichloroethene	0.19 J	1 J	µg/L	GSP-DPT-57-15-20-021116-D	7/124	0.19 - 19	1	NA	36 N	100	100	No	BSL
79-01-6	**Trichloroethene**	0.21 J	2600	µg/L	GSP-DPT-44-20	64/124	0.17 - 0.88	2600	NA	**0.28 N**	**5**	**5**	**Yes**	ASL
75-69-4	Trichlorofluoromethane	0.35 J	1.8	µg/L	GSP-SB-72-W	5/124	0.21 - 21	1.8	NA	520 N	NA	NA	No	BSL
75-01-4	**Vinyl Chloride**	0.28 J	27	µg/L	GSP-DPT-62-10-15-020916	25/124	0.22 - 22	27	NA	**0.019 C**	**2**	**2**	**Yes**	ASL

Table 2-8

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Direct Contact with Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Tapwater[5]	USEPA MCL[6]	MDE Cleanup Standard - Groundwater[7]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
Semivolatile organic compounds														
105-67-9	2,4-Dimethylphenol	6.7	6.7	µg/L	GSP-SB-80-W	1/69	0.24 - 1.2	6.7	NA	36 N	NA	73	No	BSL
121-14-2	**2,4-Dinitrotoluene**	0.85 J	0.85 J	µg/L	GSP-MW20-101112	1/69	0.24 - 0.54	0.85	NA	**0.24 C**	NA	7.3	**Yes**	ASL
606-20-2	**2,6-Dinitrotoluene**	0.93 J	0.93 J	µg/L	GSP-MW20-101112	1/69	0.76 - 1.6	0.93	NA	**0.049 C**	NA	3.7	**Yes**	ASL
91-57-6	**2-Methylnaphthalene**	0.11 J	3.4	µg/L	GSP-SB-80-W	5/69	0.086 - 0.15	3.4	NA	3.6 N	NA	**2.4**	**Yes**	ASL
95-48-7	2-Methylphenol	4.2	4.2	µg/L	GSP-SB-80-W	1/69	0.16 - 1.2	4.2	NA	93 N	NA	180	No	BSL
88-75-5	2-Nitrophenol	1.2 J	1.2 J	µg/L	GSP-SB/WP-33-20100527	1/69	0.27 - 0.56	1.2	NA	NA	NA	NA	No	NTX
106-44-5	4-Methylphenol	2.1	8.4	µg/L	GSP-SB/WP-83-20100528	2/23	0.8 - 1.6	8.4	NA	190 N	NA	18	No	BSL
83-32-9	Acenaphthene	4.4	13	µg/L	GSP-SB-80-W	4/69	0.042 - 0.15	13	NA	53 N	NA	37	No	BSL
98-86-2	Acetophenone	1.1 J	4.5	µg/L	GSP-SB/WP-33-20100527	2/69	0.32 - 0.52	4.5	NA	190 N	NA	NA	No	BSL
120-12-7	Anthracene	0.11 J	1	µg/L	GSP-SB-80-W	5/69	0.084 - 0.15	1	NA	180 N	NA	180	No	BSL
117-81-7	**Bis(2-ethylhexyl)phthalate**	0.85 J	10	µg/L	GSP-MW19-101112	14/69	0.76 - 2.6	10	NA	**5.6 C**	**6**	**6**	**Yes**	ASL
85-68-7	Butyl Benzyl Phthalate	0.81 J	2.5	µg/L	GSP-SB/WP-11-20100525	6/69	0.25 - 2.3	2.5	NA	16 C	NA	NA	No	BSL
105-60-2	Caprolactam	0.77 J	4 J	µg/L	GSP-MW18-101012	4/69	0.19 - 1.6	4	NA	990 N	NA	NA	No	BSL
86-74-8	**Carbazole**	16	16	µg/L	GSP-SB-80-W	1/69	0.27 - 0.42	16	NA	NA	NA	**3.3**	**Yes**	ASL
132-64-9	**Dibenzofuran**	0.89 J	5.9	µg/L	GSP-SB-80-W	5/69	0.019 - 0.15	5.9	NA	**0.79 N**	NA	**3.7**	**Yes**	ASL
84-66-2	Diethyl Phthalate	0.97 J	0.97 J	µg/L	GSP-SB/WP-33-20100527	1/69	0.57 - 1.2	0.97	NA	1500 N	NA	2900	No	BSL
84-74-2	di-n-Butyl Phthalate	0.73 J	1.1	µg/L	GSP-SB/WP-33-20100527	2/69	0.64 - 2.1	1.1	NA	90 N	NA	370	No	BSL
206-44-0	Fluoranthene	0.27	1.2	µg/L	GSP-MW-11-031816	3/69	0.042 - 0.2	1.2	NA	80 N	NA	150	No	BSL
86-73-7	Fluorene	3.1	9.5	µg/L	GSP-SB-80-W	4/69	0.039 - 0.15	9.5	NA	29 N	NA	24	No	BSL
78-59-1	Isophorone	0.75 J	0.75 J	µg/L	GSP-SB/WP-33-20100527	1/69	0.26 - 0.54	0.75	NA	78 C	NA	70	No	BSL
91-20-3	**Naphthalene**	0.097 J	70	µg/L	GSP-SB-80-W	11/69	0.06 - 0.15	70	NA	**0.17 C**	NA	**0.65**	**Yes**	ASL
62-75-9	**N-Nitrosodimethylamine**	0.55 J	0.55 J	µg/L	GSP-SB/WP-33-20100527	1/69	0.3 - 0.62	0.55	NA	**0.00011 C**	NA	14	**Yes**	ASL
85-01-8	Phenanthrene	1.1	4.9	µg/L	GSP-SB-80-W	4/69	0.059 - 0.15	4.9	NA	12 N[13]	NA	180	No	BSL
108-95-2	Phenol	0.69 J	2.4	µg/L	GSP-SB/WP-33-20100527	8/69	0.57 - 3.3	2.4	NA	580 N	NA	1100	No	BSL
129-00-0	Pyrene	0.1 J	0.68	µg/L	GSP-MW-11-031816	3/69	0.04 - 0.2	0.68	NA	12 N	NA	18	No	BSL
Metals (total)														
7440-36-0	**Antimony**	0.15 J	4.1 J	µg/L	GSP-MW-16-032116	14/74	0.062 - 9	4.1	NA	**0.78 N**	6	6	**Yes**	ASL
7440-38-2	**Arsenic**	0.42 J	92.3	µg/L	GSP-SB-80-W	57/74	0.092 - 3.2	92.3	NA	**0.052 C**	**10**	**10**	**Yes**	ASL
7440-39-3	**Barium**	20 J	1,400	µg/L	GSP-MW11-100512	63/74	19 - 100	1,400	NA	**380 N**	2000	2000	**Yes**	ASL
7440-41-7	**Beryllium**	0.12 J	62.1	µg/L	GSP-SB-22-W	34/74	0.0059 - 2.3	62.1	NA	**2.5 N**	**4**	**4**	**Yes**	ASL
7440-43-9	**Cadmium**	0.07 J	1.7	µg/L	GSP-MW18-101012	22/74	0.025 - 0.66	1.7	NA	**0.92 N**	5	5	**Yes**	ASL
7440-47-3	**Chromium**	0.73 J	88.2	µg/L	GSP-SB-59-W	49/74	0.52 - 2.2	88.2	NA	**0.035 C**[14]	100 [15]	100 [15]	**Yes**	ASL
7440-48-4	**Cobalt**	0.33 J	1,500	µg/L	GSP-SB-22-W	63/74	0.18 - 5.1	1,500	NA	**0.6 N**	NA	NA	**Yes**	ASL
7440-50-8	**Copper**	0.51 J	144	µg/L	GSP-SB/WP-33-20100527	43/74	0.5 - 5.6	144	NA	**80 N**	1300	1300	**Yes**	ASL
7439-89-6	**Iron**	120	152,000	µg/L	GSP-SB-21-W	22/22	-	152,000	NA	**1400 N**	NA	**300**	**Yes**	ASL
7439-92-1	**Lead**	0.2 J	32.4	µg/L	GSP-SB-22-W	31/74	0.071 - 3.6	32.4	NA	**15**	**15**	**15**	**Yes**	ASL
7439-96-5	**Manganese**	29.8	6,010	µg/L	GSP-SB-22-W	21/22	5.7 - 5.7	6,010	NA	**43 N**	NA	**50**	**Yes**	ASL
7439-97-6	Mercury	0.073 J	0.37	µg/L	GSP-SB/WP-48-20100427	11/74	0.066 - 0.27	0.37	NA	0.57 N[16]	2	2	No	BSL
7439-98-7	Molybdenum	0.47 J	7.4	µg/L	GSP-SB/WP-48-20100427	23/74	0.093 - 2.7	7.4	NA	10 N	NA	NA	No	BSL
7440-02-0	**Nickel**	0.54 J	2,040	µg/L	GSP-SB-22-W	63/74	0.63 - 3.2	2,040	NA	**39 N**	NA	**73**	**Yes**	ASL
7782-49-2	**Selenium**	0.36 J	14	µg/L	GSP-MW6-043012	32/74	0.13 - 4.1	14	NA	**10 N**	50	50	**Yes**	ASL
7440-22-4	Silver	0.018 J	0.018 J	µg/L	GSP-SB-WP-50-062211	1/74	0.014 - 2.2	0.018	NA	9.4 N	NA	100	No	BSL
7440-28-0	**Thallium**	1.1 J	4.5 J	µg/L	GSP-MW-01-031616	6/74	0.13 - 4.7	4.5	NA	**0.02 N**	**2**	**2**	**Yes**	ASL
7440-62-2	**Vanadium**	0.37 J	197	µg/L	GSP-SB-59-W	51/74	0.3 - 4.7	197	NA	**8.6 N**	NA	**3.7**	**Yes**	ASL
7440-66-6	**Zinc**	6 J	5,020	µg/L	GSP-SB-22-W	38/74	2.3 - 98.1	5,020	NA	**600 N**	NA	**5000**	**Yes**	ASL

Table 2-8

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CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Tapwater[5]	USEPA MCL[6]	MDE Cleanup Standard - Groundwater[7]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
Metals (filtered)														
7440-36-0	**Antimony**	0.14 J	2.2	µg/L	GSP-MW12-100812	10/72	0.027 - 12	2.2	NA	**0.78 N**	6	6	**Yes**	ASL
7440-38-2	**Arsenic**	0.3 J	87.4	µg/L	GSP-SB-80-W	49/72	0.092 - 3.2	87.4	NA	**0.052 C**	**10**	**10**	**Yes**	ASL
7440-39-3	**Barium**	4.9	1,400	µg/L	GSP-MW11-100512	61/72	4.1 - 100	1,400	NA	**380 N**	2000	2000	**Yes**	ASL
7440-41-7	**Beryllium**	0.16 J	60.2	µg/L	GSP-SB-22-W	23/72	0.0059 - 2.3	60.2	NA	**2.5 N**	**4**	**4**	**Yes**	ASL
7440-43-9	**Cadmium**	0.053 J	1.8	µg/L	GSP-MW18-101012	14/72	0.025 - 0.66	1.8	NA	**0.92 N**	5	5	**Yes**	ASL
7440-47-3	**Chromium**	0.11 J	13	µg/L	GSP-MW-20-031616	34/72	0.11 - 2.2	13	NA	**0.035 C**[14]	100 [15]	100 [15]	**Yes**	ASL
7440-48-4	**Cobalt**	0.078 J	1,670	µg/L	GSP-SB-22-W	59/72	0.072 - 5.2	1,670	NA	**0.6 N**	NA	NA	**Yes**	ASL
7440-50-8	Copper	0.39 J	49.6	µg/L	GSP-SB/WP-33-20100527	32/72	0.059 - 4.5	49.6	NA	80 N	1300	1300	No	BSL
7439-89-6	**Iron**	268	150,000	µg/L	GSP-SB-21-W	19/21	10.3 - 41.4	150,000	NA	**1400 N**	NA	**300**	**Yes**	ASL
7439-92-1	Lead	0.24 J	2.7	µg/L	GSP-SB-WP-66-062311	8/72	0.019 - 1.9	2.7	NA	15	15	15	No	BSL
7439-96-5	**Manganese**	27.5	6,560	µg/L	GSP-SB-22-W	20/21	1.5 - 1.5	6,560	NA	**43 N**	NA	**50**	**Yes**	ASL
7439-97-6	Mercury	0.09 J	0.19 J	µg/L	GSP-MW10-100912	7/72	0.066 - 0.12	0.19	NA	0.57 N[16]	2	2	No	BSL
7439-98-7	**Molybdenum**	0.41 J	14.1	µg/L	GSP-SB/WP-39-20100527	16/72	0.093 - 2.9	14.1	NA	**10 N**	NA	NA	**Yes**	ASL
7440-02-0	**Nickel**	0.73 J	2,260	µg/L	GSP-SB-22-W	61/72	0.45 - 3.2	2,260	NA	**39 N**	NA	**73**	**Yes**	ASL
7782-49-2	**Selenium**	0.53 J	13	µg/L	GSP-MW6-043012	26/72	0.13 - 4.1	13	NA	**10 N**	50	50	**Yes**	ASL
7440-28-0	**Thallium**	1.1 J	3.9 J	µg/L	GSP-MW-01-031616	5/72	0.13 - 4.7	3.9	NA	**0.02 N**	**2**	**2**	**Yes**	ASL
7440-62-2	**Vanadium**	0.39 J	102	µg/L	GSP-SB/WP-44-20100524	36/72	0.3 - 4.2	102	NA	**8.6 N**	NA	**3.7**	**Yes**	ASL
7440-66-6	**Zinc**	4.9 J	5,550	µg/L	GSP-SB-22-W	32/72	0.5 - 46	5,550	NA	**600 N**	NA	**5,000**	**Yes**	ASL
Miscellaneous compounds														
18540-29-9	**Hexavalent Chromium**	0.097	0.118	µg/L	GSP-MW06-043012	3/5	0.02 - 0.02	0.118	NA	**0.035 C**	NA	100	**Yes**	ASL
14797-73-0	Perchlorate	0.45 J	0.45 J	µg/L	GSP-MW8-042712	1/18	0.082 - 1.8	0.45	NA	1.4 N	15	2.6	No	BSL
Miscellaneous compounds-filtered														
18540-29-9	**Hexavalent Chromium**	0.094 J	0.094 J	µg/L	GSP-MW-07-031816	1/10	0.051 - 1.3	0.094	NA	**0.035 C**	NA	100	**Yes**	ASL
Petroleum hydrocarbons														
--	**Diesel Range Organics**	42 J	2,800	µg/L	GSP-SB-80-W	17/35	30 - 740	2,800	NA	NA	NA	**47**	**Yes**	ASL
--	**Gasoline Range Organics**	25 J	300	µg/L	GSP-MW-7-062211	10/36	25 - 120	300	NA	NA	NA	**47**	**Yes**	ASL
--	TPH (C06-C10)	25 J	52 J	µg/L	GSP-MW-18-031716	15/38	25 - 120	52	NA	NA	NA	NA	No	NTX
--	TPH (C10-C32)	240 J	3,000	µg/L	GSP-MW-20-031616	17/38	230 - 270	3,000	NA	NA	NA	NA	No	NTX

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background values are available.
5 - USEPA Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, May 2016. RSLs for carcinogens correspond to an integrated lifetime cancer risk (ILCR) of 1E-06; RSLs for noncarcinogens correspond to a hazard quotient (HQ) of 0.1.
6 - 2012 Edition of the Drinking Water Standards and Health Advisories (USEPA, April 2012).
7 - Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
8 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
9 - Value is for 1,4-dichlorobenzene.
10 - Value is for m-xylene.
11 - Value is for total xylenes.
12 - Value is for isobutyl alcohol.
13 - Value is for pyrene.
14 - Value is for hexavalent chromium.
15 - Value is for total chromium.
16 - Value is for mercuric chloride.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Definitions:
C = carcinogen
COPC = chemical of potential concern
J = estimated value
N = noncarcinogen
NA = not applicable/not available
TPH = total petroleum hydrocarbons
µg/L = micrograms per liter

Rationale Codes:
For selection as a COPC:
ASL = above screening level

For elimination as a COPC:
BSL = below COPC screening level
NUT = essential nutrient
NTX = no toxicity criteria

Table 2-9

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Vapor Intrusion
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA VISL[5]	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection[6]
Volatile organic compounds														
75-34-3	1,1-Dichloroethane	1.5	1.5 J	µg/L	GSP-DPT-64-10-15-020816, GSP-DPT-64-15-20-020816	4/124	0.15 - 15	1.5	NA	7.6 C	NA	NA	No	BSL
75-35-4	1,1-Dichloroethene	0.45 J	1.3 J	µg/L	GSP-DPT-53-10-15, GSP-SB/WP-89-20100528	6/124	0.19 - 19	1.3	NA	20 N	NA	NA	No	BSL
95-63-6	1,2,4-Trimethylbenzene	0.26 J	0.87 J	µg/L	GSP-SB-80-W	5/124	0.12 - 12	0.87	NA	2.9 N	NA	NA	No	BSL
96-12-8	**1,2-Dibromo-3-Chloropropane**	2.9 J	2.9 J	µg/L	GSP-SB-80-W	3/124	0.67 - 67	2.9	NA	**0.028 C**	NA	NA	**Yes**	ASL
95-50-1	1,2-Dichlorobenzene	1.2	1.2	µg/L	GSP-SB-30-W	3/124	0.13 - 13	1.2	NA	270 N	NA	NA	No	BSL
107-06-2	**1,2-Dichloroethane**	0.28 J	110	µg/L	GSP-DPT-62-10-15-020916	20/124	0.22 - 22	110	NA	**2.2 C**	NA	NA	**Yes**	ASL
78-87-5	1,2-Dichloropropane	0.23 J	0.23 J	µg/L	GSP-SB-30-W	2/124	0.18 - 18	0.23	NA	2.4 C	NA	NA	No	BSL
541-73-1	1,3-Dichlorobenzene	0.16 J	0.16 J	µg/L	GSP-DPT-46-15	2/124	0.14 - 14	0.16	NA	2.6 C[7]	NA	NA	No	BSL
106-46-7	1,4-Dichlorobenzene	0.83 J	0.83 J	µg/L	GSP-DPT-46-15	2/124	0.13 - 13	0.83	NA	2.6 C	NA	NA	No	BSL
78-93-3	2-Butanone	0.68 J	57	µg/L	GSP-DPT-54-15-20	30/124	0.53 - 57	57	NA	220,000 N	NA	NA	No	BSL
591-78-6	2-Hexanone	0.58 J	2.5 J	µg/L	GSP-DPT-54-15-20	4/124	0.41 - 41	2.5	NA	820 N	NA	NA	No	BSL
108-10-1	4-Methyl-2-Pentanone	1.6 J	1.6 J	µg/L	GSP-SB/WP-33-20100527	1/124	0.32 - 32	1.6	NA	55,000 N	NA	NA	No	BSL
67-64-1	Acetone	1.4 J	160 J	µg/L	GSP-SB/WP-33-20100527	43/124	0.94 - 110	160	NA	2,300,000 N	NA	NA	No	BSL
71-43-2	**Benzene**	0.13 J	4.1	µg/L	GSP-MW10-022714, GSP-MW10-100912	25/124	0.13 - 13	4.1	NA	**1.6 C**	NA	NA	**Yes**	ASL
74-83-9	Bromomethane	0.48 J	0.72 J	µg/L	GSP-MW19-101112	2/124	0.41 - 41	0.72	NA	1.7 N	NA	NA	No	BSL
75-15-0	Carbon Disulfide	0.15 J	0.65 J	µg/L	GSP-DPT-49-25	22/124	0.13 - 13	0.65	NA	120 N	NA	NA	No	BSL
56-23-5	**Carbon Tetrachloride**	0.45 J	0.71 J	µg/L	GSP-MW16-101012	2/124	0.13 - 13	0.71	NA	**0.41 C**	NA	NA	**Yes**	ASL
108-90-7	Chlorobenzene	0.19 J	4.1 J	µg/L	GSP-DPT-58-15-20-021016	12/124	0.15 - 15	4.1	NA	41 N	NA	NA	No	BSL
67-66-3	**Chloroform**	0.19 J	84	µg/L	GSP-DPT-64-15-20-020816	17/124	0.16 - 16	84	NA	**0.81 C**	NA	NA	**Yes**	ASL
74-87-3	Chloromethane	0.42 J	0.67 J	µg/L	GSP-MW19-101112	4/124	0.3 - 30	0.67	NA	26 N	NA	NA	No	BSL
156-59-2	cis-1,2-Dichloroethene	0.21 J	58	µg/L	GSP-DPT-58-10-15-021016	56/124	0.17 - 17	58	NA	NA	NA	NA	No	NTX
100-41-4	**Ethylbenzene**	0.19 J	21	µg/L	GSP-SB-80-W	4/124	0.17 - 17	21	NA	**3.5 C**	NA	NA	**Yes**	ASL
--	m+p-Xylenes	0.33 J	2.9 J	µg/L	GSP-SB-80-W	8/124	0.24 - 24	2.9	NA	36 N[8]	NA	NA	No	BSL
1634-04-4	Methyl Tert-Butyl Ether	0.17 J	100 J	µg/L	GSP-SB/WP-2-20100525	18/124	0.17 - 17	100	NA	450 C	NA	NA	No	BSL
75-09-2	Methylene Chloride	0.43 J	120	µg/L	GSP-DPT-64-15-20-020816	5/124	0.33 - 33	120	NA	470 N	NA	NA	No	BSL
91-20-3	**Naphthalene**	0.47 J	110	µg/L	GSP-SB-80-W	19/124	0.24 - 24	110	NA	**4.6 C**	NA	NA	**Yes**	ASL
95-47-6	o-Xylene	0.27 J	1.8 J	µg/L	GSP-SB-80-W	5/124	0.14 - 14	1.8	NA	49 N	NA	NA	No	BSL
100-42-5	Styrene	1.8 J	1.8 J	µg/L	GSP-SB-80-W	1/124	0.11 - 11	1.8	NA	930 N	NA	NA	No	BSL
994-05-8	Tert-Amyl Methyl Ether	0.11 J	0.27 J	µg/L	GSP-MW16-101012	4/124	0.067 - 6.7	0.27	NA	NA	NA	NA	No	NTX
75-65-0	Tertiary-Butyl Alcohol	6.9 J	10 J	µg/L	GSP-DPT-49-25	6/70	3.9 - 390	10	NA	NA	NA	NA	No	NTX
108-88-3	Toluene	0.13 J	22	µg/L	GSP-SB-WP-66-062311	22/124	0.13 - 13	22	NA	1,900 N	NA	NA	No	BSL
1330-20-7	Total Xylenes	0.85 J	4.7 J	µg/L	GSP-SB-80-W	5/124	0.14 - 14	4.7	NA	38 N	NA	NA	No	BSL
156-60-5	trans-1,2-Dichloroethene	0.19 J	1 J	µg/L	GSP-DPT-57-15-20-021116-D	7/124	0.19 - 19	1	NA	NA	NA	NA	No	NTX
79-01-6	**Trichloroethene**	0.21 J	2,600	µg/L	GSP-DPT-44-20	64/124	0.17 - 0.88	2,600	NA	**0.52 N**	NA	NA	**Yes**	ASL
75-69-4	Trichlorofluoromethane	0.35 J	1.8	µg/L	GSP-SB-72-W	5/124	0.21 - 21	1.8	NA	NA	NA	NA	No	NTX
75-01-4	**Vinyl Chloride**	0.28 J	27	µg/L	GSP-DPT-62-10-15-020916	25/124	0.22 - 22	27	NA	**0.15 C**	NA	NA	**Yes**	ASL
Semivolatile organic compounds														
105-67-9	2,4-Dimethylphenol	6.7	6.7	µg/L	GSP-SB-80-W	1/69	0.24 - 1.2	6.7	NA	NA	NA	NA	No	NTX
121-14-2	2,4-Dinitrotoluene	0.85 J	0.85 J	µg/L	GSP-MW20-101112	1/69	0.24 - 0.54	0.85	NA	NA	NA	NA	No	NTX
606-20-2	2,6-Dinitrotoluene	0.93 J	0.93 J	µg/L	GSP-MW20-101112	1/69	0.76 - 1.6	0.93	NA	NA	NA	NA	No	NTX
91-57-6	2-Methylnaphthalene	0.11 J	3.4	µg/L	GSP-SB-80-W	5/69	0.086 - 0.15	3.4	NA	NA	NA	NA	No	NTX
95-48-7	2-Methylphenol	4.2	4.2	µg/L	GSP-SB-80-W	1/69	0.16 - 1.2	4.2	NA	NA	NA	NA	No	NTX
88-75-5	2-Nitrophenol	1.2 J	1.2 J	µg/L	GSP-SB/WP-33-20100527	1/69	0.27 - 0.56	1.2	NA	NA	NA	NA	No	NTX
106-44-5	4-Methylphenol	2.1	8.4	µg/L	GSP-SB/WP-83-20100528	2/23	0.8 - 1.6	8.4	NA	NA	NA	NA	No	NTX

Table 2-9

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Vapor Intrusion
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA VISL[5]	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection[6]
83-32-9	Acenaphthene	4.4	13	µg/L	GSP-SB-80-W	4/69	0.042 - 0.15	13	NA	NA	NA	NA	No	NTX
98-86-2	Acetophenone	1.1 J	4.5	µg/L	GSP-SB/WP-33-20100527	2/69	0.32 - 0.52	4.5	NA	NA	NA	NA	No	NTX
120-12-7	Anthracene	0.11 J	1	µg/L	GSP-SB-80-W	5/69	0.084 - 0.15	1	NA	NA	NA	NA	No	NTX
117-81-7	Bis(2-ethylhexyl)phthalate	0.85 J	10	µg/L	GSP-MW19-101112	14/69	0.76 - 2.6	10	NA	NA	NA	NA	No	NTX
85-68-7	Butyl Benzyl Phthalate	0.81 J	2.5	µg/L	GSP-SB/WP-11-20100525	6/69	0.25 - 2.3	2.5	NA	NA	NA	NA	No	NTX
105-60-2	Caprolactam	0.77 J	4 J	µg/L	GSP-MW18-101012	4/69	0.19 - 1.6	4	NA	NA	NA	NA	No	NTX
86-74-8	Carbazole	16	16	µg/L	GSP-SB-80-W	1/69	0.27 - 0.42	16	NA	NA	NA	NA	No	NTX
132-64-9	Dibenzofuran	0.89 J	5.9	µg/L	GSP-SB-80-W	5/69	0.019 - 0.15	5.9	NA	NA	NA	NA	No	NTX
84-66-2	Diethyl Phthalate	0.97 J	0.97 J	µg/L	GSP-SB/WP-33-20100527	1/69	0.57 - 1.2	0.97	NA	NA	NA	NA	No	NTX
84-74-2	di-n-Butyl Phthalate	0.73 J	1.1	µg/L	GSP-SB/WP-33-20100527	2/69	0.64 - 2.1	1.1	NA	NA	NA	NA	No	NTX
206-44-0	Fluoranthene	0.27	1.2	µg/L	GSP-MW-11-031816	3/69	0.042 - 0.2	1.2	NA	NA	NA	NA	No	NTX
86-73-7	Fluorene	3.1	9.5	µg/L	GSP-SB-80-W	4/69	0.039 - 0.15	9.5	NA	NA	NA	NA	No	NTX
78-59-1	Isophorone	0.75 J	0.75 J	µg/L	GSP-SB/WP-33-20100527	1/69	0.26 - 0.54	0.75	NA	NA	NA	NA	No	NTX
91-20-3	**Naphthalene**	0.097 J	70	µg/L	GSP-SB-80-W	11/69	0.06 - 0.15	70	NA	**4.6 C**	NA	NA	**Yes**	ASL
86-30-6	N-Nitrosodimethylamine	0.55 J	0.55 J	µg/L	GSP-SB/WP-33-20100527	1/69	0.3 - 0.62	0.55	NA	NA	NA	NA	No	NTX
85-01-8	Phenanthrene	1.1	4.9	µg/L	GSP-SB-80-W	4/69	0.059 - 0.15	4.9	NA	NA	NA	NA	No	NTX
108-95-2	Phenol	0.69 J	2.4	µg/L	GSP-SB/WP-33-20100527	8/69	0.57 - 3.3	2.4	NA	NA	NA	NA	No	NTX
129-00-0	Pyrene	0.1 J	0.68	µg/L	GSP-MW-11-031816	3/69	0.04 - 0.2	0.68	NA	NA	NA	NA	No	NTX
Metals (total)														
7440-36-0	Antimony	0.15 J	4.1 J	µg/L	GSP-MW-16-032116	14/74	0.062 - 9	4.1	NA	NA	NA	NA	No	NTX
7440-38-2	Arsenic	0.42 J	92.3	µg/L	GSP-SB-80-W	57/74	0.092 - 3.2	92.3	NA	NA	NA	NA	No	NTX
7440-39-3	Barium	20 J	1,400	µg/L	GSP-MW11-100512	63/74	19 - 100	1,400	NA	NA	NA	NA	No	NTX
7440-41-7	Beryllium	0.12 J	62.1	µg/L	GSP-SB-22-W	34/74	0.0059 - 2.3	62.1	NA	NA	NA	NA	No	NTX
7440-43-9	Cadmium	0.07 J	1.7	µg/L	GSP-MW18-101012	22/74	0.025 - 0.66	1.7	NA	NA	NA	NA	No	NTX
7440-47-3	Chromium	0.73 J	88.2	µg/L	GSP-SB-59-W	49/74	0.52 - 2.2	88.2	NA	NA	NA	NA	No	NTX
7440-48-4	Cobalt	0.33 J	1,500	µg/L	GSP-SB-22-W	63/74	0.18 - 5.1	1,500	NA	NA	NA	NA	No	NTX
7440-50-8	Copper	0.51 J	144	µg/L	GSP-SB/WP-33-20100527	43/74	0.5 - 5.6	144	NA	NA	NA	NA	No	NTX
7439-89-6	Iron	120	152,000	µg/L	GSP-SB-21-W	22/22	-	152,000	NA	NA	NA	NA	No	NTX
7439-92-1	Lead	0.2 J	32.4	µg/L	GSP-SB-22-W	31/74	0.071 - 3.6	32.4	NA	NA	NA	NA	No	NTX
7439-96-5	Manganese	29.8	6,010	µg/L	GSP-SB-22-W	21/22	5.7 - 5.7	6,010	NA	NA	NA	NA	No	NTX
7439-97-6	Mercury	0.073 J	0.37	µg/L	GSP-SB/WP-48-20100427	11/74	0.066 - 0.27	0.37	NA	NA	NA	NA	No	BSL
7439-98-7	Molybdenum	0.47 J	7.4	µg/L	GSP-SB/WP-48-20100427	23/74	0.093 - 2.7	7.4	NA	NA	NA	NA	No	NTX
7440-02-0	Nickel	0.54 J	2,040	µg/L	GSP-SB-22-W	63/74	0.63 - 3.2	2,040	NA	NA	NA	NA	No	NTX
7782-49-2	Selenium	0.36 J	14	µg/L	GSP-MW6-043012	32/74	0.13 - 4.1	14	NA	NA	NA	NA	No	NTX
7440-22-4	Silver	0.018 J	0.018 J	µg/L	GSP-SB-WP-50-062211	1/74	0.014 - 2.2	0.018	NA	NA	NA	NA	No	NTX
7440-28-0	Thallium	1.1 J	4.5 J	µg/L	GSP-MW-01-031616	6/74	0.13 - 4.7	4.5	NA	NA	NA	NA	No	NTX
7440-62-2	Vanadium	0.37 J	197	µg/L	GSP-SB-59-W	51/74	0.3 - 4.7	197	NA	NA	NA	NA	No	NTX
7440-66-6	Zinc	6 J	5,020	µg/L	GSP-SB-22-W	38/74	2.3 - 98.1	5,020	NA	NA	NA	NA	No	NTX
Metals (filtered)														
7440-36-0	Antimony	0.14 J	2.2	µg/L	GSP-MW12-100812	10/72	0.027 - 12	2.2	NA	NA	NA	NA	No	NTX
7440-38-2	Arsenic	0.3 J	87.4	µg/L	GSP-SB-80-W	49/72	0.092 - 3.2	87.4	NA	NA	NA	NA	No	NTX
7440-39-3	Barium	4.9	1,400	µg/L	GSP-MW11-100512	61/72	4.1 - 100	1,400	NA	NA	NA	NA	No	NTX
7440-41-7	Beryllium	0.16 J	60.2	µg/L	GSP-SB-22-W	23/72	0.0059 - 2.3	60.2	NA	NA	NA	NA	No	NTX
7440-43-9	Cadmium	0.053 J	1.8	µg/L	GSP-MW18-101012	14/72	0.025 - 0.66	1.8	NA	NA	NA	NA	No	NTX
7440-47-3	Chromium	0.11 J	13	µg/L	GSP-MW-20-031616	34/72	0.11 - 2.2	13	NA	NA	NA	NA	No	NTX
7440-48-4	Cobalt	0.078 J	1,670	µg/L	GSP-SB-22-W	59/72	0.072 - 5.2	1,670	NA	NA	NA	NA	No	NTX
7440-50-8	Copper	0.39 J	49.6	µg/L	GSP-SB/WP-33-20100527	32/72	0.059 - 4.5	49.6	NA	NA	NA	NA	No	NTX
7439-89-6	Iron	268	150,000	µg/L	GSP-SB-21-W	19/21	10.3 - 41.4	150,000	NA	NA	NA	NA	No	NTX

Table 2-9

Occurrence, Distribution, and Selection of Chemicals of Potential Concern - Vapor Intrusion
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA VISL[5]	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection[6]
7439-92-1	Lead	0.24 J	2.7	µg/L	GSP-SB-WP-66-062311	8/72	0.019 - 1.9	2.7	NA	NA	NA	NA	No	NTX
7439-96-5	Manganese	27.5	6,560	µg/L	GSP-SB-22-W	20/21	1.5 - 1.5	6,560	NA	NA	NA	NA	No	NTX
7439-97-6	Mercury	0.09 J	0.19 J	µg/L	GSP-MW10-100912	7/72	0.066 - 0.12	0.19	NA	NA	NA	NA	No	BSL
7439-98-7	Molybdenum	0.41 J	14.1	µg/L	GSP-SB/WP-39-20100527	16/72	0.093 - 2.9	14.1	NA	NA	NA	NA	No	NTX
7440-02-0	Nickel	0.73 J	2,260	µg/L	GSP-SB-22-W	61/72	0.45 - 3.2	2,260	NA	NA	NA	NA	No	NTX
7782-49-2	Selenium	0.53 J	13	µg/L	GSP-MW6-043012	26/72	0.13 - 4.1	13	NA	NA	NA	NA	No	NTX
7440-28-0	Thallium	1.1 J	3.9 J	µg/L	GSP-MW-01-031616	5/72	0.13 - 4.7	3.9	NA	NA	NA	NA	No	NTX
7440-62-2	Vanadium	0.39 J	102	µg/L	GSP-SB/WP-44-20100524	36/72	0.3 - 4.2	102	NA	NA	NA	NA	No	NTX
7440-66-6	Zinc	4.9 J	5,550	µg/L	GSP-SB-22-W	32/72	0.5 - 46	5,550	NA	NA	NA	NA	No	NTX
Miscellaneous compounds														
18540-29-9	Hexavalent Chromium	0.097	0.118	µg/L	GSP-MW06-043012	3/5	0.02 - 0.02	0.118	NA	NA	NA	NA	No	NTX
14797-73-0	Perchlorate	0.45 J	0.45 J	µg/L	GSP-MW8-042712	1/18	0.082 - 1.8	0.45	NA	NA	NA	NA	No	NTX
Miscellaneous compounds-filtered														
18540-29-9	Hexavalent Chromium	0.094 J	0.094 J	µg/L	GSP-MW-07-031816	1/10	0.051 - 1.3	0.094	NA	NA	NA	NA	No	NTX
Petroleum hydrocarbons														
--	Diesel Range Organics	42 J	2,800	µg/L	GSP-SB-80-W	17/35	30 - 740	2,800	NA	NA	NA	NA	No	NTX
--	Gasoline Range Organics	25 J	300	µg/L	GSP-MW-7-062211	10/36	25 - 120	300	NA	NA	NA	NA	No	NTX
--	TPH (C06-C10)	25 J	52 J	µg/L	GSP-MW-18-031716	15/38	25 - 120	52	NA	NA	NA	NA	No	NTX
--	TPH (C10-C32)	240 J	3,000	µg/L	GSP-MW-20-031616	17/38	230 - 270	3,000	NA	NA	NA	NA	No	NTX

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - United States Environmental Protection Agency (USEPA) Vapor Intrusion Screening Level (VISL) Calculator Version 3.5.1, July 2016. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Definitions:
ARAR/TBC = applicable or relevant and appropriate requirements to be considered
C = carcinogen
COPC = chemical of potential concern
J = estimated value
N = noncarcinogen
NA = not applicable/not available
TPH = total petroleum hydrocarbons
µg/L = micograms per liter

Rationale Codes:
For selection as a COPC:
ASL = above screening level and site background

For elimination as a COPC:
BSL = below COPC screening level
NUT = essential nutrient
NTX = no toxicity criteria

Table 2-10
Chemicals Retained as COPC
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Surface Soil		Shallow Subsurface Soil		Groundwater	
	Direct Contact	Migration to Groundwater	Direct Contact	Migration to Groundwater	Direct Contact	Vapor Intrusion
Volatile organic compounds						
1,2-Dibromo-3-Chloropropane					X	X
1,2,3-Trimethylbenzene				X		
1,2,4-Trimethylbenzene				X		
1,2-Dichloroethane				X	X	X
1,2,4-Trichlorobenzene		X				
1,3-Dichlorobenzene		X				
1,4-Dichlorobenzene					X	
Benzene		X		X	X	X
Carbon Tetrachloride				X	X	X
Chloroform		X			X	X
cis-1,2-Dichloroethene		X		X	X	
Ethylbenzene				X	X	X
m+p-Xylenes				X		
Methyl Tert-Butyl Ether		X		X	X	
Methylene Chloride		X		X	X	
Naphthalene		X	X	X	X	X
o-Xylene				X		
Total Xylenes				X		
Trichloroethene		X		X	X	X
Vinyl Chloride		X		X	X	X
Semivolatile organic compounds						
1,1-Biphenyl		X		X		
2,4-Dichlorophenol				X		
2,4-Dinitrotoluene					X	
2,6-Dinitrotoluene					X	
2-Methylnaphthalene		X		X	X	
Benzaldehyde		X				
Acenaphthene				X		
Bap Equivalent	X	X	X	X		

Table 2-10
Chemicals Retained as COPC
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Surface Soil		Shallow Subsurface Soil		Groundwater	
	Direct Contact	Migration to Groundwater	Direct Contact	Migration to Groundwater	Direct Contact	Vapor Intrusion
Benzo(a)anthracene	X	X	X	X		
Benzo(a)pyrene	X	X	X	X		
Benzo(b)fluoranthene	X	X	X	X		
Benzo(k)fluoranthene	X	X	X	X		
Bis(2-ethylhexyl)phthalate		X			X	
Butyl Benzyl Phthalate		X				
Carbazole		X		X	X	
Chyrsene	X	X	X	X		
Dibenz(a,h)anthracene	X	X	X	X		
Dibenzofuran		X		X	X	
Fluorene				X		
Indeno(1,2,3-cd)pyrene	X	X	X	X		
Isophorone				X		
Naphthalene		X	X	X	X	X
N-Nitroso-di-n-Propylamine	X	X			X	
Pentachlorophenol				X		
Phenanthrene		X		X		
Pyrene		X		X		
Polychlorinated biphenyls						
Aroclor-1242				X		
Aroclor-1260	X	X	X	X		
Metals						
Antimony		X		X	X	
Arsenic	X	X	X	X	X	
Barium		X		X	X	
Beryllium					X	
Cadmium		X		X	X	
Chromium	X	X	X	X	X	
Cobalt	X	X	X	X	X	
Copper		X		X	X	

Table 2-10
Chemicals Retained as COPC
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Surface Soil		Shallow Subsurface Soil		Groundwater	
	Direct Contact	Migration to Groundwater	Direct Contact	Migration to Groundwater	Direct Contact	Vapor Intrusion
Hexavalent Chromium					X	
Iron	X	X	X	X	X	
Lead		X		X	X	
Manganese	X	X	X	X	X	
Mercury		X		X		
Molybdenum				X		
Nickel		X		X	X	
Selenium		X		X	X	
Silver		X				
Thallium	X	X	X	X	X	
Vanadium	X	X	X	X	X	
Zinc					X	
Petroleum hydrocarbons						
Diesel Range Organics	X		X		X	
Gasoline Range Organics					X	

Notes:

X - Chemical exceeded screening criteria and was retained as a chemical of potential concern (COPC) for quantitative evaluation in the risk assessment.

Table 3-1

Selection of Exposure Pathways
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/Future	Surface Soil	Surface Soil	Greater Strawberry Point	Construction Workers	Adult	Ingestion Dermal	Quant Quant	Construction workers may have contact with surface soil during excavation activities.
				Industrial Workers	Adult	Ingestion Dermal	Quant Quant	Industrial workers may have contact with surface soil while at the site.
		Air	Greater Strawberry Point	Construction Workers	Adult	Inhalation	Quant	Construction workers may be exposed to fugitive dust and volatile emissions from surface soil during excavation activities.
				Industrial Workers	Adult	Inhalation	Quant	Industrial workers may be exposed to fugitive dust and volatile emissions from surface soil during work activities.
	Subsurface Soil	Subsurface Soil	Greater Strawberry Point	Construction Workers	Adult	Ingestion Dermal	Quant Quant	Construction workers may have contact with subsurface soil during excavation activities.
				Industrial Workers	Adult	Ingestion Dermal	Quant Quant	Although exposure to subsurface soil by industrial workers is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
		Air	Greater Strawberry Point	Construction Workers	Adult	Inhalation	Quant	Construction workers may be exposed to fugitive dust and volatile emissions from subsurface soil during excavation activities.
				Industrial Workers	Adult	Inhalation	Quant	Although exposure to subsurface soil by industrial workers is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
	Groundwater	Groundwater	Greater Strawberry Point	Construction Workers	Adult	Ingestion Dermal	Quant Quant	Construction workers may have contact with groundwater during excavation activities.
				Industrial Workers	Adult	Ingestion Dermal	None None	Industrial workers are not expected to have contact with groundwater.
		Air	Greater Strawberry Point	Construction Workers	Adult	Inhalation	Quant	Construction workers may be exposed to COPCs that have volatilized from groundwater during excavation activities.
				Industrial Workers	Adult	Inhalation	None	Industrial workers are not expected to be exposed to COPCs that have volatilized from groundwater.
			Vapor Intrusion	Industrial Workers	Adult	Inhalation	Quant	Industrial workers may be exposed to COPCs that have volatilized from groundwater and migrated through building foundations into indoor air.

Definitions:

COPC = Chemical of potential concern.

Quant = Quantitative.

Table 3-2

Receptors and Exposure Routes for Quantitative Evaluation
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Receptors	Exposure Routes
Construction Workers (current/future land use)	• Soil incidental ingestion (surface and subsurface) • Soil dermal contact (surface and subsurface) • Inhalation of air/dust/emissions from soil (surface and subsurface) • Groundwater dermal contact (during excavation) • Inhalation of volatiles from groundwater (during excavation)
Industrial Worker (Current/future land use)	• Soil incidental ingestion (surface and subsurface[1]) • Soil dermal contact (surface and subsurface[1]) • Inhalation of air/dust/emissions from soil (surface and subsurface[1])

Footnotes:
1 – These receptors are not expected to be exposed to subsurface soil, but exposure to subsurface soil was evaluated to aid in risk management decisions.

Table 3-3
Summary of Exposure Assumptions
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter Code	Exposure Parameter	Construction Worker	Industrial Worker
All Exposures			
ED	Exposure Duration (years)	1[1,2]	25[3]
BW	Body Weight (kg)	80[3]	80[3]
AT-N	Averaging Time (Non-Cancer) (days)	365[3]	9,125[3]
AT-C	Averaging Time (Cancer) (days)	25,550[3]	25,550[3]
Incidental Ingestion/Dermal Contact with Soil			
C_{soil}	Exposure concentration for soil (mg/kg)	95% UCL[4]	95% UCL[4]
IR	Ingestion Rate (mg/day)	480[5]	100[3]
FI	Fraction Ingested (unitless)	1	1
SA	Skin Surface Available for Contact (cm^2)	3,527[3]	3,527[3]
AF	Soil to Skin Adherence Factor (mg/cm^2/event)	0.3[6]	0.12[3]
ABS	Absorption Factor (unitless)	chemical-specific[7]	chemical-specific[7]
CF	Conversion Factor (kg/mg)	1E-06	1E-06
EF	Exposure Frequency Soil (days/year)	250[2]	250[3]
Inhalation Fugitive Dust/Volatile Emissions from Soil			
C_{air}	Exposure concentration for air (mg/m^3)	calculated[6]	calculated[6]
ET	Exposure Time (hours/day)	8[6]	8[8]
EF	Exposure Frequency (days/year)	125[2]	250[3]
PEF	Particulate Emission Factor (m^3/kg)	7.34E+6[6]	3.24E+9[6]
Ingestion/Dermal Contact with Groundwater			
C_{gw}	Exposure concentration for groundwater (ug/L)	Max[9]	NA
IR	Ingestion Rate (L/day)	0.2[1]	NA
SA	Skin Surface Available for Contact (cm^2)	3,527[3]	NA
ET	Exposure Time (hours/day)	4[10]	NA
EV	Event Frequency (events/day)	1[1]	NA
	Kp (cm/hour), t* (hour/event), τ (hour), and B (unitless)	chemical-specific[7]	NA
CF	Conversion Factor (L/cm^3)	1E-03	NA
EF	Exposure Frequency (days/year)	90[2]	NA
Inhalation of Volatile Emissions from Groundwater			
C_{air}	Exposure concentration for air (mg/m^3)	calculated[11]	NA
ET	Exposure Time (hours/day)	4[10]	NA
EF	Exposure Frequency (days/year)	90[2]	NA
VF	Volatilization Factor (L/m^3)	chemical-specific[11]	NA

Table 3-3
Summary of Exposure Assumptions
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Footnotes:

1 - Professional Judgment.

2 - Assumed that construction activities take place 125 days per year over a one year period. However, exposures to groundwater and sediment for a construction worker occur occasionally only (approximately 90 days/year).

3 - USEPA, 2014: Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors. OSWER 9200.1-120

4 - USEPA, 2002: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10.

5 - MDE (Maryland Department of the Environment), 2008: Cleanup Standards for Soil and Groundwater. Interim Final Guidance, June.

6 - USEPA, 2002: Supplemental Guidance for Developing Soil Screening Levels at Superfund Sites (PEF values are site specific).

7 - USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) EPA/540/R/99/005.

8 - Assumes an eight hour work shift.

9 - The 95% UCL for the monitoring wells located in the center of the groundwater plume is recommended as the EPC (USEPA, 2014). There was no discernable groundwater plume; therefore, the maximum detected concentration was used as the EPC for groundwater.

10 - Assumes construction workers are exposed to groundwater for 4 hours per day.

11 - VDEQ, May 2014. Virginia Department of Environmental Quality.

Table 5-1

Summary of Cancer Risks and Hazard Indices - RECs #2-6 - Construction Workers Exposed to Surface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[1] (mg/kg)	Construction RBC[2] (mg/kg)	Estimated ILCR	Primary Target Organ	Construction RBC[2] (mg/kg)	Estimated HI
Benzo(a)pyrene Equivalents	0.07	26	3E-09	Developmental, Immune, Reproductive	110	0.0006
Aroclor-1260	0.02	12	2E-09	Cancer	NA	-
Arsenic	4.32	34	1E-07	Cardiovascular, Dermal	220	0.02
Chromium VI	0.338	36	9E-09	Respiratory	1,300	0.0003
Cobalt	9.01	52,000	2E-10	Thyroid	1,400	0.006
Iron	9,420	NA	-	Gastrointestinal	330,000	0.03
Manganese	2,960	NA	-	Nervous	7,400	0.4
Thallium	0.081	NA	-	Dermal	19	0.004
Vanadium	43	NA	-	Dermal	2,600	0.02
Diesel Range Organics	39	NA	-	NA	NA	-
	Total Cancer Risk		**1E-07**		**Total HI**	**0.5**

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the Construction RSL multiplying by the target risk level. For example the ILCR for arsenic was calculated by 4.32/34 x 1E-06 = 1E-07. The HI for arsenic was calculated by 4.32/220 x 1 = 0.02.

HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - Exposure point concentration is the 95% UCL calculated by ProUCL Version 5.1.02.
2 - Construction worker RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical
Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent
an incremental cancer risk of $1x10^{-6}$

Table 5-2

Summary of Cancer Risks and Hazard Indices - RECs #2-6 - Construction Workers Exposed to Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[1] (mg/kg)	Construction RBC[2] (mg/kg)	Estimated ILCR	Primary Target Organ	Construction RBC[2] (mg/kg)	Estimated HI
Benzo(a)pyrene Equivalents	0.514	26	2E-08	Developmental, Immune, Reproductive	110	0.005
Naphthalene	0.031	12	3E-09	Nervous, Respiratory	NA	-
Arsenic	6.11	34	2E-07	Cardiovascular, Dermal	220	0.03
Chromium VI	0.215	36	6E-09	Respiratory	1,300	0.0002
Cobalt	12.9	52,000	2E-10	Thyroid	1,400	0.009
Iron	28,400	NA	-	Gastrointestinal	330,000	0.09
Manganese	1,040	NA	-	Nervous	7,400	0.1
Thallium	0.62	NA	-	Dermal	19	0.03
Vanadium	31	NA	-	Dermal	2,600	0.01
Diesel Range Organics	66	NA	-	NA	NA	-
	Total Cancer Risk		**2E-07**		**Total HI**	**0.3**

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the Construction RSL multiplying by the target risk level. For example the ILCR for arsenic was calculated by 6.11/34 x 1E-06 = 2E-07. The HI for arsenic was calculated by 6.11/220 x 1 = 0.03.

HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - Exposure point concentration is the 95% UCL calculated by ProUCL Version 5.1.02.
2 - Construction worker RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent an incremental cancer risk of 1×10^{-6}.

Table 5-3

Summary of Cancer Risks and Hazard Indices - RECs #2-6 - Construction Workers Exposed to Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[1] (ug/L)	RBC[2] (ug/L)	Estimated ILCR	Primary Target Organ	RBC[2] (ug/L)	Estimated HI
Bis(2-ethylhexyl)phthalate	2.8	8,100	3E-10	Liver	160,000	0.00002
Dibenzofuran	2	NA	-	NA	640	0.003
Naphthalene	0.27	1,700	2E-10	Nervous, Respiratory	2,500	0.0001
N-Nitrosodimethylamine	0.55	2.1	3E-07	Developmental	13	0.04
Antimony	0.76	NA	-	Blood	440	0.002
Arsenic	33.7	71	5E-07	Cardiovascular, Dermal	450	0.07
Barium	221	NA	-	Kidney	160,000	0.001
Beryllium	62.1	NA	-	Gastrointestinal	730	0.09
Cadmium	1	NA	-	Kidney	670	0.001
Chromium	78.9	59	1E-06	Respiratory	2,200	0.04
Cobalt	1,500	NA	-	Thyroid	4,700	0.3
Copper	144	NA	-	Gastrointestinal	61,000	0.002
Iron	152,000	NA	-	Gastrointestinal	1,100,000	0.1
Lead	32.4	NA	-	NA	NA	-
Manganese	6,010	NA	-	Nervous	14,000	0.4
Nickel	2,040	NA	-	Body Weight	24,000	0.09
Selenium	13.7	NA	-	Dermal, Nervous	7,600	0.002
Thallium	1.8	NA	-	Dermal	61	0.03
Vanadium	112	NA	-	Dermal	4,400	0.03
Zinc	5,020	NA	-	Blood	470,000	0.01
Diesel Range Organics	200	NA	-	NA	NA	-
Gasoline Range Organics	33	NA	-	NA	NA	-
	Total Cancer Risk		**2E-06**		**Total HI**	**1**

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the calculated RSL for construction workers multiplying by the target risk level. For example the ILCR for arsenic was calculated by 33.7/71 x 1E-06 = 5E-07. The HI for arsenic was calculated by 33.7/450 x 1 = 0.07.

HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - The maximum concentration from wells with a top screen depth in the interval of 0 to 20 feet was used as the exposure point concentration.
2 - Construction worker RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent an incremental cancer risk of 1x10^{-6}.

Table 5-4

Summary of Cancer Risks and Hazard Indices - RECs #2-6 - Industrial Workers Exposed to Surface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[1] (mg/kg)	Industrial RBC[2] (mg/kg)	Estimated ILCR	Primary Target Organ	Industrial RBC[2] (mg/kg)	Estimated HI
Benzo(a)pyrene Equivalents	0.07	3.1	2E-08	Development, Immune, Reproductive	330	0.0002
Aroclor-1260	0.02	1.4	1E-08	Cancer	NA	-
Arsenic	4.32	5.1	8E-07	Cardiovascular, Dermal	820	0.005
Chromium VI	0.338	3	1E-07	Respiratory	1,600	0.0002
Cobalt	9.01	4,400	2E-09	Thyroid	640	0.01
Iron	9,420	NA	-	Gastrointestinal	1,500,000	0.006
Manganese	2,960	NA	-	Nervous	18,000	0.16
Thallium	0.081	NA	-	Dermal	22	0.004
Vanadium	43	NA	-	Dermal	2,700	0.02
Diesel Range Organics	39	NA	-	NA	NA	-
	Total Cancer Risk		**1E-06**		**Total HI**	**0.2**

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the RSL for industrial exposure to soil multiplying by the target risk level. For example the ILCR for arsenic was calculated by 4.32/5.1 x 1E-06 = 8E-07. The HI for arsenic was calculated by 4.32/820 x 1 = 0.005.

HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - Exposure point concentration is the 95% UCL calculated by ProUCL Version 5.1.02.
2 - Industrial worker RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent an incremental cancer risk of $1x10^{-6}$

Table 5-5

Summary of Cancer Risks and Hazard Indices - RECs #2-6 - Industrial Workers Exposed to Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[1] (mg/kg)	Industrial RBC[2] (mg/kg)	Estimated ILCR	Primary Target Organ	Industrial RBC[2] (mg/kg)	Estimated HI
Benzo(a)pyrene Equivalents	0.514	3.1	2E-07	Development, Immune, Reproductive	330	0.002
Naphthalene	0.031	18	2E-09	Nervous, Respiratory	640	0.00005
Arsenic	6.11	5.1	1E-06	Cardiovascular, Dermal	820	0.007
Chromium VI	0.215	3	7E-08	Respiratory	1,600	0.0001
Cobalt	12.9	4,400	3E-09	Thyroid	640	0.02
Iron	28,400	NA	-	Gastrointestinal	1,500,000	0.02
Manganese	1,040	NA	-	Nervous	18,000	0.06
Thallium	0.62	NA	-	Dermal	22	0.03
Vanadium	31	NA	-	Dermal	2,700	0.01
Diesel Range Organics	66	NA	-	NA	NA	-
	Total Cancer Risk		**1E-06**		**Total HI**	**0.1**

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the RSL for industrial exposure to soil multiplying by the target risk level. For example the ILCR for arsenic was calculated by 6.11/5.1 x 1E-06 = 1E-06. The HI for arsenic was calculated by 6.11/820 x 1 = 0.007.

HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - Exposure point concentration is the 95% UCL calculated by ProUCL Version 5.1.02.
2 - Industrial worker RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent an incremental cancer risk of $1x10^{-6}$

Table 5-6

Summary of Cancer Risks and Hazard Indices - RECs #7-10 - Construction Workers Exposed to Surface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[1] (mg/kg)	Construction RBC[2] (mg/kg)	Estimated ILCR	Primary Target Organ	Construction RBC[2] (mg/kg)	Estimated HI
Benzo(a)pyrene Equivalents	14.74	26	6E-07	Developmental, Immune, Reproductive	110	0.1
Aroclor-1260	0.63	12	5E-08	Cancer	NA	-
Arsenic	2.57	34	8E-08	Cardiovascular, Dermal	220	0.01
Chromium VI	0.099	36	3E-09	Respiratory	1,300	0.00008
Cobalt	2.48	52,000	5E-11	Thyroid	1,400	0.002
Iron	7,930	NA	-	Gastrointestinal	330,000	0.02
Manganese	720	NA	-	Nervous	7,400	0.1
Thallium	2.3	NA	-	Dermal	19	0.1
Vanadium	19	NA	-	Dermal	2,600	0.007
Diesel Range Organics	275	NA	-	NA	NA	-
	Total Cancer Risk		**7E-07**		**Total HI**	**0.4**

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the Construction RSL multiplying by the target risk level. For example the ILCR for arsenic was calculated by 2.57/34 x 1E-06 = 8E-08. The HI for arsenic was calculated by 2.57/220 x 1 = 0.01.

HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - Exposure point concentration is the 95% UCL calculated by ProUCL Version 5.1.02.
2 - Construction worker RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent an incremental cancer risk of 1x10^{-6}.

Table 5-7

Summary of Cancer Risks and Hazard Indices - RECs #7-10 - Construction Workers Exposed to Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[1] (mg/kg)	Construction RBC[2] (mg/kg)	Estimated ILCR	Primary Target Organ	Construction RBC[2] (mg/kg)	Estimated HI
Benzo(a)pyrene Equivalents	2.73	26	1E-07	Developmental, Immune, Reproductive	110	0.02
Naphthalene	3.65	190	2E-08	Nervous, Respiratory	270	0.01
Aroclor-1260	0.064	12	5E-09	Cancer	NA	-
Arsenic	3.56	34	1E-07	Cardiovascular, Dermal	220	0.02
Chromium VI	0.15	36	4E-09	Respiratory	1,300	0.0001
Cobalt	2.08	52,000	4E-11	Thyroid	1,400	0.001
Iron	34,000	NA	-	Gastrointestinal	330,000	0.1
Manganese	13	NA	-	Nervous	7,400	0.002
Thallium	0.2	NA	-	Dermal	19	0.01
Vanadium	24	NA	-	Dermal	2,600	0.009
Diesel Range Organics	160	NA	-	NA	NA	-
	Total Cancer Risk		**2E-07**		**Total HI**	**0.2**

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the Construction RSL multiplying by the target risk level. For example the ILCR for arsenic was calculated by 3.56/34 x 1E-06 = 1E-07. The HI for arsenic was calculated by 3.56/220 x 1 = 0.02.

HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - Exposure point concentration is the 95% UCL calculated by ProUCL Version 5.1.02.
2 - Construction worker RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent an incremental cancer risk of 1x10^{-6}.

Table 5-8

Summary of Cancer Risks and Hazard Indices - RECs #7-10 - Construction Workers Exposed to Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[1] (ug/L)	RBC[2] (ug/L)	Estimated ILCR	Primary Target Organ	RBC[2] (ug/L)	Estimated HI
1,4-Dichlorobenzene	0.830	2,300	4E-10	Liver	22,000	0.00004
Benzene	4.10	810	5E-09	Blood	6,500	0.0006
Chloroform	0.610	1,100	6E-10	Liver	64,000	0.000010
cis-1,2-Dichloroethene	4.60	NA	-	Kidney	17,000	0.0003
Trichloroethene	2,600	1,100	2E-06	Immune System, Developmental	320	8
2-Methylnaphthalene	0.200	NA	-	Respiratory	760	0.0003
Bis(2-ethylhexyl)phthalate	1.80	8,100	2E-10	Liver	160,000	0.00001
Dibenzofuran	1.70	NA	-	NA	640	0.003
Naphthalene	4.90	1,700	3E-09	Nervous, Respiratory	2,500	0.002
Antimony	4.10	NA	-	Blood	440	0.009
Arsenic	48.0	71	7E-07	Cardiovascular, Dermal	450	0.1
Barium	158	NA	-	Kidney	160,000	0.0010
Beryllium	0.970	NA	-	Gastrointestinal	730	0.001
Cadmium	0.810	NA	-	Kidney	670	0.001
Chromium	88.2	59	1E-06	Respiratory	2,200	0.04
Cobalt	41.0	NA	-	Thyroid	4,700	0.009
Copper	102	NA	-	Gastrointestinal	61,000	0.002
Iron	26,900	NA	-	Gastrointestinal	1,100,000	0.02
Lead	23.1	NA	-	NA	NA	-
Manganese	272	NA	-	Nervous	14,000	0.02
Nickel	73.1	NA	-	Body Weight	24,000	0.003
Selenium	6.00	NA	-	Dermal, Nervous	7,600	0.0008
Vanadium	197	NA	-	Dermal	4,400	0.04
Zinc	500	NA	-	Blood	470,000	0.001
Hexavalent Chromium	0.118	59	2E-09	Respiratory	2,200	0.00005
Diesel Range Organics	380	NA	-	NA	NA	-
Gasoline Range Organics	60.0	NA	-	NA	NA	-
	Total Cancer Risk		**5E-06**		**Total HI**	**8**

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the calculated RSL for construction workers multiplying by the target risk level. For example the ILCR for arsenic was calculated by 48.0/71 x 1E-06 = 7E-07. The HI for arsenic was calculated by 48.0/450 x 1 = 0.1.
HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - The maximum concentration from wells with a top screen depth in the interval of 0 to 20 feet was used as the exposure point concentration.
2 - Construction worker RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent an incremental cancer risk of 1x10^{-6}.

Table 5-9

Summary of Cancer Risks and Hazard Indices - RECs #7-10 - Industrial Workers Expose to Surface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[1] (mg/kg)	Industrial RBC[2] (mg/kg)	Estimated ILCR	Primary Target Organ	Industrial RBC[2] (mg/kg)	Estimated HI
Benzo(a)pyrene Equivalents	14.74	3.1	5E-06	Development, Immune, Reproductive	330	0.04
Aroclor-1260	0.63	1.4	5E-07	Cancer	NA	-
Arsenic	2.57	5.1	5E-07	Cardiovascular, Dermal	820	0.003
Chromium VI	0.099	3	3E-08	Respiratory	1,600	0.00006
Cobalt	2.48	4,400	6E-10	Thyroid	640	0.004
Iron	7,930	NA	-	Gastrointestinal	1,500,000	0.005
Manganese	720	NA	-	Nervous	18,000	0.04
Thallium	2.3	NA	-	Dermal	22	0.1
Vanadium	19	NA	-	Dermal	2,700	0.007
Diesel Range Organics	275	NA	-	NA	NA	-
	Total Cancer Risk		**6E-06**		**Total HI**	**0.2**

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the RSL for industrial exposure to soil multiplying by the target risk level. For example the ILCR for arsenic was calculated by 2.57/5.1 x 1E-06 = 5E-07. The HI for arsenic was calculated by 2.57/820 x 1 = 0.003.

HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - Exposure point concentration is the 95% UCL calculated by ProUCL Version 5.1.02.
2 - Industrial worker RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent an incremental cancer risk of $1x10^{-6}$

Table 5-10

Summary of Cancer Risks and Hazard Indices - RECs #7-10 - Industrial Workers Exposed to Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[(1)] (mg/kg)	Industrial RBC[(2)] (mg/kg)	Estimated ILCR	Primary Target Organ	Industrial RBC[(2)] (mg/kg)	Estimated HI
Benzo(a)pyrene Equivalents	2.73	3.1	9E-07	Development, Immune, Reproductive	330	0.008
Naphthalene	3.65	18	2E-07	Nervous, Respiratory	640	0.006
Aroclor-1260	0.064	1.4	5E-08	Cancer	NA	-
Arsenic	3.56	5.1	7E-07	Cardiovascular, Dermal	820	0.004
Chromium VI	0.15	3	5E-08	Respiratory	1,600	0.00009
Cobalt	2.08	4,400	5E-10	Thyroid	640	0.003
Iron	34,000	NA	-	Gastrointestinal	1,500,000	0.02
Manganese	13	NA	-	Nervous	18,000	0.0007
Thallium	0.2	NA	-	Dermal	22	0.009
Vanadium	24	NA	-	Dermal	2,700	0.009
Diesel Range Organics	160	NA	-	NA	NA	-
	Total Cancer Risk		**2E-06**		**Total HI**	**0.06**

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the RSL for industrial exposure to soil multiplying by the target risk level. For example the ILCR for arsenic was calculated by 3.56/5.1 x 1E-06 = 7E-07. The HI for arsenic was calculated by 3.56/820 x 1 = 0.004.

HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - Exposure point concentration is the 95% UCL calculated by ProUCL Version 5.1.02.
2 - Industrial worker RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent an incremental cancer risk of $1x10^{-6}$.

Table 5-11

Summary of Cancer Risks and Hazard Indices - #REC 11 - Construction Workers Exposed to Surface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[1] (mg/kg)	Construction RBC[2] (mg/kg)	Estimated ILCR	Primary Target Organ	Construction RBC[2] (mg/kg)	Estimated HI
Benzo(a)pyrene Equivalents	1.45	26	6E-08	Developmental, Immune, Reproductive	110	0.01
N-Nitroso-di-n-Propylamine	0.12	4.0	3E-08	Cancer	NA	-
Aroclor-1260	2.31	12	2E-07	Cancer	NA	-
Arsenic	3.64	34	1E-07	Cardiovascular, Dermal	220	0.02
Chromium VI	0.16	36	4E-09	Respiratory	1,300	0.0001
Cobalt	3.26	52,000	6E-11	Thyroid	1,400	0.00
Iron	10,450	NA	-	Gastrointestinal	330,000	0.03
Manganese	415	NA	-	Nervous	7,400	0.1
Thallium	0.92	NA	-	Dermal	19	0.05
Vanadium	25	NA	-	Dermal	2,600	0.01
Diesel Range Organics	1,015	NA	-	NA	NA	-
	Total Cancer Risk		**4E-07**		**Total HI**	**0.2**

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the Construction RSL multiplying by the target risk level. For example the ILCR for arsenic was calculated by 3.64/34 x 1E-06 = 1E-07. The HI for arsenic was calculated by 3.64/220 x 1 = 0.02.

HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - Exposure point concentration is the 95% UCL calculated by ProUCL Version 5.1.02.
2 - Construction worker RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent an incremental cancer risk of $1x10^{-6}$

Table 5-12

Summary of Cancer Risks and Hazard Indices - REC #11 - Construction Workers Exposed to Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[1] (mg/kg)	Construction RBC[2] (mg/kg)	Estimated ILCR	Primary Target Organ	Construction RBC[2] (mg/kg)	Estimated HI
Benzo(a)pyrene Equivalents	2.33	26	9E-08	Developmental, Immune, Reproductive	110	0.02
Naphthalene	0.62	190	3E-09	Nervous, Respiratory	270	0.002
Aroclor-1260	0.036	12	3E-09	Cancer	NA	-
Arsenic	3	34	9E-08	Cardiovascular, Dermal	220	0.01
Chromium VI	0.128	36	4E-09	Respiratory	1,300	0.0001
Cobalt	1.78	52,000	3E-11	Thyroid	1,400	0.001
Iron	15,600	NA	-	Gastrointestinal	330,000	0.05
Manganese	713	NA	-	Nervous	7,400	0.1
Thallium	0.078	NA	-	Dermal	19	0.004
Vanadium	20	NA	-	Dermal	2,600	0.008
Diesel Range Organics	1,080	NA	-	NA	NA	-
	Total Cancer Risk		**2E-07**		**Total HI**	**0.2**

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the Construction RSL multiplying by the target risk level. For example the ILCR for arsenic was calculated by 3/34 x 1E-06 = 9E-08. The HI for arsenic was calculated by 3/220 x 1 = 0.01.

HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - Exposure point concentration is the 95% UCL calculated by ProUCL Version 5.1.02.
2 - Construction worker RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent an incremental cancer risk of 1×10^{-6}.

Table 5-13

Summary of Cancer Risks and Hazard Indices - REC #11 - Construction Workers Exposed to Groundwater
Greater Strawberry Point
Lcokheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[1] (ug/L)	RBC[2] (ug/L)	Estimated ILCR	Primary Target Organ	RBC[2] (ug/L)	Estimated HI
1,2-Dibromo-3-Chloropropane	2.90	13.0	2E-07	Reproductive	1,000	0.003
1,2-Dichloroethane	110	620	2E-07	Kidney	16,000	0.007
Benzene	3.00	810	4E-09	Blood	6,500	0.0005
Chloroform	84.0	1,100	8E-08	Liver	64,000	0.001
cis-1,2-Dichloroethene	58.0	NA	-	Kidney	17,000	0.003
Ethylbenzene	21.0	1,900	1E-08	Liver, Kidney	34,000	0.0006
Methylene Chloride	120	44,000	3E-09	Liver	67,000	0.002
Naphthalene	110	1,700	6E-08	Nervous, Respiratory	2,500	0.04
Trichloroethene	280	1,100	3E-07	Immune System, Developmental	320	0.9
Vinyl Chloride	27.0	95.0	3E-07	Liver	2,800	0.010
2-Methylnaphthalene	3.40	NA	-	Respiratory	760	0.004
Bis(2-ethylhexyl)phthalate	1.90	8,100	2E-10	Liver	160,000	0.00001
Dibenzofuran	5.90	NA	-	NA	640	0.009
Naphthalene	70.0	1,700	4E-08	Nervous, Respiratory	2,500	0.03
Antimony	0.150	NA	-	Blood	440	0.0003
Arsenic	92.3	71	1E-06	Cardiovascular, Dermal	450	0.2
Barium	89.0	NA	-	Kidney	160,000	0.0006
Beryllium	1.50	NA	-	Gastrointestinal	730	0.002
Cadmium	1.00	NA	-	Kidney	670	0.001
Chromium	37.6	59	6E-07	Respiratory	2,200	0.02
Cobalt	210	NA	-	Thyroid	4,700	0.04
Copper	18.6	NA	-	Gastrointestinal	61,000	0.0003
Iron	18,800	NA	-	Gastrointestinal	1,100,000	0.02
Lead	3.10	NA	-	NA	NA	-
Manganese	758	NA	-	Nervous	14,000	0.05
Nickel	380	NA		Body Weight	24,000	0.02
Selenium	2.60	NA		Dermal, Nervous	7,600	0.0003
Thallium	4.50	NA		Dermal	61.0	0.07
Vanadium	22.8	NA		Dermal	4,400	0.005
Zinc	1,800	NA		Blood	470,000	0.004
Diesel Range Organics	52.0	NA	-	NA	NA	-
Gasoline Range Organics	3,000	NA	-	NA	NA	-
	Total Cancer Risk		**3E-06**		**Total HI**	**1**

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the calculated RSL for construction workers multipling by the target risk level. For example the ILCR for arsenic was calculated by 92.3/71 x 1E-06 = 1E-06. The HI for arsenic was calculated by 92.3/450 x 1 = 0.2.

HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - The maximum concentration from wells with a top screen depth in the interval of 0 to 20 feet was used as the exposure point concentration.
2 - Construction worker RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent an incremental cancer risk of 1x10[-6]

Table 5-14

Summary of Cancer Risks and Hazard Indices - REC #11 - Industrial Workers Exposed to Surface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[(1)] (mg/kg)	Industrial RBC[(2)] (mg/kg)	Estimated ILCR	Primary Target Organ	Industrial RBC[(2)] (mg/kg)	Estimated HI
Benzo(a)pyrene Equivalents	1.45	3.1	5E-07	Development, Immune, Reproductive	330	0.004
N-Nitroso-di-n-Propylamine	0.12	0.5	2E-07	Cancer	NA	-
Aroclor-1260	2.31	1.4	2E-06	Cancer	NA	-
Arsenic	3.64	5.1	7E-07	Cardiovascular, Dermal	820	0.004
Chromium VI	0.16	3	5E-08	Respiratory	1,600	0.0001
Cobalt	3.26	4,400	7E-10	Thyroid	640	0.005
Iron	10,450	NA	-	Gastrointestinal	1,500,000	0.007
Manganese	415	NA	-	Nervous	18,000	0.02
Thallium	0.92	NA	-	Dermal	22	0.0
Vanadium	25	NA	-	Dermal	2,700	0.009
Diesel Range Organics	1,015	NA	-	NA	NA	-
	Total Cancer Risk		**3E-06**		**Total HI**	**0.1**

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the RBC for industrial exposure to soil multiplying by the target risk level. For example the ILCR for arsenic was calculated by 3.64/5.1 x 1E-06 = 7E-07. The HI for arsenic was calculated by 3.64/820 x 1 = 0.004.

HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RBC - regional screening level
USEPA - United States Environmental Protection Agency

1 - Exposure point concentration is the 95% UCL calculated by ProUCL Version 5.1.02.
2 - Industrial worker RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent an incremental cancer risk of 1x10-6.

Table 5-15

Summary of Cancer Risks and Hazard Indices - REC #11 - Industrial Workers Exposed to Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[(1)] (mg/kg)	Industrial RBC[(2)] (mg/kg)	Estimated ILCR	Primary Target Organ	Industrial RBC[(2)] (mg/kg)	Estimated HI
Benzo(a)pyrene Equivalents	2.33	3.1	8E-07	Development, Immune, Reproductive	330	0.007
Naphthalene	0.62	18	3E-08	Nervous, Respiratory	640	0.001
Aroclor-1260	0.036	1.4	3E-08	Cancer	NA	-
Arsenic	3	5.1	6E-07	Cardiovascular, Dermal	820	0.004
Chromium VI	0.128	3	4E-08	Respiratory	1,600	0.00008
Cobalt	1.78	4,400	4E-10	Thyroid	640	0.003
Iron	15,600	NA	-	Gastrointestinal	1,500,000	0.01
Manganese	713	NA	-	Nervous	18,000	0.04
Thallium	0.078	NA	-	Dermal	22	0.004
Vanadium	20	NA	-	Dermal	2,700	0.007
Diesel Range Organics	1,080	NA	-	NA	NA	-
	Total Cancer Risk		**1E-06**		**Total HI**	**0.08**

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the RSL for industrial exposure to soil multiplying by the target risk level. For example the ILCR for arsenic was calculated by 3.0/5.1 x 1E-06 = 6E-07. The HI for arsenic was calculated by 3.0/820 x 1 = 0.004.

HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - Exposure point concentration is the 95% UCL calculated by ProUCL Version 5.1.02.
2 - Industrial worker RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical
The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent
Contaminants at Superfund Sites, May 2016.
an incremental cancer risk of 1x10^{-6}

Table 5-16

Evaluation of Migration from Soil to Groundwater - RECs #2-6 - Surface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Location of Maximum Concentration	Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards-Groundwater Protection	USEPA Soil Screening Levels for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]	# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20
Volatile Organics (mg/kg)													
1,1-Dichloroethene	1/34	0.00077 J	0.00077 J	GSP-SB-028	GSP-SB-28-0-2	0.00042	0.00056	0.0008	0.0002	2.9	0	2 N	0
1,2,3-Trimethylbenzene	3/34	0.00021 J	0.009	GSP-SB-006	GSP-SB-6-0-2	0.00014	0.00018	0.003	0.0003	NA	NA	0.3 N	0
1,2,4-Trimethylbenzene	1/34	0.015	0.015	GSP-SB-006	GSP-SB-6-0-2	0.00052	0.00069	0.015	0.0007	NA	NA	0.42 N	0
1,2-Dichlorobenzene	2/34	0.0012 J	0.015	GSP-SB-030	GSP-SB-30-0-2	0.00029	0.00038	0.008	0.0006	4.6	0	6 N	0
2-Butanone	6/34	0.0024 J	0.027	GSP-SB-021	GSP-SB-21-0-2	0.0011	0.0015	0.008	0.002	29	0	24 N	0
4-Isopropyltoluene	2/34	0.00071 J	0.0019 J	GSP-SB-006	GSP-SB-6-0-2	0.00017	0.00022	0.001	0.0002	NA	NA	NA	NA
Acetone	7/34	0.015	0.13	GSP-SB-021	GSP-SB-21-0-2	0.0051	0.048	0.052	0.015	22	0	58 N	0
Benzene	2/34	0.00032 J	0.00039 J	GSP-SB-010	GSP-SB-10-0-2	0.00018	0.00025	0.0004	0.0001	0.0019	0	0.0046 C	0
Carbon Disulfide	5/34	0.0006 J	0.0037 J	GSP-SB-028	GSP-SB-28-0-2	0.00035	0.00047	0.002	0.0005	19	0	4.8 N	0
Chloroform	1/34	0.00058 J	0.00058 J	GSP-SB-033	GSP-SB-33-0-2	0.00023	0.00031	0.0006	0.0001	0.00091	0	0.00122 C	0
cis-1,2-Dichloroethene	1/34	0.032	0.032	GSP-SB-028	GSP-SB-28-0-2	0.00029	0.00038	0.032	0.001	NA	NA	0.22 N	0
Ethylbenzene	1/34	0.00097 J	0.00097 J	GSP-SB-006	GSP-SB-6-0-2	0.00021	0.00028	0.0010	0.0001	15	0	0.034 C	0
Isopropylbenzene	2/34	0.00014 J	0.0022 J	GSP-SB-006	GSP-SB-6-0-2	0.00013	0.00017	0.001	0.0001	64	0	14.8 N	0
m+p-Xylenes	1/34	0.0017 J	0.0017 J	GSP-SB-006	GSP-SB-6-0-2	0.00097	0.0013	0.002	0.0006	3 [6]	0	3.8 N[7]	0
Methyl Tert-Butyl Ether	3/34	0.00067 J	0.0022 J	GSP-SB-003	GSP-SB-3-0-2	0.00035	0.00046	0.001	0.0003	0.012	0	0.064 C	0
Methylene Chloride	1/34	0.001 J	0.001 J	GSP-SB-012	GSP-SB-12-0-2	0.00054	0.0033	0.001	0.0004	0.019	0	0.058 C	0
N-Propylbenzene	1/34	0.0024 J	0.0024 J	GSP-SB-006	GSP-SB-6-0-2	0.00032	0.00043	0.002	0.0002	NA	NA	24 N	0
o-Xylene	1/34	0.002 J	0.002 J	GSP-SB-006	GSP-SB-6-0-2	0.00028	0.00037	0.002	0.0002	3 [6]	0	3.8 N	0
sec-Butylbenzene	1/34	0.0021 J	0.0021 J	GSP-SB-006	GSP-SB-6-0-2	0.00014	0.00019	0.002	0.0001	NA	NA	118 N	0
Tert-Butylbenzene	1/34	0.0005 J	0.0005 J	GSP-SB-006	GSP-SB-6-0-2	0.00023	0.00031	0.0005	0.0001	NA	NA	32 N	0
Toluene	1/34	0.0011 J	0.0011 J	GSP-SB-006	GSP-SB-6-0-2	0.00022	0.00029	0.001	0.0001	27	0	15.2 N	0
Total Xylenes	1/34	0.0037 J	0.0037 J	GSP-SB-006	GSP-SB-6-0-2	0.00054	0.00072	0.004	0.0004	3	0	3.8 N	0
trans-1,2-Dichloroethene	1/34	0.0012 J	0.0012 J	GSP-SB-028	GSP-SB-28-0-2	0.00033	0.00044	0.001	0.0002	0.72	0	2.2 N	0
Trichloroethene	1/34	0.05	0.05	GSP-SB-028	GSP-SB-28-0-2	0.00034	0.00045	0.050	0.002	0.00026	1	0.0036 C	1
Semivolatile Organics (mg/kg)													
2-Methylnaphthalene	6/34	0.0088	0.062	GSP-SB-030	GSP-SB-30-0-2	0.0036	0.008	0.026	0.006	4.4	0	3.8 N	0
Acenaphthene	3/34	0.0098	0.053	GSP-SB-006	GSP-SB-6-0-2	0.0036	0.008	0.032	0.005	100	0	110 N	0
Acenaphthylene	1/34	0.0098	0.0098	GSP-SB-002	GSP-SB-2-0-2	0.0036	0.008	0.010	0.002	100	0	110 N[7]	0
Anthracene	4/34	0.013	0.059	GSP-SB-009	GSP-SB-9-0-2	0.0036	0.008	0.029	0.005	470	0	1160 N	0
Benzo(a)anthracene	12/34	0.0084	0.24	GSP-SB-009	GSP-SB-9-0-2	0.0036	0.008	0.055	0.021	0.48	0	0.084 C	3
Benzo(a)pyrene	9/34	0.01	0.24	GSP-SB-009	GSP-SB-9-0-2	0.0036	0.008	0.072	0.020	0.12	2	0.08 C	4
Benzo(b)fluoranthene	12/34	0.0081	0.34	GSP-SB-009	GSP-SB-9-0-2	0.0036	0.008	0.080	0.030	1.5	0	0.82 C	0
Benzo(g,h,i)perylene	8/34	0.0089	0.15	GSP-SB-009	GSP-SB-9-0-2	0.0036	0.008	0.060	0.016	680	0	260 N[8]	0
Benzo(k)fluoranthene	8/34	0.0099	0.13	GSP-SB-009	GSP-SB-9-0-2	0.0036	0.008	0.046	0.012	15	0	8 C	0
Bis(2-ethylhexyl)phthalate	10/34	0.024 J	2.3	GSP-SB-038	GSP-SB-38-0-2	0.021	0.079	0.331	0.107	2,900	0	26 C	0
Butyl Benzyl Phthalate	1/34	0.03 J	0.03 J	GSP-SB-028	GSP-SB-28-0-2	0.011	0.024	0.030	0.007	NA	NA	4.8 C	0
Carbazole	2/34	0.035 J	0.054 J	GSP-SB-006	GSP-SB-6-0-2	0.03	0.066	0.045	0.018	0.47	0	NA	NA
Chrysene	11/34	0.0091	0.26	GSP-SB-009	GSP-SB-9-0-2	0.0012	0.0027	0.065	0.021	48	0	24 C	0
di-n-Butyl Phthalate	1/34	0.027 J	0.027 J	GSP-SB-021	GSP-SB-21-0-2	0.017	0.037	0.027	0.010	5,000	0	46 N	0
Dibenz(a,h)anthracene	3/34	0.018	0.032	GSP-SB-009	GSP-SB-9-0-2	0.0036	0.008	0.024	0.004	0.46	0	0.26 C	0
Dibenzofuran	1/34	0.03 J	0.03 J	GSP-SB-006	GSP-SB-6-0-2	0.022	0.049	0.030	0.013	NA	NA	3 N	0
Fluoranthene	13/34	0.014	0.54	GSP-SB-009	GSP-SB-9-0-2	0.0037	0.008	0.110	0.043	6,300	0	1780 N	0
Fluorene	2/34	0.023	0.039	GSP-SB-006	GSP-SB-6-0-2	0.0036	0.008	0.031	0.004	140	0	108 N	0
Indeno(1,2,3-cd)pyrene	7/34	0.013	0.13	GSP-SB-009	GSP-SB-9-0-2	0.0036	0.008	0.058	0.014	4.2	0	2.6 C	0
Naphthalene	6/34	0.0092	0.078	GSP-SB-006	GSP-SB-6-0-2	0.0036	0.008	0.027	0.006	0.15	0	0.0108 C	5
Phenanthrene	14/34	0.0081	0.28	GSP-SB-009	GSP-SB-9-0-2	0.0037	0.008	0.051	0.022	470	0	260 N[8]	0
Pyrene	12/34	0.011	0.43	GSP-SB-009	GSP-SB-9-0-2	0.0037	0.008	0.096	0.035	680	0	260 N	0
Polychlorinated Biphenyls (mg/kg)													
Aroclor-1260	1/34	0.02 J	0.02 J	GSP-SB-009	GSP-SB-9-0-2	0.019	0.023	0.020	0.010	NA	NA	0.11 C	0
Inorganics (mg/kg)													
Antimony	19/34	0.029 J	1.6 L	GSP-SB-019	GSP-SB-19-0-2	0.044	0.12	0.197	0.124	13	0	7 N	0
Arsenic	34/34	1	8.5 J	GSP-SB-029	GSP-SB-29-0-2	--	--	3.78	3.78	0.026	34	0.03 C	34
Barium	34/34	8 J	708	GSP-SB-028	GSP-SB-28-0-2	--	--	103	103	6,000	0	3200 N	0
Beryllium	34/34	0.12 J	3.4 J	GSP-SB-027	GSP-SB-27-0-2	--	--	0.846	0.846	1,200	0	380 N	0
Beryllium	34/34	0.12 J	3.4	GSP-SB-010	GSP-SB-10-0-2	--	--	0.846	0.846	1,200	0	380 N	0

Table 5-16

Evaluation of Migration from Soil to Groundwater - RECs #2-6 - Surface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration		Maximum Concentration		Location of Maximum Concentration	Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards-Groundwater Protection	USEPA Soil Screening Levels for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]		# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20
Cadmium	10/34	0.05	J	3.2		GSP-SB-019	GSP-SB-19-0-2	0.0029	0.045	0.472	0.145	27	0	13.8	N	0
Chromium	34/34	3.7	J	206		GSP-SB-028	GSP-SB-28-0-2	--	--	27.1	27.1	42	3	0.0134	C[9]	34
Cobalt	34/34	0.69		27.5	J	GSP-SB-016	GSP-SB-16-0-2	--	--	6.56	6.56	NA	NA	5.4	N	0
Copper	34/34	3.1		42.2		GSP-SB-028	GSP-SB-28-0-2	--	--	15.2	15.2	11000	0	560	N	0
Iron	34/34	948		19900	J	GSP-SB-002	GSP-SB-2-0-2	--	--	7993	7993	NA	NA	7000	N	18
Lead	34/34	1.5	J	181	J	GSP-SB-019	GSP-SB-19-0-2	--	--	12.3	12.3	NA	NA	280	[10]	0
Manganese	34/34	3.2	J	8030	J	GSP-SB-027	GSP-SB-27-0-2	--	--	908	908	950	6	560	N	7
Mercury	6/34	0.022	J	0.058	J	GSP-SB-019	GSP-SB-19-0-2	0.018	0.057	0.033	0.015	NA	NA	0.66	N[11]	0
Molybdenum	28/34	0.22	J	0.92		GSP-SB-019	GSP-SB-19-0-2	0.12	0	0.476	0.416	NA	NA	40	N	0
Molybdenum	28/34	0.22		0.92		GSP-SB-019	GSP-SB-19-0-2	0.12	0.65	0.476	0.416	NA	NA	40	N	0
Nickel	34/34	0.62	K	32.7	J	GSP-SB-033	GSP-SB-33-0-2	--	--	8.60	8.60	NA	NA	520	N	0
Selenium	34/34	0.24	J	4.7	J	GSP-SB-028	GSP-SB-28-0-2	--	--	1.49	1.49	19	0	10.4	N	0
Silver	8/34	0.02	J	0.1	J	GSP-SB-028	GSP-SB-28-0-2	0.0063	0.041	0.046	0.020	31	0	16	N	0
Thallium	6/34	0.17		0.32		GSP-SB-031	GSP-SB-31-0-2	0.015	0.24	0.225	0.087	3.6	0	0.28	N	1
Vanadium	34/34	7.6	J	339	J	GSP-SB-027	GSP-SB-27-0-2	--	--	37.5	37.5	730	0	1720	N	0
Zinc	32/34	3.1		99.1	J	GSP-SB-019	GSP-SB-19-0-2	3.4	5.5	26.3	24.9	14,000	0	7400	N	0
Petroleum Hydrocarbons (mg/kg)																
Diesel Range Organics	28/34	3.9	J	180		GSP-SB-009	GSP-SB-9-0-2	3.2	3.5	30.0	25.0	NA	NA	NA		NA
Gasoline Range Organics	6/34	0.035	J	0.087	J	GSP-SB-028	GSP-SB-28-0-2	0.031	0.038	0.058	0.024	NA	NA	NA		NA

1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and number of exceedances.
2 - Average of detected values only.
3 - Average of all analytical results are calculated using one half the detection limit for nondetects.
4 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
5 - USEPA Regional Screening Levels, May 2016.
6 - Value is for total xylene.
7 - Value is for m-xylene.
8 - Value is for pyrene.
9 - Value is for hexavalent chromium.
10 - Value is MCL based soil screening level.
11 - No SSL is available for mercuric chloride. Value is for elemental mercury.

Definitions
J = Estimated value
MDE = Maryland Department of the Environment
NC = No criteria available
REC = recognized environmental condition
USEPA = U.S. Environmental Protection Agency
mg/kg = milligram per kilogram

Table 5-17

Evaluation of Migration from Soil to Groundwater - RECs #2-6 - Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Location of Maximum Concentration	Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards-Groundwater Protection	USEPA Soil Screening Levels for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]	# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20
Volatile Organics (mg/kg)													
1,2-Dichlorobenzene	1/10	0.0013 J	0.0013 J	GSP-SB-037	GSP-SB-37-12-14	0.00029	0.0007	0.001	0.0003	4.6	0	6 N	0
2-Butanone	6/10	0.0028 J	0.067	GSP-SB-026	GSP-SB-26-2-4	0.0011	0.0013	0.022	0.013	29	0	24 N	0
4-Isopropyltoluene	1/10	0.00055 J	0.00055 J	GSP-SB-013	GSP-SB-13-4-6	0.00017	0.00041	0.0006	0.0002	NA	NC	NC	NC
Acetone	5/10	0.012	0.35	GSP-SB-026	GSP-SB-26-2-4	0.005	0.024	0.122	0.064	22	0	58 N	0
Benzene	1/10	0.0015 J	0.0015 J	GSP-SB-013	GSP-SB-13-4-6	0.00018	0.00045	0.002	0.0003	0.0019	0	0.0046 C	0
Carbon Disulfide	5/10	0.0004 J	0.0021 J	GSP-SB-034	GSP-SB-34-6-8	0.00035	0.00082	0.001	0.0008	19	0	4.8 N	0
Carbon Disulfide	5/10	0.0004 J	0.0021 J	GSP-SB-015	GSP-SB-15-6-8	0.00035	0.00082	0.001	0.0008	19	0	4.8 N	0
Chlorobenzene	1/10	0.00049 J	0.00049 J	GSP-SB-037	GSP-SB-37-12-14	0.00026	0.00064	0.0005	0.0002	0.68	0	1.06 N	0
Isopropylbenzene	2/10	0.00019 J	0.0033 J	GSP-SB-005	GSP-SB-5-5-7	0.00013	0.00031	0.002	0.0004	64	0	14.8 N	0
Methyl Tert-Butyl Ether	1/10	0.0064 J	0.0064 J	GSP-SB-005	GSP-SB-5-5-7	0.00034	0.00084	0.006	0.0009	0.012	0	0.064 C	0
Methylene Chloride	1/10	0.0017 J	0.0017 J	GSP-SB-015	GSP-SB-15-6-8	0.00053	0.0013	0.002	0.0005	0.019	0	0.058 C	0
N-Butylbenzene	1/10	0.0068	0.0068	GSP-SB-005	GSP-SB-5-5-7	0.00018	0.00045	0.007	0.0008	NA	NC	64 N	0
N-Propylbenzene	2/10	0.00039 J	0.01	GSP-SB-005	GSP-SB-5-5-7	0.00032	0.00078	0.005	0.001	NA	NC	24 N	0
sec-Butylbenzene	2/10	0.00023 J	0.011	GSP-SB-005	GSP-SB-5-5-7	0.00014	0.00035	0.006	0.001	NA	NC	118 N	0
Tert-Amyl Methyl Ether	1/10	0.0011 J	0.0011 J	GSP-SB-005	GSP-SB-5-5-7	0.00029	0.00072	0.001	0.0003	NA	NC	NC	NC
Tert-Butylbenzene	1/10	0.0019 J	0.0019 J	GSP-SB-005	GSP-SB-5-5-7	0.00023	0.00057	0.002	0.0003	NA	NC	32 N	0
Toluene	1/10	0.00033 J	0.00033 J	GSP-SB-005	GSP-SB-5-5-7	0.00021	0.00053	0.0003	0.0002	27	0	15.2 N	0
Semivolatile Organics (mg/kg)													
2-Methylnaphthalene	1/10	0.022	0.022	GSP-SB-005	GSP-SB-5-5-7	0.0037	0.0062	0.022	0.004	4.4	0	3.8 N	0
Acenaphthylene	1/10	0.025	0.025	GSP-SB-005	GSP-SB-5-5-7	0.0037	0.0062	0.025	0.005	100	0	110 N[6]	0
Anthracene	1/10	0.074	0.074	GSP-SB-005	GSP-SB-5-5-7	0.0037	0.0062	0.074	0.009	470	0	1160 N	0
Benzo(a)anthracene	2/10	0.018	0.32	GSP-SB-005	GSP-SB-5-5-7	0.0037	0.0062	0.169	0.036	0.48	0	0.084 C	1
Benzo(a)pyrene	2/10	0.013	0.34	GSP-SB-005	GSP-SB-5-5-7	0.0037	0.0062	0.177	0.037	0.12	1	0.08 C	1
Benzo(b)fluoranthene	2/10	0.021	0.39	GSP-SB-005	GSP-SB-5-5-7	0.0037	0.0062	0.206	0.043	1.5	0	0.82 C	0
Benzo(g,h,i)perylene	2/10	0.0091	0.24	GSP-SB-005	GSP-SB-5-5-7	0.0037	0.0062	0.125	0.027	680	0	260 N[7]	0
Benzo(k)fluoranthene	1/10	0.12	0.12	GSP-SB-005	GSP-SB-5-5-7	0.0037	0.0062	0.120	0.014	15	0	8 C	0
Bis(2-ethylhexyl)phthalate	3/10	0.063 J	0.17	GSP-SB-029	GSP-SB-29-13-15	0.022	0.046	0.100	0.040	2,900	0	26 C	0
Butyl Benzyl Phthalate	1/10	0.02 J	0.02 J	GSP-SB-013	GSP-SB-13-4-6	0.011	0.029	0.020	0.009	NA	NC	4.8 C	0
Chrysene	2/10	0.014	0.36	GSP-SB-005	GSP-SB-5-5-7	0.0012	0.0021	0.187	0.038	48	0	24 C	0
Dibenz(a,h)anthracene	1/10	0.08	0.08	GSP-SB-005	GSP-SB-5-5-7	0.0037	0.0062	0.080	0.010	0.46	0	0.26 C	0
Fluoranthene	2/10	0.024	0.55	GSP-SB-005	GSP-SB-5-5-7	0.0037	0.0062	0.287	0.059	6,300	0	1780 N	0
Indeno(1,2,3-cd)pyrene	1/10	0.21	0.21	GSP-SB-005	GSP-SB-5-5-7	0.0037	0.0062	0.210	0.023	4.2	0	2.6 C	0
Naphthalene	3/10	0.018	0.031	GSP-SB-005	GSP-SB-5-5-7	0.0037	0.0045	0.023	0.008	0.15	0	0.0108 C	3
Phenanthrene	5/10	0.01	0.23	GSP-SB-005	GSP-SB-5-5-7	0.0039	0.0045	0.061	0.032	470	0	260 N[7]	0
Pyrene	3/10	0.025	0.66	GSP-SB-005	GSP-SB-5-5-7	0.0037	0.0062	0.237	0.073	680	0	260 N	0
Inorganics (mg/kg)													
Antimony	3/9	0.061 J	0.22 J	GSP-SB-037	GSP-SB-37-12-14	0.02	0.1	0.118	0.061	13	0	7 N	0
Arsenic	10/10	0.63 L	8.8	GSP-SB-015	GSP-SB-15-6-8	--	--	4.41	4.41	0.026	10	0.03 C	10
Arsenic	10/10	0.63 L	8.8	GSP-SB-026	GSP-SB-26-2-4	--	--	4.41	4.41	0.026	10	0.03 C	10
Barium	10/10	8.6 K	40.9	GSP-SB-015	GSP-SB-15-6-8	--	--	24.8	24.8	6,000	0	3200 N	0
Beryllium	10/10	0.048 J	1.6	GSP-SB-026	GSP-SB-26-2-4	--	--	0.627	0.627	1,200	0	380 N	0
Cadmium	5/10	0.051 J	0.23 J	GSP-SB-026	GSP-SB-26-2-4	0.0028	0.043	0.143	0.075	27	0	13.8 N	0
Chromium	10/10	3.9	32.9	GSP-SB-015	GSP-SB-15-6-8	--	--	16.2	16.2	42	0	0.0134 C[8]	10
Cobalt	10/10	1 L	19.8	GSP-SB-026	GSP-SB-26-2-4	--	--	6.82	6.82	NA	NC	5.4 N	3
Copper	10/10	2 L	28 K	GSP-SB-037	GSP-SB-37-12-14	--	--	13.2	13.2	11000	0	560 N	0
Iron	10/10	697 J	36300	GSP-SB-015	GSP-SB-15-6-8	--	--	10974	10974	NA	NC	7000 N	5
Lead	10/10	0.7	19.9	GSP-SB-015	GSP-SB-15-6-8	--	--	8.35	8.35	NA	NC	280 [9]	0
Manganese	10/10	6.6	1300	GSP-SB-015	GSP-SB-15-6-8	--	--	297	297	950	2	560 N	2
Mercury	3/10	0.034 J	0.048 J	GSP-SB-026	GSP-SB-26-2-4	0.019	0.032	0.039	0.019	NA	NC	0.66 N[10]	0
Molybdenum	8/10	0.24	2.1	GSP-SB-015	GSP-SB-15-6-8	0.081	0.14	0.818	0.665	NA	NC	40 N	0

Table 5-17

Evaluation of Migration from Soil to Groundwater - RECs #2-6 - Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration		Maximum Concentration		Location of Maximum Concentration	Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards-Groundwater Protection	USEPA Soil Screening Levels for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]		# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20
Nickel	10/10	0.81	J	31.3		GSP-SB-026	GSP-SB-26-2-4	--	--	10.3	10.3	NA	NC	520	N	0
Selenium	10/10	0.27	J	2.6		GSP-SB-015	GSP-SB-15-6-8	--	--	1.31	1.31	19	0	10.4	N	0
Silver	1/10	0.056	J	0.056	J	GSP-SB-015	GSP-SB-15-6-8	0.0022	0.066	0.056	0.014	31	0	16	N	0
Thallium	2/10	0.18		0.62		GSP-SB-037	GSP-SB-37-12-14	0.014	0.3	0.400	0.135	3.6	0	0.28	N	1
Vanadium	10/10	4.6		41.3		GSP-SB-026	GSP-SB-26-2-4	--	--	23.2	23.2	730	0	1720	N	0
Zinc	9/10	2.4	L	91.8	J	GSP-SB-026	GSP-SB-26-2-4	3	3	33.3	30.1	14,000	0	7400	N	0
Petroleum Hydrocarbons (mg/kg)																
Diesel Range Organics	9/10	6.1	J	100		GSP-SB-005	GSP-SB-5-5-7	3.4	3.4	22.7	20.6	NA	NC	NC		NC
Gasoline Range Organics	3/10	0.041	J	21	J	GSP-SB-005	GSP-SB-5-5-7	0.032	0.053	7.05	2.13	NA	NC	NC		NC

1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and number of exceedances.
2 - Average of detected values only.
3 - Average of all analytical results are calculated using one half the detection limit for nondetects.
4 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
5 - USEPA Regional Screening Levels, May 2016.
6 - Value is for acenaphthene.
7 - Value is for pyrene.
8 - Value is for hexavalent chromium.
9 - Value is MCL based soil screening level.
10 - No SSL is available for mercuric chloride. Value is for elemental mercury.

Definitions
J = Estimated value
MDE = Maryland Department of the Environment
NC = No criteria available
REC = recognized environmental condition
USEPA = U.S. Environmental Protection Agency
mg/kg = milligram per kilogram

Table 5-18

Evaluation of Migration from Soil to Groundwater - RECs #2-6 - Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration		Maximum Concentration		Location of Maximum Concentration	Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standard[4] Groundwater	# Detects Greater than MDE Cleanup Standards-Groundwater	USEPA Regional Screening Level[5] Tap Water		# Detects Greater than USEPA RSL - Tap Water
Volatile Organics (ug/L)																
1,2-Dichlorobenzene	1/9	1.2		1.2		GSP-SB-030	GSP-SB-30-W	0.13	0.52	1.20	0.229	600	0	30	N	0
1,2-Dichloropropane	1/9	0.23	J	0.23	J	GSP-SB-030	GSP-SB-30-W	0.18	0.72	0.230	0.159	5	0	0.44	C	0
2-Butanone	1/9	7.5	J	7.5	J	GSP-SB-033	GSP-SB/WP-33-20100527	0.57	2.3	7.50	1.18	700	0	560	N	0
4-Methyl-2-Pentanone	1/9	1.6	J	1.6	J	GSP-SB-033	GSP-SB/WP-33-20100527	0.32	1.3	1.60	0.374	630	0	630	N	0
Acetone	4/9	5	J	160	J	GSP-SB-033	GSP-SB/WP-33-20100527	1.1	20	46.4	22.8	550	0	1,400	N	0
Methyl Tert-Butyl Ether	1/9	100	J	100	J	GSP-SB-002	GSP-SB/WP-2-20100525	0.17	0.57	100	11.2	20	1	14	C	1
trans-1,2-Dichloroethene	1/9	0.2	J	0.2	J	GSP-SB-039	GSP-SB/WP-39-20100527	0.19	0.76	0.200	0.163	100	0	36	N	0
Trichlorofluoromethane	1/9	0.35	J	0.35	J	GSP-SB-022	GSP-SB-22-W	0.21	0.84	0.350	0.194	NC	NC	520	N	0
Semivolatile Organics (ug/L)																
2-Nitrophenol	1/9	1.2	J	1.2	J	GSP-SB-033	GSP-SB/WP-33-20100527	0.28	0.28	1.20	0.258	NC	NC	NC		NC
Acetophenone	1/9	4.5		4.5		GSP-SB-033	GSP-SB/WP-33-20100527	0.34	0.34	4.50	0.651	NC	NC	190	N	0
Bis(2-ethylhexyl)phthalate	3/9	0.98	J	2.8		GSP-SB-039	GSP-SB/WP-39-20100527	0.8	2.6	1.63	0.970	6	0	5.6	C	0
Butyl Benzyl Phthalate	2/9	0.81	J	2.5		GSP-SB-011	GSP-SB/WP-11-20100525	0.8	0.8	1.66	0.679	NC	NC	290	C	0
di-n-Butyl Phthalate	1/9	1.1		1.1		GSP-SB-033	GSP-SB/WP-33-20100527	0.67	0.67	1.10	0.420	370	0	90	N	0
Dibenzofuran	1/9	2		2		GSP-SB-033	GSP-SB/WP-33-20100527	0.1	0.1	2.00	0.267	3.7	0	0.79	N	1
Diethyl Phthalate	1/9	0.97	J	0.97	J	GSP-SB-033	GSP-SB/WP-33-20100527	0.6	0.6	0.970	0.374	2,900	0	1500	N	0
Isophorone	1/9	0.75	J	0.75	J	GSP-SB-033	GSP-SB/WP-33-20100527	0.27	0.27	0.750	0.203	70	0	78	N	0
N-Nitrosodimethylamine	1/9	0.55	J	0.55	J	GSP-SB-033	GSP-SB/WP-33-20100527	0.31	0.31	0.550	0.199	14.0	0	12	C	0
Naphthalene	1/9	0.27		0.27		GSP-SB-030	GSP-SB-30-W	0.1	0.1	0.270	0.074	0.7	0	0.17	C	1
Phenol	2/9	1.6		2.4		GSP-SB-033	GSP-SB/WP-33-20100527	0.6	0.6	2.00	0.678	1,100	0	580	N	0
Inorganics (ug/L)																
Antimony	1/9	0.76	J	0.76	J	GSP-SB-022	GSP-SB-22-W	0.062	0.82	0.760	0.217	6	0	0.78	N	0
Arsenic	9/9	1	J	33.7		GSP-SB-022	GSP-SB-22-W	--	--	9.61	9.61	10	3	0.052	C	9
Barium	9/9	22.8		221		GSP-SB-022	GSP-SB-22-W	--	--	103	103	2,000	0	380	N	0
Beryllium	8/9	0.25	J	62.1		GSP-SB-022	GSP-SB-22-W	0.0059	0.0059	11.8	10.5	4	4	2.5	N	6
Cadmium	3/9	0.47	J	1		GSP-SB-039	GSP-SB/WP-39-20100527	0.025	0.27	0.790	0.314	5	0	0.92	N	1
Chromium	9/9	0.95	J	78.9		GSP-SB-022	GSP-SB-22-W	--	--	22.1	22.1	100 [6]	0	0.035	C[7]	9
Cobalt	9/9	0.33	J	1500		GSP-SB-022	GSP-SB-22-W	--	--	467	467	NC	NC	0.6	N	8
Copper	6/9	16.3	K	144		GSP-SB-033	GSP-SB/WP-33-20100527	0.66	1.8	51.0	34.2	1,300	0	80	N	1
Iron	9/9	468		152000		GSP-SB-021	GSP-SB-21-W	--	--	45355	45355	300	9	1,400	N	7
Lead	7/9	1.1		32.4		GSP-SB-022	GSP-SB-22-W	0.098	0.34	11.9	9.31	15	2	15		2
Manganese	9/9	93.2		6010		GSP-SB-022	GSP-SB-22-W	--	--	2162	2162	50	9	43	N	9
Mercury	2/9	0.14	J	0.22		GSP-SB-033	GSP-SB/WP-33-20100527	0.1	0.27	0.180	0.088	2	0	0.57	N[8]	0
Molybdenum	4/9	1.1	J	6.1		GSP-SB-039	GSP-SB/WP-39-20100527	0.27	1.4	4.18	2.10	NC	NC	10	N	0
Nickel	8/9	8.9		2040		GSP-SB-022	GSP-SB-22-W	0.69	0.69	678	602	73	6	39	N	6
Selenium	6/9	1.3	J	13.7		GSP-SB-021	GSP-SB-21-W	0.13	0.84	6.33	4.29	50	0	10	N	2
Thallium	2/9	1.3		1.8	K	GSP-SB-022	GSP-SB-22-W	0.13	0.69	1.55	0.498	2	0	0.02	N	2
Vanadium	9/9	0.71	J	112		GSP-SB-022	GSP-SB-22-W	--	--	34.2	34.2	3.7	6	8.6	N	6
Zinc	7/9	41.8		5020		GSP-SB-022	GSP-SB-22-W	8	28.8	1515	1180	5,000	1	600	N	5
Filtered Inorganics (ug/L)																
Antimony	1/9	1.4	J	1.4	J	GSP-SB-039	GSP-SB/WP-39-20100527	0.067	0.54	1.40	0.237	6	0	0.78	N	1
Arsenic	9/9	0.91	J	14		GSP-SB-021	GSP-SB-21-W	--	--	4.22	4.22	10	1	0.052	C	9
Barium	9/9	20.4		100		GSP-SB-002	GSP-SB/WP-2-20100525	--	--	59.5	59.5	2,000	0	380	N	0
Beryllium	6/9	0.32	J	60.2		GSP-SB-022	GSP-SB-22-W	0.0059	0.12	14.2	9.47	4	4	2.5	N	5
Cadmium	2/9	0.33	J	0.9	J	GSP-SB-040	GSP-SB/WP-40-20100527	0.025	0.21	0.615	0.178	5	0	0.92	N	0
Chromium	6/9	1.4	J	7.9	K	GSP-SB-022	GSP-SB-22-W	0.29	0.71	3.38	2.35	100 [6]	0	0.035	C[7]	6
Cobalt	9/9	0.078	J	1670		GSP-SB-022	GSP-SB-22-W	--	--	443	443	NC	NC	0.6	N	8
Copper	2/9	34.9		49.6		GSP-SB-033	GSP-SB/WP-33-20100527	0.059	1.9	42.3	9.59	1,300	0	80	N	0
Iron	8/9	268		150000		GSP-SB-021	GSP-SB-21-W	41.4	41.4	42935	38167	300	7	1,400	N	7
Lead	3/9	1.1	K	2.3	K	GSP-SB-022	GSP-SB-22-W	0.041	0.27	1.77	0.634	15	0	15		0
Manganese	9/9	49.1		6560		GSP-SB-022	GSP-SB-22-W	--	--	2108	2108	50	8	43	N	9
Molybdenum	3/9	1	J	14.1		GSP-SB-039	GSP-SB/WP-39-20100527	0.27	1.4	5.50	2.08	NC	NC	10	N	1
Nickel	8/9	2.2		2260		GSP-SB-022	GSP-SB-22-W	0.45	0.45	639	568	73	5	39	N	6
Selenium	6/9	0.98	J	12.5		GSP-SB-021	GSP-SB-21-W	0.22	0.31	4.68	3.17	50	0	10	N	1
Thallium	1/9	1.3		1.3		GSP-SB-040	GSP-SB/WP-40-20100527	0.13	1	1.30	0.292	2	0	0.02	N	1
Vanadium	7/9	0.62	J	46.6		GSP-SB-039	GSP-SB/WP-39-20100527	0.43	0.43	8.76	6.86	3.7	2	8.6	N	1
Zinc	6/9	37.7		5550		GSP-SB-022	GSP-SB-22-W	4	43.3	1673	1118	5,000	1	600	N	4

Table 5-18

Evaluation of Migration from Soil to Groundwater - RECs #2-6 - Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Location of Maximum Concentration	Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standard[4] Groundwater	# Detects Greater than MDE Cleanup Standards-Groundwater	USEPA Regional Screening Level[5] Tap Water	# Detects Greater than USEPA RSL - Tap Water
Petroleum Hydrocarbons (ug/L)													
Diesel Range Organics	7/8	63 J	380	GSP-SB-033	GSP-SB/WP-33-20100528	30	30	133	118	47	7	NC	NC
Gasoline Range Organics	4/9	25 J	60 J	GSP-SB-002	GSP-SB/WP-2-20100525	25	34	38.5	25.1	47	1	NC	NC

1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and number of exceedances.
2 - Average of detected values only.
3 - Average of all analytical results are calculated using one half the detection limit for nondetects.
4 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
5 - USEPA Regional Screening Levels, May 2016.
6 - Value is for total chromium.
7 - Value is for hexavalent chromium.
8 - Value is for mercuric chloride.

Definitions
J = Estimated value
MDE = Maryland Department of the Environment
NC = No criteria available
REC = recognized environmental condition
USEPA = U.S. Environmental Protection Agency
ug/L = microgram per liter

Table 5-19

Evaluation of Migration from Soil to Groundwater - RECs #7-10 - Surface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Location of Maximum Concentration	Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards-Groundwater Protection	USEPA Soil Screening Levels for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]	# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20
Volatile Organics (mg/kg)													
1,1-Dichloroethene	2/54	0.00071 J	0.00072 J	GSP-SB-136	GSP-SB-136-02	0.00029	0.016	0.0007	0.0004	2.9	0	2 N	0
2-Butanone	14/54	0.0017 J	0.044 J	GSP-SB-165	GSP-SB-165-0-5	0.00087	0.0017	0.008	0.002	29	0	24 N	0
Acetone	15/54	0.0059 J	2.2 J	GSP-SB-064	GSP-SB-64-0-2	0.0039	0.15	0.277	0.081	22	0	58 N	0
Carbon Disulfide	5/54	0.00046 J	0.003 J	GSP-SB-101	GSP-SB-101-0-2	0.00025	0.011	0.001	0.0004	19	0	4.8 N	0
Ethylbenzene	1/54	0.00021 J	0.00021 J	GSP-SB-106	GSP-SB-106-0-2	0.00016	0.0048	0.0002	0.0002	15	0	0.034 C	0
Methyl Tert-Butyl Ether	1/54	0.0044 J	0.0044 J	GSP-SB-044	GSP-SB-44-0-2	0.00024	0.0062	0.004	0.0003	0.012	0	0.064 C	0
Methylene Chloride	5/54	0.0017 J	0.0036 J	GSP-SB-097	GSP-SB-97-0-2	0.00047	0.068	0.003	0.001	0.019	0	0.058 C	0
N-Propylbenzene	1/54	0.00024 J	0.00024 J	GSP-SB-106	GSP-SB-106-0-2	0.00025	0.012	0.0002	0.0003	NC	NC	24 N	0
Naphthalene	1/54	0.004 J	0.004 J	GSP-SB-102	GSP-SB-102-0-2	0.00011	0.0059	0.004	0.0003	0.15	0	0.0108 C	0
o-Xylene	1/54	0.00052 J	0.00052 J	GSP-SB-110	GSP-SB-110-0-2	0.0002	0.0075	0.0005	0.0002	3 [6]	0	3.8 N	0
Styrene	1/54	0.0059 J	0.0059 J	GSP-SB-165	GSP-SB-165-0-5	0.000084	0.00018	0.006	0.0002	57	0	26 N	0
Tert-Amyl Methyl Ether	1/54	0.00095 J	0.00095 J	GSP-SB-044	GSP-SB-44-0-2	0.00021	0.00045	0.0010	0.0002	NC	NC	NC	NC
Tertiary-Butyl Alcohol	1/3	0.013 J	0.013 J	GSP-SB-164	GSP-SB-164-0-5	0.0064	0.21	0.013	0.040	NC	NC	24 N[7]	0
Tetrachloroethene	2/54	0.00074 J	0.001 J	GSP-MW-13	GSP-MW-13-0-2	0.00029	0.011	0.0009	0.0004	0.0047	0	0.102 C	0
Toluene	13/54	0.00026 J	0.0014 J	GSP-MW-09	GSP-MW-9-0-2	0.00015	0.015	0.0006	0.0004	27	0	15.2 N	0
Trichloroethene	2/54	0.00049 J	0.0012 J	GSP-SB-136	GSP-SB-136-02	0.00024	0.0085	0.0008	0.0003	0.00026	2	0.0036 C	0
Semivolatile Organics (mg/kg)													
2-Methylnaphthalene	13/59	0.0043 J	1.7	GSP-SB-068	GSP-SB-68-0-2	0.00055	0.039	0.218	0.050	4.4	0	3.8 N	0
Acenaphthene	19/59	0.0036 J	3.3	GSP-SB-068	GSP-SB-68-0-2	0.00083	0.035	0.275	0.090	100	0	110 N	0
Acenaphthylene	18/59	0.0048 J	3.1	GSP-SB-068	GSP-SB-68-0-2	0.00038	0.035	0.278	0.087	100	0	110 N[8]	0
Anthracene	32/59	0.0046 J	7.6	GSP-SB-068	GSP-SB-68-0-2	0.00085	0.019	0.415	0.226	470	0	1160 N	0
Benzaldehyde	1/59	0.016 J	0.016 J	GSP-SB-157	GSP-SS-157-0-2	0.012	0.36	0.016	0.016	NC	NC	0.082 C	0
Benzo(a)anthracene	41/59	0.0066 J	17	GSP-SB-068	GSP-SB-68-0-2	0.00069	0.019	0.853	0.593	0.48	8	0.084 C	23
Benzo(a)pyrene	41/59	0.0057 J	15	GSP-SB-068	GSP-SB-68-0-2	0.0007	0.019	0.851	0.592	0.12	16	0.08 C	25
Benzo(b)fluoranthene	43/59	0.0048 J	17	GSP-SB-068	GSP-SB-68-0-2	0.00064	0.004	0.912	0.665	1.5	5	0.82 C	7
Benzo(g,h,i)perylene	39/59	0.0079	9.4	GSP-SB-068	GSP-SB-68-0-2	0.00038	0.019	0.642	0.425	680	0	260 N[9]	0
Benzo(k)fluoranthene	34/59	0.01	6.8	GSP-SB-068	GSP-SB-68-0-2	0.00074	0.019	0.477	0.275	15	0	8 C	0
Bis(2-ethylhexyl)phthalate	13/59	0.023 J	0.085	GSP-SB-158	GSP-SS-158-0-2	0.02	0.62	0.034	0.036	2,900	0	26 C	0
Carbazole	6/59	0.031 J	2	GSP-SB-068	GSP-SB-68-0-2	0.028	0.32	0.482	0.075	0.47	2	NC	NC
Chrysene	41/59	0.0065 J	17	GSP-SB-068	GSP-SB-68-0-2	0.0012	0.0064	0.912	0.634	48	0	24 C	0
di-n-Butyl Phthalate	8/59	0.016 J	0.023 J	GSP-SB-053	GSP-SB-53-0-2	0.015	0.46	0.019	0.021	5,000	0	46 N	0
di-n-Butyl Phthalate	8/59	0.016 J	0.023 J	GSP-SB-043	GSP-SB-43-0-2	0.015	0.46	0.019	0.021	5,000	0	46 N	0
Dibenz(a,h)anthracene	12/59	0.013	1.4	GSP-SB-071	GSP-SB-71-0-2	0.00072	0.1	0.189	0.042	0.46	2	0.26 C	2
Dibenzofuran	8/59	0.007 J	1.2 J	GSP-SB-068	GSP-SB-68-0-2	0.00072	0.23	0.199	0.039	NC	NC	3 N	0
Diethyl Phthalate	1/59	0.045 J	0.045 J	GSP-SB-104	GSP-SB-104-0-2	0.017	0.49	0.045	0.022	450	0	122 N	0
Dimethyl Phthalate	3/59	0.019 J	0.19	GSP-MW-09	GSP-MW-9-0-2	0.018	0.52	0.085	0.026	NC	NC	NC	NC
Fluoranthene	45/59	0.0052 J	33	GSP-SB-068	GSP-SB-68-0-2	0.0006	0.004	1.44	1.10	6,300	0	1780 N	0
Fluorene	18/59	0.0094	3.6	GSP-SB-068	GSP-SB-68-0-2	0.00058	0.035	0.306	0.095	140	0	108 N	0
Indeno(1,2,3-cd)pyrene	37/59	0.0087	7.5	GSP-SB-068	GSP-SB-68-0-2	0.00038	0.019	0.525	0.330	4.2	2	2.6 C	2
Naphthalene	17/59	0.0046 J	1.9	GSP-SB-068	GSP-SB-68-0-2	0.00089	0.035	0.212	0.063	0.15	5	0.0108 C	12
Phenanthrene	41/59	0.0053 J	27	GSP-SB-068	GSP-SB-68-0-2	0.0008	0.019	1.08	0.753	470	0	260 N[9]	0
Pyrene	45/59	0.0053 J	34	GSP-SB-068	GSP-SB-68-0-2	0.00048	0.004	1.57	1.20	680	0	260 N	0
Polychlorinated Biphenyls (mg/kg)													
Aroclor-1260	2/45	0.022 J	0.063 J	GSP-SB-096	GSP-SB-96-0-2	0.018	0.022	0.043	0.011	NC	NC	0.11 C	0
Inorganics (mg/kg)													
Antimony	19/59	0.05 J	0.84 L	GSP-SB-054	GSP-SB-54-0-2	0.026	0.75	0.214	0.176	13	0	7 N	0
Arsenic	58/59	0.71	5.6	GSP-SB-110	GSP-SB-110-0-2	0.32	0.32	2.30	2.26	0.026	58	0.03 C	58
Barium	59/59	2.5 J	266 J	GSP-SB-071	GSP-SB-71-0-2	--	--	33.6	33.6	6,000	0	3200 N	0
Beryllium	50/59	0.032 J	1.6 J	GSP-SB-071	GSP-SB-71-0-2	0.03	0.046	0.242	0.208	1,200	0	380 N	0
Cadmium	21/59	0.035 J	0.68	GSP-SB-068	GSP-SB-68-0-2	0.0027	0.04	0.171	0.070	27	0	13.8 N	0
Chromium	59/59	2.1 J	24 K	GSP-SB-108	GSP-SB-108-0-2	--	--	8.83	8.83	42	0	0.0134 C[10]	59
Cobalt	58/59	0.26 J	10	GSP-SB-157	GSP-SS-157-0-2	0.17	0.17	2.06	2.03	NC	NC	5.4 N	4
Copper	57/59	1.1 J	68	GSP-MW-09	GSP-MW-9-0-2	0.79	1.9	7.68	7.44	11000	0	560 N	0
Iron	26/26	1860 J	20400	GSP-SB-043	GSP-SB-43-0-2	--	--	6448	6448	NC	NC	7000 N	7

Table 5-19

Evaluation of Migration from Soil to Groundwater - RECs #7-10 - Surface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration		Maximum Concentration		Location of Maximum Concentration	Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards-Groundwater Protection	USEPA Soil Screening Levels for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]		# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20
Lead	59/59	0.78	J	48.9		GSP-SB-054	GSP-SB-54-0-2	--	--	8.23	8.23	NC	NC	280	(11)	0
Manganese	26/26	4.6	J	2390	J	GSP-SB-071	GSP-SB-71-0-2	--	--	240	240	950	2	560	N	3
Mercury	33/59	0.013	J	0.16		GSP-SB-062	GSP-SB-62-0-2	0.011	0.02	0.047	0.030	NC	NC	0.66	N(12)	0
Molybdenum	25/59	0.13	J	1		GSP-SB-067	GSP-SB-67-0-2	0.22	1.1	0.468	0.313	NC	NC	40	N	0
Nickel	58/59	0.56		15		GSP-SB-108	GSP-SB-108-0-2	0.58	0.58	3.83	3.77	NC	NC	520	N	0
Selenium	37/59	0.041	J	1.2	J	GSP-SB-071	GSP-SB-71-0-2	0.08	0.51	0.513	0.401	19	0	10.4	N	0
Silver	11/59	0.038	J	1.3		GSP-MW-11	GSP-MW-11-0-2	0.0017	0.11	0.232	0.071	31	0	16	N	0
Thallium	3/59	0.7	J	2.3	K	GSP-SB-101	GSP-SB-101-0-2	0.014	0.86	1.67	0.240	3.6	0	0.28	N	3
Vanadium	59/59	2.2		65		GSP-SB-108	GSP-SB-108-0-2	--	--	15.8	15.8	730	0	1720	N	0
Zinc	54/59	1.6	J	63.4		GSP-SB-068	GSP-SB-68-0-2	2.8	5.7	18.8	17.4	14,000	0	7400	N	0
Petroleum Hydrocarbons (mg/kg)																
Diesel Range Organics	35/45	3.6	J	1200	J	GSP-SB-068	GSP-SB-68-0-2	3	72	152	121	NC	NC	NC		NC

1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and number of exceedances.
2 - Average of detected values only.
3 - Average of all analytical results are calculated using one half the detection limit for nondetects.
4 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
5 - USEPA Regional Screening Levels, May 2016.
6 - Value is for total xylene.
7 - Value is for isobutyl alcohol.
8 - Value is for acenaphthene.
9 - Value is for pyrene.
10 - Value is for hexavalent chromium.
11 - Value is MCL based soil screening level.
12 - No SSL is available for mercuric chloride. Value is for elemental mercury.

Definitions
J = Estimated value
MDE = Maryland Department of the Environment
NC = No criteria available
REC = recognized environmental condition
USEPA = U.S. Environmental Protection Agency
mg/kg = milligram per kilogram

Table 5-20

Evaluation of Migration from Soil to Groundwater - RECs #7-10 - Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration		Maximum Concentration		Location of Maximum Concentration	Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards- Groundwater Protection	USEPA Soil Screening Levels for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]		# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20
Volatile Organics (mg/kg)																
1,1-Dichloroethene	5/63	0.00063	J	0.006		GSP-MW-14	GSP-MW-14-8-10	0.00029	0.11	0.002	0.002	2.9	0	2	N	0
1,2,3-Trimethylbenzene	3/63	0.0014	J	0.62	J	GSP-TP-05	GSP-TP-5E-10-12	0.000096	0.0015	0.232	0.011	NC	NC	0.3	N	1
1,2,4-Trimethylbenzene	4/63	0.0018	J	0.94	J	GSP-TP-05	GSP-TP-5E-10-12	0.00037	0.0056	0.291	0.019	NC	NC	0.42	N	1
2-Butanone	13/63	0.0014	J	0.097	J	GSP-TP-05	GSP-TP-5W-10-12	0.00079	0.27	0.017	0.007	29	0	24	N	0
2-Hexanone	1/63	0.0011	J	0.0011	J	GSP-TP-06	GSP-TP-6-4-6	0.00036	0.13	0.001	0.002	NC	NC	0.176	N	0
4-Isopropyltoluene	3/63	0.00025	J	0.19	J	GSP-TP-05	GSP-TP-5E-10-12	0.00012	0.0084	0.068	0.003	NC	NC	NC		NC
4-Methyl-2-Pentanone	1/63	0.00082	J	0.00082	J	GSP-TP-10	GSP-TP-10-10-12	0.0003	0.3	0.0008	0.004	59	0	28	N	0
Acetone	16/63	0.0088	J	0.37	J	GSP-SB-165	GSP-SB-165-10-15	0.0049	1.1	0.082	0.039	22	0	58	N	0
Benzene	2/63	0.00026	J	0.00062	J	GSP-SB-091	GSP-SB-91-8-10	0.00013	0.075	0.0004	0.001	0.0019	0	0.0046	C	0
Carbon Disulfide	4/63	0.00053	J	0.012	J	GSP-TP-05	GSP-TP-5W-10-12	0.00032	0.075	0.004	0.001	19	0	4.8	N	0
Chlorobenzene	1/63	0.0016	J	0.0016	J	GSP-SB-135	GSP-SB-135-10.5'-12'	0.00019	0.04	0.002	0.0007	0.68	0	1.06	N	0
Chloromethane	1/63	0.0014	J	0.0014	J	GSP-MW-09	GSP-MW-9-8-10	0.00023	0.088	0.001	0.001	0.93	0	0.98	N	0
Ethylbenzene	4/63	0.00041	J	0.27	J	GSP-TP-05	GSP-TP-5E-10-12	0.00015	0.0061	0.088	0.006	15	0	0.034	C	2
Isopropylbenzene	1/63	0.058	J	0.058	J	GSP-TP-05	GSP-TP-5W-10-12	0.00009	0.041	0.058	0.002	64	0	14.8	N	0
m+p-Xylenes	2/63	0.0019	J	0.31	J	GSP-TP-05	GSP-TP-5E-10-12	0.00036	0.054	0.156	0.006	3 [6]	0	3.8	N[7]	0
Methylene Chloride	5/63	0.0013	J	0.0028	J	GSP-SB-092	GSP-SB-92-6-8	0.00049	0.82	0.002	0.014	0.019	0	0.058	C	0
N-Butylbenzene	2/63	0.11	J	0.27	J	GSP-TP-05	GSP-TP-5E-10-12	0.00013	0.014	0.190	0.006	NC	NC	64	N	0
N-Propylbenzene	2/63	0.085	J	0.2	J	GSP-TP-05	GSP-TP-5E-10-12	0.00023	0.024	0.143	0.005	NC	NC	24	N	0
Naphthalene	3/63	0.021		42		GSP-TP-05	GSP-TP-5E-10-12	0.00011	0.025	16.9	0.804	0.15	9	0.0108	C	13
o-Xylene	2/63	0.0012	J	0.23	J	GSP-TP-05	GSP-TP-5E-10-12	0.0002	0.015	0.116	0.004	3 [6]	0	3.8	N	0
sec-Butylbenzene	2/63	0.075	J	0.15	J	GSP-TP-05	GSP-TP-5E-10-12	0.0001	0.0082	0.113	0.004	NC	NC	118	N	0
Styrene	1/63	0.088	J	0.088	J	GSP-SB-165	GSP-SB-165-10-15	0.000086	0.035	0.088	0.002	57	0	26	N	0
Tertiary-Butyl Alcohol	1/9	0.6	J	0.6	J	GSP-SB-165	GSP-SB-165-10-15	0.0049	0.007	0.600	0.069	NC	NC	24	N[8]	0
Tetrachloroethene	1/63	0.00072	J	0.00072	J	GSP-MW-12	GSP-MW-12-10-12	0.00029	0.075	0.0007	0.001	0.0047	0	0.102	C	0
Toluene	26/63	0.00024	J	0.0032	J	GSP-MW-14	GSP-MW-14-10-12	0.00015	0.11	0.0007	0.002	27	0	15.2	N	0
Total Xylenes	2/63	0.0031	J	0.54	J	GSP-TP-05	GSP-TP-5E-10-12	0.00029	0.052	0.272	0.009	3	0	3.8	N	0
Trichloroethene	10/63	0.0005	J	0.36		GSP-SB-093	GSP-SB-93-12-14	0.00024	0.061	0.040	0.007	0.00026	10	0.0036	C	4
Semivolatile Organics (mg/kg)																
1,1-Biphenyl	4/68	0.02	J	1.1	J	GSP-TP-05	GSP-TP-5E-10-12	0.0039	0.76	0.427	0.049	NC	NC	0.174	N	2
2-Methylnaphthalene	9/68	0.044		13		GSP-TP-05	GSP-TP-5E-10-12	0.00055	0.036	2.09	0.279	4.4	2	3.8	N	2
3&4-Methylphenol	1/65	0.34	J	0.34	J	GSP-SB-160	GSP-SS-160-6-8	0.021	1	0.340	0.036	NC	NC	14.8	N[9]	0
Acenaphthene	10/68	0.045		15		GSP-SB-159	GSP-SB-159-12-14	0.00084	0.036	1.98	0.293	100	0	110	N	0
Acenaphthylene	8/68	0.054		1.9		GSP-SB-109	GSP-SB-109-6-8	0.00039	0.036	0.387	0.047	100	0	110	N[10]	0
Anthracene	11/68	0.13		13		GSP-SB-159	GSP-SB-159-12-14	0.00086	0.0044	2.25	0.365	470	0	1160	N	0
Benzo(a)anthracene	17/68	0.0056	J	23		GSP-SB-159	GSP-SB-159-12-14	0.00071	0.0044	2.83	0.709	0.48	9	0.084	C	11
Benzo(a)pyrene	19/68	0.0048	J	20		GSP-SB-159	GSP-SB-159-12-14	0.00072	0.0044	2.43	0.680	0.12	11	0.08	C	11
Benzo(b)fluoranthene	18/68	0.0041	J	26		GSP-SB-159	GSP-SB-159-12-14	0.00067	0.0044	2.84	0.752	1.5	6	0.82	C	9
Benzo(g,h,i)perylene	16/68	0.0089		12		GSP-SB-159	GSP-SB-159-12-14	0.00039	0.0044	1.89	0.445	680	0	260	N[11]	0
Benzo(k)fluoranthene	14/68	0.014		9.4		GSP-SB-159	GSP-SB-159-12-14	0.00075	0.0044	1.48	0.307	15	0	8	C	1
Bis(2-ethylhexyl)phthalate	11/68	0.021	J	0.14	J	GSP-TP-05	GSP-TP-5W-10-12	0.02	0.98	0.039	0.033	2,900	0	26	C	0
Carbazole	2/68	0.29		7.5		GSP-SB-159	GSP-SB-159-12-14	0.029	0.76	3.90	0.144	0.47	1	NC		NC
Chrysene	17/68	0.0063	J	22		GSP-SB-159	GSP-SB-159-12-14	0.0012	0.0015	2.89	0.724	48	0	24	C	0
di-n-Butyl Phthalate	5/68	0.018	J	0.032	J	GSP-SB-104	GSP-SB-104-6-8	0.016	0.78	0.023	0.024	5,000	0	46	N	0
Dibenz(a,h)anthracene	9/68	0.088		3.1		GSP-SB-159	GSP-SB-159-12-14	0.00073	0.036	0.843	0.113	0.46	3	0.26	C	5
Dibenzofuran	9/68	0.016	J	5.1		GSP-SB-159	GSP-SB-159-12-14	0.00073	0.036	0.734	0.099	NC	NC	3	N	1
Fluoranthene	21/68	0.0041	J	54		GSP-SB-159	GSP-SB-159-12-14	0.00062	0.0044	4.69	1.45	6,300	0	1780	N	0
Fluorene	10/68	0.062		9.2		GSP-SB-159	GSP-SB-159-12-14	0.00059	0.036	1.83	0.271	140	0	108	N	0
Indeno(1,2,3-cd)pyrene	15/68	0.0055	J	11		GSP-SB-159	GSP-SB-159-12-14	0.00039	0.0044	1.66	0.368	4.2	2	2.6	C	2
Naphthalene	11/68	0.004	J	17		GSP-TP-05	GSP-TP-5E-10-12	0.00091	0.036	2.63	0.427	0.15	9	0.0108	C	13
Phenanthrene	17/68	0.0055	J	48		GSP-SB-159	GSP-SB-159-12-14	0.00083	0.0044	5.22	1.31	470	0	260	N[11]	0
Phenol	1/68	0.09	J	0.09	J	GSP-SB-160	GSP-SS-160-6-8	0.0081	0.76	0.090	0.032	67	0	66	N	0
Pyrene	23/68	0.0061	J	43		GSP-SB-159	GSP-SB-159-12-14	0.0005	0.0044	4.38	1.48	680	0	260	N	0
Polychlorinated Biphenyls (mg/kg)																
Aroclor-1260	1/40	0.064		0.064		GSP-SB-109	GSP-SB-109-6-8	0.011	0.1	0.064	0.012	NC	NC	0.11	C	0
Inorganics (mg/kg)																
Antimony	8/68	0.075	J	0.79	J	GSP-TP-05	GSP-TP-5W-10-12	0.035	1.9	0.477	0.261	13	0	7	N	0
Arsenic	63/68	0.4	J	21		GSP-SB-135	GSP-SB-135-10.5'-12'	0.32	0.37	2.90	2.70	0.026	63	0.03	C	63

Table 5-20

Evaluation of Migration from Soil to Groundwater - RECs #7-10 - Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration		Maximum Concentration		Location of Maximum Concentration	Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards- Groundwater Protection	USEPA Soil Screening Levels for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]		# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20
Barium	68/68	1.1	J	250		GSP-SB-110	GSP-SB-110-6-8	--	--	18.2	18.2	6,000	0	3200	N	0
Beryllium	19/68	0.045	J	0.89		GSP-SB-159	GSP-SB-159-12-14	0.021	0.054	0.275	0.093	1,200	0	380	N	0
Cadmium	7/68	0.042	J	0.85		GSP-TP-04	GSP-TP-4-3-5	0.0029	0.045	0.333	0.050	27	0	13.8	N	0
Chromium	68/68	0.48	J	120		GSP-MW-14	GSP-MW-14-10-12	--	--	11.8	11.8	42	1	0.0134	C[12]	68
Cobalt	56/68	0.11	J	10		GSP-SB-159	GSP-SS-159-2-4	0.15	0.2	1.91	1.59	NC	NC	5.4	N	7
Cobalt	56/68	0.11	J	10		GSP-SB-164	GSP-SB-164-5-10	0.15	0.2	1.91	1.59	NC	NC	5.4	N	7
Copper	61/68	0.73	J	170		GSP-TP-02	GSP-TP-2-10-12	0.71	0.93	8.85	7.98	11000	0	560	N	0
Iron	3/3	1020		3000		GSP-SB-048	GSP-SB-48-6-8	--	--	2063	2063	NC	NC	7000	N	0
Lead	66/68	0.43	J	41		GSP-TP-04	GSP-TP-4-3-5	0.79	1.1	4.71	4.59	NC	NC	280	[13]	0
Manganese	3/3	2		8.4		GSP-SB-048	GSP-SB-48-6-8	--	--	5.17	5.17	950	0	560	N	0
Mercury	20/68	0.011	J	0.093		GSP-TP-05	GSP-TP-5W-10-12	0.011	0.099	0.038	0.018	NC	NC	0.66	N[14]	0
Molybdenum	10/68	0.19	J	5.1		GSP-SB-164	GSP-SB-164-5-10	0.22	0.98	1.05	0.313	NC	NC	40	N	0
Nickel	52/68	0.31		27		GSP-SB-164	GSP-SB-164-5-10	0.26	0.6	3.49	2.72	NC	NC	520	N	0
Selenium	9/68	0.11	J	1	J	GSP-SB-135	GSP-SB-135-10.5'-12'	0.34	0.57	0.487	0.267	19	0	10.4	N	0
Silver	1/68	0.17	J	0.17	J	GSP-TP-04	GSP-TP-4-3-5	0.0017	0.13	0.170	0.051	31	0	16	N	0
Thallium	7/68	0.18	J	1.5	J	GSP-SB-110	GSP-SB-110-6-8	0.016	0.69	0.909	0.335	3.6	0	0.28	N	6
Vanadium	68/68	0.51	J	160	J	GSP-MW-14	GSP-MW-14-10-12	--	--	17.9	17.9	730	0	1720	N	0
Zinc	53/68	1.2	J	100		GSP-SB-158	GSP-SB-158-12-14	0.96	5.2	14.0	11.1	14,000	0	7400	N	0
Petroleum Hydrocarbons (mg/kg)																
Diesel Range Organics	12/37	14	J	1100	J	GSP-TP-04	GSP-TP-4-3-5	3.2	27	295	99.8	NC	NC	NC		NC
Gasoline Range Organics	3/37	28		88		GSP-TP-05	GSP-TP-5E-10-12	0.027	0.033	52.3	4.26	NC	NC	NC		NC
TPH (C06-C10)	3/28	0.051	J	0.51		GSP-SB-159	GSP-SS-159-2-4	0.049	0.062	0.208	0.046	NC	NC	NC		NC
TPH (C10-C32)	5/28	24		3800		GSP-SB-159	GSP-SB-159-12-14	7.6	18	854	157	NC	NC	NC		NC

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2 - Average of detected values only.
3 - Average of all analytical results are calculated using one half the detection limit for nondetects.
4 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
5 - USEPA Regional Screening Levels, May 2016.
6 - Value is for total xylene.
7 - Value is for m-xylene.
8 - Value is for isobutyl alcohol.
9 - Value is for 4-methylphenol.
10 - Value is for acenaphthene.
11 - Value is for pyrene.
12 - Value is for hexavalent chromium.
13 - Value is MCL based soil screening level.
14 - No SSL is available for mercuric chloride. Value is for elemental mercury.

Definitions
J = Estimated value
MDE = Maryland Department of the Environment
NC = No criteria available
REC = recognized environmental condition
USEPA = U.S. Environmental Protection Agency
mg/kg = milligram per kilogram

Table 5-21

Evaluation of Migration from Soil to Groundwater - RECs #7-10 - Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Location of Maximum Concentration	Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standard[4] Groundwater	# Detects Greater than MDE Cleanup Standards-Groundwater	USEPA Regional Screening Level[5] Tap Water	# Detects Greater than USEPA RSL - Tap Water
Volatile Organics (ug/L)													
1,1-Dichloroethene	2/48	0.26 J	0.67 J	GSP-DPT-44	GSP-DPT-44-35	0.19	16	0.465	0.367	7	0	28 N	0
2-Butanone	18/48	0.84 J	11 J	GSP-DPT-47	GSP-DPT-47-35	0.53	47	2.90	1.89	700	0	560 N	0
2-Hexanone	2/48	0.7 J	0.76 J	GSP-DPT-47	GSP-DPT-47-35	0.41	34	0.730	0.699	NC	NC	3.8 N	0
Acetone	24/48	1.5 J	310 J	GSP-MW/SB-022I	GSP-MW-22I-031816	0.94	92	23.8	13.9	550	0	1,400 N	0
Benzene	20/48	0.13 J	4.1	GSP-MW-10	GSP-MW10-022714	0.13	11	0.749	0.518	5	0	0.46 C	11
Carbon Disulfide	14/48	0.14 J	3.2 J	GSP-MW/SB-022I	GSP-MW-22I-031816	0.13	11	0.678	0.411	100	0	81 N	0
Carbon Tetrachloride	6/48	0.4 J	8.4	GSP-MW/SB-022I	GSP-MW-22I-031816	0.13	11	2.88	0.587	5	1	0.46 C	5
Chlorobenzene	4/48	0.19 J	1.2 J	GSP-DPT-44	GSP-DPT-44-30	0.15	12	0.573	0.290	100	0	7.8 N	0
Chloroform	12/48	0.19 J	30	GSP-DPT-44	GSP-DPT-44-50	0.16	13	8.29	2.30	80	0	0.22 C	11
cis-1,2-Dichloroethene	22/48	0.36 J	49	GSP-DPT-45	GSP-DPT-45-50	0.17	14	10.8	5.14	70	0	3.6 N	11
Ethylbenzene	3/48	0.19 J	0.25 J	GSP-DPT-44	GSP-DPT-44-35	0.17	14	0.217	0.296	700	0	1.5 C	0
m+p-Xylenes	1/48	0.24 J	0.24 J	GSP-DPT-45	GSP-DPT-45-55	0.24	20	0.240	0.394	10,000 [6]	0	19 N[7]	0
Methyl Tert-Butyl Ether	19/48	0.17 J	3.9 J	GSP-MW/SB-022I	GSP-MW-22I-031816	0.17	14	1.19	0.700	20	0	14 C	0
Methylene Chloride	1/48	2.4	2.4	GSP-DPT-45	GSP-DPT-45-55	0.33	27	2.40	0.621	5	0	11 N	0
Naphthalene	2/48	0.24 J	4.9 J	GSP-MW-11	GSP-MW-11-031816	0.24	20	2.57	0.524	0.65	1	0.17 C	3
Tert-Amyl Methyl Ether	3/48	0.11 J	0.28 J	GSP-DPT-45	GSP-DPT-45-45	0.067	5.6	0.183	0.155	NC	NC	NC	NC
Tertiary-Butyl Alcohol	6/40	6.9 J	13 J	GSP-DPT-47	GSP-DPT-47-30	3.9	320	8.78	8.64	NC	NC	590 N[8]	0
Toluene	15/48	0.13 J	22	GSP-SB-066	GSP-SB-WP-66-062311	0.13	11	1.76	0.758	1,000	0	110 N	0
Total Xylenes	1/48	0.24 J	0.24 J	GSP-DPT-45	GSP-DPT-45-55	0.14	12	0.240	0.308	10000	0	19 N	0
Trichloroethene	27/48	0.27 J	2600	GSP-DPT-44	GSP-DPT-44-20	0.17	0.22	135	76.0	5.0	20	0.28 N	28
Trichlorofluoromethane	2/48	0.59 J	0.85 J	GSP-SB-051	GSP-SB-51-W	0.21	17	0.720	0.408	NC	NC	520 N	0
Semivolatile Organics (ug/L)													
2-Methylnaphthalene	1/24	0.2	0.2	GSP-MW-11	GSP-MW-11-031816	0.086	0.15	0.200	0.055	2.4	0	3.6 N	0
Acenaphthene	1/24	8.3	8.3	GSP-MW-11	GSP-MW-11-031816	0.042	0.15	8.30	0.379	37	0	53 N	0
Anthracene	1/24	0.72	0.72	GSP-MW-11	GSP-MW-11-031816	0.084	0.15	0.720	0.076	180	0	180 N	0
Bis(2-ethylhexyl)phthalate	3/24	0.91 J	1.8 J	GSP-MW-16	GSP-MW-16-032116	0.77	2	1.29	0.810	6	0	5.6 C	0
di-n-Butyl Phthalate	1/24	0.73 J	0.73 J	GSP-SB-054	GSP-SB-WP-54-062111	0.64	2	0.730	0.698	370	0	90 N	0
Dibenzofuran	1/24	1.7	1.7	GSP-MW-11	GSP-MW-11-031816	0.019	0.15	1.70	0.096	3.7	0	0.79 N	1
Fluoranthene	1/24	1.2	1.2	GSP-MW-11	GSP-MW-11-031816	0.042	0.15	1.20	0.083	150	0	80 N	0
Fluorene	1/24	6.2	6.2	GSP-MW-11	GSP-MW-11-031816	0.039	0.15	6.20	0.290	24	0	29 N	0
Naphthalene	1/24	2.7	2.7	GSP-MW-11	GSP-MW-11-031816	0.06	0.15	2.70	0.151	0.7	1	0.17 C	1
Phenanthrene	1/24	1.8	1.8	GSP-MW-11	GSP-MW-11-031816	0.059	0.15	1.80	0.113	180	0	12 N[9]	0
Pyrene	2/24	0.1 J	0.68	GSP-MW-11	GSP-MW-11-031816	0.04	0.15	0.390	0.064	18	0	12 N	0
Inorganics (ug/L)													
Antimony	4/24	0.53 J	4.1 J	GSP-MW-16	GSP-MW-16-032116	0.19	9	1.92	1.23	6	0	0.78 N	3
Arsenic	15/24	0.79 J	48	GSP-SB-059	GSP-SB-59-W	0.092	3.2	11.5	7.70	10	5	0.052 C	15
Barium	15/24	20 J	158	GSP-SB-059	GSP-SB-59-W	22	100	71.5	54.3	2,000	0	380 N	0
Beryllium	6/24	0.12 J	0.97 J	GSP-SB-050	GSP-SB-WP-50-062211	0.0059	2.3	0.557	0.299	4	0	2.5 N	0
Cadmium	8/24	0.076 J	0.81 J	GSP-MW-16	GSP-MW-16-032116-D	0.025	0.66	0.350	0.223	5	0	0.92 N	0
Chromium	16/24	0.62 J	88.2	GSP-SB-059	GSP-SB-59-W	0.52	2.2	17.0	11.6	100 [10]	0	0.035 C[11]	15
Cobalt	18/24	0.68 J	41	GSP-MW-16	GSP-MW-16-032116-D	0.18	1.7	11.6	8.82	NC	NC	0.6 N	18
Copper	15/24	0.69 J	102	GSP-SB-051	GSP-SB-51-W	1.9	4.5	26.8	17.3	1,300	0	80 N	1
Iron	3/3	120	26900	GSP-SB-051	GSP-SB-51-W	--	--	17540	17540	300	2	1,400 N	2
Lead	7/24	0.98 J	23.1	GSP-SB-059	GSP-SB-59-W	0.13	1.9	11.7	4.01	15	3	15	3
Manganese	2/3	161	272	GSP-SB-059	GSP-SB-59-W	5.7	5.7	217	145	50	2	43 N	2
Mercury	4/24	0.13 J	0.37	GSP-SB-048	GSP-SB/WP-48-20100427	0.066	0.12	0.233	0.078	2	0	0.57 N[12]	0
Molybdenum	7/24	1.2 J	7.4	GSP-SB-048	GSP-SB/WP-48-20100427	0.46	2.6	3.99	1.63	NC	NC	10 N	0
Nickel	19/24	1 J	73.1	GSP-SB-059	GSP-SB-59-W	0.63	3.2	14.0	11.3	73	1	39 N	1
Selenium	7/24	0.5 J	6 J	GSP-MW-08	GSP-MW8-022814	0.32	4.1	2.64	1.97	50	0	10 N	0
Silver	1/24	0.018 J	0.018 J	GSP-SB-050	GSP-SB-WP-50-062211	0.014	2.2	0.018	0.455	100	0	9.4 N	0
Thallium	1/24	1.9 J	4.2 J	GSP-MW-16	GSP-MW-16-032116	0.13	4.7	3.05	1.05	2	1	0.02 N	2
Vanadium	15/24	0.98 J	197	GSP-SB-059	GSP-SB-59-W	2.4	2.4	47.0	29.8	3.7	14	8.6 N	10
Zinc	13/24	7.5 J	500	GSP-MW-07	GSP-MW-07-031816	5	44	115	66.8	5,000	0	600 N	0
Filtered Inorganics (ug/L)													
Antimony	1/22	0.49 J	0.49 J	GSP-SB-066	GSP-SB-WP-66-062311	0.027	12	0.490	1.09	6	0	0.78 N	0
Arsenic	10/22	0.75 J	11 J	GSP-MW-11	GSP-MW-11-031816	0.092	3.2	4.62	2.80	10	1	0.052 C	10
Barium	13/22	4.9	99 J	GSP-MW-10	GSP-MW10-022714	14	100	46.3	37.4	2,000	0	380 N	0
Beryllium	1/22	0.48 J	0.48 J	GSP-MW-10	GSP-MW10-022714	0.0059	2.3	0.480	0.162	4	0	2.5 N	0

Table 5-21

Evaluation of Migration from Soil to Groundwater - RECs #7-10 - Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration		Maximum Concentration		Location of Maximum Concentration	Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standard[4] Groundwater	# Detects Greater than MDE Cleanup Standards-Groundwater	USEPA Regional Screening Level[5] Tap Water		# Detects Greater than USEPA RSL - Tap Water
Cadmium	5/22	0.055	J	0.7	J	GSP-MW-16	GSP-MW-16-032116	0.025	0.66	0.336	0.188	5	0	0.92	N	0
Chromium	9/22	0.47	J	8.4		GSP-SB-044	GSP-SB/WP-44-20100524	0.19	2.2	2.12	1.24	100 [10]	0	0.035	C[11]	10
Cobalt	16/22	0.42	J	41		GSP-MW-16	GSP-MW-16-032116-D	0.15	1.7	10.2	7.52	NC	NC	0.6	N	15
Copper	12/22	0.47	J	39		GSP-MW-16	GSP-MW-16-032116	1.9	4.5	8.72	5.48	1,300	0	80	N	0
Iron	1/2	1700		1700		GSP-SB-051	GSP-SB-51-W	10.3	10.3	1700	853	300	1	1,400	N	1
Lead	1/22	2.7		2.7		GSP-SB-066	GSP-SB-WP-66-062311	0.046	1.9	2.70	0.794	15	0	15		0
Manganese	1/2	55.6		55.6		GSP-SB-051	GSP-SB-51-W	1.5	1.5	55.6	28.2	50	1	43	N	1
Molybdenum	3/22	1	J	6.2	J	GSP-MW-13	GSP-MW13-022614	0.27	2.5	2.90	0.841	NC	NC	10	N	0
Nickel	16/22	1	J	24	J	GSP-MW-16	GSP-MW-16-032116-D	0.63	3.2	9.69	7.32	73	0	39	N	0
Selenium	3/22	0.62	J	6.8	J	GSP-MW-08	GSP-MW8-022814	0.13	4.1	3.61	1.81	50	0	10	N	0
Thallium	2/22	1.7	J	2.8	J	GSP-MW-16	GSP-MW-16-032116	0.13	4.7	2.00	1.13	2	1	0.02	N	2
Vanadium	9/22	0.39	J	102		GSP-SB-044	GSP-SB/WP-44-20100524	0.43	2.4	15.5	6.99	3.7	5	8.6	N	2
Zinc	8/22	7.1	J	500		GSP-MW-07	GSP-MW-07-031816	1.2	46	143	56.8	5,000	0	600	N	0
Miscellaneous (ug/L)																
Hexavalent Chromium	3/4	0.097		0.118		GSP-MW-06	GSP-MW06-043012	0.02	0.02	0.108	0.084	100	0	0.035	C	3
Perchlorate	1/7	0.16	J	0.16	J	GSP-MW-05	GSP-MW5-043012	0.082	1.8	0.160	0.260	2.6	0	1.4	N	0
Miscellaneous, Filtered (ug/L)																
Hexavalent Chromium	2/9	0.094	J	2.2	J	GSP-MW/SB-023I	GSP-MW-23I-031816	0.051	0.26	0.630	0.160	100	0	0.035	C	2
Petroleum Hydrocarbons (ug/L)																
Diesel Range Organics	2/9	110		200		GSP-SB-051	GSP-SB-51-W	30	380	155	116	NC	NC	NC		NC
Gasoline Range Organics	1/8	33	J	33	J	GSP-SB-044	GSP-SB/WP-44-20100524	28	36	33.0	17.8	47	0	NC		NC
TPH (C06-C10)	10/15	29	J	97	J	GSP-MW/SB-023I	GSP-MW-23I-031816-D	25	25	45.5	34.5	NC	NC	NC		NC
TPH (C10-C32)	5/15	240	J	1700		GSP-MW-05	GSP-MW-05-031716	240	270	724	326	NC	NC	NC		NC

1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and number of exceedances.
2 - Average of detected values only.
3 - Average of all analytical results are calculated using one half the detection limit for nondetects.
4 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
5 - USEPA Regional Screening Levels, May 2016.
6 - Value is for m-xylene.
7 - Value is for total xylene.
8 - Value is for pyrene.
9 - Value is for hexavalent chromium.
10 - Value is for total chromium.
11 - Value is for mercuric chloride.

Definitions
J = Estimated value
MDE = Maryland Department of the Environment
NC = No criteria available
REC = recognized environmental condition
USEPA = U.S. Environmental Protection Agency
ug/L = microgram per liter

Table 5-22

Evaluation of Migration from Soil to Groundwater - REC #11 - Surface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Location of Maximum Concentration	Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards-Groundwater Protection	USEPA Soil Screening Levels for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]	# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20
Volatile Organics (mg/kg)													
1,2,3-Trimethylbenzene	5/52	0.00016 J	0.0018 J	GSP-SB-180	GSP-SB-180-SS	0.00013	0.00065	0.0006	0.0002	NC	NC	0.3 N	0
1,2,4-Trichlorobenzene	1/52	0.0042 J	0.0042 J	GSP-SB-119	GSP-SB-119-0-2	0.0002	0.00054	0.004	0.0002	2.4	0	0.068 C	0
1,2,4-Trimethylbenzene	2/52	0.00099 J	0.0017 J	GSP-SB-180	GSP-SB-180-SS	0.00042	0.00082	0.001	0.0003	NC	NC	0.42 N	0
1,2-Dichlorobenzene	1/52	0.00035 J	0.00035 J	GSP-SB-119	GSP-SB-119-0-2	0.00025	0.00048	0.0004	0.0002	4.6	0	6 N	0
1,3-Dichlorobenzene	1/52	0.0066	0.0066	GSP-SB-119	GSP-SB-119-0-2	0.00025	0.00098	0.007	0.0003	0.29	0	0.0092 C[6]	0
2-Butanone	5/52	0.0014 J	0.0085 J	GSP-SB-148	GSP-SB-148-02	0.00082	0.0047	0.005	0.001	29	0	24 N	0
4-Isopropyltoluene	1/52	0.00042 J	0.00042 J	GSP-SB-180	GSP-SB-180-SS	0.00015	0.00058	0.0004	0.0001	NC	NC	NC	NC
4-Methyl-2-Pentanone	2/52	0.00058 J	0.00071 J	GSP-SB-150	GSP-SB-150-02	0.00039	0.0017	0.0006	0.0003	59	0	28 N	0
Acetone	12/52	0.018	0.75 J	GSP-SB-082	GSP-SB-82-0-2	0.0042	0.037	0.161	0.040	22	0	58 N	0
Benzene	1/52	0.00055 J	0.00055 J	GSP-SB-077	GSP-SB-77-1-3	0.00017	0.0013	0.0006	0.0002	0.0019	0	0.0046 C	0
Camphor	1/1	0.04 NJ	0.04 NJ	GSP-SB-180	GSP-SB-180-SS	--	--	0.040	0.040	NC	NC	NC	NC
Carbon Disulfide	2/52	0.0019 J	0.0032 J	GSP-SB-180	GSP-SB-180-SS	0.00032	0.00084	0.003	0.0003	19	0	4.8 N	0
Chlorobenzene	1/52	0.00036 J	0.00036 J	GSP-SB-119	GSP-SB-119-0-2	0.00024	0.00075	0.0004	0.0002	0.68	0	1.06 N	0
cis-1,2-Dichloroethene	2/52	0.00096 J	0.0052	GSP-SB-180	GSP-SB-180-SS	0.0002	0.00042	0.003	0.0003	NC	NC	0.22 N	0
Ethylbenzene	2/52	0.00031 J	0.00092 J	GSP-SB-180	GSP-SB-180-SS	0.00019	0.00045	0.0006	0.0001	15	0	0.034 C	0
m+p-Xylenes	3/52	0.00079 J	0.0025 J	GSP-SB-180	GSP-SB-180-SS	0.00031	0.0014	0.001	0.0005	3 [7]	0	3.8 N[8]	0
Naphthalene	3/52	0.00076 J	0.032	GSP-SB-121	GSP-SB-121-0-3	0.00015	0.0024	0.015	0.0010	0.15	0	0.0108 C	1
o-Xylene	3/52	0.00032 J	0.00096 J	GSP-SB-180	GSP-SB-180-SS	0.00025	0.00081	0.0006	0.0002	3 [7]	0	3.8 N	0
Tertiary-Butyl Alcohol	1/12	0.0081 J	0.0081 J	GSP-SB-082	GSP-SB-82-0-2	0.0042	0.0081	0.008	0.003	NC	NC	24 N[9]	0
Toluene	12/52	0.00029 J	0.0031 J	GSP-SB-180	GSP-SB-180-SS	0.0002	0.00038	0.0008	0.0003	27	0	15.2 N	0
Total Xylenes	5/52	0.00056 J	0.0035 J	GSP-SB-180	GSP-SB-180-SS	0.00039	0.00078	0.001	0.0004	3	0	3.8 N	0
trans-1,2-Dichloroethene	1/52	0.0005 J	0.0005 J	GSP-SB-180	GSP-SB-180-SS	0.00023	0.00048	0.0005	0.0002	0.72	0	2.2 N	0
Trichloroethene	2/52	0.00033 J	0.0041 J	GSP-SB-074	GSP-SB-74-0-2	0.00028	0.00054	0.002	0.0003	0.00026	2	0.0036 C	1
Vinyl Chloride	1/52	0.00073 J	0.00073 J	GSP-SB-180	GSP-SB-180-SS	0.00022	0.00045	0.0007	0.0002	0.00012	1	0.00013 C	1
Semivolatile Organics (mg/kg)													
1,1-Biphenyl	2/51	0.0059 J	0.013 J	GSP-SB-177	GSP-SB-177-SS	0.0039	0.59	0.009	0.028	NC	NC	0.174 N	0
2-Methylnaphthalene	40/52	0.004 J	0.5	GSP-SB-083	GSP-SB-83-0-2	0.00056	0.015	0.063	0.049	4.4	0	3.8 N	0
Acenaphthene	42/52	0.011	0.52	GSP-SB-083	GSP-SB-83-0-2	0.00085	0.015	0.090	0.073	100	0	110 N	0
Acenaphthylene	38/52	0.0083	0.3	GSP-SB-124	GSP-SB-124-0-2	0.00039	0.015	0.051	0.038	100	0	110 N[10]	0
Anthracene	51/52	0.005 J	1.9	GSP-SB-083	GSP-SB-83-0-2	0.004	0.004	0.239	0.235	470	0	1160 N	0
Benzaldehyde	2/51	0.019 J	0.044 J	GSP-SB-153	GSP-SB-153-02	0.013	0.26	0.032	0.016	NC	NC	0.082 C	0
Benzo(a)anthracene	51/52	0.016	5.8	GSP-SB-083	GSP-SB-83-0-2	0.004	0.004	0.825	0.809	0.48	29	0.084 C	44
Benzo(a)pyrene	51/52	0.015	5.2	GSP-SB-083	GSP-SB-83-0-2	0.004	0.004	0.795	0.780	0.12	43	0.08 C	44
Benzo(b)fluoranthene	52/52	0.013	5.1	GSP-SB-083	GSP-SB-83-0-2	--	--	0.914	0.914	1.5	8	0.82 C	18
Benzo(g,h,i)perylene	51/52	0.019 J	3.1	GSP-SB-083	GSP-SB-83-0-2	0.004	0.004	0.454	0.445	680	0	260 N[11]	0
Benzo(k)fluoranthene	51/52	0.0088	1.8	GSP-SB-083	GSP-SB-83-0-2	0.004	0.004	0.404	0.396	15	0	8 C	0
Benzo(k)fluoranthene	51/52	0.0088	1.8	GSP-SB-180	GSP-SB-180-SS	0.004	0.004	0.404	0.396	15	0	8 C	0
Bis(2-ethylhexyl)phthalate	13/51	0.021 J	0.1 J	GSP-SB-087	GSP-SB-87-0-2	0.021	0.42	0.044	0.033	2,900	0	26 C	0
Butyl Benzyl Phthalate	1/51	0.25	0.25	GSP-SB-086	GSP-SB-86-0-2	0.011	0.22	0.250	0.017	NC	NC	4.8 C	0
Caprolactam	1/51	0.05 J	0.05 J	GSP-SB-111	GSP-SB-111-0-2	0.04	0.81	0.050	0.046	NC	NC	50 N	0
Carbazole	22/51	0.03 J	0.3 J	GSP-SB-180	GSP-SB-180-SS	0.029	0.59	0.098	0.063	0.47	0	NC	NC
Chrysene	52/52	0.0088	6.2	GSP-SB-083	GSP-SB-83-0-2	--	--	0.845	0.845	48	0	24 C	0
di-n-Butyl Phthalate	3/52	0.017 J	0.046 J	GSP-SB-153	GSP-SB-153-02	0.016	0.33	0.030	0.020	5,000	0	46 N	0
Dibenz(a,h)anthracene	38/52	0.0063 J	0.85	GSP-SB-083	GSP-SB-83-0-2	0.00074	0.0073	0.165	0.121	0.46	3	0.26 C	5
Dibenzofuran	23/52	0.0038 J	0.17	GSP-SB-076	GSP-SB-76-1-3	0.00074	0.3	0.040	0.025	NC	NC	3 N	0
Fluoranthene	52/52	0.018	8.8	GSP-SB-083	GSP-SB-83-0-2	--	--	1.43	1.43	6,300	0	1780 N	0
Fluorene	41/52	0.011	0.91	GSP-SB-083	GSP-SB-83-0-2	0.00059	0.015	0.118	0.094	140	0	108 N	0
Indeno(1,2,3-cd)pyrene	51/52	0.011	2.4	GSP-SB-083	GSP-SB-83-0-2	0.004	0.004	0.388	0.380	4.2	0	2.6 C	0
N-Nitroso-di-n-Propylamine	1/51	0.12	0.12	GSP-SB-072	GSP-SB-72-0-2	0.007	0.59	0.120	0.031	0.000047	1	0.0001620 C	1
Naphthalene	39/52	0.0071 J	0.56	GSP-SB-083	GSP-SB-83-0-2	0.00091	0.015	0.084	0.064	0.15	4	0.0108 C	37
Phenanthrene	52/52	0.012	7.9	GSP-SB-083	GSP-SB-83-0-2	--	--	0.812	0.812	470	0	260 N[11]	0
Pyrene	52/52	0.015	13	GSP-SB-083	GSP-SB-83-0-2	--	--	1.56	1.56	680	0	260 N	0
Polychlorinated Biphenyls (mg/kg)													
Aroclor-1260	30/44	0.015 J	12	GSP-SB-078	GSP-SB-78-0-2	0.019	0.022	1.32	0.903	NC	NC	0.11 C	19

Table 5-22

Evaluation of Migration from Soil to Groundwater - REC #11 - Surface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration		Maximum Concentration		Location of Maximum Concentration	Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards-Groundwater Protection	USEPA Soil Screening Levels for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]		# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20
Inorganics (mg/kg)																
Antimony	18/52	0.079	J	1.2	J	GSP-SB-121	GSP-SB-121-0-3	0.026	1.2	0.411	0.281	13	0	7	N	0
Arsenic	52/52	0.98		11	J	GSP-SB-141	GSP-SB-141-02	--	--	3.29	3.29	0.026	52	0.03	C	52
Barium	52/52	3.9	J	300		GSP-SB-180	GSP-SB-180-SS	--	--	35.5	35.5	6,000	0	3200	N	0
Beryllium	41/52	0.046	J	2.2		GSP-SB-180	GSP-SB-180-SS	0.053	0.45	0.403	0.351	1,200	0	380	N	0
Cadmium	27/52	0.041	J	2.8		GSP-SB-171	GSP-SB-171-SS	0.0031	0.18	0.304	0.170	27	0	13.8	N	0
Chromium	52/52	3.4	J	44		GSP-SB-172	GSP-SB-172-SS	--	--	14.3	14.3	42	1	0.0134	C[12]	52
Cobalt	52/52	0.22	J	10.8	J	GSP-SB-087	GSP-SB-87-0-2	--	--	2.84	2.84	NC	NC	5.4	N	2
Copper	52/52	1.8	J	81		GSP-SB-178	GSP-SB-178-SS	--	--	12.1	12.1	11000	0	560	N	0
Iron	13/13	866	J	15000		GSP-SB-082	GSP-SB-82-0-2	--	--	8240	8240	NC	NC	7000	N	8
Lead	52/52	1.1	J	41		GSP-SB-125	GSP-SB-125-0-2	--	--	13.4	13.4	NC	NC	280	[13]	0
Manganese	13/13	2.5	J	1050		GSP-SB-084	GSP-SB-84-0-2	--	--	175	175	950	1	560	N	1
Mercury	39/52	0.017	J	0.67		GSP-SB-155	GSP-SB-155-02	0.014	0.02	0.115	0.089	NC	NC	0.66	N[14]	1
Molybdenum	16/52	0.051	J	0.52	J	GSP-SB-141	GSP-SB-141-02	0.22	0.68	0.351	0.234	NC	NC	40	N	0
Nickel	52/52	0.47		22		GSP-SB-174	GSP-SB-174-SS	--	--	5.88	5.88	NC	NC	520	N	0
Selenium	27/52	0.2	J	3.1	L	GSP-SB-082	GSP-SB-82-0-2	0.3	1.2	0.638	0.445	19	0	10.4	N	0
Silver	20/52	0.073	J	0.67	J	GSP-SB-180	GSP-SB-180-SS	0.0018	0.21	0.226	0.113	31	0	16	N	0
Thallium	1/52	0.92	J	0.92	J	GSP-SB-120	GSP-SB-120-0-2	0.016	0.7	0.920	0.192	3.6	0	0.28	N	1
Vanadium	52/52	5.6	J	72		GSP-SB-179	GSP-SB-179-SS	--	--	22.7	22.7	730	0	1720	N	0
Zinc	51/52	4.6	J	55		GSP-SB-181	GSP-SB-181-SS	1.9	1.9	28.2	27.7	14,000	0	7400	N	0
Petroleum Hydrocarbons (mg/kg)																
Diesel Range Organics	27/33	3.6	J	1800	J	GSP-SB-083	GSP-SB-83-0-2	3.4	22	274	225	NC	NC	NC		NC
Gasoline Range Organics	5/33	0.033	J	0.089	J	GSP-SB-078	GSP-SB-78-0-2	0.027	0.034	0.063	0.022	NC	NC	NC		NC
TPH (C06-C10)	2/19	0.056	J	0.45		GSP-SB-180	GSP-SB-180-SS	0.05	0.14	0.253	0.052	NC	NC	NC		NC
TPH (C10-C32)	15/19	33		1700		GSP-SB-180	GSP-SB-180-SS	10	53	231	186	NC	NC	NC		NC

1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and number of exceedances.
2 - Average of detected values only.
3 - Average of all analytical results are calculated using one half the detection limit for nondetects.
4 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
5 - USEPA Regional Screening Levels, May 2016.
6 - Value is for 1,4-dichloroethene.
7 - Value is for total xylene.
8 - Value is for m-xylene.
9 - Value is for isobutyl alcohol.
10 - Value is for acenaphthene.
11 - Value is for pyrene.
12 - Value is for hexavalent chromium.
13 - Value is MCL based soil screening level.
14 - No SSL is available for mercuric chloride. Value is for elemental mercury.

Definitions
J = Estimated value
MDE = Maryland Department of the Environment
NC = No criteria available
REC = recognized environmental condition
USEPA = U.S. Environmental Protection Agency
mg/kg = milligram per kilogram

Table 5-23

Evaluation of Migration from Soil to Groundwater - REC #11 - Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Location of Maximum Concentration	Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards-Groundwater Protection	USEPA Soil Screening Levels for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]	# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20
Volatile Organics (mg/kg)													
1,1-Dichloroethene	1/79	0.0015 J	0.0015 J	GSP-SB-180	GSP-SB-180-4-6	0.00035	0.028	0.002	0.002	2.9	0	2 N	0
1,2,3-Trimethylbenzene	6/79	0.00015 J	0.0055 J	GSP-SB-146	GSP-SB-146-06	0.00012	0.012	0.001	0.0007	NC	NC	0.3 N	0
1,2,4-Trimethylbenzene	7/79	0.00044 J	0.018 J	GSP-SB-174	GSP-SB-174-4-6	0.0004	0.012	0.007	0.001	NC	NC	0.42 N	0
1,2-Dichloroethane	4/79	0.00075 J	0.036	GSP-SB-181	GSP-SB-181-12-14	0.00023	0.012	0.013	0.001	0.001	3	0.00096 C	3
2-Butanone	13/79	0.0013 J	0.089 J	GSP-SB-145	GSP-SB-145-06	0.00076	0.067	0.017	0.007	29	0	24 N	0
4-Isopropyltoluene	5/79	0.00024 J	0.026 J	GSP-SB-145	GSP-SB-145-06	0.00014	0.023	0.006	0.002	NC	NC	NC	NC
Acetone	14/79	0.0062 J	0.22 J	GSP-SB-121	GSP-SB-121-6-8	0.0039	0.21	0.052	0.027	22	0	58 N	0
Carbon Disulfide	9/79	0.00046 J	0.0011 J	GSP-SB-114	GSP-SB-114-6-8	0.0003	0.052	0.0007	0.003	19	0	4.8 N	0
Carbon Tetrachloride	1/79	0.06 J	0.06 J	GSP-SB-179	GSP-SB-179-4-6	0.00025	0.017	0.060	0.002	0.0021	1	0.0036 C	1
cis-1,2-Dichloroethene	12/79	0.00031 J	0.069	GSP-SB-181	GSP-SB-181-12-14	0.0002	0.035	0.015	0.004	NC	NC	0.22 N	0
Ethylbenzene	8/79	0.00045 J	0.024	GSP-SB-170	GSP-SB-170-4-6	0.00018	0.032	0.006	0.002	15	0	0.034 C	0
m+p-Xylenes	7/79	0.00048 J	0.019 J	GSP-SB-174	GSP-SB-174-4-6	0.00029	0.056	0.008	0.002	3 [6]	0	3.8 N[7]	0
Methyl Tert-Butyl Ether	1/79	0.00045 J	0.00045 J	GSP-SB-174	GSP-SB-174-10-12	0.00029	0.028	0.0005	0.002	0.012	0	0.064 C	0
Methylene Chloride	2/79	0.16 J	0.16 J	GSP-SB-180	GSP-SB-180-12-14	0.00046	0.42	0.160	0.013	0.019	2	0.058 C	2
N-Butylbenzene	3/79	0.00066 J	0.058 J	GSP-SB-181	GSP-SB-181-4-6	0.00016	0.019	0.020	0.002	NC	NC	64 N	0
Naphthalene	16/79	0.00085 J	3.3	GSP-SB-174	GSP-SB-174-4-6	0.00013	0.024	0.544	0.111	0.15	6	0.0108 C	11
o-Xylene	5/79	0.00029 J	0.0064 J	GSP-SB-121	GSP-SB-121-6-8	0.00024	0.016	0.002	0.001	3 [6]	0	3.8 N	0
sec-Butylbenzene	2/79	0.00097 J	0.026 J	GSP-SB-181	GSP-SB-181-4-6	0.00012	0.015	0.013	0.001	NC	NC	118 N	0
Toluene	24/79	0.00023 J	0.58	GSP-SB-145	GSP-SB-145-06	0.00018	0.02	0.029	0.010	27	0	15.2 N	0
Total Xylenes	7/79	0.00059 J	0.02 J	GSP-SB-121	GSP-SB-121-6-8	0.00037	0.03	0.006	0.002	3	0	3.8 N	0
trans-1,2-Dichloroethene	4/79	0.00041 J	0.002 J	GSP-SB-180	GSP-SB-180-4-6	0.00022	0.024	0.001	0.001	0.72	0	2.2 N	0
Trichloroethene	14/79	0.00033 J	0.025	GSP-SB-177	GSP-SB-177-12-14	0.00027	0.036	0.007	0.003	0.00026	14	0.0036 C	8
Vinyl Chloride	7/79	0.00036 J	0.049	GSP-SB-181	GSP-SB-181-12-14	0.00021	0.021	0.018	0.003	0.00012	7	0.0001300 C	7
Semivolatile Organics (mg/kg)													
1,1-Biphenyl	4/79	0.012 J	0.33	GSP-SB-145	GSP-SB-145-06	0.0039	0.61	0.108	0.022	NC	NC	0.174 N	1
2,4-Dichlorophenol	1/78	0.025 J	0.025 J	GSP-SB-173	GSP-SB-173-8-10	0.022	0.45	0.025	0.018	1.2	0	0.46 N	0
2-Chlorophenol	1/78	0.017 J	0.017 J	GSP-SB-173	GSP-SB-173-8-10	0.0091	0.61	0.017	0.018	NC	NC	1.78 N	0
2-Methylnaphthalene	18/79	0.0057 J	2.9	GSP-SB-145	GSP-SB-145-06	0.00056	0.047	0.388	0.090	4.4	0	3.8 N	0
3&4-Methylphenol	1/72	0.043 J	0.043 J	GSP-MW/SB-026I	GSP-SB-26I-8-10	0.022	0.11	0.043	0.015	NC	NC	14.8 N[6]	0
Acenaphthene	21/79	0.0038 J	1.7	GSP-SB-081	GSP-SB-81-2-4	0.00086	0.0093	0.343	0.092	100	0	110 N	0
Acenaphthylene	12/79	0.009	0.71	GSP-SB-081	GSP-SB-81-2-4	0.00039	0.047	0.079	0.013	100	0	110 N[9]	0
Anthracene	25/79	0.0039 J	5.7	GSP-SB-081	GSP-SB-81-2-4	0.00088	0.0093	0.579	0.184	470	0	1160 N	0
Benzo(a)anthracene	31/79	0.008	11	GSP-SB-081	GSP-SB-81-2-4	0.00071	0.0093	1.05	0.413	0.48	11	0.084 C	17
Benzo(a)pyrene	29/79	0.0059 J	10	GSP-SB-081	GSP-SB-81-2-4	0.00072	0.0093	1.02	0.377	0.12	17	0.08 C	17
Benzo(b)fluoranthene	32/79	0.008	9	GSP-SB-081	GSP-SB-81-2-4	0.00067	0.0093	1.10	0.447	1.5	5	0.82 C	11
Benzo(g,h,i)perylene	24/79	0.01	5.3	GSP-SB-081	GSP-SB-81-2-4	0.0004	0.0093	0.644	0.196	680	0	260 N[10]	0
Benzo(k)fluoranthene	26/79	0.0069 J	4.5	GSP-SB-081	GSP-SB-81-2-4	0.00077	0.0093	0.624	0.206	15	0	8 C	0
Bis(2-ethylhexyl)phthalate	13/79	0.023 J	0.12	GSP-SB-088	GSP-SB-88-2-4	0.021	0.43	0.045	0.025	2,900	0	26 C	0
Butyl Benzyl Phthalate	1/79	0.072 J	0.072 J	GSP-MW-19	GSP-MW-19-12-14	0.011	0.22	0.072	0.011	NC	NC	4.8 C	0
Caprolactam	2/79	0.043 J	0.077 J	GSP-TP-15_Blue	GSP-TP-15-W-3-4-B	0.041	0.83	0.060	0.037	NC	NC	50 N	0
Carbazole	12/79	0.03 J	1.6	GSP-SB-121	GSP-SB-121-6-8	0.03	0.61	0.393	0.077	0.47	2	NC	NC
Chrysene	31/79	0.0078 J	12	GSP-SB-081	GSP-SB-81-2-4	0.0012	0.0031	1.10	0.431	48	0	24 C	0
di-n-Butyl Phthalate	1/79	0.034 J	0.034 J	GSP-SB-114	GSP-SB-114-6-8	0.017	0.34	0.034	0.015	5,000	0	46 N	0
Dibenz(a,h)anthracene	13/79	0.01	1.4	GSP-SB-081	GSP-SB-81-2-4	0.00073	0.016	0.343	0.057	0.46	3	0.26 C	3
Dibenzofuran	13/79	0.011 J	1	GSP-SB-121	GSP-SB-121-6-8	0.00073	0.45	0.214	0.041	NC	NC	3 N	0
Fluoranthene	35/79	0.006 J	19	GSP-SB-081	GSP-SB-81-2-4	0.00062	0.0093	1.89	0.837	6,300	0	1780 N	0
Fluorene	23/79	0.005 J	3.8	GSP-SB-081	GSP-SB-81-2-4	0.00059	0.0093	0.428	0.125	140	0	108 N	0
Indeno(1,2,3-cd)pyrene	25/79	0.0073 J	4.6	GSP-SB-081	GSP-SB-81-2-4	0.0004	0.0093	0.565	0.179	4.2	1	2.6 C	2
Isophorone	3/79	0.031 J	0.053 J	GSP-SB-177	GSP-SB-177-12-14	0.014	0.29	0.043	0.014	0.41	0	0.52 C	0
Naphthalene	22/79	0.0051 J	4.4	GSP-SB-145	GSP-SB-145-06	0.00093	0.047	0.455	0.128	0.15	7	0.0108 C	15
Pentachlorophenol	2/78	0.015 J	0.016 J	GSP-TP-15_Blue	GSP-TP-15-W-3-4-B	0.01	1.8	0.016	0.047	NC	NC	0.00114 C	3
Phenanthrene	31/79	0.0059 J	23	GSP-SB-081	GSP-SB-81-2-4	0.00082	0.0093	1.84	0.722	470	0	260 N[10]	0
Phenol	6/78	0.019 J	0.13 J	GSP-SB-120	GSP-SB-120-6-8	0.0081	0.61	0.057	0.021	67	0	66 N	0
Pyrene	36/79	0.0045 J	26	GSP-SB-081	GSP-SB-81-2-4	0.0005	0.0093	1.85	0.844	680	0	260 N	0
Polychlorinated Biphenyls (mg/kg)													
Aroclor-1242	3/68	0.021 J	0.13	GSP-SB-121	GSP-SB-121-6-8	0.012	0.15	0.060	0.011	NC	NC	0.024 C	2
Aroclor-1260	13/68	0.012 J	2.7	GSP-SB-119	GSP-SB-119-6-8	0.01	0.022	0.326	0.068	NC	NC	0.11 C	5

Table 5-23

Evaluation of Migration from Soil to Groundwater - REC #11 - Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration		Maximum Concentration		Location of Maximum Concentration	Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards-Groundwater Protection	USEPA Soil Screening Levels for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]		# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20
Inorganics (mg/kg)																
Antimony	6/95	0.081	J	1.1	J	GSP-SB-177	GSP-SB-177-4-6	0.019	2.4	0.524	0.260	13	0	7	N	0
Arsenic	93/95	0.46	J	52		GSP-SB-111	GSP-SB-111-6-8	0.33	0.45	2.93	2.87	0.026	93	0.03	C	93
Barium	84/95	1.4	J	67.2	J	GSP-SB-081	GSP-SB-81-2-4	2.7	18	14.9	13.8	6,000	0	3200	N	0
Beryllium	16/95	0.056	J	0.74	J	GSP-SB-081	GSP-SB-81-2-4	0.021	0.39	0.230	0.090	1,200	0	380	N	0
Cadmium	20/95	0.021	J	0.72		GSP-SB-177	GSP-SB-177-4-6	0.0019	0.16	0.104	0.034	27	0	13.8	N	0
Chromium	95/95	0.96		27		GSP-SB-111	GSP-SB-111-6-8	--	--	10.1	10.1	42	0	0.0134	C[11]	95
Cobalt	90/95	0.045	J	6	J	GSP-SB-081	GSP-SB-81-2-4	0.17	0.19	1.28	1.22	NC	NC	5.4	N	1
Copper	94/95	0.79	J	68		GSP-SB-118	GSP-SB-118-6-8	0.8	0.8	10.0	9.90	11000	0	560	N	0
Iron	6/6	183		15600	J	GSP-SB-081	GSP-SB-81-2-4	--	--	7647	7647	NC	NC	7000	N	3
Lead	89/95	0.3	J	59		GSP-SB-169	GSP-SB-169-6-8	0.65	1.1	5.56	5.24	NC	NC	280	[12]	0
Manganese	6/6	0.98		713	J	GSP-SB-081	GSP-SB-81-2-4	--	--	153	153	950	0	560	N	1
Mercury	37/95	0.016	J	0.19		GSP-SB-177	GSP-SB-177-4-6	0.013	0.02	0.046	0.023	NC	NC	0.66	N[13]	0
Molybdenum	12/95	0.15	J	1	J	GSP-MW/SB-025I	GSP-SB-25I-8-10	0.051	2.4	0.388	0.193	NC	NC	40	N	0
Nickel	60/95	0.16	J	15		GSP-SB-167	GSP-SB-167-10-12	0.11	3.5	3.74	2.63	NC	NC	520	N	0
Selenium	20/95	0.051	J	0.84	J	GSP-SB-111	GSP-SB-111-6-8	0.27	2.1	0.454	0.267	19	0	10.4	N	0
Silver	9/95	0.052	J	0.18	J	GSP-SB-130	GSP-SB-130-6-8	0.0055	0.31	0.093	0.044	31	0	16	N	0
Thallium	3/95	0.64	J	0.94	J	GSP-SB-121	GSP-SB-121-6-8	0.03	0.67	0.750	0.152	3.6	0	0.28	N	3
Vanadium	95/95	2.1		300		GSP-SB-111	GSP-SB-111-6-8	--	--	18.3	18.3	730	0	1720	N	0
Zinc	89/95	0.7	J	97		GSP-SB-170	GSP-SB-170-4-6	0.88	4.4	11.3	10.6	14,000	0	7400	N	0
Petroleum Hydrocarbons (mg/kg)																
Diesel Range Organics	13/26	3.7	J	5200		GSP-SB-081	GSP-SB-81-2-4	3.3	15	464	235	NC	NC	NC		NC
Gasoline Range Organics	5/26	0.043	J	0.15	J	GSP-SB-081	GSP-SB-81-2-4	0.028	0.034	0.092	0.030	NC	NC	NC		NC
TPH (C06-C10)	11/53	0.051	J	0.94		GSP-SB-181	GSP-SB-181-4-6	0.051	0.19	0.176	0.060	NC	NC	NC		NC
TPH (C10-C32)	14/53	8.1	J	3000		GSP-SB-181	GSP-SB-181-4-6	7.2	51	379	105	NC	NC	NC		NC

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2 - Average of detected values only.
3 - Average of all analytical results are calculated using one half the detection limit for nondetects.
4 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
5 - USEPA Regional Screening Levels, May 2016.
6 - Value is for 1,4-dichloroethene.
7 - Value is for total xylene.
8 - Value is for m-xylene.
9 - Value is for acenaphthene.
10 - Value is for pyrene.
11 - Value is for hexavalent chromium.
12 - Value is MCL based soil screening level.
13 - No SSL is available for mercuric chloride. Value is for elemental mercury.

Definitions
J = Estimated value
MDE = Maryland Department of the Environment
NC = No criteria available
REC = recognized environmental condition
USEPA = U.S. Environmental Protection Agency
mg/kg = milligram per kilogram

Table 5-24

Evaluation of Migration from Soil to Groundwater - REC #11 - Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration		Maximum Concentration		Location of Maximum Concentration	Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standard[4] Groundwater	# Detects Greater than MDE Cleanup Standards-Groundwater	USEPA Regional Screening Level[5] Tap Water		# Detects Greater than USEPA RSL - Tap Water
Volatile Organics (ug/L)																
1,1-Dichloroethane	2/73	1.5	J	1.5	J	GSP-DPT-64	GSP-DPT-64-15-20-020816	0.15	2	1.50	0.262	90	0	2.8	C	0
1,1-Dichloroethene	2/73	0.99	J	1.3	J	GSP-DPT-53	GSP-DPT-53-10-15	0.19	3	1.15	0.367	7	0	28	N	0
1,2,4-Trimethylbenzene	2/73	0.73	J	0.87	J	GSP-SB-080	GSP-SB-80-W	0.12	2.7	0.800	0.324	NC	NC	1.5	N	0
1,2-Dibromo-3-Chloropropane	1/73	2.9	J	2.9	J	GSP-SB-080	GSP-SB-80-W	0.67	5.5	2.90	0.673	NC	NC	0.00033	C	1
1,2-Dichloroethane	32/73	0.23	J	110		GSP-DPT-62	GSP-DPT-62-10-15-020916	0.22	0.92	9.76	4.35	5	13	0.17	C	32
2-Butanone	24/73	0.53	J	57		GSP-DPT-54	GSP-DPT-54-15-20	0.53	9	7.12	2.80	700	0	560	N	0
2-Hexanone	12/73	0.52	J	2.5	J	GSP-DPT-54	GSP-DPT-54-15-20	0.41	3.2	1.17	0.528	NC	NC	3.8	N	0
Acetone	23/73	1.1	J	27		GSP-DPT-62	GSP-DPT-62-25-30-020916	0.94	38	6.42	3.54	550	0	1,400	N	0
Benzene	8/73	0.36	J	3	J	GSP-DPT-62	GSP-DPT-62-10-15-020916	0.13	2.3	0.960	0.334	5	0	0.46	C	6
Bromomethane	2/73	0.7	J	1.9		GSP-DPT-63	GSP-DPT-63-25-30'-011816	0.41	2.9	1.30	0.381	0.85	1	0.75	N	1
Carbon Disulfide	11/73	0.38	J	0.74	J	GSP-DPT-51	GSP-DPT-51-35-40	0.13	2.5	0.536	0.340	100	0	81	N	0
Carbon Tetrachloride	1/73	7.6		7.6		GSP-DPT-63	GSP-DPT-63-30-35'-011816	0.13	2.9	7.60	0.426	5	1	0.46	C	1
Chlorobenzene	9/73	0.29	J	3.2	J	GSP-DPT-58	GSP-DPT-58-20-25-021116	0.15	1.7	1.41	0.341	100	0	7.8	N	0
Chloroform	23/73	0.27	J	84		GSP-DPT-64	GSP-DPT-64-15-20-020816	0.16	1.7	6.73	2.26	80	1	0.22	C	23
Chloromethane	3/73	0.51	J	6.9		GSP-DPT-63	GSP-DPT-63-25-30'-011816	0.3	2.9	3.17	0.466	19	0	19	N	0
cis-1,2-Dichloroethene	41/73	0.28	J	60		GSP-DPT-57	GSP-DPT-57-25-30-021216	0.17	1	10.6	6.01	70	0	3.6	N	20
Ethylbenzene	4/73	0.29	J	21		GSP-SB-080	GSP-SB-80-W	0.17	1.7	5.71	0.500	700	0	1.5	C	1
m+p-Xylenes	12/73	0.31	J	4.4		GSP-DPT-64	GSP-DPT-64-25-30-020816	0.24	1.6	1.15	0.352	10,000 [6]	0	19	N[7]	0
Methylene Chloride	6/73	0.43	J	120		GSP-DPT-64	GSP-DPT-64-15-20-020816	0.33	6.4	23.1	2.15	5	2	11	N	1
Naphthalene	17/73	0.45	J	110		GSP-SB-080	GSP-SB-80-W	0.24	3	16.0	3.95	0.65	3	0.17	C	4
o-Xylene	8/73	0.27	J	72		GSP-DPT-64	GSP-DPT-64-30-35-020816	0.14	1.7	10.7	1.35	10,000 [6]	0	19	N	1
Styrene	1/73	1.8	J	1.8	J	GSP-SB-080	GSP-SB-80-W	0.11	3	1.80	0.360	100	0	120	N	0
Tertiary-Butyl Alcohol	1/62	70	J	70	J	GSP-DPT-57	GSP-DPT-57-25-30-021216	4.9	33	70.0	4.98	NC	NC	590	N[8]	0
Toluene	13/73	0.24	J	1.9	J	GSP-SB-080	GSP-SB-80-W	0.13	1.5	0.509	0.246	1,000	0	110	N	0
Total Xylenes	8/73	0.85	J	73		GSP-DPT-64	GSP-DPT-64-30-35-020816	0.28	3.5	12.2	1.69	10000	0	19	N	1
trans-1,2-Dichloroethene	6/73	0.19	J	2.3		GSP-DPT-64	GSP-DPT-64-30-35-020816	0.19	2	0.808	0.283	100	0	36	N	0
Trichloroethene	40/73	0.22	J	260		GSP-DPT-57	GSP-DPT-57-25-30-021216	0.17	0.88	33.0	18.1	5.0	23	0.28	N	40
Trichlorofluoromethane	1/73	1.8		1.8		GSP-SB-072	GSP-SB-72-W	0.21	3.3	1.80	0.398	NC	NC	520	N	0
Vinyl Chloride	26/73	0.29	J	33		GSP-DPT-64	GSP-DPT-64-30-35-020816	0.22	1.2	4.96	1.87	2	11	0.019	C	26
Semivolatile Organics (ug/L)																
2,4-Dimethylphenol	1/14	6.7		6.7		GSP-SB-080	GSP-SB-80-W	0.24	0.8	6.70	0.688	73	0	36	N	0
2-Methylnaphthalene	3/14	0.13	J	3.4		GSP-SB-080	GSP-SB-80-W	0.086	0.096	1.25	0.304	2.4	1	3.6	N	0
2-Methylphenol	1/14	4.2		4.2		GSP-SB-080	GSP-SB-80-W	0.16	0.8	4.20	0.486	180	0	93	N	0
Acenaphthene	1/14	13		13		GSP-SB-080	GSP-SB-80-W	0.042	0.1	13.0	0.958	37	0	53	N	0
Acetophenone	1/14	1.1	J	1.1	J	GSP-SB-080	GSP-SB-80-W	0.32	0.35	1.10	0.233	NC	NC	190	N	0
Anthracene	1/14	1		1		GSP-SB-080	GSP-SB-80-W	0.084	0.1	1.00	0.113	180	0	180	N	0
Bis(2-ethylhexyl)phthalate	2/14	1.3	J	1.9	J	GSP-SB-080	GSP-SB-80-W	0.76	1.8	1.60	0.817	6	0	5.6	C	0
Carbazole	1/14	16		16		GSP-SB-080	GSP-SB-80-W	0.27	0.29	16.0	1.27	3.3	1	NC		NC
Dibenzofuran	1/14	5.9		5.9		GSP-SB-080	GSP-SB-80-W	0.019	0.1	5.90	0.444	3.7	1	0.79	N	1
Fluorene	1/14	9.5		9.5		GSP-SB-080	GSP-SB-80-W	0.039	0.1	9.50	0.707	24	0	29	N	0
Naphthalene	5/14	0.097	J	70		GSP-SB-080	GSP-SB-80-W	0.06	0.096	14.9	5.34	0.7	3	0.17	C	4
Phenanthrene	1/14	4.9		4.9		GSP-SB-080	GSP-SB-80-W	0.059	0.1	4.90	0.385	180	0	12	N[9]	0
Phenol	1/14	1.3	J	1.3	J	GSP-SB-080	GSP-SB-80-W	0.57	0.62	1.30	0.365	1,100	0	580	N	0
Inorganics (ug/L)																
Antimony	1/16	0.15	J	0.15	J	GSP-MW-17	GSP-MW17-101012	0.073	2.4	0.150	0.654	6	0	0.78	N	0
Arsenic	12/16	0.99	J	92.3		GSP-SB-080	GSP-SB-80-W	0.4	2.9	14.4	11.1	10	4	0.052	C	12
Barium	8/16	9.9	K	89		GSP-SB-080	GSP-SB-80-W	14	93	47.7	34.8	2,000	0	380	N	0
Beryllium	6/16	0.18	J	1.5	J	GSP-MW-19	GSP-MW-19-031616	0.092	1.2	0.653	0.334	4	0	2.5	N	0
Cadmium	3/16	0.1	J	1		GSP-SB-084	GSP-SB-WP-84-062311	0.046	0.18	0.523	0.151	5	0	0.92	N	1
Chromium	13/16	0.6	J	37.6		GSP-SB-072	GSP-SB-72-W	0.55	0.71	7.56	6.21	100 [10]	0	0.035	C[11]	13
Cobalt	16/16	2.8	J	210		GSP-SB-084	GSP-SB-WP-84-062311	--	--	35.9	35.9	NC	NC	0.6	N	16
Copper	9/16	1.8	J	18.6		GSP-SB-072	GSP-SB-72-W	1.3	1.9	7.18	4.43	1,300	0	80	N	0
Iron	2/2	13900		18800		GSP-SB-080	GSP-SB-80-W	--	--	16350	16350	300	2	1,400	N	2
Lead	3/16	2.3		3.5	J	GSP-MW/SB-024I	GSP-MW-24I-031716	0.18	1.9	2.97	1.06	15	0	15		0
Manganese	2/2	560		758		GSP-SB-072	GSP-SB-72-W	--	--	659	659	50	2	43	N	2

Table 5-24

Evaluation of Migration from Soil to Groundwater - REC #11 - Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration		Maximum Concentration		Location of Maximum Concentration	Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standard[4] Groundwater	# Detects Greater than MDE Cleanup Standards-Groundwater	USEPA Regional Screening Level[5] Tap Water		# Detects Greater than USEPA RSL - Tap Water
Mercury	2/16	0.073	J	0.27		GSP-MW/SB-024I	GSP-MW-24I-031716	0.066	0.12	0.172	0.063	2	0	0.57	N[12]	0
Molybdenum	2/16	3.4		3.5		GSP-SB-072	GSP-SB-72-W	0.093	8.6	3.45	0.972	NC	NC	10	N	0
Nickel	16/16	1.5	J	380		GSP-SB-084	GSP-SB-WP-84-062311	--	--	55.5	55.5	73	2	39	N	4
Selenium	5/16	0.36	J	2.6	J	GSP-SB-072	GSP-SB-72-W	0.57	4	1.28	1.45	50	0	10	N	0
Thallium	3/16	1.1	J	4.5	J	GSP-MW-01	GSP-MW-01-031616	0.2	1.7	2.60	0.881	2	2	0.02	N	3
Vanadium	8/16	0.55	J	22.8		GSP-SB-072	GSP-SB-72-W	0.44	2.4	10.4	5.69	3.7	6	8.6	N	4
Zinc	6/16	6	J	1800		GSP-MW-19	GSP-MW-19-031616	9.6	27	582	225	5,000	0	600	N	2
Filtered Inorganics (ug/L)																
Arsenic	12/16	0.92	J	87.4		GSP-SB-080	GSP-SB-80-W	0.4	2.9	13.2	10.1	10	1	0.052	C	12
Barium	8/16	9.5	K	82.8		GSP-SB-080	GSP-SB-80-W	11	96	45.5	33.5	2,000	0	380	N	0
Beryllium	7/16	0.15	J	1.7	J	GSP-MW-19	GSP-MW-19-031616	0.092	1.2	0.553	0.321	4	0	2.5	N	0
Cadmium	3/16	0.074	J	1.1		GSP-SB-084	GSP-SB-WP-84-062311	0.046	0.17	0.535	0.155	5	0	0.92	N	1
Chromium	11/16	0.63	J	13		GSP-MW-20	GSP-MW-20-031616	0.55	0.71	3.51	2.51	100 [10]	0	0.035	C[11]	11
Cobalt	16/16	2.5	J	220		GSP-SB-084	GSP-SB-WP-84-062311	--	--	36.1	36.1	NC	NC	0.6	N	16
Copper	6/16	0.83	J	17	J	GSP-MW-19	GSP-MW-19-031616	0.67	2.9	4.84	2.39	1,300	0	80	N	0
Iron	2/2	10400		18000		GSP-SB-080	GSP-SB-80-W	--	--	14200	14200	300	2	1,400	N	2
Lead	2/16	2.3	J	2.6		GSP-SB-084	GSP-SB-WP-84-062311	0.019	1.9	2.45	0.755	15	0	15		0
Manganese	2/2	579		779		GSP-SB-072	GSP-SB-72-W	--	--	679	679	50	2	43	N	2
Mercury	2/16	0.14	J	0.16	J	GSP-MW/SB-024I	GSP-MW-24I-031716	0.066	0.12	0.150	0.058	2	0	0.57	N[12]	0
Molybdenum	2/16	0.41	J	2.9		GSP-SB-080	GSP-SB-80-W	0.093	10	1.66	0.756	NC	NC	10	N	0
Nickel	16/16	1.3	J	410		GSP-SB-084	GSP-SB-WP-84-062311	--	--	58.4	58.4	73	2	39	N	4
Selenium	4/16	0.71	J	1.5	J	GSP-SB-080	GSP-SB-80-W	0.32	4	1.12	1.34	50	0	10	N	0
Thallium	2/16	1.1	J	3.9	J	GSP-MW-01	GSP-MW-01-031616	0.16	1.7	2.50	0.745	2	1	0.02	N	2
Vanadium	6/16	0.51	J	14		GSP-MW-20	GSP-MW-20-031616	0.43	2.4	6.22	2.84	3.7	3	8.6	N	2
Zinc	4/16	51		1800		GSP-MW-19	GSP-MW-19-031616	6.1	30	888	229	5,000	0	600	N	2
Petroleum Hydrocarbons (ug/L)																
Diesel Range Organics	2/5	220		2800		GSP-SB-080	GSP-SB-80-W	260	740	1510	749	47	2	NC		NC
TPH (C06-C10)	7/11	26	J	52	J	GSP-MW-18	GSP-MW-18-031716	25	41	34.0	28.0	NC	NC	NC		NC
TPH (C10-C32)	7/11	260	J	3000		GSP-MW-20	GSP-MW-20-031616	230	250	1000	680	NC	NC	NC		NC

1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and number of exceedances.
2 - Average of detected values only.
3 - Average of all analytical results are calculated using one half the detection limit for nondetects.
4 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
5 - USEPA Regional Screening Levels, May 2016.
6 - Value is for m-xylene.
7 - Value is for total xylene.
8 - Value is for isobutyl alcohol.
9 - Value is for pyrene.
10 - Value is for hexavalent chromium.
11 - Value is for total chromium.
12 - Value is for mercuric chloride.

Definitions
J = Estimated value
MDE = Maryland Department of the Environment
NC = No criteria available
REC = recognized environmental condition
USEPA = U.S. Environmental Protection Agency
ug/L = microgram per liter

Table 5-25

Chemicals Retained as COC for Migration from Soil to Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	RECs #2-6		RECs #7-10		REC #11	
	Surface Soil	Shallow Subsurface Soil	Surface Soil	Shallow Subsurface Soil	Surface Soil	Shallow Subsurface Soil
Volatile organic compounds						
Naphthalene					X	X
Trichloroethene				X		X
Vinyl Chloride						X

Notes:
X - chemical exceeded screening criteria; retained as a COPC for quantitative evaluation in the risk assessment.
COC - chemical(s) of concern
COPC - chemical(s) of potential concern

Table 6-1

Comparison of Site Concentrations to Background Concentrations
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	MDE ATC[1]			Eastern United States[2]	RECs #2-6		RECs #7-10		REC 11	
	Eastern Maryland	Central Maryland	Western Maryland		Surface Soil	Subsurface Soil	Surface Soil	Subsurface Soil	Surface Soil	Subsurface Soil
Arsenic	3.6	4.9	11	<0.1 - 73	4.32	6.11	2.57	3.56	3.64	3
Chromium	28	30	42	1 - 1,100	33.8	21.5	9.9	15	16	12.8
Cobalt	NA	NA	NA	0.3 - 70	9.01	12.9	2.48	2.08	3.26	1.78
Iron	15,000	26,000	39,000	100 - 100,000	9,420	28,400	7,930	34,000	10,450	15,600
Manganese	480	1,400	1,500	<2 - 700	2,960	1,040	720	13	415	713
Thallium	3.9	1.5	4.6	2.2 - 23	0.081	0.62	2.3	0.2	0.92	0.078
Vanadium	30	35	100	<7 - 300	43	31	19	24	25	20

All concentrations are in mg/kg.
1 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
2 - Elemental Concentrations in Soils and Other Surficial Materials of the Conterminous United States. Shacklette and Boerngen, 1984.

ATC = Anticipated Typical Concentration
mg/kg = milligram per kilogram.
MDE = Maryland Department of the Environmental.

Table 7-1

Preliminary Remedial Goals - Groundwater - Direct Contact - RECs #7-10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CONSTRUCTION WORKERS						
Chemical	USEPA RSL[(1)] (ug/L)	USEPA MCL[(2)] (ug/L)	Target Cancer Risk Level			Hazard Index = 1 (ug/L)
			10^{-6} (ug/L)	10^{-5} (ug/L)	10^{-4} (ug/L)	
Trichloroethene	0.66	5	1,100	11,000	110,000	320

Notes:
1 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2012. [Cancer benchmark value = 1E-06, Hazard index (HI) = 1].
2 - 2012 Edition of the Drinking Water Standards and Health Advisories (USEPA, April 2002).

APPENDIX A—DERIVATION OF PEF FOR CONSTRUCTION WORKERS

APPENDIX A

Calculation of a Particulate Emission Factor for Fugitive Dust Emissions from Construction Activities

Construction workers may be exposed to particulate matter emissions from wind erosion, excavation soil dumping, dozing, grading, tilling, or similar operations. These operations may occur separately or concurrently and the duration of each operation may be different. For these reasons, the total mass emitted from each operation is calculated separately and the sum is normalized over the entire area of contamination over the entire time during which construction activities take place.

The following equation is used to calculate the unit mass emitted from wind erosion of contaminated soil surfaces.

$$M_{wind} = 0.036 \times (1 - V) \times \left(\frac{U_m}{U_t}\right)^3 \times F(x) \times A_{surf} \times ED_{CW} \times 8{,}760\ hr/yr$$

Where:

M_{wind}	=	Unit mass emitted from wind erosion (g)
V	=	Fraction of vegetative cover (unitless)
U_m	=	Mean wind speed during construction (m/sec)
U_t	=	Equivalent threshold value of wind speed at 7 m (m/sec)
F(x)	=	Function dependent on U_m/U_t
A_{surf}	=	Areal extent of site with surface soil contamination (m^2)
ED_{CW}	=	Exposure duration (yr)

Input values for the above parameters are provided in Table 1.

F(x) is calculated by:

$$If\ x\ < 2; F(x) = 1.91207 - 0.0278085x + 0.48133x^2 - 1.09871x^3 + 0.335341x^4$$

$$If\ x \geq 2; F(x) = 0.18 \times (8x^3 + 12x) \times \exp(-x^2)$$

Where x is calculated by:

$$x = 0.886 \times \left(\frac{U_t}{U_m}\right)$$

$$x = 0.886 \times \left(\frac{11.32\ m/sec}{3.89\ m/sec}\right)$$

$$x = 2.5783$$

Substituting the value of x into the appropriate equation for F(x):

$$F(x) = 0.18 \times (8 \times 2.5783^3 + 12 \times 2.5783) \times \exp(-2.5783^2)$$

$$F(x) = 0.0392$$

Next substituting the appropriate values into the equation for M_{wind} gives:

$$M_{wind} = 0.036 \times (1 - 0) \times \left(\frac{3.89\ m/sec}{11.32\ m/sec}\right)^3 \times 0.0392 \times 4046.86\ m \times 1\ yr \times 8{,}760\ hr/yr$$

$$M_{wind} = 2032.18\ g$$

The unit mass emitted from the dumping of excavated soils can be calculated by the following equation.

$$M_{excav} = 0.35 \times 0.0016 \times \frac{\left(\frac{U_m}{2.2}\right)^{1.3}}{\left(\frac{M_{m-ex}}{2}\right)^{1.4}} \times \rho_{soil} \times A_{excav} \times d_{excav} \times N_{A-dump} \times 10^3\ g/kg$$

Where:

M_{excav}	=	Unit mass from excavation soil dumping (g)
U_m	=	Mean wind speed during construction (m/sec)
M_{m-ex}	=	Gravimetric soil moisture content (%)
ρ_{soil}	=	insitu soil density (g/cm^3)
A_{excav}	=	Area extent of excavation (m^2)
D_{excav}	=	Average depth of excavation (m)
N_{A-dump}	=	Number of times soil is dumped

Input values for the above parameters are provided in Table 1. Substituting the values into the above equation for M_{excav}:

$$M_{excav} = 0.35 \times 0.0016 \times \frac{\left(\frac{3.89\ m/sec}{2.2}\right)^{1.3}}{\left(\frac{12}{2}\right)^{1.4}} \times 1.68\ g/cm^3 \times 0.5\ acre \times 1.5\ m \times 1 \times 10^3\ g/kg$$

$$M_{excav} = 0.1205\ g$$

The unit mass emitted from dozing is calculated by:

$$M_{doz} = 0.75 \times \frac{0.45 \times s_{doz}^2}{M_{m-doz}^{1.4}} \times \frac{\sum VKT_{doz}}{S_{doz}} \times 10^3\ g/kg$$

Where:

M_{doz} = Unit mass emitted from dozing operations (g)
s_{doz} = Soil silt content (%)
$M_{m\text{-}doz}$ = Gravimetric soil moisture content (%)
$\sum VKT_{doz}$ = Sum of grading kilometers traveled (km)
S_{doz} = Average dozing speed (kph)

And $\sum VKT_{doz}$ is calculated by:

$$\sum VKT_{doz} = A_{c-doz} \times 4046.86\ m^2 \times \frac{1}{B_{l-doz}} \times 0.001\ m/km \times N_{A-doz}$$

Where:

$A_{c\text{-}doz}$ = Area extent of dozing (acres)
$B_{l\text{-}doz}$ = Dozing blade length (m)
$N_{A\text{-}doz}$ = Number of times site is dozed

$$\sum VKT = 1\ acre \times 4046.86\ m^2/acre \times \frac{1}{2.74\ m} \times 0.001\ m/km \times 2$$

$$\sum VKT = 2.9439\ km$$

Input values for the above parameters are provided in Table 1. Substituting the values into the above equation for M_{doz}:

$$M_{doz} = 0.75 \times \frac{0.45 \times 6.9^2}{7.9^{1.4}} \times \frac{2.9439\ km}{6.9} \times 10^3\ g/kg$$

$$M_{doz} = 87.7733\ g$$

The unit mass emitted from grading operations is calculated by:

$$M_{grade} = 0.60 \times 0.0056 \times S_{grade}^2 \times \sum VKT_{grade} \times 10^3\ g/kg$$

Where:

M_{grade}	=	Unit mass emitted from grading operations (g)
S_{grade}	=	Average grading speed (kph)
$\sum VKT_{grade}$	=	Sum of grading kilometers traveled (km)

And $\sum VKT_{grade}$ is calculated by:

$$\sum VKT_{grade} = A_{c-grade} \times 4046.86\ m^2/acre \times \frac{1}{B_{l-grade}} \times 0.001\ m/km \times N_{A-grade}$$

Where:

$A_{c\text{-}grade}$	=	Area extent of grading (acres)
$B_{l\text{-}grade}$	=	Grading blade length (m)
$N_{A\text{-}grade}$	=	Number of times site is graded

$$\sum VKT_{grade} = 1\ acre \times 4046.86\ m^2/acre \times \frac{1}{3.66\ m} \times 0.001\ m/km \times 1$$

$$\sum VKT_{grade} = 1.1057\ km$$

Input values for the above parameters are provided in Table 1. Substituting the values into the above equation:

$$M_{grade} = 0.60 \times 0.0056 \times 11.4^2 \times 1.1057\ km \times 10^3\ g/kg$$

$$M_{grade} = 482.8209\ g$$

The unit mass emitted from tilling or similar operations can be calculated by:

$$M_{till} = 1.1 \times S_{till}^{0.6} \times A_{till} \times 4{,}046.86\, m^2 \times 10^{-4} \frac{ha}{m^2} \times 10^3 g/kg \times N_{A-till}$$

Where:

M_{till}	=	Unit mass emitted from tilling or similar operations (g)
s_{till}	=	Soil silt content (%)
Atill	=	Area extent of tilling (acres)
$N_{a\text{-}till}$	=	Number of time soil is tilled (unitless)

It is assumed that no tilling occurs; consequently $M_{till} = 0$.

The total time-average unit emission flux from wind erosion, excavation soil dumping, dozing, grading, and tilling operations is calculated by:

$$\langle J_T' \rangle = \frac{M_{wind} + M_{excav} + M_{doz} + M_{grade} + M_{till}}{A_{surf} \times T_t}$$

Where:

$\langle J'_T \rangle$	=	Total time-average unit emission flux for construction activities (g/m^2-sec)
M_{wind}	=	Unit mass emitted from wind erosion (g)
M_{excav}	=	Unit mass from excavation soil dumping (g)
M_{doz}	=	Unit mass emitted from dozing operations (g)
M_{grade}	=	Unit mass emitted from grading operations (g)
M_{till}	=	Unit mass emitted from tilling or similar operations (g)
A_c	=	Areal extent of site soil contamination (m^2)
T_t	=	Duration of construction (sec)

The duration of construction, T_t, is calculated by:

$$T_t = ED_{CW} \times EF_{CW} \times ET_{CW} \times 3{,}600\ secs/hr$$

Where:

ED_{CW}	=	Exposure duration (yr)
EF_{CW}	=	Exposure frequency (days/yr)
ET_{CW}	=	Exposure time (hr/day)

$$T_t = 5\ days/week \times 50\ weeks/year \times 8\, hr/day \times 3{,}600\ secs/hr$$

$$T_t = 7.2x10^6$$

Substituting the appropriate values into the equation for <J'$_T$> gives:

$$\langle J'_T \rangle = \frac{2032.18\ g + 0.1205\ g + 87.7733\ g + 482.8209\ g + 0\ g}{4049.86 \times m^2 \times 7.2x10^6\ sec}$$

$$\langle J'_T \rangle = 8.93x10^{-8}\ g/m^2\ sec$$

The subchronic particulate emission factor for the construction worker due to construction activities is calculated by:

$$PEF_{sc} = Q/C_{sa} \times \frac{1}{F_D} \times \frac{1}{\langle J'_T \rangle}$$

Where:

PEF_{sc}	=	Subchronic particulate emission factor for construction activities (m^3/kg)
Q/C_{sa}	=	Inverse ration of the 1-hr geometric mean air concentration and the emission Flux at the center of the square emission source (g/m^2-sec per kg/m^3)
F_D	=	Dispersion correction factor (unitless)
<J'$_T$>	=	Total time-average unit emission flux for construction activities (g/m^2-sec)

Q/C_{sa} is calculated by:

$$Q/C_{sa} = A \times exp\left[\frac{(\ln A_c - B)^2}{C}\right]$$

Where:

Q/C_{sa}	=	Inverse ration of the 1-hr geometric mean air concentration and the emission Flux at the center of the square emission source (g/m^2-sec per kg/m^3)
A	=	Constant; default = 2.4538
B	=	Constant; default = 17.5660
C	=	Constant; default = 189.0426
A_C	=	Areal extent of contamination (acres)

The areal extent of contamination, A_C, is assumed to be 1 acre. Substituting the above values into the equation for Q/C_{sa} gives:

$$Q/C_{sa} = 2.4538 \times exp\left[\frac{(\ln 1 - 17.5660)^2}{189.0426}\right]$$

$$Q/C_{sa} = 12.5520$$

The dispersion correction factor, F_D, is calculated by:

$$F_D = 0.1852 + \frac{5.3535}{t_c} + \frac{-9.6318}{t_c^2}$$

Where:

F_D	=	Dispersion correction factor (unitless)
t_c	=	Duration of construction (hours)

The duration of construction is calculated by:

$$T_c = ED_{CW} \times EW_{CW} \times 7\frac{days}{week} \times \frac{24hours}{day} \times 3{,}600\, sec/hr$$

Where:

ED_{CW}	=	Exposure duration (yr)
EW_{CW}	=	Overall duration of exposure (weeks/yr)

$$T_c = 1\ year \times 50\ \ weeks/yr \times 7\frac{days}{week} \times 24\frac{hours}{day} \times 3{,}600\, sec/hr$$

$$T_c = 3.02x10^7\ hr$$

Substituting the value for T_c into the equation for F_D gives:

$$F_D = 0.1852 + \frac{5.3535}{3.02x10^7} - \frac{9.6318}{(3.02x10^7)^2}$$

$$F_D = 0.1852$$

Finally, substituting the appropriate values into the equation for PEF_{sc} results in:

$$PEF_{sc} = 12.5521 \frac{g/m^2\ sec}{kg/m^3} \times \frac{1}{0.1852} \times \frac{1}{8.93x10^{-8}\ g/m^2\ sec}$$

$$PEF_{sc} = 7.58x10^{8}\ m^3/kg$$

Table 1
Input Assumptions for Calculation of Particulate Emission Factor for Construction Activities

Parameter	Value	Definition	Rationale
DW	5	days worker (days/week)	Length of work week.
EW	50	overall duration of construction (weeks/year)	Assumes one year project.
ED	1	exposure duration	Assumes one year project.
$A_{c\text{-}doz}$	1	areal extent of dozing (acres)	Professional judgment.
A_{excav}	0.5	areal extent of excavation (acres)	Professional judgment.
$A_{c\text{-}grade}$	1	areal extent of grading (acres)	Professional judgment.
$A_{c\text{-}till}$	0	areal extent of tilling (acres)	Professional judgment.
$B_{l\text{-}doz}$	2.74	dozing blade length (m)	Typical length of dozing blade.
$B_{l\text{-}grade}$	3.66	grading blade length (m)	Typical length of grading blade.
$M_{m\text{-}doz}$	7.9	gravimetric soil moisture content (%)	Default value.
$M_{m\text{-}ex}$	12	gravimetric soil moisture content (%)	Default value.
$N_{A\text{-}dump}$	1	number of times soil is dumped	Assumes excavation occurs only one time.
$N_{A\text{-}till}$	0	number of times soil is tilled	Assumed no tilling occurred.
$N_{A\text{-}doz}$	2	number of times site is dozed	Site is dozed at beginning and end of project.
$N_{A\text{-}grade}$	1	number of times site is graded	Site is graded at end of project
S_{doz}	11.4	dozing speed (kph)	Default value.
S_{grade}	11.4	grading speed (kph)	Default value.
d_{exac}	1.5	average depth of excavation (m)	Professional judgment, shallow groundwater exists at site.
p_{soil}	1.68	in situ soil density (g/cm^3)	Default value.
A_c	1	area of contamination	Professional judgment.
s_{doz}	6.9	soil silt content (%)	Default value.
s_{till}	18	soil silt content (%)	Default value.
U_m	3.89	mean annual wind speed	Average wind speed for Baltimore, Maryland.
U_t	11.32	equivalent threshold value (m/s)	Default value.
V	0	fraction of vegetative cover	Default value.
A	2.4538	dispersion constant	Default value.
B	17.566	dispersion constant	Default value.
C	189.0426	dispersion constant	Default value.

APPENDIX B—RISKED-BASED CONCENTRATIONS

Construction Workers

CALCULATION OF RISK-BASED CONCENTRATIONS FOR SOIL

SITE NAME: LOCKHEED MARTIN, MARTIN STATE AIRPORT
EXPOSURE POINT: GREATER STRAWBERRY POINT
POSURE SCENARIO: CONSTRUCTION WORKERS
MEDIA: SURFACE/SUBSURFACE SOIL
DATE: FEBRUARY 14, 2017

THIS SPREADSHEET CALCULATES RISK-BASED CLEANUP GOALS FOR EXPOSURES TO SOIL
THE INCIDENTAL INGESTION, DERMAL CONTACT, AND INHALATION ROUTES OF EXPOSURE ARE CONSIDERED.

RELEVANT EQUATIONS:

Carcinogens

$$PRG_{soil} = \frac{TCR}{CSF_{oral} + Intake_{derm} \times CSF_{derm} + EC_{air} \times IUR}$$

NonCarcinogens

$$PRG_{soil} = \frac{THI}{\left(\frac{Intake_{oral}}{RfD_{oral}}\right) + \left(\frac{Intake_{derm}}{RfD_{derm}}\right) + \left(\frac{EC_{air}}{RfC}\right)}$$

$$Intake_{oral} = \frac{IR \times RBA \times EF \times ED \times FI \times CF}{BW \times AT}$$

$$Intake_{derm} = \frac{SA \times AF \times ABS \times EF \times ED \times CF}{BW \times AT}$$

$$EC_{air} = \frac{EF \times ED \times ET \times (1/VF + 1/PEF)}{AT \times 24\ Hours/day}$$

WHERE:	PRG = :		Concentration in soil (mg/kg)
	TCR = :	1E-06	Target Cancer Risk
	THI = :	1	Target Hazard Index
	IR = :	480	Soil Ingestion Rate (mg/day)
	RBA = :	Chemical Specific	Relative Bioavailibity (unitless)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	SA = :	3527	Skin surface available for contact (cm^2/day)
	AF = :	0.3	Soil to skin adherence factor (mg/cm^2)
	ABS = :	Chemical Specific	Absorption factor (unitless)
	ET = :	8	Exposure time (hr/day)
	EF = :	125	Exposure Frequency (days/year)
	ED = :	1	Exposure Duration (years)
	BW = :	80	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)
	VF = :	Chemical Specific	Volatilization Factor (m^3/kg)
	PEFsc = :	7.6E+08	Particulate emission factor (m^3/kg)

CALCULATION OF RISK-BASED CONCENTRATIONS FOR SOIL

Chemical	CAS Number	Mutagen?	VOC ?	Ingestion SF $(mg/kg\text{-}day)^{-1}$	Inhalation Unit Risk $(ug/m^3)^{-1}$	Subchronic RfD (mg/kg-day)	Subchronic RfC (mg/m^3)	GIABS	ABS	RBA
Arsenic, Inorganic	7440-38-2	No	No	1.50E+00	4.30E-03	3.00E-04	1.50E-05	1	0.03	0.6
Chromium(VI)	18540-29-9	Yes	No	5.00E-01	8.40E-02	5.00E-03	3.00E-04	0.025	0.01	1
Cobalt	7440-48-4	No	No	-	9.00E-03	3.00E-03	2.00E-05	1	0.01	1
Iron	7439-89-6	No	No	-	-	7.00E-01	-	1	0.01	1
Manganese (Non-diet)	7439-96-5	No	No	-	-	2.40E-02	5.00E-05	0.04	0.01	1
Nitroso-di-N-propylamine, N-	621-64-7	No	No	7.00E+00	2.00E-03	-	-	1	0.1	1
Aroclor 1260	11096-82-5	No	Yes	2.00E+00	5.71E-04	-	-	1	0.14	1
Benzo[a]pyrene	50-32-8	Yes	No	1.00E+00	6.00E-04	3.00E-04	2.00E-06	1	0.13	1
Naphthalene	91-20-3	No	Yes	-	3.40E-05	6.00E-01	3.00E-03	1	0.13	1
Thallium (Soluble Salts)	7440-28-0	No	No	-	-	4.00E-05	-	1	0.01	1
Vanadium and Compounds	7440-62-2	No	No	-	-	1.00E-02	1.00E-04	0.026	0.01	1

CALCULATION OF RISK-BASED CONCENTRATIONS FOR SOIL

Chemical	CAS Number	Volatilization Factor (m^3/kg)	Henry's Law Constant	Soil Saturation Concentration (mg/kg)	Particulate Emission Factor (m^3/kg)	Ingestion SL TR=1.0E-6 (mg/kg)	Dermal SL TR=1.0E-6 (mg/kg)	Inhalation SL TR=1.0E-6 (mg/kg)
Arsenic, Inorganic	7440-38-2	1E+99	-	NA	7.58E+08	3.79E+01	3.43E+02	1.08E+05
Chromium(VI)	18540-29-9	1E+99	-	NA	7.58E+08	6.81E+01	7.73E+01	5.53E+03
Cobalt	7440-48-4	1E+99	-	NA	7.58E+08	-	-	5.16E+04
Iron	7439-89-6	1E+99	-	NA	7.58E+08	-	-	-
Manganese (Non-diet)	7439-96-5	1E+99	-	NA	7.58E+08	-	-	-
Nitroso-di-N-propylamine, N-	621-64-7	1E+99	2.20E-04	NA	7.58E+08	4.87E+00	2.21E+01	2.32E+05
Aroclor 1260	11096-82-5	2.93E+05	1.37E-02	3.02E+01	7.58E+08	1.70E+01	5.52E+01	3.15E+02
Benzo[a]pyrene	50-32-8	1E+99	1.87E-05	NA	7.58E+08	3.41E+01	1.19E+02	7.75E+05
Naphthalene	91-20-3	1.03E+04	1.80E-02	2.90E+02	7.58E+08	-	-	1.86E+02
Thallium (Soluble Salts)	7440-28-0	1E+99	-	NA	7.58E+08	-	-	-
Vanadium and Compounds	7440-62-2	1E+99	-	NA	7.58E+08	-	-	-

CALCULATION OF RISK-BASED CONCENTRATIONS FOR SOIL

Chemical	CAS Number	Carcinogenic SL TR=1.0E-6 (mg/kg)	Ingestion SL THQ=1 (mg/kg)	Dermal SL THQ=1 (mg/kg)	Inhalation SL THQ=1 (mg/kg)	Noncarcinogenic SL THI=1 (mg/kg)	Screening Level (mg/kg)	
Arsenic, Inorganic	7440-38-2	3.41E+01	2.43E+02	2.21E+03	9.96E+04	2.19E+02	3.41E+01	ca
Chromium(VI)	18540-29-9	3.60E+01	2.43E+03	2.76E+03	1.99E+06	1.29E+03	3.60E+01	ca
Cobalt	7440-48-4	5.16E+04	1.46E+03	6.62E+04	1.33E+05	1.41E+03	1.41E+03	nc
Iron	7439-89-6	-	3.41E+05	1.55E+07	-	3.33E+05	3.33E+05	nc
Manganese (Non-diet)	7439-96-5	-	1.17E+04	2.12E+04	1.66E+06	7.50E+03	7.50E+03	nc
Nitroso-di-N-propylamine, N-	621-64-7	3.99E+00	-	-	-	-	3.99E+00	ca
Aroclor 1260	11096-82-5	1.25E+01	-	-	-	-	1.25E+01	ca
Benzo[a]pyrene	50-32-8	2.65E+01	1.46E+02	5.09E+02	1.33E+04	1.13E+02	2.65E+01	ca
Naphthalene	91-20-3	1.86E+02	2.92E+05	1.02E+06	2.70E+02	2.70E+02	1.86E+02	ca
Thallium (Soluble Salts)	7440-28-0	-	1.95E+01	8.83E+02	-	1.90E+01	1.90E+01	nc
Vanadium and Compounds	7440-62-2	-	4.87E+03	5.74E+03	6.64E+05	2.62E+03	2.62E+03	nc

Industrial Workers

Site-specific

Composite Worker Equation Inputs for Soil

Variable	Value
TR (target cancer risk) unitless	1.0E-6
THQ (target hazard quotient) unitless	1
AT_w (averaging time)	365
EF_w (exposure frequency) d/yr	250
ED_w (exposure duration) yr	25
ET_w (exposure time) hr	8
LT (lifetime) yr	70
BW_w (body weight)	80
IR_w (soil ingestion rate) mg/day	50
SA_w (surface area) cm^2/day	3527
AF_w (skin adherence factor) mg/cm^2	0.12
$City_{PEF}$ (Climate Zone) Selection	Philadelphia, P
A_c (acres)	.5
Q/C_{wp} (inverse of the ratio of the geometric mean air concentration to the emission flu	87.368977216230
PEF (particulate emission factor) m^3/kg	3232997753.6109
A (PEF Dispersion Constant)	14.0111
B (PEF Dispersion Constant)	19.6154
C (PEF Dispersion Constant)	225.3397
V (fraction of vegetative cover) unitless	0.5
U_m (mean annual wind speed) m/s	4.29
U_t (equivalent threshold value)	11.32
F(x) (function dependant on U_m/U_t) unitless	0.0993
$City_{VF}$ (Climate Zone) Selection	Philadelphia, P
A_c (acres)	.5
Q/C_{vol} (inverse of the ratio of the geometric mean air concentration to the emission flu	87.368977216230
foc (fraction organic carbon in soil) g/g	0.006
p_b (dry soil bulk density) g/cm^3	1.5
p_s (soil particle density) g/cm^3	2.65
n (total soil porosity) L_{pore}/L_{soil}	0.43396
$_a$ (air-filled soil porosity) L_{air}/L_{soil}	0.28396
$_w$ (water-filled soil porosity) L_{water}/L_{soil}	0.15
T (exposure interval) s	819936000
A (VF Dispersion Constant)	14.0111

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Site-specific

Composite Worker Equation Inputs for Soil

Variable	Value
B (VF Dispersion Constant)	19.6154
C (VF Dispersion Constant)	225.3397
$City_{VF\ mass\text{-}loading}$ (Climate Zone) Selection	Default
VF_{ml} (volitization factor - mass-limit) m^3/kg	0
Q/C_{vol} (inverse of the ratio of the geometric mean air concentration to the emission fl	68.18365
A_e (acres)	.5
T (exposure interval) yr	26
d_e (depth of source) m	.
p_b (dry soil bulk density) g/cm^3	1.5
A (VF Dispersion Constant - Mass Limit)	11.911
B (VF Dispersion Constant - Mass Limit)	18.4385
C (VF Dispersion Constant - Mass Limit)	209.7845

Site-specific

Composite Worker Screening Levels (RSL) for Soil

Key: I = IRIS; P = PPRTV; D = DWSHA; O = OPP; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Chemical	CAS Number	Mutagen?	VOC?	Ingestion SF (mg/kg-day) $^{-1}$	SFO Ref	Inhalation Unit Risk (ug/m ^{3})$^{-1}$	IUR Ref	Chronic RfD (mg/kg-day)	Chronic RfD Ref	Chronic RfC (mg/m ^{3})	Chronic RfC Ref	GIABS	ABS
Aroclor 1260	11096-82-5	No	Yes	2.00E+00	U	5.71E-04	U	-		-		1	0.14
Arsenic, Inorganic	7440-38-2	No	No	1.50E+00	U	4.30E-03	U	3.00E-04	U	1.50E-05	U	1	0.03
Benzo[a]pyrene	50-32-8	Yes	No	1.00E+00	U	6.00E-04	U	3.00E-04	U	2.00E-06	U	1	0.13
Chromium(VI)	18540-29-9	Yes	No	5.00E-01	U	8.40E-02	U	3.00E-03	U	1.00E-04	U	0.025	0.01
Cobalt	7440-48-4	No	No	-		9.00E-03	U	3.00E-04	U	6.00E-06	U	1	0.01
Iron	7439-89-6	No	No	-		-		7.00E-01	U	-		1	0.01
Manganese (Non-diet)	7439-96-5	No	No	-		-		2.40E-02	U	5.00E-05	U	0.04	0.01
Naphthalene	91-20-3	No	Yes	-		3.40E-05	U	2.00E-02	U	3.00E-03	U	1	0.13
Nitroso-di-N-propylamine, N-	621-64-7	No	No	7.00E+00	U	2.00E-03	U	-		-		1	0.1
Thallium (Soluble Salts)	7440-28-0	No	No	-		-		1.00E-05	U	-		1	0.01
Vanadium and Compounds	7440-62-2	No	No	-		-		5.04E-03	U	1.00E-04	U	0.026	0.01

Site-specific

Composite Worker Screening Levels (RSL) for Soil

Key: I = IRIS; P = PPRTV; D = DWSHA; O = OPP; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Chemical	RBA	Volatilization Factor (m^3/kg)	Henry's Law Constant (unitless)	Soil Saturation Concentration (mg/kg)	wsol	K_{oc} (cm3/g)	Particulate Emission Factor (m^3/kg)	Ingestion SL TR=1.0E-6 (mg/kg)	Dermal SL TR=1.0E-6 (mg/kg)	Inhalation SL TR=1.0E-6 (mg/kg)
Aroclor 1260	1	1.69E+06	1.37E-02	-	1.44E-02	3.50E+05	3.23E+09	3.27E+00	2.76E+00	3.62E+01
Arsenic, Inorganic	0.6	-	-	-	-	-	3.23E+09	7.27E+00	1.72E+01	9.22E+03
Benzo[a]pyrene	1	-	1.87E-05	-	1.62E-03	5.87E+05	3.23E+09	6.54E+00	5.94E+00	6.61E+04
Chromium(VI)	1	-	-	-	1.69E+06	-	3.23E+09	1.31E+01	3.86E+00	4.72E+02
Cobalt	1	-	-	-	-	-	3.23E+09	-	-	4.41E+03
Iron	1	-	-	-	-	-	3.23E+09	-	-	-
Manganese (Non-diet)	1	-	-	-	-	-	3.23E+09	-	-	-
Naphthalene	1	5.93E+04	1.80E-02	-	3.10E+01	1.54E+03	3.23E+09	-	-	2.14E+01
Nitroso-di-N-propylamine, N-	1	-	2.20E-04	-	1.30E+04	2.75E+02	3.23E+09	9.34E-01	1.10E+00	1.98E+04
Thallium (Soluble Salts)	1	-	-	-	-	-	3.23E+09	-	-	-
Vanadium and Compounds	1	-	-	-	-	-	3.23E+09	-	-	-

Site-specific

Composite Worker Screening Levels (RSL) for Soil

Key: I = IRIS; P = PPRTV; D = DWSHA; O = OPP; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Chemical	Carcinogenic SL TR=1.0E-6 (mg/kg)	Ingestion SL THQ=1 (mg/kg)	Dermal SL THQ=1 (mg/kg)	Inhalation SL THQ=1 (mg/kg)	Noncarcinogenic SL THI=1 (mg/kg)	Screening Level (mg/kg)
Aroclor 1260	1.44E+00	-	-	-	-	1.44E+00 ca
Arsenic, Inorganic	5.10E+00	1.17E+03	2.76E+03	2.12E+05	8.18E+02	5.10E+00 ca
Benzo[a]pyrene	3.11E+00	7.01E+02	6.37E+02	2.83E+04	3.30E+02	3.11E+00 ca
Chromium(VI)	2.96E+00	7.01E+03	2.07E+03	1.42E+06	1.60E+03	2.96E+00 ca
Cobalt	4.41E+03	7.01E+02	8.28E+03	8.50E+04	6.41E+02	6.41E+02 nc
Iron	-	1.64E+06	1.93E+07	-	1.51E+06	1.51E+06 max
Manganese (Non-diet)	-	5.61E+04	2.65E+04	7.08E+05	1.75E+04	1.75E+04 nc
Naphthalene	2.14E+01	4.67E+04	4.25E+04	7.79E+02	7.52E+02	2.14E+01 ca*
Nitroso-di-N-propylamine, N-	5.06E-01	-	-	-	-	5.06E-01 ca
Thallium (Soluble Salts)	-	2.34E+01	2.76E+02	-	2.15E+01	2.15E+01 nc
Vanadium and Compounds	-	1.18E+04	3.62E+03	1.42E+06	2.76E+03	2.76E+03 nc

APPENDIX C—VISL OUTPUTS

EPA-OLEM VAPOR INTRUSION ASSESSMENT
Groundwater Concentration to Indoor Air Concentration (GWC-IAC) Calculator Version 3.5.1 (May 2016 RSLs)

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR	1E-06	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)
Average Groundwater Temperature (°C)	Tgw	25	Enter average of the stabilized groundwater temperature to correct Henry's Law Constant for groundwater target concentrations

	CAS	Chemical Name	Site Groundwater Concentration Cgw (ug/L)	Calculated Indoor Air Concentration Cia (ug/m^3)	VI Carcinogenic Risk CR	VI Hazard HQ	Inhalation Unit Risk IUR (ug/m^3)$^{-1}$	IUR Source*	Reference Concentration RfC (mg/m^3)	RFC Source*	Mutagenic Indicator i
x	71-43-2	Benzene		--	--	--	7.80E-06	I	3.00E-02	I	
x	56-23-5	Carbon Tetrachloride		--	--	--	6.00E-06	I	1.00E-01	I	
x	67-66-3	Chloroform		--	--	--	2.30E-05	I	9.80E-02	A	
x	96-12-8	Dibromo-3-chloropropane, 1,2-		--	--	--	6.00E-03	P	2.00E-04	I	Mut
x	107-06-2	Dichloroethane, 1,2-		--	--	--	2.60E-05	I	7.00E-03	P	
x	100-41-4	Ethylbenzene		--	--	--	2.50E-06	CA	1.00E+00	I	
x	91-20-3	Naphthalene	2.7E-01	4.86E-03	1.3E-08	3.7E-04	3.40E-05	CA	3.00E-03	I	
x	79-01-6	Trichloroethylene		--	--	--	see note	I	2.00E-03	I	TCE
x	75-01-4	Vinyl Chloride		--	--	--	4.40E-06	I	1.00E-01	I	VC
				Total	**1.3E-08**	**3.7E-04**					

Notes:

(1) **Inhalation Pathway Exposure Parameters (RME):**

Exposure Scenario	Units	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario) Symbol	Selected (based on scenario) Value
Averaging time for carcinogens	(yrs)	ATc_R_GW	70	ATc_C_GW	70	ATc_GW	70
Averaging time for non-carcinogens	(yrs)	ATnc_R_GW	26	ATnc_C_GW	25	Atnc_GW	25
Exposure duration	(yrs)	ED_R_GW	26	ED_C_GW	25	ED_GW	25
Exposure frequency	(days/yr)	EF_R_GW	350	EF_C_GW	250	EF_GW	250
Exposure time	(hr/day)	ET_R_GW	24	ET_C_GW	8	ET_GW	8

(2) **Generic Attenuation Factors:**

Source Medium of Vapors	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario) Symbol	Selected (based on scenario) Value
Groundwater (-)	AFgw_R_GW	0.001	AFgw_C_GW	0.001	AFgw_GW	0.001
Sub-Slab and Exterior Soil Gas (-)	AFss_R_GW	0.03	AFss_C_GW	0.03	AFss_GW	0.03

(3) **Formulas**

Cia, target = MIN(Cia,c; Cia,nc)
Cia,c (ug/m3) = TCR x ATc x (365 days/yr) x (24 hrs/day) / (ED x EF x ET x IUR)
Cia,nc (ug/m3) = THQ x ATnc x (365 days/yr) x (24 hrs/day) x RfC x (1000 ug/mg) / (ED x EF x ET)

(4) **Special Case Chemicals**

Trichloroethylene	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario) Symbol	Selected (based on scenario) Value
	mIURTCE_R_GW	1.00E-06	mIURTCE_C_GW	0.00E+00	mIURTCE_GW	0.00E+00
	IURTCE_R_GW	3.10E-06	IURTCE_C_GW	4.10E-06	IURTCE_GW	4.10E-06

Mutagenic Chemicals — The exposure durations and age-dependent adjustment factors for mutagenic-mode-of-action are listed in the table below:

Note: This section applies to trichloroethylene and other mutagenic chemicals, but not to vinyl chloride.

Age Cohort	Exposure Duration	Age-dependent adjustment factor
0 - 2 years	2	10
2 - 6 years	4	3
6 - 16 years	10	3
16 - 26 years	10	1

Mutagenic-mode-of-action (MMOA) adjustment factor 25 This factor is used in the equations for mutagenic chemicals.

Vinyl Chloride — See the Navigation Guide equation for Cia,c for vinyl chloride.

Notation:

I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at: http://www.epa.gov/iris/subst/index.html
P = PPRTV. EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at: http://hhpprtv.ornl.gov/pprtv.shtml
A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at: http://www.atsdr.cdc.gov/mrls/index.html
CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at: http://www.oehha.ca.gov/risk/ChemicalDB/index.asp
H = HEAST. EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at: http://epa-heast.ornl.gov/heast.shtml
S = See RSL User Guide, Section 5
X = PPRTV Appendix
Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).
VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).
TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).
Yellow highlighting indicates site-specific parameters that may be edited by the user.
Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.
Pink highlighting indicates VI carcinogenic risk greater than the target risk for carcinogens (TCR) or VI Hazard greater than or equal to the target hazard quotient for non-carcinogens (THQ).

EPA-OLEM VAPOR INTRUSION ASSESSMENT
Groundwater Concentration to Indoor Air Concentration (GWC-IAC) Calculator Version 3.5.1 (May 2016 RSLs)

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR	1E-06	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)
Average Groundwater Temperature (°C)	Tgw	25	Enter average of the stabilized groundwater temperature to correct Henry's Law Constant for groundwater target concentrations

	CAS	Chemical Name	Site Groundwater Concentration Cgw (ug/L)	Calculated Indoor Air Concentration Cia (ug/m^3)	VI Carcinogenic Risk CR	VI Hazard HQ	Inhalation Unit Risk IUR ($(ug/m^3)^{-1}$)	IUR Source*	Reference Concentration RfC (mg/m^3)	RFC Source*	Mutagenic Indicator i
x	71-43-2	Benzene	4.1E+00	9.30E-01	5.9E-07	7.1E-03	7.80E-06	I	3.00E-02	I	
x	56-23-5	Carbon Tetrachloride		--	--	--	6.00E-06	I	1.00E-01	I	
x	67-66-3	Chloroform	6.1E-01	9.15E-02	1.7E-07	2.1E-04	2.30E-05	I	9.80E-02	A	
x	96-12-8	Dibromo-3-chloropropane, 1,2-		--	--	--	6.00E-03	P	2.00E-04	I	Mut
x	107-06-2	Dichloroethane, 1,2-		--	--	--	2.60E-05	I	7.00E-03	P	
x	100-41-4	Ethylbenzene		--	--	--	2.50E-06	CA	1.00E+00	I	
x	91-20-3	Naphthalene	4.9E+00	8.81E-02	2.4E-07	6.7E-03	3.40E-05	CA	3.00E-03	I	
x	79-01-6	Trichloroethylene	2.6E+03	1.05E+03	**3.5E-04**	**1.2E+02**	see note	I	2.00E-03	I	TCE
x	75-01-4	Vinyl Chloride		--	--	--	4.40E-06	I	1.00E-01	I	VC
				Total	**3.5E-04**	**1.2E+02**					

Notes:

(1) **Inhalation Pathway Exposure Parameters (RME):**

Exposure Scenario	Units	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario) Symbol	Selected (based on scenario) Value
Averaging time for carcinogens	(yrs)	ATc_R_GW	70	ATc_C_GW	70	ATc_GW	70
Averaging time for non-carcinogens	(yrs)	ATnc_R_GW	26	ATnc_C_GW	25	Atnc_GW	25
Exposure duration	(yrs)	ED_R_GW	26	ED_C_GW	25	ED_GW	25
Exposure frequency	(days/yr)	EF_R_GW	350	EF_C_GW	250	EF_GW	250
Exposure time	(hr/day)	ET_R_GW	24	ET_C_GW	8	ET_GW	8

(2) **Generic Attenuation Factors:**

Source Medium of Vapors	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario) Symbol	Selected (based on scenario) Value
Groundwater (-)	AFgw_R_GW	0.001	AFgw_C_GW	0.001	AFgw_GW	0.001
Sub-Slab and Exterior Soil Gas (-)	AFss_R_GW	0.03	AFss_C_GW	0.03	AFss_GW	0.03

(3) **Formulas**

Cia, target = MIN(Cia,c; Cia,nc)
Cia,c (ug/m3) = TCR x ATc x (365 days/yr) x (24 hrs/day) / (ED x EF x ET x IUR)
Cia,nc (ug/m3) = THQ x ATnc x (365 days/yr) x (24 hrs/day) x RfC x (1000 ug/mg) / (ED x EF x ET)

(4) **Special Case Chemicals**

Trichloroethylene	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario) Symbol	Selected (based on scenario) Value
	mIURTCE_R_GW	1.00E-06	mIURTCE_C_GW	0.00E+00	mIURTCE_GW	0.00E+00
	IURTCE_R_GW	3.10E-06	IURTCE_C_GW	4.10E-06	IURTCE_GW	4.10E-06

Mutagenic Chemicals — The exposure durations and age-dependent adjustment factors for mutagenic-mode-of-action are listed in the table below:

Note: This section applies to trichloroethylene and other mutagenic chemicals, but not to vinyl chloride.

Age Cohort	Exposure Duration	Age-dependent adjustment factor
0 - 2 years	2	10
2 - 6 years	4	3
6 - 16 years	10	3
16 - 26 years	10	1

Mutagenic-mode-of-action (MMOA) adjustment factor 25 — This factor is used in the equations for mutagenic chemicals.

Vinyl Chloride — See the Navigation Guide equation for Cia,c for vinyl chloride.

Notation:

I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at: http://www.epa.gov/iris/subst/index.html
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CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at: http://www.oehha.ca.gov/risk/ChemicalDB/index.asp
H = HEAST. EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at: http://epa-heast.ornl.gov/heast.shtml
S = See RSL User Guide, Section 5
X = PPRTV Appendix
Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).
VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).
TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).
Yellow highlighting indicates site-specific parameters that may be edited by the user.
Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.
Pink highlighting indicates VI carcinogenic risk greater than the target risk for carcinogens (TCR) or VI Hazard greater than or equal to the target hazard quotient for non-carcinogens (THQ).

EPA-OLEM VAPOR INTRUSION ASSESSMENT
Groundwater Concentration to Indoor Air Concentration (GWC-IAC) Calculator Version 3.5.1 (May 2016 RSLs)

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR	1E-06	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)
Average Groundwater Temperature (°C)	Tgw	25	Enter average of the stabilized groundwater temperature to correct Henry's Law Constant for groundwater target concentrations

	CAS	Chemical Name	Site Groundwater Concentration Cgw (ug/L)	Calculated Indoor Air Concentration Cia (ug/m^3)	VI Carcinogenic Risk CR	VI Hazard HQ	Inhalation Unit Risk IUR ($(ug/m^3)^{-1}$)	IUR Source*	Reference Concentration RfC (mg/m^3)	RFC Source*	Mutagenic Indicator i
x	71-43-2	Benzene	3.0E+00	6.81E-01	4.3E-07	5.2E-03	7.80E-06	I	3.00E-02	I	
x	56-23-5	Carbon Tetrachloride		--	--	--	6.00E-06	I	1.00E-01	I	
x	67-66-3	Chloroform	8.4E+01	1.26E+01	**2.4E-05**	2.9E-02	2.30E-05	I	9.80E-02	A	
x	96-12-8	Dibromo-3-chloropropane, 1,2-	2.9E+00	1.74E-02	**8.5E-06**	2.0E-02	6.00E-03	P	2.00E-04	I	Mut
x	107-06-2	Dichloroethane, 1,2-		--	--	--	2.60E-05	I	7.00E-03	P	
x	100-41-4	Ethylbenzene	2.1E+01	6.77E+00	**1.4E-06**	1.5E-03	2.50E-06	CA	1.00E+00	I	
x	91-20-3	Naphthalene	1.1E+02	1.98E+00	**5.5E-06**	1.5E-01	3.40E-05	CA	3.00E-03	I	
x	79-01-6	Trichloroethylene	2.8E+02	1.13E+02	**3.8E-05**	**1.3E+01**	see note	I	2.00E-03	I	TCE
x	75-01-4	Vinyl Chloride	2.7E+01	3.07E+01	**1.1E-05**	7.0E-02	4.40E-06	I	1.00E-01	I	VC
				Total	**8.8E-05**	**1.3E+01**					

Notes:

(1) **Inhalation Pathway Exposure Parameters (RME):**

Exposure Scenario	Units	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario) Symbol	Selected (based on scenario) Value
Averaging time for carcinogens	(yrs)	ATc_R_GW	70	ATc_C_GW	70	ATc_GW	70
Averaging time for non-carcinogens	(yrs)	ATnc_R_GW	26	ATnc_C_GW	25	Atnc_GW	25
Exposure duration	(yrs)	ED_R_GW	26	ED_C_GW	25	ED_GW	25
Exposure frequency	(days/yr)	EF_R_GW	350	EF_C_GW	250	EF_GW	250
Exposure time	(hr/day)	ET_R_GW	24	ET_C_GW	8	ET_GW	8

(2) **Generic Attenuation Factors:**

Source Medium of Vapors		Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario) Symbol	Selected (based on scenario) Value
Groundwater	(-)	AFgw_R_GW	0.001	AFgw_C_GW	0.001	AFgw_GW	0.001
Sub-Slab and Exterior Soil Gas	(-)	AFss_R_GW	0.03	AFss_C_GW	0.03	AFss_GW	0.03

(3) **Formulas**

Cia, target = MIN(Cia,c; Cia,nc)
Cia,c (ug/m3) = TCR x ATc x (365 days/yr) x (24 hrs/day) / (ED x EF x ET x IUR)
Cia,nc (ug/m3) = THQ x ATnc x (365 days/yr) x (24 hrs/day) x RfC x (1000 ug/mg) / (ED x EF x ET)

(4) **Special Case Chemicals**

Trichloroethylene	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario) Symbol	Selected (based on scenario) Value
	mIURTCE_R_GW	1.00E-06	mIURTCE_C_GW	0.00E+00	mIURTCE_GW	0.00E+00
	IURTCE_R_GW	3.10E-06	IURTCE_C_GW	4.10E-06	IURTCE_GW	4.10E-06

Mutagenic Chemicals — The exposure durations and age-dependent adjustment factors for mutagenic-mode-of-action are listed in the table below:

Note: This section applies to trichloroethylene and other mutagenic chemicals, but not to vinyl chloride.

Age Cohort	Exposure Duration	Age-dependent adjustment factor
0 - 2 years	2	10
2 - 6 years	4	3
6 - 16 years	10	3
16 - 26 years	10	1

Mutagenic-mode-of-action (MMOA) adjustment factor 25 — This factor is used in the equations for mutagenic chemicals.

Vinyl Chloride — See the Navigation Guide equation for Cia,c for vinyl chloride.

Notation:

I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at: http://www.epa.gov/iris/subst/index.html
P = PPRTV. EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at: http://hhpprtv.ornl.gov/pprtv.shtml
A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at: http://www.atsdr.cdc.gov/mrls/index.html
CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at: http://www.oehha.ca.gov/risk/ChemicalDB/index.asp
H = HEAST. EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at: http://epa-heast.ornl.gov/heast.shtml
S = See RSL User Guide, Section 5
X = PPRTV Appendix
Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).
VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).
TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).
Yellow highlighting indicates site-specific parameters that may be edited by the user.
Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.
Pink highlighting indicates VI carcinogenic risk greater than the target risk for carcinogens (TCR) or VI Hazard greater than or equal to the target hazard quotient for non-carcinogens (THQ).

APPENDIX D—REFINED EVALUATION FOR DRO/GRO

CLIENT	JOB NUMBER		
Lockheed			
SUBJECT: MSA - Calculation of Risk-based Concentrations for TPH (GRO/DRO)			
BASED ON: MDE / State of Massachusetts	DRAWING NUMBER		
BY: L. Ciofani	CHECKED BY: RJ	APPROVED BY	DATE

$C_{soil/gw}$ = Risk based Concentration for non-carcinogenic hazard index of 1 for soil or ground water.

C_{soil}: Residential (child)

$$= \frac{1 \times 3E\text{-}02\ mg/kg/d \times 15\ kg \times 365\ d/yr \times 6\ yr}{200\ mg/d \times 10^{-6}\ kg/mg \times 350\ d/yr \times 6\ yr}$$

$$= 2,300\ mg/kg \checkmark$$

C_{soil}: Trespasser (child)

$$= \frac{1 \times 3E\text{-}02\ mg/kg/d \times 15\ kg \times 365\ d/yr \times 6\ yr}{200\ mg/day \times 10^{-6}\ kg/mg \times 52\ d/yr \times 6\ yr}$$

$$= 16,000\ mg/kg \checkmark$$

C_{soil}: Industrial (adult)

$$= \frac{1 \times 3E\text{-}02\ mg/kg/d \times 70\ kg \times 365\ d/yr \times 25\ yr}{50\ mg/d \times 10^{-6}\ kg/mg \times 250\ d/yr \times 25\ yr}$$

$$= 61,000\ mg/kg \checkmark$$

C_{soil}: Recreational (child)

$$= \frac{1 \times 3E\text{-}02\ mg/kg/d \times 15\ kg \times 365\ d/yr \times 6\ yr}{200\ mg/d \times 10^{-6}\ kg/mg \times 70\ d/yr \times 6\ yr}$$

$$= 12,000\ mg/kg \checkmark$$

C_{gw}: Residential (child)

$$= \frac{1 \times 3E\text{-}02\ mg/kg/day \times 15\ kg \times 365\ d/yr \times 6\ yr}{1\ L/d \times 350\ d/yr \times 6\ yr}$$

$$= 0.47\ mg/L \checkmark$$

$$= 470\ ug/L \checkmark$$

CLIENT	JOB NUMBER		
Lockheed			
SUBJECT: MSA - Calculation of Risk-based Concentrations for TPH (GRO/DRO)			
BASED ON: MDE / State of Massachusetts	DRAWING NUMBER		
BY: L. Ciofani	CHECKED BY	APPROVED BY	DATE

- See attached State of Maryland, Department of the Environment Cleanup Standards for Soil and Groundwater, June 2008, Interim Final Guidance, Update No. 2.1 (selected pages).

- Toxicity criteria recommended (3E-02 mg/kg/d) by State of Massachusetts, Final Policy Document # WSC-02-411 (10.31.2002).

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STATE OF MARYLAND

DEPARTMENT OF THE ENVIRONMENT

CLEANUP STANDARDS FOR SOIL AND GROUNDWATER

JUNE 2008

INTERIM FINAL GUIDANCE

(UPDATE No. 2.1)

Appendix 1. Risk Assessment Equations and Tables

Groundwater Ingestion:

Noncarcinogenic:
$$C_{water}\,(mg/l) = \frac{HI \times RfD_o \times BW \times AT_n}{IR_{dw} \times EF \times ED} \quad (1)$$

Carcinogenic (age adjusted):
$$C_{water}\,(mg/l) = \frac{CR \times AT_c}{IF_{dw} \times EF \times CSF_o} \quad (2)$$

Carcinogenic:
$$C_{water}\,(mg/l) = \frac{CR \times BW \times AT_c}{IR_{dw} \times EF \times ED \times CSF_o} \quad (3)$$

Inhalation of Volatiles in Groundwater:

Noncarcinogenic:
$$C_{water}\,(mg/l) = \frac{HI \times RfD_i \times BW \times AT_n}{InhR \times EF \times ED \times ET \times VF} \quad (4)$$

Carcinogenic (age adjusted):
$$C_{water}\,(mg/l) = \frac{CR \times AT_c}{IF_{inh} \times EF \times CSF_i \times VF} \quad (5)$$

Carcinogenic:
$$C_{water}\,(mg/l) = \frac{CR \times BW \times AT_c}{InhR \times EF \times ED \times ET \times CSF_i \times VF} \quad (6)$$

Soil Ingestion:

Noncarcinogenic:
$$C_{soil}\,(mg/kg) = \frac{HI \times RfD_o \times BW \times AT_n}{IR_{soil} \times CF \times EF \times ED} \quad (7)$$

Carcinogenic (age adjusted):
$$C_{soil}\,(mg/kg) = \frac{CR \times AT_c}{CF \times IF_{soil} \times EF \times CSF_o} \quad (8)$$

Carcinogenic:
$$C_{soil}\,(mg/kg) = \frac{CR \times BW \times AT_c}{CF \times IR_{soil} \times EF \times ED \times CSF_o} \quad (9)$$

Appendix 1 - Table 1. Default ingestion parameters used to calculate the risk based concentrations for groundwater.

Parameter		Pathway / Population				
		Adult	Youth (>6 - <18 Years)	Child (<6 Years)	Construction Worker	Age-Adjusted Resident
HI	Hazard Index	0.1	0.1	0.1	0.1	
CR	Excess Lifetime Cancer Risk	1E-05	1E-05	1E-05	1E-05	1E-05
BW	Body Weight (kg)	70[a, b, c, d]	40[a]	15[a, b, c]	70[a, b, c, d]	
		Ingestion – Residential				
IR_{dw}	Ingestion Rate/Drinking Water (l/day)	2[a]	2[a]	1[a]	3[a]	
IF_{dw}	Age-Adjusted Ingestion Factor (l-yr/kg-day)					1[e]
EF	Exposure Frequency (days/year)	350[d, f]	350[d, f]	350[d, f]	250[c, d]	350[d, f]
ED	Exposure Duration (years)	30[a, b]	12[a]	6[a, b]	1[c]	
		Ingestion – Commercial				
IR_{dw}	Ingestion Rate/ Groundwater (l/day)	1[c]	2[a]	1[a]	3[a]	
IF_{dw}	Age-Adjusted Ingestion Factor (l-yr/kg-day)					1[e]
EF	Exposure Frequency (days/year)	250[c, d]	132[b, g]	132[b, g]	250[c, d]	132[b, g]
ED	Exposure Duration (years)	25[c, d]	12[a]	6[a, b]	1[c]	
		Ingestion – Industrial				
IR_{dw}	Ingestion Rate/Drinking Water (l/day)	1[c]	2[a]		3[a]	
EF	Exposure Frequency (days/year)	250[c, d]	132 [b, g]		250[c, d]	
ED	Exposure Duration (years)	25[c]	12[a]		1[c]	

Note: The following body weight values were used in deriving the standards; 70 kg for the adult and construction worker; 40 kg for youths, and 15 kg for the child population.

Appendix 1 - Table 3. Default ingestion parameters used to calculate the risk based concentrations for soil.

	Parameter	Ingestion - Residential				
		Adult	Youth (>6 - <18 Years)	Child (<6 Years)	Construction Worker	Age-Adjusted Resident
IR_{soil}	Ingestion Rate/Soil (mg/day)	100[a, b, c, d]	100[a, b, c, d]	200[a, b]	480[c]	
IF_{soil}	Age-Adjusted Ingestion Factor (mg-yr/kg-day)					127[e]
CF	Conversion Factor (kg/mg)	1E-06 [b]	1E-06[b]	1E-06[b]	1E-06[b]	1E-06[b]
EF	Exposure Frequency (days/year)	350[d, f]	350[d, f]	350[d, f]	250[c, d]	350[d, f]
ED	Exposure Duration (years)	30[a, b]	12[a]	6[a, b]	1[c]	
		Ingestion - Commercial				
IR_{soil}	Ingestion Rate/Soil (mg/day)	50[c, d]	100[a, b, c, d]	200[a, b]	480[c]	
IF_{soil}	Age-Adjusted Ingestion Factor (mg-yr/kg-day)					110 [e]
EF	Exposure Frequency (days/year)	250[c, d]	132[b, g]	132[b, g]	250[c, d]	132[b, g]
ED	Exposure Duration (years)	25[c, d]	12[a]	6[a, b]	1[c]	
		Ingestion - Industrial				
IR_{soil}	Ingestion Rate/Soil (mg/day)	50[c, d]	100[a, b, c, d]		480[c]	
CF	Conversion Factor (kg/mg)	1E-06[b]	1E-06[b]		1E-06[b]	
FI	Fraction Ingested (unitless)	1	1		1	
EF	Exposure Frequency (days/year)	250[c, d]	132[b, g]		250[c, d]	
ED	Exposure Duration (years)	25[c]	12[a]		1[c]	

Note: The following body weight values were used in deriving the standards; 70 kg for the adult and construction worker; 40 kg for youths, and 15 kg for the child population.

Parameter	Definition (units)	Default Value
SFS_{adj}	Age-adjusted dermal exposure factor – (cm^2- event/kg)	3084000
SSA_{1-6}	Skin surface area available for contact during ages 1-6 (cm^2)	6,600
SSA_{7-31}	Skin surface area available for contact during ages 7-31 (cm^2)	18,000
EF_{1-6}	Exposure Frequency ages 1-6 (days/years)	350
EF_{7-31}	Exposure Frequency ages 7-31 (days/years)	350
EV_{1-6}	Exposure Event ages 1-6 (event/day)	1
EV_{7-31}	Exposure Event ages 7-31 (event/day)	1
ED_{1-6}	Exposure duration during ages 1-6 (years)	6
ED_{7-31}	Exposure duration during ages 7-31 (years)	24
BW_{1-6}	Average Body weight during ages 1-6 (kg)	15
BW_{7-31}	Average Body weight during ages 7-31 (kg)	70

Age-Adjusted Dermal Exposure Factor (SFS_{adj}) for Soil[r]

$$SFS_{adj} = \frac{(SSA_{1-6})(AF_{1-6})(ED_{1-6})}{(BW_{1-6})} + \frac{(SSA_{7-31})(AF_{7-31})(ED_{7-31})}{(BW_{7-31})}$$

Parameter	Definition (units)	Default Value
SFS_{adj}	Age-adjusted dermal exposure factor – (mg-yrs/kg-events)	360
AF_{1-6}	Adherence factor of soil to skin for a child (1-6 years) (mg/cm^2-event) (Referred to as contact rate in RAGS, Part A	0.2 (EFH, EPA 1997a
AF_{7-31}	Adherence factor of soil to skin for an adult (7-31 years) (mg/cm^2-event) (Referred to as contact rate in RAGS, Part A)	0.07 (EFH, EPA 1997a)
SSA_{1-6}	Skin surface area available for contact during ages 1-6 (cm^2)	2,800
SSA_{7-31}	Skin surface area available for contact during ages 7-31 (cm^2)	5,700
ED_{1-6}	Exposure duration during ages 1-6 (years)	6
ED_{7-31}	Exposure duration during ages 7-31 (years)	24
BW_{1-6}	Average Body weight during ages 1-6 (kg)	15
BW_{7-31}	Average Body weight during ages 7-31 (kg)	70

Default exposure parameters for groundwater and soil pathways are presented in Tables 1 – 6.

Small child and adult receptor body weight

APPENDIX E—RESIDENTIAL RISK EVALUATION

Table E-1

Summary of Cancer Risks and Hazard Indices - RECs 2-6 - Residential Exposed to Surface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[(1)] (mg/kg)	Residential RBC[(2)] (mg/kg)	Estimated ILCR	Primary Target Organ	Residential RBC[(2)] (mg/kg)	Estimated HI
Benzo(a)pyrene Equivalents	0.07	0.12	6E-07	Development, Immune, Reproductive	18	0.004
Aroclor-1260	0.02	0.24	8E-08	Cancer	NA	-
Arsenic	4.32	0.68	6E-06	Cardiovascular, Dermal	35	0.1
Chromium VI	0.338	0.3	1E-06	Respiratory	230	0.001
Cobalt	9.01	420	2E-08	Thyroid	23	0.4
Iron	9,420	NA	-	Gastrointestinal	55,000	0.2
Manganese	2,960	NA	-	Nervous	1,800	2
Thallium	0.081	NA	-	Dermal	0.78	0.1
Vanadium	43	NA	-	Dermal	390	0.1
Diesel Range Organics	39	NA	-	NA	NA	-
	Total Cancer Risk		**8E-06**		**Total HI**	**3**

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the RBC for residential exposure to soil multiplying by the target risk level. For example the ILCR for arsenic was calculated by 4.32/0.68 x 1E-06 = 6E-06. The HI for arsenic was calculated by 4.32/35 x 1 = 0.1.

HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RBC- Risk-Based Concentration
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - Exposure point concentration is the 95% UCL calculated by ProUCL Version 5.1.002.
2 - Residential worker RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent an incremental cancer risk of $1x10^{-6}$.

Table E-2

Summary of Cancer Risks and Hazard Indices - RECs 2-6 - Residential Exposed to Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[1] (mg/kg)	Residential RBC[2] (mg/kg)	Estimated ILCR	Primary Target Organ	Residential RBC[2] (mg/kg)	Estimated HI
Benzo(a)pyrene Equivalents	0.514	0.12	4E-06	Development, Immune, Reproductive	18	0.03
Naphthalene	0.031	3.8	8E-09	Nervous, Respiratory	130	0.0002
Arsenic	6.11	0.68	9E-06	Cardiovascular, Dermal	35	0.2
Chromium VI	0.215	0.3	7E-07	Respiratory	230	0.0009
Cobalt	12.9	420	3E-08	Thyroid	23	0.6
Iron	28,400	NA	-	Gastrointestinal	55,000	0.5
Manganese	1,040	NA	-	Nervous	1,800	0.6
Thallium	0.62	NA	-	Dermal	0.78	0.8
Vanadium	31	NA	-	Dermal	390	0.08
Diesel Range Organics	66	NA	-	NA	NA	-
	Total Cancer Risk		**1E-05**		**Total HI**	**3**

Target Organ HIs

Total Developmental HI =	0.03
Total Immune HI =	0.03
Total Reproductive HI =	0.03
Total Cardiovascular HI =	0.2
Total Respiratory HI =	0.0009
Total Thyroid HI =	0.6
Total Gastrointestinal HI =	0.5
Total Nervous HI =	0.6
Total Dermal HI =	1

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the RBC for residential exposure to soil multiplying by the target risk level. For example the ILCR for arsenic was calculated by 6.11/0.68 x 1E-06 = 9E-06. The HI for arsenic was calculated by 6.11/35 x 1 = 0.2.
HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RBC- Risk-Based Concentration
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - Exposure point concentration is the 95% UCL calculated by ProUCL Version 5.1.002.
2 - Resiential RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent an incremental cancer risk of $1x10^{-6}$.

Table E-3

Summary of Cancer Risks and Hazard Indices - RECs 7-10 - Residential Exposed to Surface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[(1)] (mg/kg)	Residential RBC[(2)] (mg/kg)	Estimated ILCR	Primary Target Organ	Residential RBC[(2)] (mg/kg)	Estimated HI
Benzo(a)pyrene Equivalents	14.74	0.12	1E-04	Development, Immune, Reproductive	18	0.8
Aroclor-1260	0.63	0.24	3E-06	Cancer	NA	-
Arsenic	2.57	0.68	4E-06	Cardiovascular, Dermal	35	0.07
Chromium VI	0.099	0.3	3E-07	Respiratory	230	0.0004
Cobalt	2.48	420	6E-09	Thyroid	23	0.1
Iron	7,930	NA	-	Gastrointestinal	55,000	0.1
Manganese	720	NA	-	Nervous	1,800	0.4
Thallium	2.3	NA	-	Dermal	0.78	3
Vanadium	19	NA	-	Dermal	390	0.05
Diesel Range Organics	275	NA	-	NA	NA	-
	Total Cancer Risk		**1E-04**		**Total HI**	**5**

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the RBC for residential exposure to soil multiplying by the target risk level. For example the ILCR for arsenic was calculated by 2.57/0.68 x 1E-06 = 4E-06. The HI for arsenic was calculated by 2.57/35 x 1 = 0.07.

HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RBC- Risk-Based Concentration
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - Exposure point concentration is the 95% UCL calculated by ProUCL Version 5.1.002.
2 - Residential RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent an incremental cancer risk of $1x10^{-6}$.

Table E-4

Summary of Cancer Risks and Hazard Indices - RECs 7-10 - Residential Exposed to Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[1] (mg/kg)	Residential RBC[2] (mg/kg)	Estimated ILCR	Primary Target Organ	Residential RBC[2] (mg/kg)	Estimated HI
Benzo(a)pyrene Equivalents	2.73	0.12	2E-05	Development, Immune, Reproductive	18	0.2
Naphthalene	3.65	3.8	1E-06	Nervous, Respiratory	130	0.03
Aroclor-1260	0.064	0.24	3E-07	Cancer	NA	-
Arsenic	3.56	0.68	5E-06	Cardiovascular, Dermal	35	0.1
Chromium VI	0.15	0.3	5E-07	Respiratory	230	0.0007
Cobalt	2.08	420	5E-09	Thyroid	23	0.09
Iron	34,000	NA	-	Gastrointestinal	55,000	0.6
Manganese	13	NA	-	Nervous	1,800	0.007
Thallium	0.2	NA	-	Dermal	0.78	0.3
Vanadium	24	NA	-	Dermal	390	0.06
Diesel Range Organics	160	NA	-	NA	NA	-
	Total Cancer Risk		**3E-05**		**Total HI**	**1**

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the RBC for residential exposure to soil multiplying by the target risk level. For example the ILCR for arsenic was calculated by 3.56/0.68 x 1E-06 = 5E-06. The HI for arsenic was calculated by 3.56/35 x 1 = 0.1.

HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RBC- Risk-Based Concentration
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - Exposure point concentration is the 95% UCL calculated by ProUCL Version 5.1.002.
2 - Residential RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent an incremental cancer risk of $1x10^{-6}$.

Table E-5

Summary of Cancer Risks and Hazard Indices - REC 11 - Residential Exposed to Surface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[1] (mg/kg)	Residential RBC[2] (mg/kg)	Estimated ILCR	Primary Target Organ	Residential RBC[2] (mg/kg)	Estimated HI
Benzo(a)pyrene Equivalents	1.45	0.12	1E-05	Development, Immune, Reproductive	18	0.08
N-Nitroso-di-n-Propylamine	0.12	0.078	2E-06	Cancer	NA	-
Aroclor-1260	2.31	0.24	1E-05	Cancer	NA	-
Arsenic	3.64	0.68	5E-06	Cardiovascular, Dermal	35	0.1
Chromium VI	0.16	0.3	5E-07	Respiratory	230	0.0007
Cobalt	3.26	420	8E-09	Thyroid	23	0.1
Iron	10,450	NA	-	Gastrointestinal	55,000	0.2
Manganese	415	NA	-	Nervous	1,800	0.2
Thallium	0.92	NA	-	Dermal	0.78	1
Vanadium	25	NA	-	Dermal	390	0.06
Diesel Range Organics	1,015	NA	-	NA	NA	-
	Total Cancer Risk		**3E-05**		**Total HI**	**2**

Target Organ HIs

Total Developmental HI =	0.08
Total Immune HI =	0.08
Total Reproductive HI =	0.08
Total Cardiovascular HI =	0.1
Total Respiratory HI =	0.0007
Total Thyroid HI =	0.1
Total Gastrointestinal HI =	0.2
Total Nervous HI =	0.2
Total Dermal HI =	1

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the RBC for residential exposure to soil multiplying by the target risk level. For example the ILCR for arsenic was calculated by 3.64/0.68 x 1E-06 = 5E-06. The HI for arsenic was calculated by 3.64/35 x 1 = 0.1.
HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RBC- Risk-Based Concentration
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - Exposure point concentration is the 95% UCL calculated by ProUCL Version 5.1.002.
2 - Residential RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent an incremental cancer risk of $1x10^{-6}$.

Table E-6

Summary of Cancer Risks and Hazard Indices - REC 11 - Residential Exposed to Subsurface Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Incremental Lifetime Carcinogenic Risk (ILCR)			Estimated Non-Carcinogenic Hazard Index (HI)		
	Exposure Point Concentration[(1)] (mg/kg)	Residential RBC[(2)] (mg/kg)	Estimated ILCR	Primary Target Organ	Residential RBC[(2)] (mg/kg)	Estimated HI
Benzo(a)pyrene Equivalents	2.33	0.12	2E-05	Development, Immune, Reproductive	18	0.1
Naphthalene	0.62	3.8	2E-07	Nervous, Respiratory	130	0.005
Aroclor-1260	0.036	0.24	2E-07	Cancer	NA	-
Arsenic	3.0	0.68	4E-06	Cardiovascular, Dermal	35	0.09
Chromium VI	0.128	0.3	4E-07	Respiratory	230	0.0006
Cobalt	1.78	420	4E-09	Thyroid	23	0.08
Iron	15,600	NA	-	Gastrointestinal	55,000	0.3
Manganese	713	NA	-	Nervous	1,800	0.4
Thallium	0.078	NA	-	Dermal	0.78	0.10
Vanadium	20	NA	-	Dermal	390	0.05
Diesel Range Organics	1,080	NA	-	NA	NA	-
	Total Cancer Risk		**2E-05**		**Total HI**	**1**

ILCRs and HIs were calculated using a simple risk ratio technique which divides the exposure point concentration by the RBC for residential exposure to soil multiplying by the target risk level. For example the ILCR for arsenic was calculated by 3.0/0.68 x 1E-06 = 4E-06. The HI for arsenic was calculated by 3.0/35 x 1 = 0.09.

HI - hazard index
ILCR - incremental lifetime cancer risk
NA - Not applicable
RBC- Risk-Based Concentration
RSL - regional screening level
USEPA - United States Environmental Protection Agency

1 - Exposure point concentration is the 95% UCL calculated by ProUCL Version 5.1.002.
2 - Residential RBCs were calculated using receptor-specific exposure assumptions following methodology used for USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 1. Carcinogenic values represent an incremental cancer risk of $1x10^{-6}$.

APPENDIX C—ECOLOGICAL RISK ASSESSMENT

Ecological Risk Assessment
Greater Strawberry Point
701 Wilson Point Road
Martin State Airport
Middle River, Maryland

Prepared for:

Lockheed Martin Corporation

Prepared by:

Tetra Tech, Inc.

September 2017



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ACRONYMS

AQMP	Air Quality Monitoring Plan
BaPeq	Benzo(a)pyrene equivalents
CFR	Code of Federal Regulations
COC	Contaminants of Concern
DAS	data acquisition system
DAU	data acquisition unit
DQI	data quality indicators
GCMS	gas chromatograph/mass spectroscopy
ICP	inductively coupled plasma
IH	Industrial Hygienist
LM	Lockheed Martin
mg/m^3	Milligram per cubic meter
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PCBs	polychlorinated biphenyls
PM_{10}	particulate matter equal to or less than 10 micron (µ) in aerodynamic diameter
PAH	polycyclic aromatic hydrocarbons
PEC	probable effects concentration
PEL	probable effects limit
ppm	parts per million
QA/QC	quality assurance/quality control
REC	recognized environmental condition
RTD	real time dust
SOP	Standard Operating Procedure
TEC	threshold effects concentration
TEL	threshold effects level

TO	Toxic Organics
Tt	Tetra Tech, Inc.
USEPA	United States Environmental Protection Agency

Section 1
Introduction

This ecological risk assessment (ERA) determines whether adverse ecological effects are likely to result from exposure to chemicals released to the environment through historical activities at Greater Strawberry Point (GSP) at the Martin State Airport (MSA) in Middle River, Maryland. This ERA presents information to enable risk managers to conclude whether ecological risks at the site are negligible, or if further information is necessary to evaluate these risks. The ecological risk assessment methodology follows the guidance found in the following documents:

- *Final Guidelines for Ecological Risk Assessment* (United States Environmental Protection Agency [USEPA], 1998)
- *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments* (USEPA, 1997)

This ERA consists of Steps 1, 2, and 3a of an eight-step process. The first two steps comprise the screening-level ERA (SLERA), where conservative exposure estimates are compared to screening-level values and threshold toxicity-values. Step 3a is the first step of a baseline ERA (BERA), and consists of refining the conservative assumptions of Steps 1 and 2 to further focus the ERA process on the chemicals of greatest concern at a site. The remaining steps of the process, that is, the rest of Step 3 and Steps 4–8, are not included herein. This ERA evaluates recently collected data to characterize current risks to ecological receptors.

Section 2
Problem Formulation

Problem formulation is the first step of an ecological risk assessment (ERA) and consists of identifying the following:

- Ecological resources to be protected, known as assessment endpoints
- Measurements used to evaluate risks to those resources, known as measurement endpoints
- Chemicals, geographic areas, habitats, and environmental media relevant to the risk assessment

As part of receptor identification, site habitats and potential ecological receptors (as they apply to ecological risk) are described in the following subsections. Brief summaries of the environmental setting, and potential sources of contamination and associated exposure pathways, are presented below.

2.1 ENVIRONMENTAL SETTING

This step initially identifies and characterizes the habitats and ecological resources throughout the site and identifies representative types of ecological receptors that could be adversely affected by chemicals from the site. Greater Strawberry Point (GSP) at Martin State Airport (MSA) is a 75-acre site south of the main MSA terminal and southwest of the airport runway. The areas included in this ERA are an approximately 16-acre site (recognized environmental conditions [RECs] #7, #8, #9, and #10), and an approximately two-acre site (REC #11). The sites are partially developed and are in a clearing between a wooded area and Taxiway F. This investigation focuses on GSP surface soil, sediment, and surface water because these media are those to which ecological receptors are most likely to be exposed.

The RECs evaluated in the ERA mainly consist of cleared land with shortgrass and no canopy or woody plants. A wooded area is adjacent to RECs #7 through #11. Stansbury Creek is on the western edge of GSP. The eastern, southern, and western boundaries of MSA are bordered by

Frog Mortar Creek and Stansbury Creek, which are wide, brackish, tidal tributaries of the middle Chesapeake Bay. Surface drainage from GSP is discharged via multiple outfalls to Stansbury Creek and Frog Mortar Creek. Groundwater in the surficial aquifer at GSP is expected to follow the surface topography, and flow from the watershed divide near the airport runway area to the southwest and west (toward Stansbury Creek) and to the southeast (toward Frog Mortar Creek).

Surface water features at the site include two manmade detention basins and a narrow channel with a bed of rocky soil that follows the edge of the wooded area. The detention ponds retain stormwater runoff/overflow from the proximal taxiway/runway. The detention ponds are wetland grass basins with some minor, narrow channel flow trickling through them. Little sediment is present in the ponds, but some organic chemicals that have been deposited over time in places where there is more channel flow. The channel discharges to Stansbury Creek via a wetland. The channel contains layers of decaying leaves that are usually only wet during rain events. Attachment 1 includes photos of sediment and surface water sampling locations.

Suitable habitat for most ecological receptors is limited at the RECs evaluated in this ERA, as these disturbed sites consist of partially developed, cleared land. However, GSP also includes forest, field, and aquatic habitats that support ecological receptors. A variety of bird species are likely to frequent GSP, including geese, ducks (wading, diving, and wood ducks), herons, finches, sparrows, robins, warblers, hawks, eagles, kingfishers, and woodpeckers. Given the site's proximity to a surface water body (i.e., Stansbury Creek), its relative lack of human activity, and the range of habitats available, mammals, such as deer, fox, moles, shrews, rabbits, woodchucks, squirrels, and raccoons are also likely to be found on-site. Fish, aquatic and sediment invertebrates, and aquatic plants are present in the aquatic habitats, while terrestrial invertebrates and plants are present in the terrestrial habitats. Amphibians and reptiles are also likely to inhabit GSP, but few effects data are available to assess risks to these organisms.

2.2 POTENTIAL SOURCES OF CONTAMINATION

Section 2 provides detailed background information regarding historical activities at GSP. The site was used by the Navy from the 1940s through 1960s for seaplane maintenance, launching, and recovery. Several naval-weapons research and nuclear-research buildings were on the site; aboveground storage tanks (ASTs) and underground storage tanks (USTs) were also present.

Several USTs have been removed from the site, and no evidence of leakage was found. However, a known oil spill did occur during hanger construction in 1989–1990. Currently, the site has a tank farm with ASTs for jet fuel, gasoline, diesel fuel, and waste oil; an airport maintenance area; and several buildings used by the airport.

2.3 POTENTIAL EXPOSURE PATHWAYS

Legacy chemicals resulting from historical site operations are today found primarily in the surface and subsurface soil, although chemicals may have migrated to groundwater after leaching from the soil and to surface water and sediment through overland runoff and groundwater discharge. Chemicals in surface soil can enter the air via volatile organic compound (VOC) emissions or through wind erosion and dust. This pathway is unlikely to be significant because much of the site is vegetated, which limits the amount of dust produced. Further, exposure and effects data are lacking for quantitatively evaluating this pathway for ecological receptors.

Surface soil—For this ERA, the surface soil data-set consists of soil samples that contain some portion of soil collected from the top two feet (0-2 feet, 1–3 feet, and 0-5 feet). Several groups of terrestrial ecological receptors could be exposed to chemicals in surface soil. Soil-associated invertebrates such as earthworms are exposed to chemicals as they move through the soil and ingest soil particles as they forage. Plants are exposed to chemicals via direct contact and root uptake. Once taken up, these chemicals may translocate to above-ground parts of the plant (e.g., leaves, seeds).

Small mammals may be exposed to chemicals in the soil via several exposure routes as they directly contact soil while foraging or burrowing through the soil. Exposure of terrestrial wildlife to chemicals in the soil via dermal contact is unlikely to represent a major exposure pathway because fur, feathers, scales, and chitinous exoskeletons are expected to minimize transfer of chemicals across dermal tissue for many types of receptors. Small mammals, especially early life stages with little or no hair or fur have significant potential to be exposed to soil-associated contaminants. Ecological receptors with perhaps the greatest potential for exposure to chemicals in soil include those with limited mobility, such as terrestrial invertebrates and terrestrial plants. These can be exposed via uptake, incidental ingestion of soil, and ingestion of food items that

have accumulated chemicals from the soil. Carnivorous receptors, including representative receptors with larger foraging ranges such as red fox and red-tailed hawk, can be indirectly exposed to site chemicals in soil by ingesting prey that have accumulated chemicals from the soil and from contaminated food items.

Surface Water/Sediment– Aquatic vertebrates (such as larval amphibians), benthic and water column invertebrates, fish, and in some cases adult amphibians, and reptiles can be exposed to contamination through direct contact and ingestion of surface water and sediment. Piscivorous receptors may be exposed to contaminants in sediment via incidental ingestion of sediment and ingestion of prey items (e.g., invertebrates, small fish, and other organisms that have accumulated contaminants from sediment). Terrestrial receptors and piscivorous receptors may be exposed to contaminants in surface water via ingestion of surface water and ingestion of organisms that have accumulated contaminants from surface water. Surface water and sediment are only present at REC #11. Surface water at REC #11 flows into Stansbury Creek. The sediment data-set consists of sediment samples collected from 0-1 below the sediment surface, which contains sediment from the biotic zone (typically assumed to include the upper four to six inches).

2.4 ENDPOINTS

Assessment endpoints are explicit expressions of the environmental value that is to be protected (USEPA, 1997). The selection of these endpoints is based on the habitats present, migration pathways of probable chemicals, and relevant exposure routes for the receptors. Measurement endpoints are estimates of measurable biological impacts (e.g., mortality, growth, and reproduction) that are used to evaluate the assessment endpoints, which are often difficult to evaluate directly. The assessment endpoints and measurement endpoints used to evaluate data from the sites of interest for this SLERA are presented in Table 1. The potential receptors at the site exposure include terrestrial plants; soil invertebrates; sediment invertebrates; aquatic organisms; and herbivorous, invertivorous, and piscivorous mammals and birds. The term “piscivorous” is used here in a broad sense to describe birds and mammals that prey primarily upon fish, but also may prey on a variety of aquatic and sediment dwelling organisms (e.g., crayfish, frogs).

2.5 SELECTION OF RECEPTOR SPECIES

USEPA guidance (USEPA, 1997) states that "it is not practical or possible to directly evaluate risks to all of the individual components of the ecosystem at a site. Instead, assessment endpoints focus the risk assessment on particular components of the ecosystem that could be adversely affected by contaminants from the site." Therefore, this ERA focuses on receptors and exposure pathways with the highest risk potential based on exposure to site-related contaminants.

Selected receptors for this SLERA include those representative of important, potentially exposed major groups such as terrestrial plants and soil/sediment invertebrates. Threshold values, effects values, or criteria typically used to characterize risk for such organisms are often based on effects to these general categories (e.g., sediment-associated invertebrates), but in some cases these data are based on one or more sensitive species. Representative mammals and birds selected for evaluation in this SLERA include particular taxa representative of specific, important trophic levels (e.g., mink – representative of piscivorous mammals). Risks to these upper-level species is estimated through food-chain modeling where dietary exposures (from food, water, and incidental ingestion of soil or sediment) are quantified. The following trophic levels and representative species were selected for food-chain modeling:

- Herbivorous mammal – meadow vole
- Herbivorous bird – bobwhite quail
- Invertivorous mammal – short-tailed shrew
- Invertivorous bird – American robin
- Piscivorous mammal – mink
- Piscivorous bird – kingfisher

Receptor profiles for each of the species shown above are provided in Attachment 2.

Large carnivorous birds and mammals were not selected as representative receptors because their home ranges (often hundreds of acres) are larger than the site. GSP covers approximately 75 acres, and the areas of the RECs evaluated are approximately 16 acres (RECs #7 to #10) and two acres (REC #11). When the size of the site is compared to the home range of top carnivores, such as the red-tailed hawk (approximately 1,700 acres) and the red fox (approximately 1,800 acres) (USEPA, 1993), a reasonable assumption would conclude that carnivores would

only receive a very small portion of their diet from GSP. Therefore, risks would be greater to small mammals and birds that obtain all or most of their food from the site. Although some reptiles (e.g., snakes) and amphibians may be present at the site, they were not selected as assessment endpoints because toxicity data are sparse and the methods to evaluate their exposure to chemicals are lacking. Risks to amphibians (especially larval forms) are accounted for in some of the water quality screening values, which are based on studies of a wide variety of aquatic receptors including amphibians.

2.6 CONCEPTUAL SITE-MODEL

A conceptual site model (CSM) in ERA problem-formulation is a written description of predicted relationships between ecological entities and the stressors to which they may be exposed (USEPA, 1998). The CSM has two primary components: (1) predicted relationships among stressor, exposure, and assessment endpoint response, and (2) a diagram illustrating these relationships (USEPA, 1998). Figure 1 illustrates these relationships. At GSP, the primary source of chemicals originates in the soil, although chemicals may have migrated to surface water and sediment via overland runoff and groundwater discharge (after leaching from the soil). Chemicals in soil can serve as a direct-exposure medium, but also can enter the air via emission of VOCs, or through wind erosion and dust. This later pathway (inhalation) is likely insignificant compared to other exposure pathways evaluated in this SLERA, and the site is well-vegetated, which limits the amount of dust available for inhalation. The primary receptors potentially exposed to contaminants in surface soil, sediment, and/or surface water are terrestrial plants, soil invertebrates, sediment invertebrates, aquatic organisms (plants, invertebrates, and vertebrates), birds, and mammals.

Section 3
Ecological Effects Evaluation

The preliminary ecological effects assessment investigates the relationship between the exposure to a chemical and the potential for adverse effects resulting from that exposure. As the first step in the ecological effects evaluation, applicable toxicity-based values such as ecological screening levels (ESLs) and toxicity reference values (TRVs) were identified and compiled, as discussed below.

3.1 TERRESTRIAL PLANTS AND INVERTEBRATES

Risks to terrestrial plants and soil-associated invertebrates from exposure to chemicals in site surface soil were evaluated by comparing chemical concentrations to ESLs. Selected ESLs include USEPA ecological soil-screening levels (Eco SSLs, for invertebrates, terrestrial plants, mammals and birds; [USEPA, 2003a, 2005c-i, 2006a, 2007a-g, 2008]); Canadian soil-quality guidelines (SQGs; [Canadian Council of Ministers of the Environment (CCME), 2006a] and supporting documents from CCME, [1999a-d, 2001, 2004a-d, 2006b, 2010 and EC, 2001]); Los Alamos National Laboratory (LANL) ECORISK database (version 3.3; LANL, 2015); Oak Ridge National Laboratory (ORNL) Toxicological Benchmarks for invertebrates (Efroymson et al., 1997a) and plants (Efroymson et al., 1997b); USEPA Region 4 ecological screening values (USEPA, 2015); National Oceanic and Atmospheric Administration (NOAA) Screening Quick Reference Tables (Buchman, 2008); USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels (USEPA, 1995); and Dutch target values (Buchman, 2008). These toxicity values are expressed as chemical concentrations in soil. Terrestrial plants and soil invertebrates are in direct contact with soil and these receptor groups are therefore likely the most highly exposed. Other receptors more indirectly exposed to soil contaminants (e.g., birds and mammals) are expected to be less exposed to soil contaminants than soil invertebrates and terrestrial plants. Table 2 contains the soil screening values and sources used in this ERA.

3.2 AQUATIC ORGANISMS

Risks to aquatic receptors from exposure to chemicals in surface water were evaluated by comparing the chemical concentrations in surface water to the following ESLs, listed in order of preference: (1) Maryland Department of the Environmental (MDE) Water Quality Standards (Code of Maryland Regulations [COMAR] 26.08.02, accessed 12/27/16), (2) USEPA Region 3 BTAG Freshwater Screening Benchmarks and Marine Screening Benchmarks (USEPA, 2006b, c), and (3) Region 4 ecological screening values (USEPA, 2015). The lower of the freshwater and marine screening values were used as the screening level because the salinity in the samples ranged from 0 to 3.2 parts per thousand. These toxicity values are expressed as chemical concentrations in water because aquatic organisms are directly and constantly exposed to surface water. Table 3 contains the surface water screening values and sources used in this ERA.

3.3 SEDIMENT INVERTEBRATES

Risks to sediment invertebrates from exposure to chemicals in sediment were evaluated by comparing the chemical concentrations in sediment to the following ESLs, listed in order of preference: (1) USEPA Region 3 BTAG Freshwater Sediment Screening Benchmarks and Marine Sediment Screening Benchmarks (USEPA, 2006d, e), (2) Region 4 ecological screening values (USEPA, 2015), (3) Los Alamos National Laboratory (LANL) ECORISK database (version 3.3; LANL, 2015), and, (4) NOAA Screening Quick Reference Tables (Buchman, 2008). The lower of the freshwater and marine sediment screening values were used as the screening level because the salinity in the samples ranged from 0 to 3.2 parts per thousand. Table 4 contains the sediment screening values and sources used in this ERA.

3.4 TERRESTRIAL WILDLIFE

Potential risks to terrestrial vertebrates (represented by mammals and birds) resulting from exposure to chemicals in surface soil via the dietary pathway were evaluated by first comparing chemical concentrations to appropriate ESLs (Table 2). If a chemical concentration exceeded its screening level, or if an ESL was not available for a bioaccumulative chemical (as identified in Region 3 guidance, USEPA, 2006a-d), the chemical was evaluated using food-chain models for risks to mammals and birds. Most sediment ESLs are not protective of piscivorous mammals and birds because they do not consider dietary exposures, so all potentially hazardous

bioaccumulative chemicals detected in sediment were evaluated using food chain models to estimate dietary exposures (i.e., ingestion of contaminants expressed as a dose) for selected representative mammals and birds.

Risks to wildlife from exposure to chemicals in surface soil, sediment, and surface water were determined by estimating chronic daily intake ([CDI]; an estimate of the average daily dose) using food-chain models, and comparing the CDI to dietary or dose-based TRVs. Dietary TRVs represent regulatory acceptable daily doses (in milligrams per kilogram [mg/kg] body weight per day [mg/kg BW-day]). TRVs were developed from no-observed-adverse-effect-levels (NOAELs) and lowest-observed-adverse-effect-levels (LOAELs) obtained from wildlife studies. Most TRVs were obtained from the ORNL *Toxicological Benchmarks for Wildlife: 1996 Revision* (Sample, et al., 1996), and USEPA's Eco SSL documents, supplemented with other toxicity information as necessary.

Attachment 3 presents the TRVs and sources of the NOAELs and LOAELs used in this ERA. If a subchronic study was used to develop the TRV, the final value was multiplied by a factor of 0.1 to account for uncertainty between subchronic and chronic effects. In addition, the LOAEL was multiplied by a factor of 0.1 to estimate a NOAEL TRV if only a LOAEL study was available. The chemical-specific Eco SSL documents provide both NOAELs and LOAELS for various chemicals based on multiple studies, but generally, TRVs are calculated only for NOAELs. The geometric mean of the chemical-specific growth and reproduction LOAELs from the chemical-specific Eco SSL documents were used as the LOAEL TRVs.

Section 4
Exposure Characterization

This portion of the ERA identifies contaminant concentrations used as exposure-point concentrations (EPCs) to represent ecological exposure in various media. GSP was divided into two exposure units, RECs #7, #8, #9, and #10 and REC #11, to evaluate risks to ecological receptors because these areas are separated by several hundred feet. Maximum chemical concentrations in exposure media from RECs #7, #8, #9, and #10 and REC #11 were used as the EPCs for the initial screening step. In accordance with USEPA (1993), dissolved metals more closely approximates the bioavailable fraction of metal in the water column than total recoverable metal. Therefore, for metals, only the results in the filtered samples were evaluated for exposure to aquatic organisms.

Exposure doses in mg/kg per day were estimated for terrestrial wildlife (mammals and birds) using food-chain models. The following equation was used to calculate CDIs for mammals and birds from exposure to chemicals in soil, sediment, surface water, and associated food items such as plants and invertebrates:

$$CDI = \frac{\left[\left(C_f * I_f\right) + \left(C_s * I_s\right) + \left(C_w * I_w\right)\right] * H}{BW}$$

Where:

CDI	=	chronic daily intake (mg/kg per day)
C_f	=	chemical concentration in food (mg/kg) (see discussion below)
C_s	=	chemical concentration in surface soil/sediment (mg/kg)
C_w	=	chemical concentration in surface water (milligram per liter [mg/L])
I_f	=	food ingestion rate (kilogram [kg] per day)
I_s	=	incidental surface soil/sediment ingestion rate (kg per day)
I_w	=	water ingestion rate (liters per day)
H	=	portion of food intake from the contaminated area (unitless)
BW	=	body weight (kg)

Because chemicals in surface water typically only add a small portion of risk in the food chain model, surface water chemical concentrations were only included in the food chain model if the chemical in surface soil or sediment was selected for evaluation in the food chain model.

The exposure assumptions (i.e., ingestion rate, body weight) were obtained primarily from the *Wildlife Exposure Factors Handbook* (USEPA, 1993) with other sources used as necessary. To be consistent with chemical concentrations in soil (which are reported on a dry-weight basis), food ingestion rates were evaluated on a dry-weight basis, and chemical concentrations in food items were estimated in dry-weight concentrations. The exposure assumptions are presented in Attachment 2.

Chemical concentrations in food items for soil invertivorous and herbivorous receptors were calculated using soil-to-invertebrate or soil-to-plant bioaccumulation factors (BAFs) or regression equations from the USEPA Eco SSL Guidance Document (USEPA, 2007c) or other published sources. The following equation was used to calculate chemical concentrations in plants or invertebrates when BAFs were used:

$$Cf = Cs * BAF$$

Where:

C_f = chemical concentration in food (mg/kg)

C_s = chemical concentration in surface soil (mg/kg)

BAF = biota-soil bioaccumulation factor (unitless) (soil to plant or soil to earthworm)

Chemical concentrations in food items for piscivorous receptors were calculated using sediment-to-invertebrate biota-sediment bioaccumulation factors (BSAFs) and sediment-to-fish BSAFs. Based on the limited amount of water at the site, it was assumed that piscivorous receptors would consume a greater percentage of sediment invertebrates as compared to fish. Therefore, sediment-to-invertebrate BSAFs were used first, and sediment-to-fish BSAFs were only used if invertebrate BSAFs were not available. Contaminant concentrations in food items for piscivorous receptors were calculated as follows:

$$Cf\ (\text{for metals}) = Csd * BSAF$$

Where:

Cf = contaminant concentration in food (mg/kg)
Csd = contaminant concentration in sediment (mg/kg)
BSAF = biota-sediment bioaccumulation factor (unitless)

$$Cf\ (\text{for organics}) = Csd * \left(BSAF * \frac{\%L}{\%TOC} \right)$$

Where:

Cf = contaminant concentration in food (mg/kg)
Csd = contaminant concentration in sediment (mg/kg)
BSAF = biota-sediment bioaccumulation factor (unitless)
%L = percent lipids [8.5% for sediment invertebrates]
%TOC = percent total organic carbon [TOC] (1% default)

The percent lipids value is the average of the following groups of organisms from the Army Corps of Engineers BSAF database web site (http://el.erdc.usace.army.mil/bsaf/index.cfm): freshwater crustaceans (10.98 percent), marine crustaceans (9.18 percent), freshwater worms (7.79 percent), and marine/estuarine worms (5.985 percent).

A default value of 1.0 was used for the BAF when chemical-specific data were not available. The sources of the BAFs and BSAFs are documented in Attachment 4.

The food-chain models were calculated using various exposure assumptions to present a range of potential risks. For selecting chemicals as contaminants of potential concern (COPC) in the screening step, the following exposure assumptions were used:

- Maximum soil/sediment/surface water concentrations
- Conservative receptor body weights, ingestion rates, and BAFs/BSAFs
- Receptors obtain 100 percent of their food from the site

Section 5
Risk Characterization

This phase of the ERA process characterizes potential effects by comparing exposure concentrations to effects data. The ecological effects quotients (EEQs) for plants and soil invertebrates for soil COPC selection and for wildlife exposed to soil to determine whether food-chain modeling is warranted were calculated (based on maximum detected chemical concentrations) as follows:

$$EEQ = \frac{Css}{SSSL}$$

where:

EEQ = ecological effects quotient (unitless)

Css = chemical concentration in surface soil (micrograms per kilogram [µg/kg] or mg/kg, dw)

SSSL = surface soil screening-level (µg/kg or mg/kg)

The EEQs for sediment invertebrates for sediment COPC selection were calculated as follows:

$$EEQ = \frac{Csd}{SdSL}$$

Where:

EEQ = ecological effects quotient (unitless)

Csd = chemical concentration in sediment (microgram per kilogram [µg/kg] or mg/kg)

SdSL = sediment screening level (µg/kg or mg/kg)

EEQs for aquatic organisms were calculated as follows:

$$EEQ = \frac{Csw}{SwSL}$$

where:

EEQ = ecological effects quotient (unitless)
Csw = chemical concentration in surface water (micrograms per liter [µg/L])
SwSL = surface water screening level (µg/L)

EEQs for wildlife were calculated as follows:

$$EEQ = \frac{CDI}{TRV}$$

where:

EEQ = ecological effects quotient (unitless)
CDI = chronic daily intake dose (mg/kg-day)
TRV = toxicity reference value (NOAEL or LOAEL) (mg/kg BW-day)

An EEQ of greater than 1.0 was considered indicative of potential risk. Such values do not necessarily indicate that an effect will occur, but only that a low (i.e., conservative) threshold has been exceeded and further evaluation is warranted.

Section 6
Selection of Chemicals of Potential Concern

The final step of the screening evaluation is selection of COPC. Chemicals not selected as COPC are assumed to present negligible risk to ecological receptors and were not considered for further evaluation in the ERA. Chemicals selected as COPC are evaluated further in Step 3a. Ecological COPC were selected using the following procedures:

- Chemicals with EEQs greater than 1.0 (using screening values) were selected as COPC for plants, soil invertebrates, sediment invertebrates, and aquatic organisms because they have a potential to cause risk to ecological receptors.
- For birds and mammals, chemicals with EEQs greater than 1.0 based on the food-chain model using NOAELs were selected as COPC because they have the potential to cause risks to mammals and birds.
- Chemicals without screening values were selected as COPC, but were only evaluated qualitatively in Step 3a.

Note that diesel-range organics (DRO) and gasoline-range organics (GRO), both of which lack ecological screening-levels, were not selected as COPC because the soil samples were analyzed for polycyclic aromatic hydrocarbons (PAHs) and VOCs, which are major components of DRO and GRO. Therefore, risks from DRO and GRO are evaluated indirectly by evaluating risks from the individual PAHs and VOCs.

Tables 5 and 6 present the occurrence, distribution, and selection of ecological COPC for plants and soil invertebrates in surface soil and presents chemicals in soil selected for food-chain modeling for mammals and birds for RECs #7, #8, #9, and #10 and REC #11, respectively. Tables 7 and 8 present chemicals selected as COPC in surface water and sediment, respectively. Tables 9 and 10 present summaries of the screening-level food-chain model EEQs for surface soil from REC #7 to #10 and REC #11. Table 11 presents the summary of the screening-level food chain model EEQs for sediment.

A summary of the chemicals selected as COPC after the screening-level ERA are presented in Table 12. As shown in Table 12, several chemicals were initially selected as COPC for ecological receptors because either (1) their concentrations exceeded an EEQ of 1.0 or (2) they do not have screening levels. Therefore, the ERA proceeded to Step 3a to better refine the risks to these receptors.

Section 7
Step 3A: COPC Refinement

Step 3a consists of refining the initial conservative exposure assumptions/concentrations used to evaluate risks to ecological receptors and for re-evaluating analytical data using benchmarks more closely aligned to selected assessment endpoints. Major objectives of the Step 3a refinement is to (1) identify chemicals with potential to contribute to unacceptable risk, (2) eliminate from further consideration chemicals with insignificant risk potential, and (3) identify chemicals with unknown risk potential (i.e., those for which toxicity data are lacking and risks remain unknown). The following sections present the Step 3A evaluation for the chemicals initially selected as COPCs.

Chemical concentrations in surface soil were compared to background concentrations from MDE cleanup standards for soil and groundwater from June 2008. The maximum detected concentrations of the following metals initially selected as COPCs (as summarized in Table 12) were less than background concentrations as presented on Tables 5 and 6:

- REC #7 to #10 – mercury, selenium, and thallium
- REC #11 – lead and thallium

These metals were eliminated as COPC based on comparison to background, and are not further evaluated below.

7.1 RISKS TO SOIL INVERTEBRATES AND PLANTS

The chemicals selected as COPCs for plants and soil invertebrates were further evaluated to determine risks to ecological receptors.

7.1.1 Soil Invertebrates

Several VOCs, semi-volatile organic compounds (SVOCs), and inorganics were initially selected as COPC for soil invertebrates in GSP surface soil for RECs #7 to #10 and REC #11.

VOCs—1,2,3-Trimethylbenzene, 4-methyl-2-pentanone, n-propylbenzene, tert-amyl methyl ether, and tertiary-butyl alcohol were initially selected as COPCs in surface soil because screening levels are not currently available. These chemicals have been detected at relatively low concentrations (i.e., 13 µg/kg or less) and at low frequencies (≤8% for these chemicals) (see Tables 5 and 6). VOCs are typically not very toxic to invertebrates via direct contact at low concentrations (see Table 2), so the VOCs without screening levels are unlikely to significantly impact soil invertebrates.

Acetone was identified as a potential COPC because its EEQ was above the screening level. However, the screening level for acetone was calculated using equilibrium partitioning and assumes that the water quality benchmarks protective of aquatic invertebrates in interstitial pore water are also protective of terrestrial invertebrates in soil. Therefore, there is considerable uncertainty associated with using this screening level. Furthermore, acetone is common laboratory contaminant and not likely associated with site activities.

For these reasons, the aforementioned VOCs are not retained as chemicals of ecological concern for soil invertebrates, and do not warrant further evaluation at this site.

SVOCs—Toxicity data for soil invertebrates was not available for benzaldehyde detected in RECs #7 to #10 and REC #11 and for caprolactam and n-nitroso-di-n-propylamine detected in REC #11, so their effects could not be evaluated quantitatively. Benzaldehyde, caprolactam, and n-nitroso-di-n-propylamine were detected infrequently in ≤4 percent of samples. Screening values for carbazole and dibenzofuran were calculated using equilibrium partitioning similar to acetone. Carbazole concentrations only exceeded its screening level in 2 of 56 samples at RECs #7 to #10, and 3 of 51 samples at REC #10, while dibenzofuran concentrations only exceeded its screening level in 2 of 56 samples at RECs #7 to #10, and 1 of 51 samples at REC #10. Also, carbazole and dibenzofuran, which tend to be associated with PAHs, were detected at concentrations below those of PAHs within the same sample. Therefore, risks from these chemicals, if any, should be accounted for in the evaluation of risks from PAHs. The maximum concentrations of these SVOCs (2,000 µg/kg) are much lower than the soil invertebrate Eco SSLs for PAHs (18,000 µg/kg [high molecular-weight PAHs] and 29,000 µg/kg [low molecular-weight PAHs]). Therefore, carbazole, dibenzofuran, caprolactam, and

n-nitroso-di-n-propylamine are not expected to significantly contribute to adverse effects on soil invertebrates at this site, and do not warrant further evaluation.

Two individual PAHs (fluoranthene and pyrene) were selected as COPCs for RECs #7 to #10. Only one sample (SB-68 in REC #10, southwest of Building 029) had detected concentrations of fluoranthene (33,000 µg/kg) and pyrene (34,000 µg/kg) exceeding screening values (29,000 µg/kg and 18,000 µg/kg, respectively). The EEQs were slightly greater than one for fluoranthene (1.1) and pyrene (1.9) for soil invertebrates. Adjacent samples had concentrations of these constituents below screening values, suggesting that the area associated with risk from these chemicals is small. Adverse effects to individual organisms would likely be minimal and localized, and adverse population- and community-level effects are unexpected. PAHs are therefore eliminated as COPCs for soil invertebrates.

Inorganics— Copper, iron, and manganese were selected as COPCs for REC #11 because maximum concentrations exceed screening levels. Iron and manganese were selected as COPC for RECs #7 to #10 because maximum concentrations exceed screening levels.

Iron was selected as a COPC because it was detected at a concentration in excess of its screening value of 200 mg/kg. However, this ESL is not based on exposures to soil invertebrates but instead is based on adverse effects to soil microorganisms. This ESL is not specific for invertebrates and is much lower than background concentrations (see below). Also, the distribution of iron (one of the most abundant elements in natural soils) across the site does not suggest a pattern that would indicate a specific source of iron. The maximum iron concentrations in REC #11 (15,000 mg/kg) is equal to the MDE (2008) anticipated typical concentration (ATC) for iron (15,000 mg/kg). Only the maximum concentration of iron in RECs #7 to #10 (20,400 mg/kg) slightly exceeded the State of Maryland (2008) ATC for iron. Average iron concentrations in RECs #7 to #10 (6,519 mg/kg) and REC #11 (8,240 mg/kg) are much lower than the Maryland ATC for iron. Iron is typically not considered bioavailable, and is rarely implicated as a toxic metal under most conditions. Therefore, adverse effects from iron are expected to be minimal and not site-related, and it is eliminated as a COPC for soil invertebrates.

Manganese was selected as a COPC for RECs #7 to #10 and REC #11 because the maximum detected concentrations exceed the Eco SSL for soil invertebrates (450 mg/kg). Manganese

concentrations exceed the screening value in samples collected from SB-62 (864 mg/kg) from REC #9 and SB-63 (1,590 mg/kg) and SB-71 (2,390 mg/kg) from REC #10. Samples from SB-62 and SB-63 in REC #9 were collected adjacent to a road. The sample from SB-71 was collected northwest of REC #10, and adjacent samples were not analyzed for manganese. Although the average manganese concentration (257 mg/kg) is less that the ATC for manganese (480 mg/kg), potential adverse effects on soil invertebrates from manganese at RECs #9 and #10 are possible. This is because the extent of manganese concentrations above the Eco SSL is not bounded, as no samples collected northwest of SB-71 were analyzed for manganese; therefore, manganese is retained as a COPC for soil invertebrates at REC #9 and #10.

In REC #11, only the maximum concentration of manganese from SB-84 in REC #11 (1,050 mg/kg) exceeds its screening value. Adjacent samples to the northeast and northwest of sampling location SB-84 with detected manganese concentrations are well below the screening value, suggesting low potential for population- or community-level effects. Samples collected south of SB-84 in REC #11 were not analyzed for manganese; however, the sample from SB-84 was bounded to the southeast by an adjacent road, and the average manganese concentration (175 mg/kg) is less that the ATC for manganese (480 mg/kg). Therefore, adverse effects from manganese are expected to be minimal (possibly at the organism level only) at REC #11, so manganese is eliminated as a COPC for soil invertebrates at REC #11.

Copper was selected as a COPC for REC 11 because the maximum concentration (81 mg/kg) exceeds the screening value. All other concentrations were well below the screening value and the maximum concentration only slightly exceeds the screening value of 80 mg/kg. Risks to soil invertebrates from copper are therefore likely minimal, so copper is not retained as a COPC for this receptor category.

7.1.2 Plants

VOCs—1,2,3-Trimethylbenzene, 1,2,4-trimethylbenzene, 2-butanone, 4-methyl-2-pentanone, acetone, carbon disulfide, methyl tert-butyl ether, n-propylbenzene, tert-amyl methyl ether, and tertiary-butyl alcohol were initially selected as COPCs in surface soil because screening levels are not currently available, but these VOCs were eliminated as COPCs for plants for reasons similar to those presented for eliminating them as COPCs for soil invertebrates.

***SVOCs*—**Benzaldehyde, carbazole, caprolactam, and n-nitroso-di-n-propylamine were initially selected as COPCs in surface soil because screening levels are not currently available, but these SVOCs were eliminated as COPCs for plants for similar reasons to those presented for eliminating them as COPC for soil invertebrates. Several PAHs (2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, benzo[g,h,i]perylene, benzo[k]fluoranthene, chrysene, dibenz[a,h]anthracene, fluorene, indeno[1,2,3-cd]pyrene, naphthalene, phenanthrene, and pyrene) were selected as COPCs for plants because the maximum detected concentrations exceed their screening level, or because no screening level was available (2-methylnaphthalene).

The Region 3 BTAG screening level of 100 µg/kg, which is based on effects on mice, was used for most PAHs; no Eco SSL is available for plants. However, data in Table 3.1 of the Eco SSL document for PAHs (USEPA, 2007e) show that PAHs are typically not toxic to plants except at high soil concentrations, with the lowest listed EC_{50} being 30 mg/kg from Mitchell, et al. (1988). Only the maximum concentration of pyrene (34 mg/kg) in RECs #7 to #10 from GSP-SB-68-0-2 slightly exceeds this value. This sample is bounded within approximately 20 feet. Thus, PAHs in the soil are unlikely to adversely affect plants. Risks to plants are acceptable, and PAHs are not retained as COPC for risks to this receptor.

Butyl benzyl phthalate and dimethyl phthalate were selected as COPCs for plants in soil because they exceeded the selected NOAA screening value. The maximum detected concentrations of butyl benzyl phthalate (0.25 mg/kg) from REC #11 and dimethyl phthalate (0.19 mg/kg) from RECs #7 to #10 were less than the ORNL plant screening values for diethyl phthalate (100 mg/kg) and di-n-butyl phthalate (200 mg/kg), structurally-similar compounds (Efroymson, 1997b). In addition, butyl benzyl phthalate and dimethyl phthalate were infrequently detected in ≤5% samples. Therefore, butyl benzyl phthalate and dimethyl phthalate are not expected to impact plants at the site and were eliminated as COPCs for plants.

***Inorganics*—**Iron was selected as a COPC for RECs #7 to #10 and REC #11 because a screening level was not available. Barium and manganese were selected as COPC for REC #7 to #10 because the maximum concentration exceeds the screening level. Copper, manganese, and selenium were selected as COPC for REC #11 because the maximum concentration exceeds the screening level.

Barium was selected as a COPC for RECs #7 to 11 because concentrations in four samples exceeded the screening value (110 mg/kg). Barium concentrations were greater than the screening value in samples from GSP-SB-062 (192 mg/kg), GSP-SB-071 (266 mg/kg), GSP-SB-101 (190 mg/kg), and GSP-SB-102 (140 mg/kg). Barium concentrations exceeding screening values were bounded within approximately 50 feet by other samples and the average concentration (30 mg/kg) is much lower than the Maryland ATC (73 mg/kg). Therefore, risks to plants from barium in soil are therefore likely minimal. Barium is not retained as a COPC for this receptor.

Copper was selected as a COPC for REC #11 because the maximum concentration (81 mg/kg) exceeds the screening value. All other concentrations were well below the screening value and the maximum concentration only slightly exceeds the screening value of 70 mg/kg. Risks to plants from copper are therefore likely minimal, so copper is not retained as a COPC for this receptor.

Iron was selected as a COPC because soil pH data were not available. The USEPA Eco SSL guidance for iron (USEPA, 2003a) indicates that the toxicity of iron in surface soil is directly related to soil pH. Iron is expected to be toxic only at a pH less than 5 or greater than 8. Although pH data at the site were not available, iron is typically not bioavailable in surface soils. In addition, the maximum iron concentration in REC #11 is equal to the Maryland ATC for iron of 15,000 mg/kg and only the maximum concentration of iron in RECs #7 to #10 (20,400 mg/kg) slightly exceeded the ATC for iron. The presence of iron is not likely attributable to site-related activities. Therefore, iron is unlikely to be toxic to plants and is not retained as a COPC for this receptor.

Manganese was selected as a COPC because concentrations in several samples from RECs #7 to #10 and REC #11 exceed the Eco SSL for plants (220 mg/kg). Detected manganese concentrations exceed the screening level in four samples from RECs #9 and #10: SB-62 (864 mg/kg) and SB-67 (417 mg/kg) from REC #9 and SB-63 (1,590 mg/kg) and SB-71 (2,390 mg/kg) from REC #10. Sampling locations SB-62, SB-63, and SB-67 in RECs #9 and #10 are adjacent to a road; location SB-71 is northwest of REC #10, and adjacent samples were not analyzed for manganese. The area at and surrounding SB-71 is heavily vegetated, suggesting that the plants present are not being significantly impacted. Nevertheless, although the average manganese concentration (257 mg/kg) is less than the ATC for manganese (480 mg/kg), adverse effects on plants from exposure to manganese in soil at RECs #9 and #10 cannot be ruled out.

This is because the extent of manganese concentrations above the Eco SSL is not bounded, as no samples collected northwest of SB-71 were analyzed for manganese. For this reason, manganese is retained as a COPC for plants at RECs #9 and #10.

Maximum detected concentrations of manganese exceeds the screening level in two samples from REC #11: SB-84 (1,050 mg/kg) and SB-87 (323 mg/kg). Sampling location SB-84 is adjacent to a road, and adjacent samples had manganese concentrations below the screening value. Sampling location SB-87 is in the northeastern corner of REC #11, bounded by two roads to the north and east. Risks to plants from manganese concentrations at REC #11 are expected to be minimal, and manganese is eliminated as a COPC for plants at REC #11.

Selenium was selected as a COPC because the maximum concentration detected in REC #11 (3.1 mg/kg) exceeds the Eco SSL for plants (0.52 mg/kg). Many samples collected from GSP had detected concentrations of selenium exceeding the Eco SSL. However, the ATC for selenium for eastern Maryland is 2.2 mg/kg. The only selenium concentration exceeding this background level is the maximum detected concentration in REC #11. Therefore, site-related risks to plants from selenium are likely minimal, and selenium is not retained as a COPC for this receptor.

7.2 RISKS TO SEDIMENT INVERTEBRATES

Several of the sediment risk screening levels used to select COPC, are conservative because chemicals detected at concentrations less than these levels are not expected to cause any adverse impacts to the benthic community. Since the objective of the ERA screening is to determine if the chemicals at the site are causing a risk to sediment-associated receptors, alternate benchmarks were used to further evaluate the risk associated with chemicals that exceeded the conservative screening levels. The primary source of several sediment screening levels are based on threshold effects concentrations (TECs) and threshold effects levels (TELs), which are levels at or below which sediment invertebrates would be expected to experience adverse effects. Alternate benchmarks include higher effects benchmarks such as probable effects concentrations (PECs) and probable effects levels (PELs), which are concentrations above which adverse effects to sediment invertebrates are expected. The TECs and PECS from MacDonald et al. (2000) were developed based on freshwater exposure. The TELs and PELs, are taken from MacDonald et al. (1996) and were developed based on coastal water exposure.

Concentrations of acetone, a common laboratory contaminant, and carbon disulfide exceeded their screening values derived using equilibrium partitioning. Dichlorodifluoromethane was initial selected as a COPC for sediment invertebrates because a screening value was not available. VOCs are not typically very toxic to sediment invertebrates as indicated by the relatively high screening levels for other VOCs derived from toxicity studies. Carbon disulfide and dichlorodifluoromethane were not detected in groundwater samples collected near the sediment sampling locations. Acetone in groundwater was detected at low concentrations (<4 µg/L); however, it is a common laboratory contaminant. Therefore, these VOCs are not expected to be site-related. For these reasons, VOCs were not retained as COPC for sediment invertebrates.

Several PAHs had concentrations exceeding screening values in most samples. However, the toxicity of PAHs is typically assumed to be additive, so evaluating PAH toxicity in sediment by examining total PAH concentrations is especially useful when several PAHs are detected. Total PAH concentrations were calculated using only detected concentrations for each sediment sample, and these total concentrations are included in Section 2.0 of the preceding memorandum, and in supporting Tables included as Attachment 5. Total PAHs exceeded the Region 4 screening value (1,600 µg/kg), which is the TEC (a threshold concentration at which adverse effects are unexpected. The total PAH concentrations from all sediment samples, except GSP-SED-C2-011116 0-1 were much lower than the PEC (22,800 µg/kg). The total PAH concentration from sample GSP-SED-C2-011116 0-1 (50,730 µg/kg) exceeded the PEC. The only sample location exceeding the PEC is located 150 feet south of a road. The PAH concentrations at REC #11 are much lower so PAH concentrations at GSP-SED-C2 are likely not related to REC #11. In particular, the total PAH concentration in the sample approximately 600 feet upstream of GSP-SED-C2 (SED-C1-011116 0-1) was less than the TEC. For this reason, any impacts to sediment invertebrates from PAHs are not expected to be site-related and are limited to a small area, so PAHs are eliminated as COPC for sediment invertebrates.

The PCB Aroclor-1260 (93 µg/kg) in one sample from GSP-SWSD-DP2 exceeded the screening value (59 µg/kg). However, all sediment concentrations are well below the PEC of 676 µg/kg. Therefore, any impacts to sediment invertebrates from PCBs are expected to be minimal and PCBs are eliminated as COPC for sediment invertebrates.

Barium concentrations exceeded the Region 4 screening value of 20 mg/kg in three samples. All barium concentrations were less than the refined screening value of 60 mg/kg. Also, barium is not generally considered toxic, and confidence is low for barium ESLs to predict toxicity because toxicity data are sparse. Therefore, impacts to sediment invertebrates are expected to be minimal, and barium is not retained as a COPC for sediment invertebrates.

ESLs are unavailable for beryllium. Beryllium was only detected in one sample at 0.57 mg/kg. No additional toxicity data were available to further evaluate risks to sediment invertebrates from beryllium exposures, but based on the low frequency of detection, beryllium is not likely impacting sediment invertebrates and is not retained as a COPC.

Cadmium exceeded its TEL screening value of 0.68 mg/kg in two sediment samples. All concentrations were less than the PEL of 4.21 mg/kg. Therefore, any impacts to sediment invertebrates are expected to be minimal, and cadmium is not retained as a COPC for sediment invertebrates.

Mercury exceeded its TEL screening value of 0.13 mg/kg in two sediment samples. All concentrations were less than the PEL (0.7 mg/kg). Therefore, any impacts to sediment invertebrates are expected to be minimal, and mercury is not retained as a COPC for sediment invertebrates.

Copper, nickel, vanadium, and zinc exceeded ESLs in sample GSP-SED-DP3-0-1-011116. Copper and nickel concentrations were less than their respective PELs of 108 mg/kg and 42.8 mg/kg. Vanadium exceeded its NOAA screening value of 57 mg/kg. An alternate benchmark was not available, but the maximum detected concentration (74 mg/kg) only slightly exceeded the ESL. Therefore, copper, nickel, and vanadium are not retained as COPC for sediment invertebrates. The zinc concentration at GSP-SED-DP3 (650 mg/kg) also exceeded its PEC (459 mg/kg). No other sediment samples were collected in Pond 3B so the extent of elevated zinc within Pond B cannot be determined. The concentration of zinc at location C-1, which was collected in the drainage channel just downstream from the discharge of Pond 3B was only 24 mg/kg, so zinc does not appear to be migrating out of the pond. However, because the extent of elevated zinc within Pond 3B is not known, zinc is retained as a COPC for sediment invertebrates.

7.3 RISKS TO AQUATIC ORGANISMS FROM SURFACE WATER

Several PAHs, seven total metals (barium, copper, lead, nickel, thallium, vanadium, and zinc), and two dissolved metals (barium and thallium) were initially selected as COPC because sample concentrations exceeded screening values. Because dissolved metals are typically considered to be the bioavailable fraction to aquatic organisms, impacts to aquatic organisms from total metals are not evaluated. However, total metals were used to assess risks to mammals and birds that ingest water (see Section 7.4).

The Region 3 PAH screening values (USEPA, 2006b,c) were based on 1999 interim Canadian water quality guidelines. However, PAH concentrations in surface water were compared to final chronic values (FCV) from USEPA (2003b); FCVs are more current values developed by USEPA and are intended to be the concentration of a chemical in water that is protective of the presence of aquatic organisms. FCV values for benzo(a)anthracene, benzo(a)pyrene, fluoranthene, and pyrene are 2.27 µg/L, 0.9573 µg/L, 7.109 µg/L, and 10.11 µg/L, respectively. All maximum concentrations of these COPC are less than their respective FCVs. Therefore, impacts to aquatic organisms from PAHs are expected to be minimal, and PAHs are eliminated as COPC for aquatic organisms.

Barium was initially selected as a COPC because the maximum detected concentration (42 µg/L) exceeded the screening level (4 µg/L). This screening value is based on the secondary chronic value from Suter and Tsao (1996). Barium concentrations did not exceed its secondary acute value (110 µg/L), also from Suter and Tsao (1996). There is low confidence in the secondary chronic value because it was developed from a single study in which the exposure concentration (5,800 ug/L) was found to affect 16 percent of test organisms (EC16), based on a *Daphnia magna* reproductive endpoint. For this reason and because the maximum detected concentration was substantially below the acute ESL, barium is not retained as a COPC.

Thallium was initially selected as a COPC because the maximum detected concentration (2.3 µg/L) exceeded the ESL (0.8 µg/L). The ESL was derived from only one study by multiplying the 14-day EC50 of 8 µg/L for *L.minor* by a safety factor of 0.1. Thallium concentrations were well below an acute screening value of 110 µg/L (Buchman, 2008). Therefore, any impacts from thallium are expected to be minimal so it is not retained as a COPC.

7.4 CALCULATED RISKS TO BIRDS AND MAMMALS VIA FOOD-CHAIN MODELING

As part of the Step 3a refinement, risks for the food-chain pathway were recalculated using less conservative exposure assumptions and inputs (i.e., average ingestion rates, average body weights) (see Attachment 2) and EPCs based on average chemical concentrations. The chemicals previously selected as COPCs for birds and mammals based on the initial conservative exposure assumptions were further evaluated at this step to determine whether ecological receptors are likely to be impacted by exposure to site surface soil and sediment. Tables 13 to 15 summarize the results of the less conservative food-chain modeling for REC #7 to 10 soil, REC #11 soil, and sediment, respectively. Attachment 2 presents the calculation worksheets. A discussion of the risks to mammals and birds is presented below. As discussed above, mercury and thallium for REC #7 to #10 and lead and thallium for REC #11 were eliminated as COPCs based compared to background.

REC #7 to 10

- Herbivorous receptors: The NOAEL-based EEQ for vanadium for the quail (2.9) was greater than 1. However, the LOAEL-based EEQ for vanadium was less than 1.0. Therefore, impacts to herbivorous receptors are expected to be minimal, and are not likely site-related.

- Invertivorous receptors: The NOAEL-based EEQs for copper (1.8), lead (2.6), and vanadium (6.3) were greater than 1 for the robin. The LOAEL-based EEQ for vanadium (1.3) for the robin slightly exceeded 1.0. The average vanadium concentration was less than the Maryland background value. Therefore, impacts to invertivorous receptors are expected to be minimal, and are not likely site-related.

REC #11

- Herbivorous receptors: No EEQs were greater than 1 for the vole and quail. For this reason, no impacts are expected to herbivorous birds and mammals.

- Invertivorous receptors: The NOAEL-based EEQs for Aroclor-1260 for the robin (5.1) and shrew (8.1), and for vanadium for the robin (1.04) were greater than 1. However, the LOAEL-based EEQs for these chemicals were less than 1.0. For mercury, the LOAEL-based EEQ for the robin (1.1) only slightly exceeded 1.0. The food chain model assumes that receptors obtain their entire diet from the site. However, receptors are unlikely to obtain their entire diet from this two-acre site, especially because a significant portion of the site is paved or consists of cleared land with short-grass. Also, the average mercury concentration was less than the Maryland background value. For these reasons,

impacts to invertivorous receptors are expected to be minimal, and these chemicals are eliminated as COPC.

- Piscivorous receptors: NOAEL-based EEQs for Aroclor-1260 for the Great Blue Heron (2.8) and mink (6.7) were greater than 1. However, the LOAEL-based EEQs for these chemicals were less than 1.0. For this reason, any impacts to piscivorous receptors are expected to be limited, and no chemicals are retained as COPC.

Section 8
Ecological Risk Uncertainty Analysis

This section discusses some of the uncertainties associated with the GSP ERA.

8.1 MEASUREMENT AND ASSESSMENT ENDPOINTS

Measures of effects (i.e., measurement endpoints) were used to evaluate selected assessment endpoints. These measures evaluate the attainment of assessment endpoints such as protection of soil-associated invertebrates from adverse effects on their survival, growth, or reproduction. For example, risks to shrews based on toxicity thresholds or other similar data are assumed applicable to other small mammals with similar life histories. In this example, the shrew is used as a surrogate to assess a decrease in reproduction that can result in reduced small invertivorous mammal populations. This approach may result in under- or over-protection of other unassessed small mammal species, due to differences in species' sensitivity to contaminants, ingestion rates, diet, home ranges, etc. Risks to reptiles and amphibians were not quantitatively evaluated in this ERA because toxicity data are mostly lacking for these organisms, and exposure factors (e.g., ingestion rates) have not been established for most species. Risks to carnivorous wildlife with larger foraging ranges were not determined, for the reasons discussed previously.

8.2 EXPOSURE CHARACTERIZATION

Uncertainty exists in the chemical data collected at the site. Measured concentrations of chemicals may or may not represent the average or most likely concentrations to which ecological receptors may be exposed. Sampling data for naphthalene in surface soil were reported in both the VOC and SVOC fractions. To be conservative, all data for naphthalene are presented. This did not affect the outcome of the risk assessment, because naphthalene was not retained as a COPC for either fraction.

Uncertainties can also be associated with specific exposure scenarios. Major sources of uncertainty are discussed below for important exposure scenarios evaluated in this BERA.

***Direct contact*—**Bioavailable forms of chemicals are typically used in toxicity tests underlying many of the screening values and TRVs used in the BERA. However, the bioavailability of contaminants in environmental media is likely lower due to complexation with other chemicals. For example, the bioavailability of metals in surface water is reduced by binding with calcium and magnesium. Other factors, such as pH, organic carbon content, etc. can reduce the bioavailability of metals and organic chemicals in water, sediment, and soil. The resulting reduced bioavailability of potentially hazardous chemicals results risk overestimation for some chemicals evaluated in this BERA, based on direct contact exposures.

***Food-chain modeling*—**The average daily contaminant-dose for terrestrial wildlife is calculated using an equation that incorporates ingestion rates, body weights, BAFs, and other exposure factors. Bioaccumulation of contaminants into various biological media (e.g., plants, invertebrates, and small mammals) depends on characteristics of the abiotic media, such as pH, organic carbon, etc. Therefore, site-specific BAFs likely differ from those obtained from literature and used to calculate risk in the ERA. It is unknown if site BAFs would be higher or lower than those taken from the literature and used in the BERA. However, several of the assumptions and input parameters to the models are sufficiently conservative to conclude that modeled risk estimates are likely not significantly underestimated.

There is also uncertainty in risk estimates for chemicals detected in site media for which toxicity data are lacking. For example, no avian TRVs are available for butyl benzyl phthalate, butyl benzyl phthalate, antimony, beryllium, and thallium. Risks to birds from exposure to these chemicals could not be evaluated using the food-chain models and therefore risks are unknown. In addition, the PAH TRV for birds is based on 7, 12-dimethylbenz(a)anthracene. Using this TRV as proxy for all PAH calculations introduces additional uncertainty, but it is unknown if this results in risk overestimation or underestimation. This issue is considered minor because PAHs are generally metabolized and eliminated by vertebrates, so PAH accumulation in birds and mammals is considered insignificant. Bioavailable forms of chemicals are typically used in toxicity studies for wildlife, which are often performed in the laboratory or under controlled conditions. As stated previously, the bioavailability of most contaminants in environmental

media is lower than that used in laboratory tests. Input parameters to the food web models, such as ingestion rates and body weights, vary within and among species, by gender, and by life stage. For the most part, the models used conservative inputs to ensure that risks were not underestimated.

The exposure factors used in the food-chain model were obtained from studies in scientific literature or were predicted using various equations, and thus may not be representative of on-site receptors. The actual exposure of ecological receptors to chemical contaminants is likely overestimated for the reasons noted above. In particular, wildlife with a large home range will typically roam over multiple sampling locations and would not be expected to obtain all of their food from the most contaminated areas at GSP. The water bodies at the site are small; and therefore, this habitat is unlikely to completely support diets of piscivorous birds and mammals. The site is mainly industrial, and limited habitat is available to support birds and mammals. For these reasons risks to birds and mammals is likely overestimated.

8.3 ECOLOGICAL EFFECTS DATA

Several alternative benchmark values were used to better understand the relationship between COPC concentrations and potential effects on ecological receptors. Some uncertainty is involved in using some of the conservative screening levels, because the toxicological basis of some of those numbers is not known. Screening levels are designed to be protective, so there is a strong likelihood that adverse impacts to ecological receptors will not occur at concentrations below a screening level, but an exceedance of a screening level does not necessarily indicate that the receptors will be impacted. Alternative benchmarks, or higher-effects levels such as the probable effects concentrations (PECs) for sediment are concentrations above which adverse effects are more likely. These can be used to bracket the potential impacts (i.e., from locations where impacts are not expected to locations where impacts are more likely to occur). However, there is "gray area" between the screening levels and the higher effects levels, and an uncertainty as to whether adverse impacts will occur. Also, higher-effects levels for soil are not as available as there are for sediment, so more uncertainty in whether adverse ecological impacts are occurring based on exceedance of a soil ESL also exists. That is why the other Step 3a factors (e.g., spatial distribution, similarity to background, etc.) become more important. In the case of manganese, a few locations exceeded the Eco SSL for plants and invertebrates, but the exceedances occur in an

area that is heavily vegetated. This heavy vegetation suggests that the plants present are not being significantly impacted, but there is uncertainty as to whether subtle adverse effects such as decreased growth are occurring.

Some uncertainty is also inherent in using background values. The Maryland anticipated typical concentration (ATC) (MDE, 2008) "represents a value that either matches or exceeds the majority of background concentration samples." Therefore, it is possible that some concentrations above the ATC are still within the background range. For example, the ATC for manganese is 480 milligram per kilogram (mg/kg), while the maximum background concentration in the dataset used to calculate the ATC was 1,100 mg/kg. Although the maximum manganese concentration at the GSP was greater than 1,100 mg/kg, it is possible that if more background samples had been collected, the maximum background concentration would increase. Also, although the Maryland ATC was calculated from background data presented in a 1984 report, much of the data cited in the 1984 report are from the 1950's, 1960's, and 1970's. Therefore, some uncertainty is associate with how well those concentrations represent current background levels.

8.4 RISK CHARACTERIZATION

Risks are determined unacceptable if a calculated EEQ is greater than or equal to 1.0, regardless of the magnitude of the EEQ. The likelihood of adverse effects or the magnitude of effects on ecological receptors cannot be inferred based solely on the magnitude of the EEQ. Rather, an EEQ greater than 1.0 simply indicates that the selected toxicity reference-value was exceeded, and that adverse effects are possible. Also, there is uncertainty with conclusions about risks to individual organisms, populations, or communities. This uncertainty is due to the inclusion of toxicity data based on adverse effects on individual test organisms, and extrapolating those results to populations. The focus of the BERA is on evaluating risks to populations and communities. Evaluating risks to individual organisms is critical and warranted where protected or special status (e.g., threatened and endangered) species have potential to be exposed to site-related contaminants.

Section 9
Ecological Risk Summary and Conclusions

A screening-level ecological risk assessment (SLERA) was performed for recognized environmental conditions (RECs) #7 to #10 and REC #11 at GSP. The results of the initial screening for surface soil, sediment, and surface water resulted in several chemicals being selected as contaminants of potential concern (COPCs) for the site. These chemicals were evaluated further in Step 3a (refinement) of the baseline ecological risk assessment (BERA). The initial list of COPCs was refined after a review of alternative toxicity information (i.e., more specific to the receptor of interest, higher effects levels, etc.), the spatial distribution of contaminants, magnitude of criteria exceedances, and background concentrations. This section summarizes the conclusions of the ecological risk assessment (ERA).

Manganese in surface soil was retained as a COPC for soil invertebrates and plants at RECs #9 and #10. The greatest detected concentration of manganese, which exceeds the screening values for soil invertebrates and plants, was not bounded; therefore, the size of habitat affected by elevated manganese concentrations is not known. The area where the manganese was most elevated is heavily vegetated so it does not appear that plants are being impacted. Therefore, even though the extent of the manganese contamination is not bounded, its effect on plant and invertebrate communities at the site is probably not significant.

No chemicals were retained as COPC for risks to aquatic organisms.

Zinc was retained as a COPC for risks to sediment invertebrates because one detected concentration in Pond 3B exceeded its probable effects concentration (PEC), and no other samples were collected in that area to bound the sample. However, elevated levels of zinc do not appear to be migrating out of the pond because zinc concentrations in the drainage channel were much lower.

No chemicals were retained as COPC for risks to birds and mammals.

In summary, the results of this ERA indicate that potential risks to soil invertebrates and plants due to manganese in surface soil at RECs #9 and #10 should be considered further in a feasibility study. The highest detected manganese concentration exceeded screening values for soil invertebrates and plants and the extent of manganese was not bounded. In addition, the ERA results indicate that potential risks to sediment invertebrates due to zinc in Pond 3B sediment should be considered further in a feasibility study. Only one detected concentration in Pond 3B exceeded its PEC; however no other samples were collected in that area to bound the sample result. Therefore, sediment invertebrates within Pond 3B could be impacted.

Section 10
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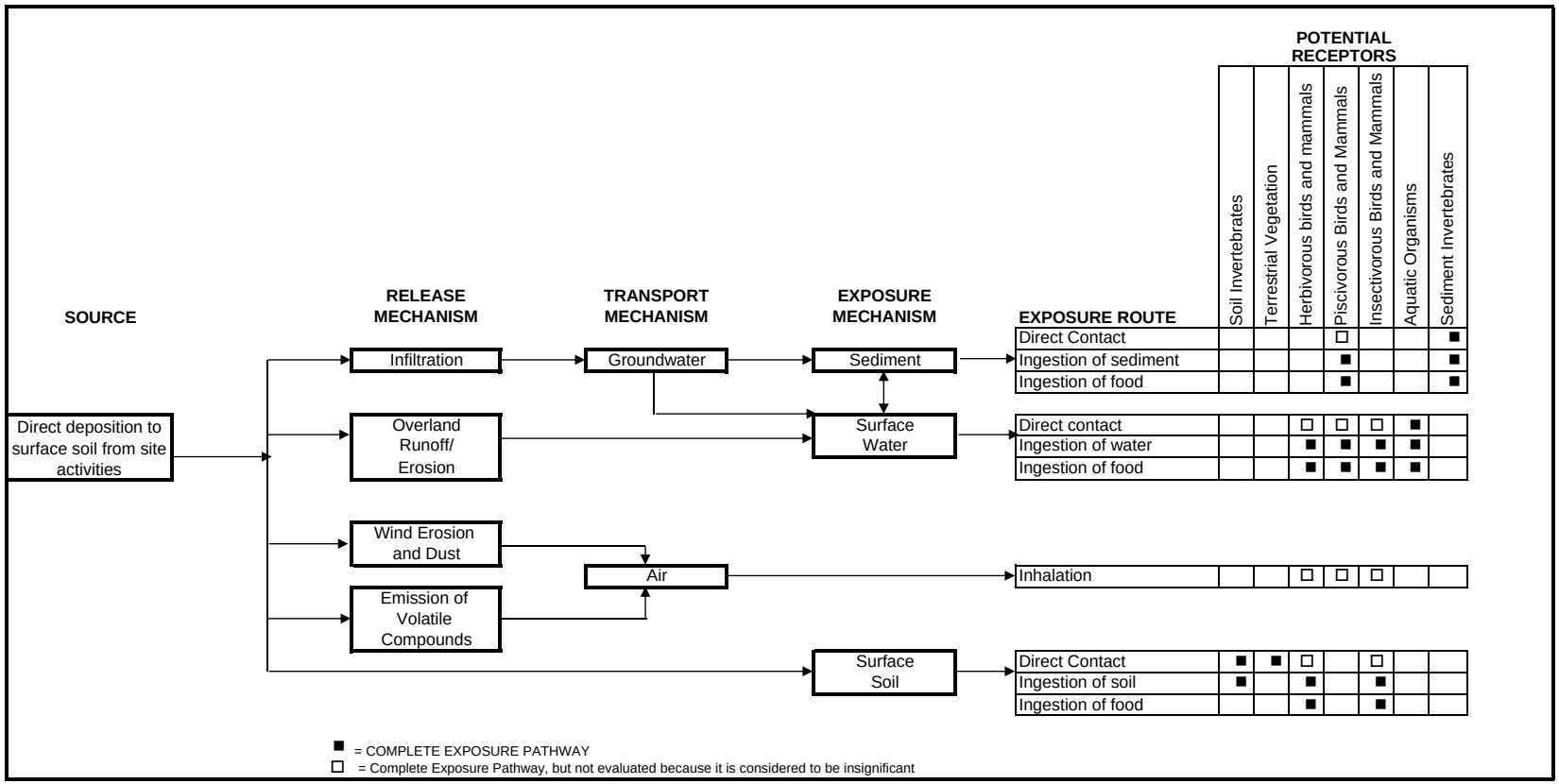
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FIGURE

FIGURE 1

Ecological Conceptual Site Model
Greater Strawberry Point, Lockheed Martin, Martin State Airport
Middle River, Maryland



Blank space indicates incomplete exposure pathway or relatively insignificant, or not applicable, potential exposure.

TABLES

Table 1

Assessment Endpoints and Measurement Endpoints
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Assessment Endpoint	Measurement Endpoint
Adverse effects on the survival, reproduction, and/or growth of soil invertebrates	• Survival, growth, and/or reproduction of soil invertebrates were evaluated by comparing the measured concentrations of chemicals in the surface soil to invertebrate soil screening levels.
Adverse effects on the survival, reproduction, and/or growth of terrestrial plants	• Survival, growth, and/or reproduction of terrestrial plants were evaluated by comparing the measured concentrations of chemicals in the surface soil to plant soil screening levels.
Adverse effects on the survival, reproduction, and/or growth of sediment invertebrates	• Survival, growth, and/or reproduction of sediment invertebrates were evaluated by comparing the measured concentrations of chemicals in the sediment to sediment screening levels.
Adverse effects on the survival, reproduction, and/or growth of aquatic organisms	• Survival, growth, and/or reproduction of aquatic organisms were evaluated by comparing the measured concentrations of chemicals in the surface water to surface water screening levels.
Adverse effects on the survival, reproduction, and/or increase in development effects of invertivorous birds and mammals	• Survival, reproduction, and/or increase in development effects of birds and mammals were evaluated by comparing the estimated ingested dose of contaminants in the surface soil, surface water, and earthworms to no-observed-adverse-effect-level (NOAELs) and lowest-observed-adverse-effect-level Lowest Observed Adverse Effects Levels (LOAELs) for surrogate wildlife species.
Adverse effects on the survival, reproduction, and/or increase in development effects of herbivorous birds and mammals	• Survival, reproduction, and/or increase in development effects of birds and mammals were evaluated by comparing the estimated ingested dose of contaminants in the surface soil, surface water, and plants to NOAELs and LOAELs for surrogate wildlife species.
Adverse effects on the survival, reproduction, and/or increase in development effects of piscivorous birds and mammals	• Survival, reproduction, and/or increase in development effects of birds and mammals were evaluated by comparing the estimated ingested dose of contaminants in the sediment, surface water, and aquatic organisms to NOAELs and LOAELs for surrogate wildlife species.

TABLE 2

ECOLOGICAL SURFACE SOIL SCREENING VALUES
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Plants		Invertebrates		Avian		Mammals	
	Value	Source	Value	Source	Value	Source	Value	Source
Volatile organic compounds (mg/kg)								
1,1-DICHLOROETHENE	0.1	NOAA Dutch	0.04	Region 4	0.1	NOAA Dutch	11	LANL
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	0.1	R3 BTAG	1.2	LANL	0.1	R3 BTAG	0.27	LANL
1,2,4-TRIMETHYLBENZENE	NA	NA	0.09	Region 4	NA	NA	NA	NA
1,2-DICHLOROBENZENE	0.1	R3 BTAG	0.09	Region 4	0.1	R3 BTAG	0.92	LANL
1,3-DICHLOROBENZENE	0.03	NOAA Dutch	0.08	Region 4	0.03	NOAA Dutch	0.73	LANL
2-BUTANONE	NA	NA	1	Region 4	NA	NA	360	LANL
4-METHYL-2-PENTANONE	NA	NA	NA	NA	100	R3 BTAG	9.8	LANL
ACETONE	NA	NA	0.04	Region 4	7.5	LANL	1.2	LANL
BENZENE	31	Canadian SQG	31	Canadian SQG	25	Canadian SQG	25	Canadian SQG
CARBON DISULFIDE	NA	NA	0.005	Region 4	NA	NA	0.82	LANL
CHLOROBENZENE	0.03	NOAA Dutch	2.4	LANL	0.1	R3 BTAG	43	LANL
CIS-1,2-DICHLOROETHENE	0.2	NOAA Dutch	0.04	Region 4	0.2	NOAA Dutch	0.2	NOAA Dutch
ETHYLBENZENE	55	Canadian SQG	55	Canadian SQG	910	Canadian SQG	910	Canadian SQG
M+P-XYLENES	65	CCME	65	CCME	3700	CCME	3700	CCME
METHYL TERT-BUTYL ETHER	NA	NA	12.5	Region 4	NA	NA	NA	NA
METHYLENE CHLORIDE	1600	LANL	0.21	Region 4	0.3	R3 BTAG	2.6	LANL
NAPHTHALENE	1	LANL	29	Eco SSL	3.4	LANL	100	Eco SSL
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	0.1	NOAA Dutch	0.1	NOAA Dutch	0.1	NOAA Dutch	0.1	NOAA Dutch
STYRENE	3.2	LANL	1.2	LANL	0.1	R3 BTAG	4.69	NOAA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	10	LANL	0.06	Region 4	0.002	NOAA Dutch	0.18	LANL
TOLUENE	75	Canadian SQG	75	Canadian SQG	1400	Canadian SQG	1400	Canadian SQG
TOTAL XYLENES	65	Canadian SQG	65	Canadian SQG	3700	Canadian SQG	3700	Canadian SQG
TRICHLOROETHENE	3	Canadian SQG	3	Canadian SQG	0.1	NOAA Dutch	42	LANL
Semivolatile organic compounds (mg/kg)								
1,1-BIPHENYL	60	ORNL	0.2	Region 4	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	29	Eco SSL	NA	NA	100	Eco SSL
ACENAPHTHENE	0.25	LANL	29	Eco SSL	0.1	R3 BTAG	100	Eco SSL
ACENAPHTHYLENE	0.1	R3 BTAG	29	Eco SSL	0.1	R3 BTAG	100	Eco SSL
ANTHRACENE	2.5	Canadian SQG	29	Eco SSL	0.1	R3 BTAG	100	Eco SSL
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	18	LANL	18	Eco SSL	0.8	LANL	1.1	Eco SSL
BENZO(A)PYRENE	20	Canadian SQG	18	Eco SSL	0.1	R3 BTAG	1.1	Eco SSL
BENZO(B)FLUORANTHENE	18	LANL	18	Eco SSL	0.1	R3 BTAG	1.1	Eco SSL
BENZO(G,H,I)PERYLENE	0.1	R3 BTAG	18	Eco SSL	0.1	R3 BTAG	1.1	Eco SSL
BENZO(K)FLUORANTHENE	0.1	R3 BTAG	18	Eco SSL	0.1	R3 BTAG	1.1	Eco SSL

TABLE 2

ECOLOGICAL SURFACE SOIL SCREENING VALUES
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Plants		Invertebrates		Avian		Mammals	
	Value	Source	Value	Source	Value	Source	Value	Source
BIS(2-ETHYLHEXYL)PHTHALATE	0.1	NOAA Dutch	0.23	Region 4	0.02	LANL	0.59	LANL
BUTYL BENZYL PHTHALATE	0.1	NOAA Dutch	0.59	Region 4	0.1	NOAA Dutch	90	LANL
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	0.16	Region 4	NA	NA	80	LANL
CHRYSENE	0.1	R3 BTAG	18	Eco SSL	0.1	R3 BTAG	1.1	Eco SSL
DIBENZ(A,H)ANTHRACENE	0.1	R3 BTAG	18	Eco SSL	0.1	R3 BTAG	1.1	Eco SSL
DIBENZOFURAN	6.1	LANL	0.15	Region 4	NA	NA	NA	NA
DIETHYL PHTHALATE	100	LANL	0.23	Region 4	0.1	NOAA Dutch	3600	LANL
DIMETHYL PHTHALATE	0.1	NOAA Dutch	10	LANL	0.1	NOAA Dutch	38	LANL
DI-N-BUTYL PHTHALATE	160	LANL	0.22	Region 4	0.011	LANL	180	LANL
FLUORANTHENE	50	Canadian SQG	29	Eco SSL	0.1	R3 BTAG	100	Eco SSL
FLUORENE	0.1	R3 BTAG	29	Eco SSL	0.1	R3 BTAG	100	Eco SSL
INDENO(1,2,3-CD)PYRENE	0.1	R3 BTAG	18	Eco SSL	0.1	R3 BTAG	1.1	Eco SSL
NAPHTHALENE	1	LANL	29	Eco SSL	3.4	LANL	100	Eco SSL
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	0.544	NOAA
PHENANTHRENE	0.1	R3 BTAG	29	Eco SSL	0.1	R3 BTAG	100	Eco SSL
PYRENE	0.1	R3 BTAG	18	Eco SSL	34	LANL	1.1	Eco SSL
Polychlorinated biphenyls (mg/kg)								
AROCLOR-1260	33	Canadian SQG	33	Canadian SQG	1.3	Canadian SQG	1.3	Canadian SQG
Metals (mg/kg)								
ANTIMONY	11	LANL	78	Eco SSL	3	NOAA Dutch	0.27	Eco SSL
ARSENIC	18	Eco SSL	17.1	Canadian SQG	43	Eco SSL	46	Eco SSL
BARIUM	110	LANL	330	Eco SSL	930	LANL	2000	Eco SSL
BERYLLIUM	2.5	LANL	40	Eco SSL	1.1	NOAA Dutch	21	Eco SSL
CADMIUM	32	Eco SSL	140	Eco SSL	0.77	Eco SSL	0.36	Eco SSL
CHROMIUM	64	Canadian SQG	64	Canadian SQG	26	Eco SSL	34	Eco SSL
COBALT	13	Eco SSL	1000	ORNL[2]	120	Eco SSL	230	Eco SSL
COPPER	70	Eco SSL	80	Eco SSL	28	Eco SSL	49	Eco SSL
IRON	pH<5,pH>8	Eco SSL[1]	200	ORNL[2]	NA	[3]	NA	[3]
LEAD	120	Eco SSL	1700	Eco SSL	11	Eco SSL	56	Eco SSL
MANGANESE	220	Eco SSL	450	Eco SSL	4300	Eco SSL	4000	Eco SSL
MERCURY	12	Canadian SQG	12	Canadian SQG	0.013	LANL[4]	1.7	LANL[4]
MOLYBDENUM	2	ORNL	200	ORNL[2]	17	LANL	4.8	Region 4
NICKEL	38	Eco SSL	280	Eco SSL	210	Eco SSL	130	Eco SSL
SELENIUM	0.52	Eco SSL	4.1	Eco SSL	1.2	Eco SSL	0.63	Eco SSL
SILVER	560	Eco SSL	50	ORNL[2]	4.2	Eco SSL	14	Eco SSL
THALLIUM	1.4	Canadian SQG	1.4	Canadian SQG	6.3	LANL	0.22	LANL
VANADIUM	130	Canadian SQG	130	Canadian SQG	7.8	Eco SSL	280	Eco SSL
ZINC	160	Eco SSL	120	Eco SSL	46	Eco SSL	79	Eco SSL

TABLE 2

ECOLOGICAL SURFACE SOIL SCREENING VALUES
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Plants		Invertebrates		Avian		Mammals	
	Value	Source	Value	Source	Value	Source	Value	Source
Petroleum hydrocarbons (mg/kg)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NA	NA	NA	NA	NA	NA	NA	NA

mg/kg - milligram per kilogram
NA - Not Available

Screening Level Sources in the order of Preference:
Eco SSL - United States Environmental Protection Agency (USEPA) Ecological Soil Screening Levels (USEPA, 2003a, 2005c-i, 2006a, 2007a-g, 2008)
Canadian SQG - Canadian Soil Quality Guidelines (SQG) from Council of Ministers of the Environment (CCME), 2006a and supporting documents
Los Alamos - Ecological Screening Levels (Los Alamos National Laboratory [LANL], 2015)
ORNL - Efroymson et al, 1997a,1997b for Oak Ridge National Laboratory (ORNL)
Region 4 - USEPA Region 4 Ecological Screening Values (USEPA, 2015)
NOAA - Values from sources as compiled in National Oceanic and Atmospheric Administration (NOAA) Quick Reference Tables (Buchman, 2008)
USEPA Region 3 Biological Technical Assistance Group (R3 BTAG) Surface Soil Screening Levels (USEPA, 1995)
NOAA Dutch - Dutch target values provided in NOAA's Quick Reference Tables (Buchman, 2008)

1 - Not expected to be toxic to plants with a soil pH between 5 and 8.
2 - Value for soil microorganisms.
3 - Available Region 3 BTAG value (12 milligrams per kilogram [mg/kg]) was not selected because it is considered overly conservative and is well below the Maryland background value (15,000 mg/kg) (June 2008).
4 - Available Canadian SQG was not selected because it was based on organic mercury toxicity to a pig.

TABLE 3

SURFACE WATER ECOLOGICAL SCREENING LEVELS
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Freshwater Ecological Screening Value (ESV)[1]		Marine Surface Water ESV[1]		Lowest ESV
Volatile organic compounds (µg/L)					
1,2-DICHLOROETHANE	100	Region 3	1130	Region 3	100
ACETONE	1500	Region 3	564000	Region 3	1500
CIS-1,2-DICHLOROETHENE	590[2]	Region 3	680[2]	Region 3	590
TOTAL XYLENES	13	Region 3	19	Region 3	13
TRICHLOROETHENE	21	Region 3	1940	Region 3	21
VINYL CHLORIDE	930	Region 3	NA	NA	930
Semivolatile organic compounds (µg/L)					
BENZO(A)ANTHRACENE	0.018	Region 3	0.027	Region 4	0.018
BENZO(A)PYRENE	0.015	Region 3	0.3	Region 4	0.015
BENZO(B)FLUORANTHENE	2.6	Region 4	0.68	Region 4	0.68
BENZO(G,H,I)PERYLENE	0.44	Region 4	0.44	Region 4	0.44
BENZO(K)FLUORANTHENE	0.64	Region 4	0.64	Region 4	0.64
CHRYSENE	4.7	Region 4	2	Region 4	2
FLUORANTHENE	0.04	Region 3	1.6	Region 3	0.04
INDENO(1,2,3-CD)PYRENE	0.28	Region 4	0.28	Region 4	0.28
ISOPHORONE	920	Region 4	129	Region 3	129
PHENANTHRENE	0.4	Region 3	1.5	Region 3	0.4
PYRENE	0.025	Region 3	0.24	Region 3	0.025
TOTAL PAHS	NA	NA	NA	NA	NA
Metals (µg/L)					
ANTIMONY	30	Region 3	500	Region 3	30
ARSENIC	150	MDE	36	MDE	36
BARIUM	4	Region 3	NA	NA	4
CADMIUM	0.25	MDE	8.8	MDE	0.25
CHROMIUM	85	Region 3	57.5	Region 3	57.5
CHROMIUM, HEXAVALENT	11	MDE	50	MDE	11
COBALT	23	Region 3	23	Region 4	23
COPPER	6.1	MDE	3.1	MDE	3.1
LEAD	2.5	MDE	8.1	MDE	2.5
MERCURY	0.77	MDE	0.94	MDE	0.77
NICKEL	52	MDE	8.2	MDE	8.2
THALLIUM	0.8	Region 3	21.3	Region 3	0.8
VANADIUM	20	Region 3	20	Region 4	20
ZINC	120	MDE	81	MDE	81
Petroleum hydrocarbons (µg/L)					
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA

µg/L - micrograms per liter
NA- not available

1 - Ecological screening value (ESV) criteria in order of preference are the Maryland Department of the Environment (MDE) Water Quality Standards (COMAR 26.08.02, accessed 12/27/16) followed by the United States Environmental Protection Agency (USEPA) Region 3 Biological Technical Assistance Group (BTAG) screening level (USEPA, July 2006), and Region 4 screening values (USEPA, 2015) for freshwater and marine surface water. The lower of the freshwater and marine ESVs was used as the screening level.

2 - The value for 1,2-dichloroethene is used as a surrogate for cis-1,2-dichloroethene.

3 - Value for total xylenes.

TABLE 4

ECOLOGICAL SEDIMENT SCREENING VALUES
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Freshwater Sediment Ecological Screening Value (ESV)[1]		Marine Sediment ESV[1]		Lowest ESV
Volatile organic compounds (µg/kg)					
1,2-DICHLOROETHANE	385	Region 4	175	Region 4	175
2-BUTANONE	992	Region 4	631	Region 4	631
ACETONE	40	Region 4	36	Region 4	36
CARBON DISULFIDE	0.851	Region 3	0.5	Region 4	0.5
CIS-1,2-DICHLOROETHENE	246	Region 4	NA	NA	246
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
TOLUENE	145	Region 4	1090	Region 3	145
TRICHLOROETHENE	96.9	Region 3	8950	Region 3	96.9
VINYL CHLORIDE	202	Region 4	NA	NA	202
Semivolatile organic compounds (µg/kg)					
2-METHYLNAPHTHALENE	20.2	Region 3	20.2	Region 3	20.2
ACENAPHTHENE	6.7	Region 3	6.71	Region 3	6.7
ACENAPHTHYLENE	5.9	Region 3	5.87	Region 3	5.87
ANTHRACENE	57.2	Region 3	46.9	Region 3	46.9
BENZALDEHYDE	462	Region 4	NA	NA	462
BENZO(A)ANTHRACENE	108	Region 3	74.8	Region 3	74.8
BENZO(A)PYRENE	150	Region 3	88.8	Region 3	88.8
BENZO(B)FLUORANTHENE	190	LANL	NA	NA	190
BENZO(G,H,I)PERYLENE	170	Region 3	NA	NA	170
BENZO(K)FLUORANTHENE	240	Region 3	NA	NA	240
BIS(2-ETHYLHEXYL)PHTHALATE	180	Region 3	182	Region 3	180
CARBAZOLE	900	Region 4	NA	NA	900
CHRYSENE	166	Region 3	108	Region 3	108
DIBENZ(A,H)ANTHRACENE	#N/A	Region 3	#N/A	Region 3	#N/A
DIBENZOFURAN	415	Region 3	7300	Region 3	415
DI-N-BUTYL PHTHALATE	6470	Region 3	1160	Region 3	1160
FLUORANTHENE	423	Region 3	113	Region 3	113
FLUORENE	77.4	Region 3	21.2	Region 3	21.2
INDENO(1,2,3-CD)PYRENE	17	Region 3	NA	NA	17
NAPHTHALENE	176	Region 3	34.6	Region 3	34.6
PENTACHLOROPHENOL	504	Region 3	7970	Region 3	504
PHENANTHRENE	204	Region 3	86.7	Region 3	86.7
PHENOL	420	Region 3	420	Region 4	420
PYRENE	195	Region 3	153	Region 3	153
LOW MOLECULAR WEIGHT PAHS	NA	NA	312	Region 4	312
HIGH MOLECULAR WEIGHT PAHS	NA	NA	655	Region 4	655
TOTAL PAHS	1610	Region 4	1684	Region 4	1610
Polychlorinated biphenyls (µg/kg)					
AROCLOR-1254	NA	NA	63.3	Region 3	63.3
AROCLOR-1260	59	LANL	NA	NA	59
TOTAL AROCLOR	59.8	Region 3	40	Region 3	40

TABLE 4

ECOLOGICAL SEDIMENT SCREENING VALUES
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Freshwater Sediment Ecological Screening Value (ESV)[1]		Marine Sediment ESV[1]		Lowest ESV
METALS (mg/kg)					
ARSENIC	9.8	Region 3	7.24	Region 3	7.24
BARIUM	20	Region 4	NA	NA	20
BERYLLIUM	NA	NA	NA	NA	NA
CADMIUM	0.99	Region 3	0.68	Region 3	0.68
CHROMIUM	43.4	Region 3	52.3	Region 3	43.4
COBALT	50	Region 3	NA	NA	50
COPPER	31.6	Region 3	18.7	Region 3	18.7
LEAD	35.8	Region 3	30.2	Region 3	30.2
MERCURY	0.18	Region 3	0.13	Region 3	0.13
NICKEL	22.7	Region 3	15.9	Region 3	15.9
SELENIUM	2	Region 3	NA	NA	2
SILVER	1	Region 3	0.73	Region 3	0.73
VANADIUM	57	NOAA	NA	NA	57
ZINC	121	Region 3	124	Region 3	121
Petroleum hydrocarbons (mg/kg)					
TPH (C10-C32)	340	Region 4[2]	NA	NA	340

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

NA- not available

1 - Criteria in order of preference are the United States Environmental Protection Agency (USEPA) Region 3 Biological Technical Assistance Group (BTAG) screening level (USEPA, July 2006) followed by the Region 4 screening values (USEPA, 2015), Los Alamos National Laboratory (LANL) screening values (LANL, 2015), and National Oceanic and Atmospheric Administration (NOAA) Quick Reference Tables (Buchman, 2008) for freshwater and marine sediment. The lower of the freshwater and marine ecological screening values (ESVs) was used as the screening level.

2 - Value for total petroleum hydrocarbon - diesel.

TABLE 5

OCCURRENCE, DISTRIBUTION, AND SELECTION OF COPCs FOR ECOLOGICAL RECEPTORS - SURFACE SOIL, REC 7 THROUGH 10
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Sample of Maximum Detection	Average of All Results[1]	Averge of Positive Results[2]	Background Concentration[3]	Ecological Screening Level[4]				Ecological Effects Quotient[5]				Deletion or Selection of COPCs for Invertebrates/Plants		Further Evaluated in Terrestrial Food Chain Modeling[6]	
								Plant	Inverte-brate	Avian	Mammal	Plant	Inverte-brate	Avian	Mammal	COPC (yes/no)?	Rationale	Evaluated (yes/no)?	Rationale
Volatile organic compounds (mg/kg)																			
1,1-DICHLOROETHENE	2/51	0.00071 J	0.00072 J	GSP-SB-136-02	0.0004	0.0007	NA	0.1	0.04	0.1	11	0.0072	0.018	0.0072	0.000065	NO	BSL	NO	BSL
2-BUTANONE	13/51	0.0017 J	0.044 J	GSP-SB-165-0-5	0.002	0.008	NA	NA	1	NA	360	NA	0.044	NA	0.00012	**YES**	NSL	NO	NONBIO
ACETONE	14/51	0.0059 J	2.2 J	GSP-SB-64-0-2	0.085	0.294	NA	NA	0.04	7.5	1.2	NA	**55**	0.29	**1.8**	**YES**	ASL, NSL	**YES**	ASL
CARBON DISULFIDE	5/51	0.00046 J	0.003 J	GSP-SB-101-0-2	0.0004	0.001	NA	NA	0.005	NA	0.82	NA	0.60	NA	0.0037	**YES**	NSL	NO	NONBIO
ETHYLBENZENE	1/51	0.00021 J	0.00021 J	GSP-SB-106-0-2	0.0002	0.0002	NA	55	55	910	910	0.0000038	0.0000038	0.00000023	0.00000023	NO	BSL	NO	BSL
METHYL TERT-BUTYL ETHER	1/51	0.0044 J	0.0044 J	GSP-SB-44-0-2	0.0003	0.004	NA	NA	12.5	NA	NA	NA	0.00035	NA	NA	**YES**	NSL	NO	NONBIO
METHYLENE CHLORIDE	5/51	0.0017 J	0.0036 J	GSP-SB-97-0-2	0.001	0.003	NA	1600	0.21	0.3	2.6	0.0000023	0.017	0.012	0.0014	NO	BSL	NO	BSL
NAPHTHALENE	1/51	0.004 J	0.004 J	GSP-SB-102-0-2	0.0003	0.004	NA	1	29	3.4	100	0.0040	0.00014	0.0012	0.000040	NO	BSL	NO	BSL
N-PROPYLBENZENE	1/51	0.00024 J	0.00024 J	GSP-SB-106-0-2	0.0003	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	**YES**	NSL	NO	NONBIO
O-XYLENE	1/51	0.00052 J	0.00052 J	GSP-SB-110-0-2	0.0002	0.0005	NA	0.1	0.1	0.1	0.1	0.0052	0.0052	0.0052	0.0052	NO	BSL	NO	BSL
STYRENE	1/51	0.0059 J	0.0059 J	GSP-SB-165-0-5	0.0002	0.006	NA	3.2	1.2	0.1	4.69	0.0018	0.0049	0.059	0.0013	NO	BSL	NO	BSL
TERT-AMYL METHYL ETHER	1/46	0.00095 J	0.00095 J	GSP-SB-44-0-2	0.0002	0.0010	NA	NA	NA	NA	NA	NA	NA	NA	NA	**YES**	NSL	NO	NONBIO
TERTIARY-BUTYL ALCOHOL	1/3	0.013 J	0.013 J	GSP-SB-164-0-5	0.040	0.013	NA	NA	NA	NA	NA	NA	NA	NA	NA	**YES**	NSL	NO	NONBIO
TETRACHLOROETHENE	1/51	0.00074 J	0.00074 J	GSP-SB-136-02	0.0003	0.0007	NA	10	0.06	0.002	0.18	0.000074	0.012	0.37	0.0041	NO	BSL	NO	BSL
TOLUENE	12/51	0.00026 J	0.0014 J	GSP-MW-9-0-2	0.0004	0.0006	NA	75	75	1400	1400	0.000019	0.000019	0.0000010	0.0000010	NO	BSL	NO	BSL
TRICHLOROETHENE	1/51	0.0012 J	0.0012 J	GSP-SB-136-02	0.0003	0.001	NA	3	3	0.1	42	0.00040	0.00040	0.012	0.000029	NO	BSL	NO	BSL
Semivolatile organic compounds (mg/kg)																			
2-METHYLNAPHTHALENE	13/56	0.0043 J	1.7	GSP-SB-68-0-2	0.053	0.218	NA	NA	29	NA	100	NA	0.059	NA	0.017	**YES**	NSL	NO	NONBIO
ACENAPHTHENE	18/56	0.0036 J	3.3	GSP-SB-68-0-2	0.095	0.290	NA	0.25	29	0.1	100	**13**	0.11	**33**	0.033	**YES**	ASL	**YES**	ASL
ACENAPHTHYLENE	18/56	0.0048 J	3.1	GSP-SB-68-0-2	0.091	0.278	NA	0.1	29	0.1	100	**31**	0.11	**31**	0.031	**YES**	ASL	**YES**	ASL
ANTHRACENE	31/56	0.0046 J	7.6	GSP-SB-68-0-2	0.237	0.426	NA	2.5	29	0.1	100	**3.0**	0.26	**76**	0.076	**YES**	ASL	**YES**	ASL
BENZALDEHYDE	1/56	0.016 J	0.016 J	GSP-SS-157-0-2	0.017	0.016	NA	NA	NA	NA	NA	NA	NA	NA	NA	**YES**	NSL	NO	NONBIO
BENZO(A)ANTHRACENE	40/56	0.0066 J	17	GSP-SB-68-0-2	0.620	0.868	NA	18	18	0.8	1.1	0.94	0.94	**21**	**15**	NO	BSL	**YES**	ASL
BENZO(A)PYRENE	40/56	0.0057 J	15	GSP-SB-68-0-2	0.621	0.869	NA	20	18	0.1	1.1	0.75	0.83	**150**	**14**	NO	BSL	**YES**	ASL
BENZO(B)FLUORANTHENE	42/56	0.0048 J	17	GSP-SB-68-0-2	0.696	0.928	NA	18	18	0.1	1.1	0.94	0.94	**170**	**15**	NO	BSL	**YES**	ASL
BENZO(G,H,I)PERYLENE	38/56	0.0079	9.4	GSP-SB-68-0-2	0.446	0.656	NA	0.1	18	0.1	1.1	**94**	0.52	**94**	**8.5**	**YES**	ASL	**YES**	ASL
BENZO(K)FLUORANTHENE	33/56	0.01	6.8	GSP-SB-68-0-2	0.289	0.489	NA	0.1	18	0.1	1.1	**68**	0.38	**68**	**6.2**	**YES**	ASL	**YES**	ASL
BIS(2-ETHYLHEXYL)PHTHALATE	13/56	0.023 J	0.085	GSP-SS-158-0-2	0.037	0.034	NA	0.1	0.23	0.02	0.59	0.85	0.37	**4.3**	0.14	NO	BSL	**YES**	ASL
CARBAZOLE	5/56	0.042 J	2	GSP-SB-68-0-2	0.078	0.572	NA	NA	0.16	NA	80	NA	**13**	NA	0.025	**YES**	ASL, NSL	NO	NONBIO
CHRYSENE	40/56	0.0065 J	17	GSP-SB-68-0-2	0.665	0.931	NA	0.1	18	0.1	1.1	**170**	0.94	**170**	**15**	**YES**	ASL	**YES**	ASL
DIBENZ(A,H)ANTHRACENE	12/56	0.013	1.4	GSP-SB-71-0-2	0.044	0.189	NA	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	**YES**	ASL	**YES**	ASL
DIBENZOFURAN	8/56	0.007 J	1.2 J	GSP-SB-68-0-2	0.040	0.199	NA	6.1	0.15	NA	NA	0.20	**8.0**	NA	NA	**YES**	ASL	NO	NONBIO
DIETHYL PHTHALATE	1/56	0.045 J	0.045 J	GSP-SB-104-0-2	0.023	0.045	NA	100	0.23	0.1	3600	0.00045	0.20	0.45	0.000013	NO	BSL	NO	BSL
DIMETHYL PHTHALATE	3/56	0.019 J	0.19	GSP-MW-9-0-2	0.027	0.085	NA	0.1	10	0.1	38	**1.9**	0.019	**1.9**	0.0050	**YES**	ASL	**YES**	ASL
DI-N-BUTYL PHTHALATE	8/56	0.016 J	0.023 J	GSP-SB-43-0-2, GSP-SB-53-0-2	0.022	0.019	NA	160	0.22	0.011	180	0.00014	0.10	**2.1**	0.00013	NO	BSL	**YES**	ASL
FLUORANTHENE	44/56	0.0052 J	33	GSP-SB-68-0-2	1.15	1.46	NA	50	29	0.1	100	0.66	**1.1**	**330**	0.33	**YES**	ASL	**YES**	ASL
FLUORENE	17/56	0.0094	3.6	GSP-SB-68-0-2	0.100	0.322	NA	0.1	29	0.1	100	**36**	0.12	**36**	0.036	**YES**	ASL	**YES**	ASL
INDENO(1,2,3-CD)PYRENE	36/56	0.0087	7.5	GSP-SB-68-0-2	0.346	0.537	NA	0.1	18	0.1	1.1	**75**	0.42	**75**	**6.8**	**YES**	ASL	**YES**	ASL
NAPHTHALENE	17/56	0.0046 J	1.9	GSP-SB-68-0-2	0.066	0.212	NA	1	29	3.4	100	**1.9**	0.066	0.56	0.019	**YES**	ASL	NO	BSL
PHENANTHRENE	40/56	0.0053 J	27	GSP-SB-68-0-2	0.788	1.10	NA	0.1	29	0.1	100	**270**	0.93	**270**	0.27	**YES**	ASL	**YES**	ASL
PYRENE	44/56	0.0053 J	34	GSP-SB-68-0-2	1.25	1.59	NA	0.1	18	34	1.1	**340**	**1.9**	1.0	**31**	**YES**	ASL	**YES**	ASL
Polychlorinated biphenyls (mg/kg)																			
AROCLOR-1260	2/43	0.022 J	0.063 J	GSP-SB-96-0-2	0.011	0.043	NA	33	33	1.3	1.3	0.0019	0.0019	0.048	0.048	NO	BSL	NO	BSL
Metals (mg/kg)																			
ANTIMONY	19/56	0.05 J	0.84 L	GSP-SB-54-0-2	0.181	0.214	6	11	78	3	0.27	0.076	0.011	0.28	**3.1**	NO	BSL	**YES**	ASL
ARSENIC	55/56	0.71	5.6	GSP-SB-110-0-2	2.30	2.34	3.6	18	17.1	43	46	0.31	0.33	0.13	0.12	NO	BSL	NO	BSL
BARIUM	56/56	2.5 J	266 J	GSP-SB-71-0-2	34.5	34.5	73	110	330	930	2000	**2.4**	0.81	0.29	0.13	**YES**	ASL	NO	BSL
BERYLLIUM	48/56	0.032 J	1.6 J	GSP-SB-71-0-2	0.212	0.244	0.66	2.5	40	1.1	21	0.64	0.040	**1.5**	0.076	NO	BSL	**YES**	ASL
CADMIUM	21/56	0.035 J	0.68	GSP-SB-68-0-2	0.073	0.171	0.73	32	140	0.77	0.36	0.021	0.0049	0.88	**1.9**	NO	BSL	**YES**	ASL
CHROMIUM	56/56	2.1 J	24 K	GSP-SB-108-0-2	8.97	8.97	28	64	64	26	34	0.38	0.38	0.92	0.71	NO	BSL	NO	BSL
COBALT	55/56	0.26 J	10	GSP-SS-157-0-2	2.04	2.07	11	13	1000	120	230	0.77	0.010	0.083	0.043	NO	BSL	NO	BSL
COPPER	54/56	1.1 J	68	GSP-MW-9-0-2	7.68	7.94	12	70	80	28	49	0.97	0.85	**2.4**	**1.4**	NO	BSL	**YES**	ASL
IRON	24/24	1860 J	20400	GSP-SB-43-0-2	6519	6519	15000	pH<5,pH>8[7]	200	NA	NA	NA	**102**	NA	NA	**YES**	ASL, NSL	NO	NONBIO
LEAD	56/56	0.78 J	48.9	GSP-SB-54-0-2	8.40	8.40	45	120	1700	11	56	0.41	0.029	**4.4**	0.87	NO	BSL	**YES**	ASL
MANGANESE	24/24	4.6 J	2390 J	GSP-SB-71-0-2	257	257	480	220	450	4300	4000	**11**	**5.3**	0.56	0.60	**YES**	ASL	NO	BSL
MERCURY	32/56	0.013 J	0.16	GSP-SB-62-0-2	0.031	0.047	0.51	12	12	0.013	1.7	0.013	0.013	**12**	0.094	NO	BSL	**YES**	ASL
MOLYBDENUM	25/56	0.13 J	1	GSP-SB-63-0-2, GSP-SB-67-0-2	0.320	0.468	NA	2	200	17	4.8	0.50	0.0050	0.059	0.21	NO	BSL	NO	BSL
NICKEL	55/56	0.56	15	GSP-SB-108-0-2	3.81	3.87	13	38	280	210	130	0.39	0.054	0.071	0.12	NO	BSL	NO	BSL
SELENIUM	35/56	0.041 J	1.2 J	GSP-SB-71-0-2	0.406	0.523	2.2	0.52	4.1	1.2	0.63	**2.3**	0.29	1.0	**1.9**	**YES**	ASL	**YES**	ASL
SILVER	11/56	0.038 J	1.3	GSP-MW-11-0-2	0.073	0.232	0.94	560	50	4.2	14	0.0023	0.026	0.31	0.093	NO	BSL	NO	BSL
THALLIUM	3/56	0.7 J	2.3 K	GSP-SB-101-0-2	0.247	1.67	3.9	1.4	1.4	6.3	0.22	**1.6**	**1.6**	0.37	**10**	**YES**	ASL	**YES**	ASL
VANADIUM	56/56	2.2	65	GSP-SB-108-0-2	16.0	16.0	30	130	130	7.8	280	0.50	0.50	**8.3**	0.23	NO	BSL	**YES**	ASL
ZINC	51/56	1.6 J	63.4	GSP-SB-68-0-2	17.6	19.2	63	160	120	46	79	0.40	0.53	**1.4**	0.80	NO	BSL	**YES**	ASL

TABLE 5

OCCURRENCE, DISTRIBUTION, AND SELECTION OF COPCs FOR ECOLOGICAL RECEPTORS - SURFACE SOIL, REC 7 THROUGH 10
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Sample of Maximum Detection	Average of All Results[1]	Averge of Positive Results[2]	Background Concentration[3]	Ecological Screening Level[4]				Ecological Effects Quotient[5]				Deletion or Selection of COPCs for Invertebrates/Plants		Further Evaluated in Terrestrial Food Chain Modeling[6]	
								Plant	Inverte-brate	Avian	Mammal	Plant	Inverte-brate	Avian	Mammal	COPC (yes/no)?	Rationale	Evaluated (yes/no)?	Rationale
Petroleum hydrocarbons (mg/kg)																			
DIESEL RANGE ORGANICS	33/43	3.6 J	1200 J	GSP-SB-68-0-2	126	161	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	(8)	NO	(8)
TPH (C10-C32)	7/10	17 J	320 J	GSP-SS-158-0-2	53.5	73.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	(8)	NO	(8)

Shaded cells indicate that the EEQ exceeds 1 or no screening level is available.
mg/kg- milligrams per kilogram
1 - Average of all analytical results including one-half of the detection limit for non-detects.
2 - Average of detected concentrations only.
3 - State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, June 2008. Appendix 2 - Attachment 2
4 - Sources of ecological screening levels are presented in Table 2.
5 - EEQs were calculated by dividing the maximum detected concentration by the ecological screening level. Values are unitless.
6 - Chemicals with EEQs for birds or mammals greater than 1.0 or bioaccumulative chemicals without bird or mammal screening values are retained for food chain modelin
7 - Not expected to be toxic to plants with a soil pH between 5 and 8.
8 - Risks from diesel-range organics and gasoline-range organics are evaluated indirectly by evaluating risks from individual PAHs and VOCs

Abbreviations:
COPC = Chemical of Potential Concern
EEQ = Ecological Effects Quotient
NA = Not available or not applicable

Data Qualifiers:
J = Estimated concentration
K = Biased high
L = Biased low

Rationale Codes for COPC Selection:
ASL = Above COPC Screening Level
BSL = Below COPC Screening Level
NONBIO = Non-bioaccumulative chemical
NSL = No Screening Level Available

Associated Samples

GSP-MW-9-0-2	GSP-SB-61-0-2	GSP-SB-94-0-2	GSP-SB-109-0-2
GSP-MW-11-0-2	GSP-SB-62-0-2	GSP-SB-95-0-2	GSP-SB-110-0-2
GSP-SB-43-0-2	GSP-SB-63-0-2	GSP-SB-96-0-2	GSP-SB-135-0'-2.5'
GSP-SB-44-0-2	GSP-SB-64-0-2	GSP-SB-97-0-2	GSP-SB-136-02
GSP-SB-45-0-2	GSP-SB-65-0-2	GSP-SB-98-0-2	GSP-SB-139-02
GSP-SB-47-0-2	GSP-SB-66-0-2	GSP-SB-99-0-2	GSP-SB-140-02
GSP-SB-50-0-2	GSP-SB-67-0-2	GSP-SB-101-0-2	GSP-SS-SB-156-0-2
GSP-SB-52-0-2	GSP-SB-68-0-2	GSP-SB-102-0-2	GSP-SS-157-0-2
GSP-SB-53-0-2	GSP-SB-69-0-2	GSP-SB-103-0-2	GSP-SS-158-0-2
GSP-SB-54-0-2	GSP-SB-70-0-2	GSP-SB-104-0-2	GSP-SS-161-0-2
GSP-SB-55-0-2	GSP-SB-71-0-2	GSP-SB-105-0-2	GSP-SS-162-0-2
GSP-SB-57-0-2	GSP-SB-91-0-2	GSP-SB-106-0-2	GSP-SB-163-0-5
GSP-SB-58-0-2	GSP-SB-92-0-2	GSP-SB-107-0-2	GSP-SB-164-0-5
GSP-SB-59-0-2	GSP-SB-93-0-2	GSP-SB-108-0-2	GSP-SB-165-0-5
GSP-SB-60-0-2			

TABLE 6

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN FOR ECOLOGICAL RECEPTORS - SURFACE SOIL, REC 11
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Sample of Maximum Detection	Average of All Results[1]	Averge of Positive Results[2]	Background Concentration[3]	Ecological Screening Level[4]				Ecological Effects Quotient[5]				Deletion or Selection of COPCs for Invertebrates/Plants		Further Evaluated in Terrestrial Food Chain Modeling[6]	
								Plant	Inverte-brate	Avian	Mammal	Plant	Inverte-brate	Avian	Mammal	COPC (yes/no)?	Rationale	Evaluated (yes/no)?	Rationale
Volatile organic compounds (mg/kg)																			
1,2,3-TRIMETHYLBENZENE	4/51	0.00016 J	0.00055 J	GSP-SB-77-1-3	0.0001	0.0003	NA	NA	NA	NA	NA	NA	NA	NA	NA	**YES**	NSL	NO	(9, 10)
1,2,4-TRICHLOROBENZENE	1/51	0.0042 J	0.0042 J	GSP-SB-119-0-2	0.0002	0.004	NA	0.1	1.2	0.1	0.27	0.042	0.0035	0.042	0.016	NO	BSL	NO	BSL
1,2,4-TRIMETHYLBENZENE	1/51	0.00099 J	0.00099 J	GSP-SB-77-1-3	0.0003	0.0010	NA	NA	0.09	NA	NA	NA	0.011	NA	NA	**YES**	NSL	NO	(9)
1,2-DICHLOROBENZENE	1/51	0.00035 J	0.00035 J	GSP-SB-119-0-2	0.0002	0.0004	NA	0.1	0.09	0.1	0.92	0.0035	0.0039	0.0035	0.00038	NO	BSL	NO	BSL
1,3-DICHLOROBENZENE	1/51	0.0066	0.0066	GSP-SB-119-0-2	0.0003	0.007	NA	0.03	0.08	0.03	0.73	0.22	0.083	0.22	0.0090	NO	BSL	NO	BSL
2-BUTANONE	4/51	0.0014 J	0.0085 J	GSP-SB-148-02	0.001	0.006	NA	NA	1	NA	360	NA	0.0085	NA	0.000024	**YES**	NSL	NO	NONBIO
4-METHYL-2-PENTANONE	2/51	0.00058 J	0.00071 J	GSP-SB-150-02	0.0003	0.0006	NA	NA	NA	100	9.8	NA	NA	0.0000071	0.000072	**YES**	NSL	NO	BSL
ACETONE	11/51	0.025	0.75 J	GSP-SB-82-0-2	0.041	0.174	NA	NA	0.04	7.5	1.2	NA	**19**	0.1	0.63	**YES**	ASL, NSL	NO	BSL
BENZENE	1/51	0.00055 J	0.00055 J	GSP-SB-77-1-3	0.0002	0.0006	NA	31	31	25	25	0.000018	0.000018	0.000022	0.000022	NO	BSL	NO	BSL
CARBON DISULFIDE	1/51	0.0019 J	0.0019 J	GSP-SB-121-0-3	0.0003	0.002	NA	NA	0.005	NA	0.82	NA	0.38	NA	0.0023	**YES**	NSL	NO	NONBIO
CHLOROBENZENE	1/51	0.00036 J	0.00036 J	GSP-SB-119-0-2	0.0002	0.0004	NA	0.03	2.4	0.1	43	0.012	0.00015	0.0036	0.0000084	NO	BSL	NO	BSL
CIS-1,2-DICHLOROETHENE	1/51	0.00096 J	0.00096 J	GSP-SB-74-0-2	0.0002	0.0010	NA	0.2	0.04	0.2	0.2	0.0048	0.024	0.0048	0.0048	NO	BSL	NO	BSL
ETHYLBENZENE	1/51	0.00031 J	0.00031 J	GSP-SB-121-0-3	0.0001	0.0003	NA	55	55	910	910	0.0000056	0.0000056	0.00000034	0.00000034	NO	BSL	NO	BSL
M+P-XYLENES	2/51	0.00079 J	0.00086 J	GSP-SB-171-SS	0.0005	0.0008	NA	65	65	3700	3700	0.000013	0.000013	0.00000023	0.00000023	NO	BSL	NO	BSL
NAPHTHALENE	3/51	0.00076 J	0.032	GSP-SB-121-0-3	0.0010	0.015	NA	1	29	3.4	100	0.032	0.0011	0.0094	0.00032	NO	BSL	NO	BSL
O-XYLENE	2/51	0.00032 J	0.0005 J	GSP-SB-121-0-3	0.0002	0.0004	NA	0.1	0.1	0.1	0.1	0.0050	0.0050	0.0050	0.0050	NO	BSL	NO	BSL
TERTIARY-BUTYL ALCOHOL	1/11	0.0081 J	0.0081 J	GSP-SB-82-0-2	0.003	0.008	NA	NA	NA	NA	NA	NA	NA	NA	NA	**YES**	NSL	NO	NONBIO
TOLUENE	11/51	0.00029 J	0.00087 J	GSP-SB-155-02	0.0002	0.0006	NA	75	75	1400	1400	0.000012	0.000012	0.00000062	0.00000062	NO	BSL	NO	BSL
TOTAL XYLENES	4/51	0.00056 J	0.00088 J	GSP-SB-77-1-3	0.0003	0.0008	NA	65	65	3700	3700	0.000014	0.000014	0.00000024	0.00000024	NO	BSL	NO	BSL
TRICHLOROETHENE	1/51	0.0041 J	0.0041 J	GSP-SB-74-0-2	0.0003	0.004	NA	3	3	0.1	42	0.0014	0.0014	0.041	0.000098	NO	BSL	NO	BSL
Semivolatile organic compounds (mg/kg)																			
1,1-BIPHENYL	2/50	0.0059 J	0.013 J	GSP-SB-177-SS	0.029	0.009	NA	60	0.2	NA	NA	0.00022	0.065	NA	NA	NO	BSL	NO	NONBIO
2-METHYLNAPHTHALENE	39/51	0.004 J	0.5	GSP-SB-83-0-2	0.049	0.063	NA	NA	29	NA	100	NA	0.017	NA	0.0050	**YES**	NSL	NO	NONBIO
ACENAPHTHENE	41/51	0.011	0.52	GSP-SB-83-0-2	0.069	0.086	NA	0.25	29	0.1	100	**2.1**	0.018	**5.2**	0.0052	**YES**	ASL	**YES**	ASL
ACENAPHTHYLENE	38/51	0.0083	0.3	GSP-SB-124-0-2	0.039	0.051	NA	0.1	29	0.1	100	**3.0**	0.010	**3.0**	0.0030	**YES**	ASL	**YES**	ASL
ANTHRACENE	50/51	0.005 J	1.9	GSP-SB-83-0-2	0.224	0.228	NA	2.5	29	0.1	100	0.76	0.066	**19**	0.019	NO	BSL	**YES**	ASL
BENZALDEHYDE	2/50	0.019 J	0.044 J	GSP-SB-153-02	0.015	0.032	NA	NA	NA	NA	NA	NA	NA	NA	NA	**YES**	NSL	NO	NONBIO
BENZO(A)ANTHRACENE	50/51	0.016	5.8	GSP-SB-83-0-2	0.762	0.777	NA	18	18	0.8	1.1	0.32	0.32	**7.3**	**5.3**	NO	BSL	**YES**	ASL
BENZO(A)PYRENE	50/51	0.015	5.2	GSP-SB-83-0-2	0.732	0.747	NA	20	18	0.1	1.1	0.26	0.29	**52**	**4.7**	NO	BSL	**YES**	ASL
BENZO(B)FLUORANTHENE	51/51	0.013	5.1	GSP-SB-83-0-2	0.845	0.845	NA	18	18	0.1	1.1	0.28	0.28	**51**	**4.6**	NO	BSL	**YES**	ASL
BENZO(G,H,I)PERYLENE	50/51	0.019 J	3.1	GSP-SB-83-0-2	0.422	0.431	NA	0.1	18	0.1	1.1	**31**	0.17	**31**	**2.8**	**YES**	ASL	**YES**	ASL
BENZO(K)FLUORANTHENE	50/51	0.0088	1.8	GSP-SB-83-0-2	0.368	0.376	NA	0.1	18	0.1	1.1	**18**	0.10	**18**	**1.6**	**YES**	ASL	**YES**	ASL
BIS(2-ETHYLHEXYL)PHTHALATE	13/50	0.021 J	0.1 J	GSP-SB-87-0-2	0.032	0.044	NA	0.1	0.23	0.02	0.59	1.0	0.43	**5.0**	0.17	NO	BSL	**YES**	ASL
BUTYL BENZYL PHTHALATE	1/50	0.25	0.25	GSP-SB-86-0-2	0.016	0.250	NA	0.1	0.59	0.1	90	**2.5**	0.42	**2.5**	0.0028	**YES**	ASL	**YES**	ASL
CAPROLACTAM	1/50	0.05 J	0.05 J	GSP-SB-111-0-2	0.044	0.050	NA	NA	NA	NA	NA	NA	NA	NA	NA	**YES**	NSL	NO	NONBIO
CARBAZOLE	21/50	0.03 J	0.26	GSP-SB-76-1-3	0.058	0.088	NA	NA	0.16	NA	80	NA	**1.6**	NA	0.0033	**YES**	ASL, NSL	NO	NONBIO
CHRYSENE	51/51	0.0088	6.2	GSP-SB-83-0-2	0.795	0.795	NA	0.1	18	0.1	1.1	**62**	0.34	**62**	**5.6**	**YES**	ASL	**YES**	ASL
DIBENZO(A,H)ANTHRACENE	37/51	0.0063 J	0.85	GSP-SB-83-0-2	0.111	0.152	NA	0.1	18	0.1	1.1	**8.5**	0.047	**8.5**	0.77	**YES**	ASL	**YES**	ASL
DIBENZOFURAN	22/51	0.0038 J	0.17	GSP-SB-76-1-3	0.024	0.038	NA	6.1	0.15	NA	NA	0.028	**1.1**	NA	NA	**YES**	ASL	NO	NONBIO
DI-N-BUTYL PHTHALATE	3/51	0.017 J	0.046 J	GSP-SB-153-02	0.019	0.030	NA	160	0.22	0.011	180	0.00029	0.21	**4.2**	0.00026	NO	BSL	**YES**	ASL
FLUORANTHENE	51/51	0.018	8.8	GSP-SB-83-0-2	1.32	1.32	NA	50	29	0.1	100	0.18	0.30	**88**	0.088	NO	BSL	**YES**	ASL
FLUORENE	40/51	0.011	0.91	GSP-SB-83-0-2	0.090	0.114	NA	0.1	29	0.1	100	**9.1**	0.031	**9.1**	0.0091	**YES**	ASL	**YES**	ASL
INDENO(1,2,3-CD)PYRENE	50/51	0.011	2.4	GSP-SB-83-0-2	0.354	0.362	NA	0.1	18	0.1	1.1	**24**	0.13	**24**	**2.2**	**YES**	ASL	**YES**	ASL
NAPHTHALENE	38/51	0.0071 J	0.56	GSP-SB-83-0-2	0.064	0.085	NA	1	29	3.4	100	0.56	0.019	0.16	0.0056	NO	BSL	NO	BSL
N-NITROSO-DI-N-PROPYLAMINE	1/50	0.12	0.12	GSP-SB-72-0-2	0.031	0.120	NA	NA	NA	NA	0.544	NA	NA	NA	0.22	**YES**	NSL	NO	NONBIO
PHENANTHRENE	51/51	0.012	7.9	GSP-SB-83-0-2	0.782	0.782	NA	0.1	29	0.1	100	**79**	0.27	**79**	0.079	**YES**	ASL	**YES**	ASL
PYRENE	51/51	0.015	13	GSP-SB-83-0-2	1.46	1.46	NA	0.1	18	34	1.1	**130**	0.72	0.38	**12**	**YES**	ASL	**YES**	ASL

TABLE 6

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN FOR ECOLOGICAL RECEPTORS - SURFACE SOIL, REC 11
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Sample of Maximum Detection	Average of All Results[1]	Averge of Positive Results[2]	Background Concentration[3]	Ecological Screening Level[4]				Ecological Effects Quotient[5]				Deletion or Selection of COPCs for Invertebrates/Plants		Further Evaluated in Terrestrial Food Chain Modeling[6]	
								Plant	Inverte-brate	Avian	Mammal	Plant	Inverte-brate	Avian	Mammal	COPC (yes/no)?	Rationale	Evaluated (yes/no)?	Rationale
Polychlorinated biphenyls (mg/kg)																			
AROCLOR-1260	29/43	0.015 J	12	GSP-SB-78-0-2	0.921	1.36	NA	33	33	1.3	1.3	0.36	0.36	**9.2**	**9.2**	NO	BSL	**YES**	ASL
Metals (mg/kg)																			
ANTIMONY	18/51	0.079 J	1.2 J	GSP-SB-121-0-3	0.283	0.411	6	11	78	3	0.27	0.11	0.015	0.40	**4.4**	NO	BSL	**YES**	ASL
ARSENIC	51/51	0.98	11 J	GSP-SB-141-02	3.31	3.31	3.6	18	17.1	43	46	0.61	0.64	0.26	0.24	NO	BSL	NO	BSL
BARIUM	51/51	3.9 J	100	GSP-SB-155-02	30.3	30.3	73	110	330	930	2000	0.91	0.30	0.11	0.050	NO	BSL	NO	BSL
BERYLLIUM	40/51	0.046 J	1.4	GSP-SB-155-02	0.315	0.358	0.66	2.5	40	1.1	21	0.56	0.035	**1.3**	0.067	NO	BSL	**YES**	ASL
CADMIUM	27/51	0.041 J	2.8	GSP-SB-171-SS	0.171	0.304	0.73	32	140	0.77	0.36	0.088	0.020	**3.6**	**7.8**	NO	BSL	**YES**	ASL
CHROMIUM	51/51	3.4 J	44	GSP-SB-172-SS	14.2	14.2	28	64	64	26	34	0.69	0.69	**1.7**	**1.3**	NO	BSL	**YES**	ASL
COBALT	51/51	0.22 J	10.8 J	GSP-SB-87-0-2	2.86	2.86	11	13	1000	120	230	0.83	0.011	0.090	0.047	NO	BSL	NO	BSL
COPPER	51/51	1.8 J	81	GSP-SB-178-SS	12.1	12.1	12	70	80	28	49	**1.2**	**1.01**	**2.9**	**1.7**	**YES**	ASL	**YES**	ASL
IRON	13/13	866 J	15000	GSP-SB-82-0-2	8240	8240	15000	pH<5,pH>8[7]	200	NA	NA	NA	**75**	NA	NA	**YES**	ASL, NSL	NO	NONBIO
LEAD	51/51	1.1 J	41	GSP-SB-125-0-2	13.6	13.6	45	120	1700	11	56	0.34	0.024	**3.7**	0.73	NO	BSL	**YES**	ASL
MANGANESE	13/13	2.5 J	1050	GSP-SB-84-0-2	175	175	480	220	450	4300	4000	**4.8**	**2.33**	0.24	0.26	**YES**	ASL	NO	BSL
MERCURY	38/51	0.027 J	0.67	GSP-SB-155-02	0.090	0.118	0.51	12	12	0.013	1.7	0.056	0.056	**52**	0.39	NO	BSL	**YES**	ASL
MOLYBDENUM	16/51	0.051 J	0.52 J	GSP-SB-141-02	0.237	0.351	NA	2	200	17	4.8	0.26	0.0026	0.031	0.11	NO	BSL	NO	BSL
NICKEL	51/51	0.47	22	GSP-SB-174-SS	5.92	5.92	13	38	280	210	130	0.58	0.079	0.10	0.17	NO	BSL	NO	BSL
SELENIUM	27/51	0.2 J	3.1 L	GSP-SB-82-0-2	0.442	0.638	2.2	0.52	4.1	1.2	0.63	**6.0**	0.76	**2.6**	**4.9**	**YES**	ASL	**YES**	ASL
SILVER	19/51	0.073 J	0.49	GSP-SB-86-0-2	0.102	0.202	0.94	560	50	4.2	14	0.00088	0.0098	0.12	0.035	NO	BSL	NO	BSL
THALLIUM	1/51	0.92 J	0.92 J	GSP-SB-120-0-2	0.191	0.920	3.9	1.4	1.4	6.3	0.22	0.66	0.66	0.15	**4.2**	NO	BSL	**YES**	ASL
VANADIUM	51/51	5.6 J	72	GSP-SB-179-SS	22.8	22.8	30	130	130	7.8	280	0.55	0.55	**9.2**	0.26	NO	BSL	**YES**	ASL
ZINC	50/51	4.6 J	55	GSP-SB-181-SS	27.8	28.4	63	160	120	46	79	0.34	0.46	**1.2**	0.70	NO	BSL	**YES**	ASL
Petroleum hydrocarbons (mg/kg)																			
DIESEL RANGE ORGANICS	27/33	3.6 J	1800 J	GSP-SB-83-0-2	225	274	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	(8)	NO	(8)
GASOLINE RANGE ORGANICS	5/33	0.033 J	0.089 J	GSP-SB-78-0-2	0.022	0.063	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	(8)	NO	(8)
TPH (C06-C10)	1/18	0.056 J	0.056 J	GSP-SB-148-02	0.030	0.056	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	(8)	NO	(8)
TPH (C10-C32)	14/18	33	450	GSP-SB-171-SS	102	126	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	(8)	NO	(8)

Shaded cells indicate that the EEQ exceeds 1 or no screening level is available.
mg/kg- millograms per kilogram
1 - Average of all analytical results including one-half of the detection limit for non-detects.
2 - Average of detected concentrations only.
3 - State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, June 2008. Appendix 2 - Attachment 2.
4 - Sources of ecological screening levels are presented in Table 2.
5 - EEQs were calculated by dividing the maximum detected concentration by the ecological screening level. Values are unitless.
6 - Chemicals with EEQs for birds or mammals greater than 1.0 or bioaccumulative chemicals (based on Region 3 benchmarks, USEPA, 2006) without bird or mammal screening values are retained for food chain modeling.
7 - Not expected to be toxic to plants with a soil pH between 5 and 8.
8 - Risks from diesel-range organics and gasoline-range organics are evaluated indirectly by evaluating risks from individual PAHs and VOCs.
9 - Although considered bioaccumulative based on Region 3 guidance (USEPA, 2006), the chemical was not further evaluated based on low frequency of detection.
10 - 1,2,4-Trimethylbenzene used as a surrogate.

Abbreviations:
COPC = Chemical of Potential Concern
EEQ = Ecological Effects Quotient
NA = Not available or not applicable

Data Qualifiers:
J = Estimated concentration
K = Biased high
L = Biased low

Rationale Codes for COPC Selection:
ASL = Above COPC Screening Level
BSL = Below COPC Screening Level
NONBIO = Non-bioaccumulative chemical
NSL = No Screening Level Available

Associated Samples

GSP-MW-20-0-2	GSP-SB-90-0-2	GSP-SB-123-0-2	GSP-SB-154-02
GSP-SB-72-0-2	GSP-SB-111-0-2	GSP-SB-124-0-2	GSP-SB-155-02
GSP-SB-74-0-2	GSP-SB-112-0-2	GSP-SB-125-0-2	GSP-SB-170-SS
GSP-SB-75-0-2	GSP-SB-113-0-2	GSP-SB-126-0-2	GSP-SB-171-SS
GSP-SB-76-1-3	GSP-SB-114-0-2	GSP-SB-127-0-2	GSP-SB-172-SS
GSP-SB-77-1-3	GSP-SB-115-0-2	GSP-SB-128-0-2	GSP-SB-174-SS
GSP-SB-78-0-2	GSP-SB-116-0-2	GSP-SB-129-0-2	GSP-SB-175-SS
GSP-SB-80-0-2	GSP-SB-117-0-2	GSP-SB-130-0-2	GSP-SB-176-SS
GSP-SB-82-0-2	GSP-SB-118-0-2	GSP-SB-141-02	GSP-SB-177-SS
GSP-SB-83-0-2	GSP-SB-119-0-2	GSP-SB-143-02	GSP-SB-178-SS
GSP-SB-84-0-2	GSP-SB-120-0-2	GSP-SB-148-02	GSP-SB-179-SS
GSP-SB-86-0-2	GSP-SB-121-0-3	GSP-SB-150-02	GSP-SB-181-SS
GSP-SB-87-0-2	GSP-SB-122-0-2	GSP-SB-153-02	

TABLE 7

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN FOR ECOLOGICAL RECEPTORS - SURFACE WATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Sample of Maximum Detection	Average of All Results[1]	Averge of Positive Results[2]	Ecological Screening Value[3]	Ecological Effects Quotient[4]	Deletion or Selection of COPCs for Aquatic Organisms	
									COPC (yes/no)?	Rationale
VOLATILES (UG/L)										
1,2-DICHLOROETHANE	3/8	0.27 J	7	GSP-SW-C1-010716	1.12	2.79	100	0.070	NO	BSL
ACETONE	2/8	1.6 J	1.6 J	GSP-SW-OF12-011116, GSP-SW-C2-011116	1.60	1.60	1500	0.0011	NO	BSL
CIS-1,2-DICHLOROETHENE	3/8	0.34 J	2.1	GSP-SW-C1-010716	0.455	0.997	590	0.0036	NO	BSL
TRICHLOROETHENE	1/8	0.59 J	0.59 J	GSP-SW-C1-010716	0.170	0.590	21	0.028	NO	BSL
VINYL CHLORIDE	1/8	1.9	1.9	GSP-SW-C1-010716	0.364	1.90	930	0.0020	NO	BSL
SEMIVOLATILES (UG/L)										
BENZO(A)ANTHRACENE	2/8	0.13 J	0.31	GSP-SW-DP2-010616	0.066	0.220	0.018	**17**	YES	ASL
BENZO(A)PYRENE	1/8	0.29	0.29	GSP-SW-DP2-010616	0.059	0.290	0.015	**19**	YES	ASL
BENZO(B)FLUORANTHENE	2/8	0.16 J	0.32	GSP-SW-DP2-010616	0.075	0.240	0.68	0.47	NO	BSL
BENZO(G,H,I)PERYLENE	1/8	0.19 J	0.19 J	GSP-SW-DP2-010616	0.044	0.190	0.44	0.43	NO	BSL
BENZO(K)FLUORANTHENE	1/8	0.25	0.25	GSP-SW-DP2-010616	0.051	0.250	0.64	0.39	NO	BSL
CHRYSENE	2/8	0.14 J	0.33	GSP-SW-DP2-010616	0.077	0.235	2	0.17	NO	BSL
FLUORANTHENE	5/8	0.11 J	0.55	GSP-SW-DP2-010616	0.157	0.238	0.04	**14**	YES	ASL
INDENO(1,2,3-CD)PYRENE	1/8	0.16 J	0.16 J	GSP-SW-DP2-010616	0.039	0.160	0.28	0.57	NO	BSL
ISOPHORONE	1/8	0.27 J	0.27 J	GSP-SW-C1-010716	0.201	0.270	129	0.0021	NO	BSL
PHENANTHRENE	1/8	0.16 J	0.16 J	GSP-SW-DP2-010616	0.047	0.160	0.4	0.40	NO	BSL
PYRENE	5/8	0.1 J	0.51	GSP-SW-DP2-010616	0.144	0.218	0.025	**20**	YES	ASL
METALS (UG/L)										
ANTIMONY	1/8	4.1 J	4.1 J	GSP-SW-DP4-010616	1.56	4.10	30	0.14	NO	BSL
ARSENIC	3/8	2.9 J	24	GSP-SW-DP4-010616	5.59	11.4	36	0.67	NO	BSL
BARIUM	3/8	40 J	290	GSP-SW-DP4-010616	77.5	167	4	**73**	YES	ASL
CADMIUM	3/8	0.14 J	0.23 J	GSP-SW-C1-010716	0.204	0.183	0.25	0.92	NO	BSL
CHROMIUM	7/8	1.2 J	20	GSP-SW-DP4-010616	6.91	7.77	57.5	0.35	NO	BSL
COBALT	7/8	1.5 J	14	GSP-SW-DP2-010616	4.24	4.80	23	0.61	NO	BSL
COPPER	6/8	2.6 J	39	GSP-SW-DP4-010616	11.9	15.5	3.1	**13**	YES	ASL
LEAD	6/8	1.9 J	20	GSP-SW-DP4-010616	5.75	7.35	2.5	**8.0**	YES	ASL
MERCURY	3/8	0.092 J	0.21	GSP-SW-DP4-010616	0.091	0.167	0.77	0.27	NO	BSL
NICKEL	6/8	2 J	14 J	GSP-SW-DP4-010616	5.86	7.15	8.2	**1.7**	YES	ASL
THALLIUM	1/8	1.8 J	1.8 J	GSP-SW-C2-011116	1.15	1.80	0.8	**2.3**	YES	ASL
VANADIUM	5/8	3.3 J	51	GSP-SW-DP4-010616	12.5	19.2	20	**2.6**	YES	ASL
ZINC	7/8	17 J	130	GSP-SW-C1-010716	52.0	58.7	81	**1.6**	YES	ASL
DISSOLVED METALS (UG/L)										
BARIUM	3/8	32 J	42 J	GSP-SW-DP4-010616	25.3	38.3	4	**11**	YES	ASL
CADMIUM	1/8	0.21 J	0.21 J	GSP-SW-C1-010716	0.103	0.210	0.25	0.84	NO	BSL
CHROMIUM	5/8	0.76 J	2.4 J	GSP-SW-C1-010716	1.08	1.35	57.5	0.042	NO	BSL
COBALT	7/8	0.64 J	2.1 J	GSP-SW-OF12-011116	1.34	1.49	23	0.091	NO	BSL
COPPER	2/8	2 J	2.6 J	GSP-SW-C2-011116	1.29	2.30	3.1	0.84	NO	BSL
LEAD	1/8	1.9 J	1.9 J	GSP-SW-C2-011116	1.07	1.90	2.5	0.76	NO	BSL
NICKEL	6/8	1.3 J	7.8 J	GSP-SW-DP1-010616	2.53	2.93	8.2	0.95	NO	BSL
THALLIUM	3/8	1.9 J	2.3 J	GSP-SW-DP4-010616	1.50	2.07	0.8	**2.9**	YES	ASL
ZINC	1/8	12 J	12 J	GSP-SW-DP1-010616	5.70	12.0	81	0.15	NO	BSL

TABLE 7

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN FOR ECOLOGICAL RECEPTORS - SURFACE WATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Sample of Maximum Detection	Average of All Results[1]	Averge of Positive Results[2]	Ecological Screening Value[3]	Ecological Effects Quotient[4]	Deletion or Selection of COPCs for Aquatic Organisms	
									COPC (yes/no)?	Rationale
PETROLEUM HYDROCARBONS (UG/L)										
TPH (C10-C32)	6/8	370 J	620	GSP-SW-DP4-010616, GSP-SW-DP3-010716	458	508	NA	NA	NO	(5)
MISCELLANEOUS PARAMETERS (UG/L)										
HEXAVALENT CHROMIUM	1/8	0.083 J	0.083 J	GSP-SW-C1-010716	0.033	0.083	11	0.0075	NO	BSL

Shaded cells indicate that the EEQ exceeds 1 or no screening level is available.
µg/kg- micrograms per kilogram; mg/kg- milligrams per kilogram
1 - Average of all analytical results including one-half of the detection limit for non-detects.
2 - Average of detected concentrations only.
3 - Sources of ecological screening levels are presented in Table 3.
4 - EEQs were calculated by dividing the maximum detected concentration by the ecological screening level. Values are unitless.
5 - Risks from diesel-range organics and gasoline-range organics are evaluated indirectly by evaluating risks from individual PAHs and VOCs.

Abbreviations:
COPC = Chemical of Potential Concern
EEQ = Ecological Effects Quotient
NA = Not available or not applicable

Data Qualifiers:
J = Estimated concentration

Rationale Codes for COPC Selection:
ASL = Above COPC Screening Level
BSL = Below COPC Screening Level

Associated Samples
GSP-SW-DP4-010616
GSP-SW-DP5-010616
GSP-SW-DP5-010716
GSP-SW-OF12-011112
GSP-SW-OF12-011116
GSP-SW-C1-010716
GSP-SW-C2-011116
GSP-SW-DP1-010616
GSP-SW-DP2-010616
GSP-SW-DP3-010716

TABLE 8

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN FOR ECOLOGICAL RECEPTORS - SEDIMENT
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Sample of Maximum Detection	Average of All Results[1]	Averge of Positive Results[2]	Ecological Screening Value[3]	Ecological Effects Quotient[4]	Deletion or Selection of COPCs for Sediment Invertebrates		Bioaccumulative (B)?[5]
									COPC (yes/no)?	Rationale	
Volatile organic compounds (µg/kg)											
2-BUTANONE	4/5	1.8 J	180 J	GSP-SED-DP3-0-1-011116	43.8	53.5	631	0.29	NO	BSL	
ACETONE	3/5	31	5200 J	GSP-SED-DP3-0-1-011116	1066	1770	36	**144**	**YES**	ASL	
CARBON DISULFIDE	1/5	0.76 J	0.76 J	GSP-SED-C2-011116 0-1	1.88	0.760	0.5	**1.5**	**YES**	ASL	
CIS-1,2-DICHLOROETHENE	2/5	0.69 J	1.5 J	GSP-SED-C2-011116 0-1	1.21	1.10	246	0.01	NO	BSL	
DICHLORODIFLUOROMETHANE	2/5	0.87 J	13 J	GSP-SED-DP3-0-1-011116	2.91	6.94	NA	NA	**YES**	NSL	
VINYL CHLORIDE	1/5	0.48 J	0.48 J	GSP-SED-C2-011116 0-1	0.983	0.48	202	0.002	NO	BSL	
Semivolatile organic compounds (µg/kg)											
2-METHYLNAPHTHALENE	3/5	14 J	29 J	GSP-SED-DP3-0-1-011116	13.60	21.3	20.2	**1.4**	**YES**	ASL	
ACENAPHTHENE	4/5	32 J	560 J	GSP-SED-C2-011116 0-1	157.3	197	6.7	**84**	**YES**	ASL	B
ACENAPHTHYLENE	2/5	26	27 J	GSP-SED-DP1-0-1-011116	11.34	26.5	5.87	**4.6**	**YES**	ASL	B
ANTHRACENE	5/5	17	1900 J	GSP-SED-C2-011116 0-1	520	520	46.9	**41**	**YES**	ASL	B
BENZALDEHYDE	2/5	37 J	84 J	GSP-SED-DP3-0-1-011116	49.7	60.5	462	0.18	NO	BSL	
BENZO(A)ANTHRACENE	5/5	100	6100 J	GSP-SED-C2-011116 0-1	1836	1836	74.8	**82**	**YES**	ASL	B
BENZO(A)PYRENE	5/5	99	3900 J	GSP-SED-C2-011116 0-1	1382	1382	88.8	**44**	**YES**	ASL	B
BENZO(B)FLUORANTHENE	5/5	140	5700 J	GSP-SED-C2-011116 0-1	1994	1994	190	**30**	**YES**	ASL	B
BENZO(G,H,I)PERYLENE	5/5	50	1700 J	GSP-SED-C2-011116 0-1	720	720	170	**10**	**YES**	ASL	B
BENZO(K)FLUORANTHENE	5/5	59	2400 J	GSP-SED-C2-011116 0-1	834	834	240	**10**	**YES**	ASL	B
CARBAZOLE	3/5	91 J	1100 J	GSP-SED-C2-011116 0-1	295	460	900	**1.2**	**YES**	ASL	
CHRYSENE	5/5	110	5600 J	GSP-SED-C2-011116 0-1	1830	1830	108	**52**	**YES**	ASL	B
DIBENZ(A,H)ANTHRACENE	5/5	13	590 J	GSP-SED-C2-011116 0-1	219	219	#N/A	#N/A	**YES**	ASL	B
DIBENZOFURAN	3/5	28 J	250 J	GSP-SED-C2-011116 0-1	69.3	114.7	415	0.60	NO	BSL	
DI-N-BUTYL PHTHALATE	1/5	29 J	29 J	GSP-SED-C1-0-1-011116	46.2	29.0	1160	0.025	NO	BSL	
FLUORANTHENE	5/5	200	13000 J	GSP-SED-C2-011116 0-1	3840	3840	113	**115**	**YES**	ASL	B
FLUORENE	4/5	45 J	680 J	GSP-SED-C2-011116 0-1	176.3	220	21.2	**32**	**YES**	ASL	B
INDENO(1,2,3-CD)PYRENE	5/5	47	1800 J	GSP-SED-C2-011116 0-1	705	705	17	**106**	**YES**	ASL	B
NAPHTHALENE	3/5	18	30 J	GSP-SED-DP1-0-1-011116	16.5	25.3	34.6	0.87	NO	BSL	
PENTACHLOROPHENOL	2/5	23 J	150 J	GSP-SED-C2-011116 0-1	45.2	86.5	504	0.30	NO	BSL	B
PHENANTHRENE	5/5	61	7400 J	GSP-SED-C2-011116 0-1	2022	2022	86.7	**85**	**YES**	ASL	B
PHENOL	2/5	32 J	66 J	GSP-SED-DP3-0-1-011116	34.3	49.0	420	0.16	NO	BSL	B
PYRENE	5/5	200	11000 J	GSP-SED-C2-011116 0-1	3360	3360	153	**72**	**YES**	ASL	B
Polychlorinated biphenyls (µg/kg)											
AROCLOR-1260	3/5	27 J	93	GSP-SED-DP2-0-1-011116	36.0	49.7	59	**1.6**	**YES**	ASL	B
Metals (mg/kg)											
ARSENIC	4/5	4.5	7 J	GSP-SED-DP3-0-1-011116	4.44	5.35	7.24	0.97	NO	BSL	B
BARIUM	5/5	7.7 J	46	GSP-SED-DP2-0-1-011116	28.3	28.3	20	**2.3**	**YES**	ASL	
BERYLLIUM	1/5	0.57	0.57	GSP-SED-C2-011116 0-1	0.307	0.570	NA	NA	**YES**	NSL	
CADMIUM	5/5	0.089 J	1.9 J	GSP-SED-DP3-0-1-011116	0.722	0.722	0.68	**2.8**	**YES**	ASL	B
CHROMIUM	5/5	5.6	37 J	GSP-SED-DP3-0-1-011116	18.7	18.7	43.4	0.85	NO	BSL	B
COBALT	5/5	1.6	9.7 J	GSP-SED-DP3-0-1-011116	5.64	5.64	50	0.19	NO	BSL	
COPPER	5/5	3.7	56 J	GSP-SED-DP3-0-1-011116	21.1	21.1	18.7	**3.0**	**YES**	ASL	B
LEAD	5/5	3.9	30 J	GSP-SED-DP3-0-1-011116	19.6	19.6	30.2	0.99	NO	BSL	B
MERCURY	4/5	0.066 J	0.18 J	GSP-SED-DP1-0-1-011116	0.105	0.129	0.13	**1.4**	**YES**	ASL	B
NICKEL	4/5	8.5	27 J	GSP-SED-DP3-0-1-011116	11.04	13.48	15.9	**1.7**	**YES**	ASL	B
SELENIUM	1/5	1.3 J	1.3 J	GSP-SED-DP3-0-1-011116	0.479	1.30	2	0.65	NO	BSL	B
SILVER	4/5	0.16 J	0.48 J	GSP-SED-DP3-0-1-011116	0.259	0.313	0.73	0.66	NO	BSL	B
VANADIUM	5/5	9.7	74 J	GSP-SED-DP3-0-1-011116	31.3	31.3	57	**1.3**	**YES**	ASL	
ZINC	5/5	24	650 J	GSP-SED-DP3-0-1-011116	173.4	173.4	121	**5.4**	**YES**	ASL	B

TABLE 8

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN FOR ECOLOGICAL RECEPTORS - SEDIMENT
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Sample of Maximum Detection	Average of All Results[1]	Averge of Positive Results[2]	Ecological Screening Value[3]	Ecological Effects Quotient[4]	Deletion or Selection of COPCs for Sediment Invertebrates		Bioaccumulative (B)?[5]
									COPC (yes/no)?	Rationale	
Petroleum hydrocarbons (mg/kg)											
TPH (C10-C32)	1/5	240	240	GSP-SED-C2-011116 0-1	93.5	240	340	0.71	NO	BSL	(6)

Shaded cells indicate that the EEQ exceeds 1 or no screening level is available.
µg/kg- micrograms per kilogram; mg/kg- milligrams per kilogram
1 - Average of all analytical results including one-half of the detection limit for non-detects.
2 - Average of detected concentrations only.
3 - Sources of ecological screening levels are presented in Table 4.
4 - EEQs were calculated by dividing the maximum detected concentration by the ecological screening level. Values are unitless.
5 - Bioaccumulative chemicals (based on Region 3 benchmarks, USEPA, 2006) were evaluated in food-chain modeling for risks to birds and mammals.
6 - Risks from diesel-range organics and gasoline-range organics are evaluated indirectly by evaluating risks from individual PAHs and VOCs.
Associated Samples
GSP-SED-C1-0-1-011116
GSP-SED-C1-1-2-011216
GSP-SED-C2-011116 0-1
GSP-SED-C2-1-2-011116
GSP-SED-DP1-0-1-011116
GSP-SED-DP1-1-2-011216
GSP-SED-DP2-0-1-011116
GSP-SED-DP2-1-2-011216
GSP-SED-DP3-0-1-011116
GSP-SED-DP3-1-2-011216

Abbreviations:
COPC = Chemical of Potential Concern
EEQ = Ecological Effects Quotient
NA = Not available or not applicable

Rationale Codes for COPC Selection:
ASL = Above COPC Screening Level
BSL = Below COPC Screening Level
NSL = No Screening Level Available

Data Qualifiers:

J = Estimated concentration

Table 9

Terrestrial Food Chain Model - Conservative Scenario
Invertivorous and Herbivorous Receptors
Greater Strawberry Point - REC 7 to 10
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Herbivorous Receptors EEQs				Invertivorous Receptors EEQs			
	Bobwhite Quail		Meadow Vole		American Robin		Short-Tailed Shrew	
	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL
Volatile organic compounds								
ACETONE	3.62E-06	3.62E-07	5.00E-03	1.00E-03	2.06E-05	2.06E-06	2.42E-02	4.84E-03
Semivolatile organic compounds								
ACENAPHTHENE	2.43E-02	2.43E-03	1.80E-04	3.32E-05	4.35E-01	4.35E-02	8.05E-03	1.48E-03
ACENAPHTHYLENE	6.40E-02	6.40E-03	1.48E-03	2.73E-04	**5.77E+00**	5.77E-01	1.16E-01	2.13E-02
ANTHRACENE	1.51E-01	1.51E-02	3.45E-03	6.35E-04	**1.58E+00**	1.58E-01	3.03E-02	5.58E-03
BENZO(A)ANTHRACENE	1.44E-01	1.44E-02	1.62E-01	2.60E-03	**2.41E+00**	2.41E-01	**4.78E+00**	7.65E-02
BENZO(A)PYRENE	2.05E-01	2.05E-02	4.07E-01	6.51E-03	**1.81E+00**	1.81E-01	**3.54E+00**	5.67E-02
BENZO(B)FLUORANTHENE	4.04E-01	4.04E-02	**1.04E+00**	1.67E-02	**3.79E+00**	3.79E-01	**7.76E+00**	1.24E-01
BENZO(G,H,I)PERYLENE	3.64E-01	3.64E-02	**1.06E+00**	1.69E-02	**2.35E+00**	2.35E-01	**4.84E+00**	7.76E-02
BENZO(K)FLUORANTHENE	8.17E-02	8.17E-03	1.47E-01	2.35E-03	**1.52E+00**	1.52E-01	**3.10E+00**	4.97E-02
BIS(2-ETHYLHEXYL)PHTHALATE	1.14E-03	1.14E-04	1.72E-05	1.72E-06	1.44E-02	1.44E-03	5.10E-04	5.10E-05
CHRYSENE	1.44E-01	1.44E-02	1.62E-01	2.60E-03	**3.37E+00**	3.37E-01	**6.84E+00**	1.10E-01
DI-N-BUTYL PHTHALATE	5.12E-03	5.12E-04	5.84E-07	1.75E-07	3.89E-02	3.89E-03	4.60E-06	1.38E-06
DIBENZ(A,H)ANTHRACENE	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
DIMETHYL PHTHALATE	NV	NV	1.41E-03	1.41E-04	NV	NV	3.07E-04	3.07E-05
FLUORANTHENE	**1.11E+00**	1.11E-01	2.96E-02	5.45E-03	**8.53E+00**	8.53E-01	1.65E-01	3.04E-02
FLUORENE	2.65E-02	2.65E-03	1.96E-04	3.61E-05	**2.83E+00**	2.83E-01	5.62E-02	1.04E-02
INDENO(1,2,3-CD)PYRENE	9.87E-02	9.87E-03	1.91E-01	3.06E-03	**1.83E+00**	1.83E-01	**3.76E+00**	6.02E-02
PHENANTHRENE	5.44E-01	5.44E-02	1.25E-02	2.30E-03	**4.10E+00**	4.10E-01	7.68E-02	1.42E-02
PYRENE	**1.54E+00**	1.54E-01	**4.59E+00**	7.36E-02	**5.25E+00**	5.25E-01	**1.05E+01**	1.68E-01
Inorganics								
ANTIMONY	NV	NV	1.13E-01	2.42E-03	NV	NV	1.19E-01	2.55E-03
BERYLLIUM	NV	NV	1.82E-01	1.44E-01	NV	NV	2.41E-02	1.90E-02
CADMIUM	4.30E-02	9.96E-03	7.54E-02	8.41E-03	6.81E-01	1.58E-01	8.47E-01	9.45E-02
COPPER	2.66E-01	3.09E-02	5.75E-02	3.89E-03	**1.84E+00**	2.14E-01	7.06E-01	4.78E-02
LEAD	5.93E-01	2.17E-02	9.20E-02	2.32E-03	**2.63E+00**	9.61E-02	4.55E-01	1.15E-02
MERCURY	**1.36E+01**	**1.36E+00**	**2.78E+00**	5.56E-01	**1.54E+01**	**1.54E+00**	**1.96E+00**	3.92E-01
SELENIUM	2.87E-01	1.02E-01	5.10E-01	1.10E-01	7.00E-01	2.48E-01	8.18E-01	1.77E-01
THALLIUM	NV	NV	**1.24E+00**	1.24E-01	NV	NV	**2.79E+00**	2.79E-01
VANADIUM	**2.87E+00**	5.86E-01	6.36E-02	2.80E-02	**6.28E+00**	**1.28E+00**	1.20E-01	5.29E-02
ZINC	9.11E-02	3.51E-02	7.35E-02	1.86E-02	8.40E-01	3.24E-01	4.75E-01	1.20E-01

Cells are shaded if the value is greater than 1.0
EEQ - Ecological Effects Quotient
LOAEL - Lowest Observed Adverse Effects Leve
NOAEL - No Observed Adverse Effects Leve
NV- Value Not Available/Not Able to be Calculated

Table 10

Terrestrial Food Chain Model - Conservative Scenario
Invertivorous and Herbivorous Receptors
Greater Strawberry Point - REC 11
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Herbivorous Receptors EEQs				Invertivorous Receptors EEQs			
	Bobwhite Quail		Meadow Vole		American Robin		Short-Tailed Shrew	
	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL
Semivolatile organic compounds								
ACENAPHTHENE	4.18E-03	4.18E-04	3.93E-05	7.25E-06	6.86E-02	6.86E-03	1.27E-03	2.34E-04
ACENAPHTHYLENE	8.70E-03	8.70E-04	2.23E-04	4.11E-05	5.58E-01	5.58E-02	1.12E-02	2.06E-03
ANTHRACENE	4.64E-02	4.64E-03	1.14E-03	2.09E-04	3.96E-01	3.96E-02	7.57E-03	1.40E-03
BENZO(A)ANTHRACENE	5.27E-02	5.27E-03	6.76E-02	1.08E-03	8.21E-01	8.21E-02	**1.63E+00**	2.61E-02
BENZO(A)PYRENE	7.18E-02	7.18E-03	1.44E-01	2.31E-03	6.27E-01	6.27E-02	**1.23E+00**	1.97E-02
BENZO(B)FLUORANTHENE	1.21E-01	1.21E-02	3.14E-01	5.02E-03	**1.14E+00**	1.14E-01	**2.33E+00**	3.73E-02
BENZO(G,H,I)PERYLENE	1.02E-01	1.02E-02	2.88E-01	4.61E-03	7.76E-01	7.76E-02	**1.60E+00**	2.56E-02
BENZO(K)FLUORANTHENE	2.34E-02	2.34E-03	4.49E-02	7.20E-04	4.01E-01	4.01E-02	8.21E-01	1.32E-02
BIS(2-ETHYLHEXYL)PHTHALATE	1.34E-03	1.34E-04	2.02E-05	2.02E-06	1.69E-02	1.69E-03	6.00E-04	6.00E-05
BUTYL BENZYL PHTHALATE	NV	NV	1.76E-04	5.96E-05	NV	NV	1.73E-03	5.85E-04
CHRYSENE	5.60E-02	5.60E-03	7.13E-02	1.14E-03	**1.23E+00**	1.23E-01	**2.50E+00**	4.00E-02
DI-N-BUTYL PHTHALATE	1.02E-02	1.02E-03	1.17E-06	3.51E-07	7.78E-02	7.78E-03	9.19E-06	2.76E-06
DIBENZ(A,H)ANTHRACENE	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
FLUORANTHENE	2.97E-01	2.97E-02	7.89E-03	1.45E-03	**2.28E+00**	2.28E-01	4.39E-02	8.10E-03
FLUORENE	6.91E-03	6.91E-04	5.61E-05	1.03E-05	7.15E-01	7.15E-02	1.42E-02	2.62E-03
INDENO(1,2,3-CD)PYRENE	3.16E-02	3.16E-03	6.13E-02	9.82E-04	5.86E-01	5.86E-02	**1.20E+00**	1.93E-02
PHENANTHRENE	2.19E-01	2.19E-02	5.57E-03	1.03E-03	**1.20E+00**	1.20E-01	2.25E-02	4.14E-03
PYRENE	5.90E-01	5.90E-02	**1.76E+00**	2.81E-02	**2.01E+00**	2.01E-01	**4.01E+00**	6.43E-02
Polychlorinated biphenyls								
AROCLOR-1260	9.84E-01	9.84E-02	6.36E-01	6.36E-02	**1.73E+02**	**1.73E+01**	**3.00E+02**	**3.00E+01**
Inorganics								
ANTIMONY	NV	NV	1.90E-01	4.07E-03	NV	NV	2.30E-01	4.92E-03
BERYLLIUM	NV	NV	1.65E-01	1.30E-01	NV	NV	2.11E-02	1.67E-02
CADMIUM	1.06E-01	2.47E-02	1.70E-01	1.89E-02	**2.11E+00**	4.89E-01	**2.61E+00**	2.92E-01
CHROMIUM	3.16E-01	5.38E-02	1.51E-01	6.25E-03	**1.26E+00**	2.14E-01	6.59E-01	2.72E-02
COPPER	3.16E-01	3.67E-02	6.97E-02	4.72E-03	**2.19E+00**	2.55E-01	8.43E-01	5.71E-02
LEAD	5.10E-01	1.86E-02	8.28E-02	2.09E-03	**2.26E+00**	8.26E-02	3.95E-01	9.95E-03
MERCURY	**5.69E+01**	**5.69E+00**	**1.16E+01**	**2.33E+00**	**2.66E+01**	**2.66E+00**	**3.22E+00**	6.44E-01
SELENIUM	8.03E-01	2.84E-01	**1.45E+00**	3.13E-01	**1.47E+00**	5.19E-01	**1.66E+00**	3.58E-01
THALLIUM	NV	NV	6.02E-01	6.02E-02	NV	NV	**1.18E+00**	1.18E-01
VANADIUM	**3.21E+00**	6.54E-01	7.59E-02	3.34E-02	**6.98E+00**	**1.42E+00**	1.36E-01	6.01E-02
ZINC	8.37E-02	3.23E-02	6.85E-02	1.74E-02	8.00E-01	3.08E-01	4.53E-01	1.15E-01

Cells are shaded if the value is greater than 1.0
EEQ - Ecological Effects Quotient
LOAEL - Lowest Observed Adverse Effects Level
NOAEL - No Observed Adverse Effects Level
NV- Value Not Available/Not Able to be Calculated

TABLE 11

TERRESTRIAL FOOD CHAIN MODEL - CONSERVATIVE SCENARIO
PISCIVOROUS RECEPTORS
REC #11
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Chemical	Piscivorous Receptor EEQs			
	Great Blue Heron		Mink	
	NOAEL-based	LOAEL-based	NOAEL-based	LOAEL-based
SEMIVOLATILES				
ACENAPHTHENE	3.7E-02	3.7E-03	2.4E-03	4.4E-04
ACENAPHTHYLENE	1.8E-03	1.8E-04	1.2E-04	2.1E-05
ANTHRACENE	1.2E-01	1.2E-02	8.2E-03	1.5E-03
BENZO(A)ANTHRACENE	4.0E-01	4.0E-02	2.8E+00	4.5E-02
BENZO(A)PYRENE	2.6E-01	2.6E-02	1.8E+00	2.9E-02
BENZO(B)FLUORANTHENE	3.7E-01	3.7E-02	2.6E+00	4.2E-02
BENZO(G,H,I)PERYLENE	1.1E-01	1.1E-02	7.8E-01	1.2E-02
BENZO(K)FLUORANTHENE	1.6E-01	1.6E-02	1.1E+00	1.8E-02
CHRYSENE	3.7E-01	3.7E-02	2.6E+00	4.1E-02
DIBENZO(A,H)ANTHRACENE	3.9E-02	3.9E-03	2.7E-01	4.3E-03
FLUORANTHENE	8.5E-01	8.5E-02	5.6E-02	1.0E-02
FLUORENE	4.5E-02	4.5E-03	2.9E-03	5.4E-04
INDENO(1,2,3-CD)PYRENE	1.2E-01	1.2E-02	8.3E-01	1.3E-02
PENTACHLOROPHENOL	6.1E-02	7.9E-03	1.0E-01	3.8E-02
PHENANTHRENE	4.9E-01	4.9E-02	3.2E-02	5.9E-03
PHENOL	NV	NV	4.2E-05	2.5E-05
PYRENE	7.2E-01	7.2E-02	5.0E+00	8.1E-02
PCBS				
AROCLOR-1260	1.5E+01	1.5E+00	8.2E+01	8.2E+00
METALS				
ARSENIC	1.2E-01	5.9E-02	5.9E-01	1.3E-01
CADMIUM	5.5E-01	1.3E-01	2.2E+00	2.5E-01
CHROMIUM	3.7E-01	6.2E-02	9.6E-01	4.0E-02
COPPER	3.8E+00	4.5E-01	5.9E+00	4.0E-01
LEAD	6.2E-01	2.3E-02	4.9E-01	1.2E-02
MERCURY	4.3E+00	4.3E-01	1.8E+00	3.7E-01
NICKEL	5.0E-01	1.8E-01	4.2E+00	4.9E-01
SELENIUM	2.4E-01	8.5E-02	1.1E+00	2.4E-01
SILVER	2.6E-02	8.7E-04	1.9E-02	9.5E-04
ZINC	3.9E+00	1.5E+00	7.2E+00	1.8E+00

Cells are shaded if the value is greater than 1.0
EEQ - Ecological Effects Quotient
LOAEL - Lowest Observed Adverse Effects Level
NOAEL - No Observed Adverse Effects Level
NV- Value Not Available/Not Able to be Calculated

TABLE 12

ECOLOGICAL COPC TIER 1 SUMMARY
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Soil - REC 7 to 10				Soil - REC 11				Sediment			Surface Water
	Plants	Inverte-brates	Birds	Mammals	Plants	Inverte-brates	Birds	Mammals	Inverte-brates	Birds	Mammals	Aquatic Organisms
VOLATILES												
1,2,3-TRIMETHYLBENZENE					O	O						
1,2,4-TRIMETHYLBENZENE					O							
2-BUTANONE	O				O							
4-METHYL-2-PENTANONE					O	O						
ACETONE	O	X			O	X			X			
CARBON DISULFIDE	O				O				X			
DICHLORODIFLUOROMETHANE									O			
METHYL TERT-BUTYL ETHER	O											
N-PROPYLBENZENE	O	O										
TERT-AMYL METHYL ETHER	O	O										
TERTIARY-BUTYL ALCOHOL	O	O			O	O						
SEMIVOLATILES												
2-METHYLNAPHTHALENE	O				O				X			
ACENAPHTHENE	X				X				X			
ACENAPHTHYLENE	X		X		X				X			
ANTHRACENE	X		X						X			
BENZALDEHYDE	O	O			O	O						
BENZO(A)ANTHRACENE			X	X				X	X		X	X
BENZO(A)PYRENE			X	X				X	X		X	X
BENZO(B)FLUORANTHENE			X	X			X	X	X		X	
BENZO(G,H,I)PERYLENE	X		X	X	X			X	X			
BENZO(K)FLUORANTHENE	X		X	X	X				X		X	
BUTYL BENZYL PHTHALATE					X							
CAPROLACTAM					O	O						
CARBAZOLE	O	X			O	X			X			
CHRYSENE	X		X	X	X		X	X	X		X	
DIBENZO(A,H)ANTHRACENE	X				X				X			
DIBENZOFURAN		X				X						
DIMETHYL PHTHALATE	X											
FLUORANTHENE		X	X				X		X			X
FLUORENE	X		X		X				X			
INDENO(1,2,3-CD)PYRENE	X		X	X	X			X	X			
NAPHTHALENE	X											
N-NITROSO-DI-N-PROPYLAMINE					O	O						
PHENANTHRENE	X		X		X		X		X			
PYRENE	X	X	X	X	X		X	X	X		X	X
PCBS												
AROCLOR-1260							X	X	X	X	X	

TABLE 12

ECOLOGICAL COPC TIER 1 SUMMARY
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Soil - REC 7 to 10				Soil - REC 11				Sediment			Surface Water
	Plants	Inverte-brates	Birds	Mammals	Plants	Inverte-brates	Birds	Mammals	Inverte-brates	Birds	Mammals	Aquatic Organisms
METALS												
BARIUM	X								X			X
BERYLLIUM									O			
CADMIUM							X	X	X		X	
CHROMIUM							X					
COPPER			X		X	X	X		X	X	X	X
IRON	O	X			O	X						
LEAD			X				X					X
MANGANESE	X	X			X	X						
MERCURY			X	X			X	X	X	X	X	
NICKEL									X		X	X
SELENIUM	X				X		X	X			X	
THALLIUM	X	X		X				X				X
VANADIUM			X				X		X			X
ZINC									X	X	X	X
DISSOLVED METALS												
BARIUM												X
THALLIUM												X

Notes:
X - Selected as a COPC because of a screening level exceedance or EEQ greater than 1 in food-chain modeling.
O - Selected as a COPC because a screening level was not available.

COPC - Chemical of Potential Concern
EEQ - Ecological Effects Quotient

Table 13

Terrestrial Food Chain Model - Average Scenario
Invertivorous and Herbivorous Receptors
Greater Strawberry Point - REC 7 to 10
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Herbivorous Receptors EEQs				Invertivorous Receptors EEQs			
	Bobwhite Quail		Meadow Vole		American Robin		Short-Tailed Shrew	
	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL
Semivolatile Organics								
ACENAPHTHYLENE	8.10E-06	8.10E-07	1.51E-07	2.79E-08	1.54E-04	1.54E-05	2.83E-06	5.21E-07
ANTHRACENE	2.23E-05	2.23E-06	4.18E-07	7.71E-08	4.34E-05	4.34E-06	7.80E-07	1.44E-07
BENZO(A)ANTHRACENE	3.36E-05	3.36E-06	6.61E-05	1.06E-06	7.58E-05	7.58E-06	1.43E-04	2.30E-06
BENZO(A)PYRENE	5.17E-06	5.17E-07	8.12E-06	1.30E-07	6.40E-05	6.40E-06	1.20E-04	1.93E-06
BENZO(B)FLUORANTHENE	1.00E-05	1.00E-06	1.78E-05	2.84E-07	1.37E-04	1.37E-05	2.63E-04	4.21E-06
BENZO(G,H,I)PERYLENE	2.72E-06	2.72E-07	3.82E-06	6.12E-08	9.90E-05	9.90E-06	1.90E-04	3.05E-06
BENZO(K)FLUORANTHENE	4.76E-06	4.76E-07	8.59E-06	1.38E-07	5.69E-05	5.69E-06	1.09E-04	1.75E-06
CHRYSENE	3.51E-05	3.51E-06	6.89E-05	1.10E-06	1.16E-04	1.16E-05	2.21E-04	3.54E-06
FLUORANTHENE	2.50E-05	2.50E-06	4.36E-07	8.03E-08	2.63E-04	2.63E-05	4.74E-06	8.73E-07
FLUORENE	3.96E-01	3.96E-02	7.57E-03	1.39E-03	7.09E-05	7.09E-06	1.29E-06	2.39E-07
INDENO(1,2,3-CD)PYRENE	2.30E-06	2.30E-07	3.35E-06	5.36E-08	7.48E-05	7.48E-06	1.44E-04	2.30E-06
PHENANTHRENE	3.93E-04	3.93E-05	7.48E-06	1.38E-06	1.04E-04	1.04E-05	1.85E-06	3.41E-07
PYRENE	3.80E-05	3.80E-06	7.26E-05	1.16E-06	1.68E-04	1.68E-05	3.19E-04	5.10E-06
Inorganics								
COPPER	2.66E-01	3.09E-02	5.75E-02	3.89E-03	**1.84E+00**	2.14E-01	7.06E-01	4.78E-02
LEAD	5.93E-01	2.17E-02	9.20E-02	2.32E-03	**2.63E+00**	9.61E-02	4.55E-01	1.15E-02
VANADIUM	**2.87E+00**	5.86E-01	6.36E-02	2.80E-02	**6.28E+00**	**1.28E+00**	1.20E-01	5.29E-02

Cells are shaded if the value is greater than 1.0
EEQ - Ecological Effects Quotient
LOAEL - Lowest Observed Adverse Effects Level
NOAEL - No Observed Adverse Effects Level
NV- Value Not Available/Not Able to be Calculated

Table 14

Terrestrial Food Chain Model - Average Scenario
Invertivorous and Herbivorous Receptors
Greater Strawberry Point - REC 11
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Herbivorous Receptors EEQs				Invertivorous Receptors EEQs			
	Bobwhite Quail		Meadow Vole		American Robin		Short-Tailed Shrew	
	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL
Semivolatile Organics								
BENZO(A)ANTHRACENE	1.81E-03	1.81E-04	7.24E-04	1.16E-05	1.21E-01	1.21E-02	1.76E-01	2.82E-03
BENZO(A)PYRENE	1.74E-03	1.74E-04	6.96E-04	1.11E-05	1.02E-01	1.02E-02	1.42E-01	2.27E-03
BENZO(B)FLUORANTHENE	1.41E-02	1.41E-03	2.54E-02	4.06E-04	1.66E-01	1.66E-02	3.19E-01	5.11E-03
BENZO(G,H,I)PERYLENE	1.00E-03	1.00E-04	4.02E-04	6.43E-06	9.37E-02	9.37E-03	1.80E-01	2.89E-03
CHRYSENE	1.89E-03	1.89E-04	7.56E-04	1.21E-05	1.38E-01	1.38E-02	2.65E-01	4.24E-03
FLUORANTHENE	2.26E-02	2.26E-03	3.83E-04	7.06E-05	3.04E-01	3.04E-02	5.48E-03	1.01E-03
INDENO(1,2,3-CD)PYRENE	5.12E-03	5.12E-04	9.05E-03	1.45E-04	7.66E-02	7.66E-03	1.47E-01	2.36E-03
PHENANTHRENE	1.86E-03	1.86E-04	6.97E-06	1.28E-06	1.03E-01	1.03E-02	1.84E-03	3.38E-04
PYRENE	3.14E-02	3.14E-03	8.47E-02	1.36E-03	1.96E-01	1.96E-02	3.71E-01	5.95E-03
PCBs								
AROCLOR-1260	2.45E-02	2.45E-03	8.36E-03	8.36E-04	**5.09E+00**	5.09E-01	**8.05E+00**	8.05E-01
Inorganics								
CADMIUM	5.53E-04	1.28E-04	1.30E-04	1.45E-05	2.06E-01	4.77E-02	2.36E-01	2.63E-02
CHROMIUM	2.65E-02	4.50E-03	4.27E-03	1.77E-04	2.91E-01	4.96E-02	1.66E-01	6.84E-03
COPPER	1.42E-02	1.65E-03	1.26E-03	8.57E-05	2.56E-01	2.98E-02	1.01E-01	6.86E-03
MERCURY	7.83E-01	7.83E-02	9.17E-02	1.83E-02	**1.12E+01**	**1.12E+00**	**1.34E+00**	2.68E-01
SELENIUM	7.22E-03	2.56E-03	7.20E-02	1.56E-02	2.74E-01	9.70E-02	3.20E-01	6.91E-02
VANADIUM	3.44E-01	7.01E-02	3.26E-03	1.44E-03	**1.04E+00**	2.13E-01	5.29E-03	2.33E-03

Cells are shaded if the value is greater than 1.0
EEQ - Ecological Effects Quotient
LOAEL - Lowest Observed Adverse Effects Level
NOAEL - No Observed Adverse Effects Level
NV- Value Not Available/Not Able to be Calculated

TABLE 15

TERRESTRIAL FOOD CHAIN MODEL - AVERAGE SCENARIO
PISCIVOROUS RECEPTORS
REC #11
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Chemical	Piscivorous Receptor EEQs			
	Great Blue Heron		Mink	
	NOAEL-based	LOAEL-based	NOAEL-based	LOAEL-based
SEMIVOLATILES				
BENZO(A)ANTHRACENE	1.0E-01	1.0E-02	3.1E-01	5.0E-03
BENZO(A)PYRENE	7.8E-02	7.8E-03	2.3E-01	3.8E-03
BENZO(B)FLUORANTHENE	1.1E-01	1.1E-02	3.4E-01	5.4E-03
BENZO(K)FLUORANTHENE	4.7E-02	4.7E-03	1.4E-01	2.3E-03
CHRYSENE	1.0E-01	1.0E-02	3.1E-01	5.0E-03
PYRENE	1.9E-01	1.9E-02	5.7E-01	9.1E-03
PCBS				
AROCLOR-1260	2.8E+00	2.8E-01	6.7E+00	6.7E-01
METALS				
CADMIUM	1.4E-02	3.2E-03	2.7E-02	3.0E-03
COPPER	3.7E-01	4.3E-02	2.5E-01	1.7E-02
MERCURY	8.7E-01	8.7E-02	1.7E-01	3.3E-02
NICKEL	3.8E-02	1.4E-02	1.5E-01	1.8E-02
SELENIUM	7.6E-02	2.7E-02	1.5E-01	3.2E-02
ZINC	2.3E-01	9.0E-02	1.9E-01	4.8E-02

Cells are shaded if the value is greater than 1.0
NOAEL - No Observed Adverse Effects Level
LOAEL - Lowest Observed Adverse Effects Level
EEQ - Ecological Effects Quotient

ATTACHMENTS

ATTACHMENT 1

SURFACE WATER AND SEDIMENT SAMPLES PHOTO LOG



SW/SED-DP1 (1 of 2)



SW/SED-DP1 (2 of 2).



SW-DP4 (1 of 2).



SW-DP4 (2 of 2) vegetation, facing southwest.



SW-DP5 (1 of 2)



SW-DP5 (2 of 2).



SW-C1.



SW-DP2.



SW-DP3

ATTACHMENT 2

FOOD CHAIN MODEL RECEPTOR PROFILES, EXPOSURE ASSUMPTIONS, AND CALCULATION WORKSHEETS

The following sections present the receptor profiles for the representative herbivorous, invertivorous, and piscivorous receptors chosen for food chain modeling at Strawberry Point. The majority of the information for the profiles was obtained from the Wildlife Exposure Factors Handbook (United States Environmental Protection Agency [USEPA], 1993). The data for the incidental soil ingestion rates were obtained from the USEPA Ecological Soil Screening Guidance, Attachment 4-1 (USEPA, 2007).

The food and water ingestion rates are listed in gram per gram (g/g) of body weight-day on a wet weight basis, but were converted to dry weight for the ecological risk assessment (ERA) using the exposure factors presented below. The home ranges are presented in hectares in USEPA (1993) but were converted to acres by multiplying the number of hectares by 2.471. Also note that the estimated percent of soil/sediment in the diets are listed in dry weight.

Short-Tailed Shrew (*Blarina brevicauda*)

Shrews inhabit a wide variety of habitats and are common in areas with abundant vegetative cover. They need cool, moist habitats because of their high metabolic and water-loss rates. The short-tailed shrew is primarily carnivorous, and eats insects and other invertebrates such as earthworms, slugs, and snails.

The adult body weight for the short-tailed shrew in various habitats ranged from 0.01525 to 0.01921 kilograms (kg) with an average of 0.0169 kg. The listed food ingestion rates for shrews are between 0.43 and 0.96 g/g-day (wet-weight). The food ingestion rate in kilogram per day (kg/day) was calculated as shown on the attached table. The food ingestion rate was then multiplied by 0.16 in the food chain model, which is the percent solids of worms (Sample et al., 1997) to convert the ingestion rate from a wet-weight value to a dry-weight value. The incidental soil ingestion rate was calculated by multiplying the ingestion rate by the percentage of soil that is incidentally ingested (3% for conservative food chain model and 0.9% for the average food chain model) from USEPA (2007): 3% is the 90th percentile value and 0.9% is the 50th percentile value from USEPA (2007). The only available home range for the shrew (0.9699 acres) was calculated using data from a tamarack bog in Manitoba (only value available).

American Robin (*Turdus migratorius*)

American robins' habitats include parks, lawns, moist forests, swamps, open woodlands, and orchards. Robins forage on the ground in open areas, along habitat edges, or the edges of streams. They also may forage above ground in shrubs and within the lower branches of trees. In the months preceding and during the breeding season, robins feed primarily on invertebrates and on some fruits. During the rest of the year their diet consists primarily of fruits.

The adult body weight for the American robin in New York woodlands and forests and in Pennsylvania

ranged from 0.0773 to 0.0862 kg with an average of 0.0804 kg. The only listed food ingestion rates were for robins in Kansas (1.52 g/g-day) and California (0.89 g/g-day), with an average of 1.205 g/g-day. Studies calculating ingestion rates for the robin included in the USEPA (December 1993) are based on a diet comprised of berries. Based on these studies, the food and water ingestion rates in kg/day and liters per day (L/day), respectively, were calculated as shown in the attached table. The food ingestion rates were then multiplied by 0.23, which is the percent solids of fruit (Sample et al., 1997) to convert the ingestion rate from a wet-weight value to a dry-weight value. However, because it is assumed that the robin 100 percent of the robin's diet are worms for the food chain models, the ingestion rate for the robin was calculated using field metabolism scaling as presented on the attached table (Nagy et al., 1999). These are the values that will be used in the food chain model for this site.

The water ingestion rate for the robin was estimated as 0.14 g/g-day. The incidental soil ingestion rate was calculated by multiplying the ingestion rate by the percentage of soil that is incidentally ingested (assumed 3% for conservative food chain model and 1.5% for the average food chain model) from USEPA (2000). The 3% and 1.5% values are from the shrew since it is assumed that both the shrew and robin are consuming 100% worms, and no incidental soil ingestion rate was available for the robin.

The home range for the robin was calculated using data from Tennessee and a New York dense conifer forest. The values ranged from 0.27 to 1.04 acres with an average home range of 0.6095 acres.

Meadow Vole (*Microtus pennsylvanicus*)

Meadow voles inhabit grassy fields, marshes, and bogs; however, they prefer fields with more grass, more cover, and fewer woody plants. They typically consume green succulent vegetation, sedges, seeds, roots, bark, fungi, insects, and animal matter. However, green succulent vegetation makes up the majority of their diet.

The adult body weight for the vole ranges from 0.0329 to 0.0391 kg with an average of 0.0366 kg. The only listed food ingestion rates for voles range from 0.30 to 0.35 g/g-day (wet-weight), with an average of 0.325 g/g-day. The food ingestion rate in kg/day was calculated as shown in the attached table. The food ingestion rate was then multiplied by 0.15 in the food chain model, which is the percent solids of plant foliage (USEPA, 2007), to convert the ingestion rate from a wet-weight value to a dry-weight value. The incidental soil ingestion rate was calculated by multiplying the ingestion rate by the percentage of soil that is incidentally ingested (assumed 3.2% for conservative food chain model and 1.2% for the average food chain model) from USEPA (2007), where 3.2% is the 90th percentile value and 1.2% is the 50th percentile value from USEPA (2007).

The range of home range sizes for the meadow vole is 0.0297 to 1.06 acres with an average home range

of 0.16 acres.

Northern Bobwhite Quail (*Colinus virginianus*)

Bobwhite quails inhabit grasslands, idle fields, pastures, and large clumps of grasses. Bobwhite quails forage in areas with open vegetation, some bare ground, and light litter. Seeds from weeds, woody plants, and grasses comprise the majority of an adult's diet, although green vegetation has been found to dominate the diet of this species in winter in the southern areas of the United States.

The adult body weight for the bobwhite quail ranges from 0.162 to 0.186 kg with an average of 0.177 kg. The listed food ingestion rates for quails range from 0.067 to 0.093 g/g-day (wet-weight), with an average of 0.082 g/g-day. The food ingestion rate in kg/day was calculated as shown on the attached table. The food ingestion rates were already dry-weight values. The incidental soil ingestion rate was calculated by multiplying the ingestion rate by the percentage of soil that is incidentally ingested (assumed 13.9% for conservative food chain model and 6.1% for the average food chain model) from USEPA (2007); 13.9% is the 90th percentile value and 6.1% is the 50th percentile value for the mourning dove (from USEPA, 2007).

The home range for the quail ranges from 16 to 41 acres with an average home range of 29 acres.

Great Blue Heron (*Ardea herodias*)

Great blue herons inhabit a variety of freshwater and marine areas, including lakes, rivers, marshes, and coastal wetlands, particularly where small fish are plentiful in shallow waters. Fish are the preferred prey, but they also eat amphibians, reptiles, crustaceans, insects, birds, and mammals. The majority of the fish they consume are less than 25 centimeters (cm) or 10 inches in length.

The adult body weights range from 2.204 to 2.576 kg with an average of 2.310 kg. The food ingestion rate is listed as 0.18 g/g-day (wet-weight), while the water ingestion rate is listed as 0.045 g/g-day. The incidental soil ingestion rate is calculated by multiplying the ingestion rate by the percentage of sediment that is incidentally ingested (3.3 percent) based on the mallard (Beyer et al., 1994). The 3.3 percent is based on the incidental sediment ingestion rate of a mallard (Beyer et al., 1994), which also consumes aquatic organisms, because an incidental sediment ingestion rate was not available for the heron.

The range of feeding range sizes for the heron is 1.5 to 21acres for an average feeding range of 11 acres.

Mink (Mustela vison)

Minks are the most abundant and widespread carnivorous mammals in North America. They are found associated with every type of aquatic habitat including waterways such as rivers, streams, lakes, ditches, swamps, marshes, and backwater areas. Minks prefer irregular shorelines and tend to use brushy or wooded cover adjacent to the water, where prey is abundant and downfall and debris provide den sites. Mammals are minks' most important prey year-round in many parts of their range, but they also hunt aquatic species such as fish, amphibians, and crustaceans.

The adult body weight for the mink in various habitats ranged from 0.55 to 1.734 kg with an average of 1.103 kg. The listed food ingestion rates for minks range from 0.12 to 0.22 g/g-day (wet-weight). The water ingestion rates range from 0.028 to 0.11 g/g-day. The food and water ingestion rates in kg/day and L/day, respectively, were calculated as shown in the attached table. The food ingestion rates were then multiplied by 0.25, which is the percent solids of fish (Sample et al., 1997) to convert the ingestion rate from a wet-weight value to a dry-weight value. The incidental sediment ingestion rate of was calculated by multiplying the ingestion rate by the percentage of sediment that is incidentally ingested (9.4 percent). The 9.4 percent is based on the incidental sediment ingestion rate of a raccoon (Beyer et al., 1994), which also consumes aquatic organisms, because an incidental sediment ingestion rate was not available for the mink.

The home range for the mink in riverine areas ranged from 19.3 to 50.4 acres, with an average of 34.85 acres.

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Table 1

Exposure Parameters for the Terrestrial Wildlife Model
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Species/Exposure Inputs	Conservative Inputs		Average Inputs	
	Values	Units	Values	Units
Bobwhite Quail				
Body Weight = BW	1.540E-01	kg	1.751E-01	kg
Food Ingestion Rate = If	1.628E-02	kg/day	1.361E-02	kg/day
Water Ingestion Rate = Iw	2.276E-02	L/day	1.926E-02	L/day
Soil Ingestion Rate = Is	2.263E-03	kg/day	8.304E-04	kg/day
Home Range = HR	Assume 100% on site		1.880E+01	acres
Meadow Vole				
Body Weight = BW	1.700E-02	kg	3.580E-02	kg
Food Ingestion Rate = If	1.878E-03	kg/day	1.744E-03	kg/day
Water Ingestion Rate = Iw	7.513E-03	L/day	6.261E-03	L/day
Soil Ingestion Rate = Is	6.010E-05	kg/day	2.093E-05	kg/day
Home Range = HR	Assume 100% on site		6.590E-02	acres
American Robin				
Body Weight = BW	7.73E-02	kg	8.04E-02	kg
Food Ingestion Rate = If	1.25E-02	kg/day	1.19E-02	kg/day
Water Ingestion Rate = Iw	1.21E-02	L/day	1.13E-02	L/day
Soil Ingestion Rate - Is	2.046E-03	kg/day	7.601E-04	kg/day
Home Range = HR	Assume 100% on site		6.095E-01	acres
Short-Tailed Shrew				
Body Weight = BW	1.500E-02	kg	1.610E-02	kg
Food Ingestion Rate = If	1.600E-03	kg/day	1.433E-03	kg/day
Water Ingestion Rate = Iw	4.280E-03	L/day	3.600E-03	L/day
Soil Ingestion Rate - Is	4.801E-05	kg/day	1.289E-05	kg/day
Home Range = HR	Assume 100% on site		9.699E-01	acres
Mink				
Body Weight = BW	5.500E-01	kg	1.103E+00	kg
Food Ingestion Rate = If	6.067E-02	kg/day	4.504E-02	kg/day
Water Ingestion Rate = Iw	1.213E-01	L/day	7.308E-02	L/day
Sediment Ingestion Rate = Is	5.703E-03	kg/day	4.234E-03	kg/day
Home Range = HR	Assume 100% on site		1.558E+03	acres
Great Blue Heron				
Body Weight = BW	2.204E+00	kg	2.310E+00	kg
Food Ingestion Rate = If	1.159E-01	kg/day	1.039E-01	kg/day
Water Ingestion Rate = Iw	1.159E-01	L/day	1.039E-01	L/day
Sediment Ingestion Rate = Is	3.825E-03	kg/day	3.430E-03	kg/day
Home Range = HR	Assume 100% on site		0.000E+00	km-radius

Notes:
The exposure factors were derived as presented in Table 2 in this attachment.

The soil ingestion rates were calculated by multiplying the food ingestion rates by the following incidental soil ingestion rates:

Receptor	Conservative	Average	Source
Bobwhite quail	13.90%	6.10%	1, 2
Meadow Vole	3.20%	1.20%	1
American Robin	16.40%	6.40%	1,3
Short-tailed Shrew	3%	0.90%	1
Mink	9.4%	9.4%	4, 5
Great Blue Heron	3.3%	3.3%	6

1 - USEPA (U.S. Environmental Protection Agency), 2007. Ecological Soil Screening Level Guidance, Office of Emergency and Remedial Response. February.
2 - Based on the mourning dove.
3 - Based on the American woodcock
4 - Beyer, N., E. Connor, and S. Gerould. 1994. Estimates of Soil Ingestion by Wildlife. Journal of Wildlife Management 58(2) pp. 375-382.
5 - Based on the raccoon

Table 2

Dry Weight Derivation of Body Weight, Food Intake, and Water Intake Factors for Terrestrial Food Chain Models

Species/Factor	Data from EPA (1993) Age/Sex/ Cond./Seas.	Value	Study Average	Derivation of Factors for Modeling Calculation of Values		Notes
American Robin						
Body Weight (g)	A B	77.3	77.3	Minimum Value	0.0773 kg	
				Maximum Value	0.0862 kg	
	A M nonbreeding	86.2		Overall Study Average	0.0804 kg	
	A F nonbreeding	83.6	84.9			
	A M breeding	77.4				
	A F breeding	80.6	79			
Food Ingestion Rate (g/g-day)	B B free-living	0.89		*For Eating Mostly Fruit*		
				Conservative value:	0.0281 kg/day	Maximum ingestion rate * Average Body weight * 0.23[(1)]
	- B free-living	1.52				
				Average value	0.0223 kg/day	Average ingestion rate * Average Body weight * 0.23[(1)]
						[(1)] - 0.23 = percent solids in fruit to convert to a dry weight ingestion rate
	Overall Study Average		1.21			
				Based on Metabolic Scaling		
					0.01247 kg/day	Used maximum body weight in below equation
					0.01188 kg/day	Used average body weight in below equation
						Food ingestion rates were calculated from Nagy et al., (1999) for insectivores as follows: FI = $(9.7*BW(g)^{0.705})/18kJ/g/1000$
Water Ingestion Rate (g/g-day)	A B	0.14		Conservative value:	0.012 L/day	Ingestion rate * Maximum Body weight
				Average value	0.011 L/day	Ingestion rate * Average Body weight
Short-Tailed Shrew						
Body Weight (g)	A B	15	15	Minimum Value	0.0150 kg	
				Maximum Value	0.01921 kg	
	M summer	19.21	17.27	Overall Study Average	0.01613 kg	
	F summer	17.4				
	M fall	16.87				
	M fall	15.58				
Food Ingestion Rate (g/g-day)	A B	0.49		Conservative value:	0.0016 kg/day	Maximum ingestion rate * Average Body weight * 0.16[(1)]
	A B	0.62		Average value	0.00143 kg/day	Average ingestion rate * Average Body weight * 0.16[(1)]
	Overall Study Average		0.555			[(1)] - 0.16 = percent solids in earthworms to convert to a dry weight ingestion rate
Water Ingestion Rate (g/g-day)	A B	0.223		Conservative value:	0.00428 L/day	Ingestion rate * Maximum Body weight
				Average value	0.00360 L/day	Ingestion rate * Average Body weight

Table 2

Dry Weight Derivation of Body Weight, Food Intake, and Water Intake Factors for Terrestrial Food Chain Models

Species/Factor	Data from EPA (1993) Age/Sex/ Cond./Seas.	Value	Study Average	Derivation of Factors for Modeling Calculation of Values		Notes
Mink						
Body Weight (g)	A M spring	1734	1354	Minimum Value	0.550 kg	
	A F spring	974		Maximum Value	1.734 kg	
				Overall Study Average	1.1031 kg	
	A M summer	1040	852			
	A M fall	1233				
	A F summer	550				
	A F fall	586				
Food Ingestion Rate (g/g-day)	A M summer	0.13	0.13	Conservative value:	0.0607 kg/day	Maximum ingestion rate * Average Body weight * 0.25[(1)]
	A M winter	0.12	0.14	Average value	0.04504 kg/day	Average ingestion rate * Average Body weight * 0.25[(1)]
	A F winter	0.16				
	A M yr-round	0.22	0.22			
	Overall Study Average		0.163			[(1)] - 0.25 = percent solids in fish to convert to a dry weight ingestion rate
Water Ingestion Rate (g/g-day)	A F	0.11	0.105	Conservative value:	0.1213 kg/day	Maximum ingestion rate * Average Body weight
	A M	0.099				
				Average value	0.07308 kg/day	Average ingestion rate * Average Body weight
	A F	0.028	0.028			
	Overall Study Average		0.0663			
Meadow Vole						
Body Weight (g)	A M summer	40	36.7	Minimum Value	0.017 kg	
	A F summer	33.4		Maximum Value	0.052 kg	
				Overall Study Average	0.0358 kg	
	A M spring	52.4	48.0			
	A F spring	43.5				
	A B spring	26	21.2			
	A B summer	24.3				
	A B fall	17				
	A B winter	17.5				
	A M	35.5	37.3			
	A F	39				
Food Ingestion Rate (g/g-day)		0.3	0.33	Conservative value:	0.001878 kg/day	Maximum ingestion rate * Average Body weight * 0.15 [(1)]
		0.35				
				Average value	0.001744 kg/day	Average ingestion rate * Average Body weight * 0.15[(1)]
						[(1)] - 0.15 = percent solids in plant foilage to convert to a dry weight ingestion rate
Water Ingestion Rate	A B	0.21	0.18	Conservative value:	0.007513 L/day	Maximum ingestion rate * Average Body weight
	A B	0.14		Average value	0.006261 L/day	Average ingestion rate * Average Body weight

Table 2

Dry Weight Derivation of Body Weight, Food Intake, and Water Intake Factors for Terrestrial Food Chain Models

Data from EPA (1993)				Derivation of Factors for Modeling			
Species/Factor	Age/Sex/ Cond./Seas.	Value	Study Average	Calculation of Values			Notes
Northern Bobwhite Quail							
Body Weight (g)	A B fall	189.9	191	Minimum Value	0.154	kg	
	A B winter	193.9		Maximum Value	0.194	kg	
	A B spring	190		Overall Study Average	0.1751	kg	
	A M winter	181	177				
	A M summer	163					
	A F winter	183					
	A F summer	180					
	A M winter	161	157				
	A M summer	154					
	A F winter	157					
	A F summer	157					
Food Ingestion Rate (g/g-day)	A B winter	0.093	0.078	Conservative value:	0.01628	kg/day	Maximum ingestion rate * Average Body weight
	A B spring	0.067					
	A B summer	0.079		Average value	0.01361	kg/day	Average ingestion rate * Average Body weight
	A B fall	0.072					
							Already on a dry weight basis - do not need to convert to a dry weight ingestion rate
Water Ingestion Rate (g/g-day)	A M summer	0.1	0.11	Conservative value:	0.022762	L/day	Maximum ingestion rate * Average Body weight
	A F summer	0.13					
	A M summer	0.11		Average value	0.01926	L/day	Average ingestion rate * Average Body weight
	A F summer	0.1					
Great Blue Heron							
Body Weight (g)	A B	2229	2229	Minimum Value	2.204	kg	
				Maximum Value	2.576	kg	
	A F	2204	2390	Overall Study Average	2.310	kg	
	A M	2576					
Food Ingestion Rate (g/g-day)	A B	0.18		Conservative value:	0.116	kg/day	Ingestion rate * Maximum Body weight * 0.25[(1)]
				Average value	0.104	kg/day	Ingestion rate * Average Body weight * 0.25[(1)]
							[(1)] - 0.25 = percent solids in fish to convert to a dry weight ingestion rate
Water Ingestion Rate (g/g-day)	A B	0.045		Conservative value:	0.116	L/day	Ingestion rate * Maximum Body weight
				Average value	0.104	kg/day	Ingestion rate * Average Body weight

Notes:
A = Adult
F = Female, M = Male, B = Both
BW = Body Weight

FOOD CHAIN MODEL – SURFACE SOIL FROM REC #7 TO #10

Chemical Concentrations in Surface Soil and Tissue
Greater Strawberry Point - REC 7 to 10
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Surface Soil Concentrations (mg/kg)				Earthworm Bioaccumulation Factors		Earthworm Concentrations (mg/kg)		Plant Bioaccumulation Factors		Plant Concentrations (mg/kg)	
	Maximum Detection	Average All	Average of Positive Detections	Average [1]	Conservative	Average	Maximum Detection	Average	Conservative	Average	Maximum Detection	Average
Volatiles												
ACETONE	2.20E+00	8.54E-02	2.94E-01	8.54E-05	1.00E+00	1.00E+00	2.20E+00	8.54E-05	5.30E+01	5.30E+01	3.82E-01	3.78E-03
Semivolatile Organics												
ACENAPHTHENE	3.30E+00	9.48E-02	2.90E-01	9.48E-05	1.47E+00	1.47E+00	4.85E+00	1.39E-04	Regression equation from Eco SSL		1.38E-03	1.06E+01
ACENAPHTHYLENE	3.10E+00	9.10E-02	2.78E-01	9.10E-05	2.29E+01	2.29E+01	7.10E+01	2.08E-03	Regression equation from Eco SSL		7.80E-01	2.03E-04
ANTHRACENE	7.60E+00	2.37E-01	4.26E-01	2.37E-04	2.42E+00	2.42E+00	1.84E+01	5.73E-04	Regression equation from Eco SSL		1.80E+00	5.60E-04
BENZO(A)ANTHRACENE	1.70E+01	6.20E-01	8.68E-01	6.20E-04	1.59E+00	1.59E+00	2.70E+01	9.86E-04	Regression equation from Eco SSL		3.59E-01	8.27E-04
BENZO(A)PYRENE	1.50E+01	6.21E-01	8.69E-01	6.21E-04	1.33E+00	1.33E+00	2.00E+01	8.26E-04	Regression equation from Eco SSL		1.78E+00	9.51E-05
BENZO(B)FLUORANTHENE	1.70E+01	6.96E-01	9.28E-01	6.96E-04	2.60E+00	2.60E+00	4.42E+01	1.81E-03	3.10E-01	3.10E-01	5.27E+00	2.16E-04
BENZO(G,H,I)PERYLENE	9.40E+00	4.46E-01	6.56E-01	4.46E-04	2.94E+00	2.94E+00	2.76E+01	1.31E-03	Regression equation from Eco SSL		5.58E+00	4.29E-05
BENZO(K)FLUORANTHENE	6.80E+00	2.89E-01	4.89E-01	2.89E-04	2.60E+00	2.60E+00	1.77E+01	7.51E-04	Regression equation from Eco SSL		6.00E-01	1.05E-04
BIS(2-ETHYLHEXYL)PHTHALATE	8.50E-02	3.74E-02	3.41E-02	3.74E-05	1.00E+00	1.00E+00	8.50E-02	3.74E-05	1.50E-03	1.50E-03	1.28E-04	5.61E-08
CHRYSENE	1.70E+01	6.65E-01	9.31E-01	6.65E-04	2.29E+00	2.29E+00	3.89E+01	1.52E-03	Regression equation from Eco SSL		3.59E-01	8.62E-04
DI-N-BUTYL PHTHALATE	2.30E-02	2.21E-02	1.91E-02	2.21E-05	1.00E+00	1.00E+00	2.30E-02	2.21E-05	9.45E-02	9.45E-02	2.17E-03	2.08E-06
DIBENZO(A,H)ANTHRACENE	1.40E+00	4.39E-02	1.89E-01	4.39E-05	2.31E+00	2.31E+00	3.23E+00	1.01E-04	1.30E-01	1.30E-01	1.82E-01	5.71E-06
DIMETHYL PHTHALATE	1.90E-01	2.73E-02	8.50E-02	2.73E-05	1.00E+00	1.00E+00	1.90E-01	2.73E-05	4.54E+00	4.54E+00	8.63E-01	1.24E-04
FLUORANTHENE	3.30E+01	1.15E+00	1.46E+00	1.15E-03	3.04E+00	3.04E+00	1.00E+02	3.48E-03	5.00E-01	5.00E-01	1.65E+01	5.73E-04
FLUORENE	3.60E+00	9.96E-02	3.22E-01	9.96E-05	9.57E+00	9.57E+00	3.45E+01	9.53E-04	Regression equation from Eco SSL		1.28E-03	1.02E+01
INDENO(1,2,3-CD)PYRENE	7.50E+00	3.46E-01	5.37E-01	3.46E-04	2.86E+00	2.86E+00	2.15E+01	9.90E-04	1.10E-01	1.10E-01	8.25E-01	3.81E-05
PHENANTHRENE	2.70E+01	7.88E-01	1.10E+00	7.88E-04	1.72E+00	1.72E+00	4.64E+01	1.36E-03	Regression equation from Eco SSL		6.54E+00	1.01E-02
PYRENE	3.40E+01	1.25E+00	1.59E+00	1.25E-03	1.75E+00	1.75E+00	5.95E+01	2.19E-03	7.20E-01	7.20E-01	2.45E+01	9.02E-04
Inorganics												
ANTIMONY	8.40E-01	1.81E-01	2.14E-01	1.81E-01	7.30E-03	7.30E-03	4.09E-02	1.32E-03	Regression equation from Eco SSL		3.35E-02	7.95E-03
BERYLLIUM	1.60E+00	2.12E-01	2.44E-01	2.12E-01	4.50E-02	4.50E-02	7.20E-02	9.53E-03	Regression equation from Eco SSL		8.26E-01	1.87E-01
CADMIUM	6.80E-01	7.28E-02	1.71E-01	7.28E-02	Regression equation from Eco SSL		6.09E+00	1.03E+00	Regression equation from Eco SSL		5.04E-01	1.49E-01
COPPER	6.80E+01	7.68E+00	7.94E+00	7.68E+00	5.15E-01	5.15E-01	3.50E+01	3.96E+00	Regression equation from Eco SSL		7.38E-01	4.36E+00
LEAD	4.89E+01	8.40E+00	8.40E+00	8.40E+00	Regression equation from Eco SSL		1.86E+01	4.48E+00	Regression equation from Eco SSL		2.35E+00	8.75E-01
MERCURY	1.60E-01	3.07E-02	4.73E-02	3.07E-02	Regression - Sample et al., (1998)		5.83E-01	3.34E-01	5.00E+00	6.52E-01	8.00E-01	2.00E-02
SELENIUM	1.20E+00	4.06E-01	5.23E-01	4.06E-01	Regression equation from Eco SSL		1.06E+00	4.79E-01	Regression equation from Eco SSL		6.21E-01	1.88E-01
THALLIUM	2.30E+00	2.47E-01	1.67E+00	2.47E-01	5.41E-02	5.41E-02	1.24E-01	1.34E-02	4.00E-03	4.00E-03	9.20E-03	9.87E-04
VANADIUM	6.50E+01	1.60E+01	1.60E+01	1.60E+01	4.20E-02	4.20E-02	2.73E+00	6.74E-01	4.85E-03	4.85E-03	3.15E-01	7.78E-02
ZINC	6.34E+01	1.76E+01	1.92E+01	1.76E+01	Regression equation from Eco SSL		3.34E+02	2.19E+02	Regression equation from Eco SSL		4.81E+01	2.37E+01

1 - If the average of all value is the greater than the maximum detection, the average of the positive detections was used as the average value.

MEADOW VOLE - CONSERVATIVE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 7 to 10, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Max Soil Conc. (mg/kg)	Vegetation Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Veget.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Volatiles									
ACETONE	2.20E+00	3.82E-01	7.78E-03	4.22E-02	5.00E-02	1.00E+01	5.00E+01	5.00E-03	1.00E-03
Semivolatile Organics									
ACENAPHTHENE	3.30E+00	1.38E-03	1.17E-02	1.53E-04	1.18E-02	6.56E+01	3.56E+02	1.8E-04	3.3E-05
ACENAPHTHYLENE	3.10E+00	7.80E-01	1.10E-02	8.61E-02	9.71E-02	6.56E+01	3.56E+02	1.5E-03	2.7E-04
ANTHRACENE	7.60E+00	1.80E+00	2.69E-02	1.99E-01	2.26E-01	6.56E+01	3.56E+02	3.4E-03	6.4E-04
BENZO(A)ANTHRACENE	1.70E+01	3.59E-01	6.01E-02	3.97E-02	9.98E-02	6.15E-01	3.84E+01	1.6E-01	2.6E-03
BENZO(A)PYRENE	1.50E+01	1.78E+00	5.30E-02	1.97E-01	2.50E-01	6.15E-01	3.84E+01	4.1E-01	6.5E-03
BENZO(B)FLUORANTHENE	1.70E+01	5.27E+00	6.01E-02	5.82E-01	6.42E-01	6.15E-01	3.84E+01	1.0E+00	1.7E-02
BENZO(G,H,I)PERYLENE	9.40E+00	5.58E+00	3.32E-02	6.17E-01	6.50E-01	6.15E-01	3.84E+01	**1.1E+00**	1.7E-02
BENZO(K)FLUORANTHENE	6.80E+00	6.00E-01	2.40E-02	6.63E-02	9.04E-02	6.15E-01	3.84E+01	1.5E-01	2.4E-03
BIS(2-ETHYLHEXYL)PHTHALATE	8.50E-02	1.28E-04	3.01E-04	1.41E-05	3.15E-04	1.83E+01	1.83E+02	1.7E-05	1.7E-06
CHRYSENE	1.70E+01	3.59E-01	6.01E-02	3.97E-02	9.98E-02	6.15E-01	3.84E+01	1.6E-01	2.6E-03
DI-N-BUTYL PHTHALATE	2.30E-02	2.17E-03	8.13E-05	2.40E-04	3.21E-04	5.50E+02	1.83E+03	5.8E-07	1.8E-07
DIBENZO(A,H)ANTHRACENE	1.40E+00	1.82E-01	4.95E-03	2.01E-02	2.51E-02	6.15E-01	3.84E+01	4.1E-02	6.5E-04
DIMETHYL PHTHALATE	1.90E-01	8.63E-01	6.72E-04	9.53E-02	9.60E-02	6.80E+01	6.80E+02	1.4E-03	1.4E-04
FLUORANTHENE	3.30E+01	1.65E+01	1.17E-01	1.82E+00	1.94E+00	6.56E+01	3.56E+02	3.0E-02	5.4E-03
FLUORENE	3.60E+00	1.28E-03	1.27E-02	1.42E-04	1.29E-02	6.56E+01	3.56E+02	2.0E-04	3.6E-05
INDENO(1,2,3-CD)PYRENE	7.50E+00	8.25E-01	2.65E-02	9.11E-02	1.18E-01	6.15E-01	3.84E+01	1.9E-01	3.1E-03
PHENANTHRENE	2.70E+01	6.54E+00	9.55E-02	7.23E-01	8.18E-01	6.56E+01	3.56E+02	1.2E-02	2.3E-03
PYRENE	3.40E+01	2.45E+01	1.20E-01	2.70E+00	2.82E+00	6.15E-01	3.84E+01	**4.6E+00**	7.4E-02
Inorganics									
ANTIMONY	8.40E-01	3.35E-02	2.97E-03	3.70E-03	6.67E-03	5.90E-02	2.76E+00	1.1E-01	2.4E-03
BERYLLIUM	1.60E+00	8.26E-01	5.66E-03	9.13E-02	9.69E-02	5.32E-01	6.73E-01	1.8E-01	1.4E-01
CADMIUM	6.80E-01	5.04E-01	2.40E-03	5.57E-02	5.81E-02	7.70E-01	6.90E+00	7.5E-02	8.4E-03
COPPER	6.80E+01	7.38E-01	2.40E-01	8.16E-02	3.22E-01	5.60E+00	8.27E+01	5.7E-02	3.9E-03
LEAD	4.89E+01	2.35E+00	1.73E-01	2.60E-01	4.32E-01	4.70E+00	1.86E+02	9.2E-02	2.3E-03
MERCURY	1.60E-01	8.00E-01	5.66E-04	8.84E-02	8.90E-02	3.20E-02	1.60E-01	**2.8E+00**	5.6E-01
SELENIUM	1.20E+00	6.21E-01	4.24E-03	6.87E-02	7.29E-02	1.43E-01	6.61E-01	5.1E-01	1.1E-01
THALLIUM	2.30E+00	9.20E-03	8.13E-03	1.02E-03	9.15E-03	7.40E-03	7.40E-02	**1.2E+00**	1.2E-01
VANADIUM	6.50E+01	3.15E-01	2.30E-01	3.48E-02	2.65E-01	4.16E+00	9.44E+00	6.4E-02	2.8E-02
ZINC	6.34E+01	4.81E+01	2.24E-01	5.32E+00	5.54E+00	7.54E+01	2.98E+02	7.3E-02	1.9E-02

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.70E-02	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.88E-03	kg/day	Dose (vegetation) = (Cv * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	6.01E-05	kg/day	Cv = Contaminant concentration in vegetation	NOAEL = No Observed Adverse Effects Concentration
Home Range = (HR)	Assume 100% on site		Cs = Contaminant concentration in soil	
Contaminated Area = (CA)	Assume equal to home range		Total Dose = Dose (soil) + Dose (vegetation)	
			H=CA/HR (Assume = to 1)	

BOBWHITE QUAIL - CONSERVATIVE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 7 to 10, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Max Soil Conc. (mg/kg)	Vegetation Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Veget.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Volatiles									
ACETONE	2.20E+00	3.82E-01	3.23E-02	4.04E-02	7.27E-02	2.01E+04	2.01E+05	3.6E-06	3.6E-07
Semivolatile Organics									
ACENAPHTHENE	3.30E+00	1.38E-03	4.85E-02	1.46E-04	4.86E-02	2.00E+00	2.00E+01	2.4E-02	2.4E-03
ACENAPHTHYLENE	3.10E+00	7.80E-01	4.56E-02	8.24E-02	1.28E-01	2.00E+00	2.00E+01	6.4E-02	6.4E-03
ANTHRACENE	7.60E+00	1.80E+00	1.12E-01	1.91E-01	3.02E-01	2.00E+00	2.00E+01	1.5E-01	1.5E-02
BENZO(A)ANTHRACENE	1.70E+01	3.59E-01	2.50E-01	3.80E-02	2.88E-01	2.00E+00	2.00E+01	1.4E-01	1.4E-02
BENZO(A)PYRENE	1.50E+01	1.78E+00	2.20E-01	1.89E-01	4.09E-01	2.00E+00	2.00E+01	2.0E-01	2.0E-02
BENZO(B)FLUORANTHENE	1.70E+01	5.27E+00	2.50E-01	5.57E-01	8.07E-01	2.00E+00	2.00E+01	4.0E-01	4.0E-02
BENZO(G,H,I)PERYLENE	9.40E+00	5.58E+00	1.38E-01	5.90E-01	7.28E-01	2.00E+00	2.00E+01	3.6E-01	3.6E-02
BENZO(K)FLUORANTHENE	6.80E+00	6.00E-01	9.99E-02	6.35E-02	1.63E-01	2.00E+00	2.00E+01	8.2E-02	8.2E-03
BIS(2-ETHYLHEXYL)PHTHALATE	8.50E-02	1.28E-04	1.25E-03	1.35E-05	1.26E-03	1.11E+00	1.11E+01	1.1E-03	1.1E-04
CHRYSENE	1.70E+01	3.59E-01	2.50E-01	3.80E-02	2.88E-01	2.00E+00	2.00E+01	1.4E-01	1.4E-02
DI-N-BUTYL PHTHALATE	2.30E-02	2.17E-03	3.38E-04	2.30E-04	5.68E-04	1.11E-01	1.11E+00	5.1E-03	5.1E-04
DIBENZO(A,H)ANTHRACENE	1.40E+00	1.82E-01	2.06E-02	1.92E-02	3.98E-02	2.00E+00	2.00E+01	2.0E-02	2.0E-03
DIMETHYL PHTHALATE	1.90E-01	8.63E-01	2.79E-03	9.12E-02	9.40E-02	NV	NV	NV	NV
FLUORANTHENE	3.30E+01	1.65E+01	4.85E-01	1.74E+00	2.23E+00	2.00E+00	2.00E+01	1.1E+00	1.1E-01
FLUORENE	3.60E+00	1.28E-03	5.29E-02	1.36E-04	5.30E-02	2.00E+00	2.00E+01	2.7E-02	2.7E-03
INDENO(1,2,3-CD)PYRENE	7.50E+00	8.25E-01	1.10E-01	8.72E-02	1.97E-01	2.00E+00	2.00E+01	9.9E-02	9.9E-03
PHENANTHRENE	2.70E+01	6.54E+00	3.97E-01	6.91E-01	1.09E+00	2.00E+00	2.00E+01	5.4E-01	5.4E-02
PYRENE	3.40E+01	2.45E+01	5.00E-01	2.59E+00	3.09E+00	2.00E+00	2.00E+01	1.5E+00	1.5E-01
Inorganics									
ANTIMONY	8.40E-01	3.35E-02	1.23E-02	3.54E-03	1.59E-02	NV	NV	NV	NV
BERYLLIUM	1.60E+00	8.26E-01	2.35E-02	8.74E-02	1.11E-01	NV	NV	NV	NV
CADMIUM	6.80E-01	5.04E-01	9.99E-03	5.33E-02	6.33E-02	1.47E+00	6.35E+00	4.3E-02	1.0E-02
COPPER	6.80E+01	7.38E-01	9.99E-01	7.81E-02	1.08E+00	4.05E+00	3.49E+01	2.7E-01	3.1E-02
LEAD	4.89E+01	2.35E+00	7.19E-01	2.48E-01	9.67E-01	1.63E+00	4.46E+01	5.9E-01	2.2E-02
MERCURY	1.60E-01	8.00E-01	2.35E-03	8.46E-02	8.69E-02	6.40E-03	6.40E-02	1.4E+01	1.4E+00
SELENIUM	1.20E+00	6.21E-01	1.76E-02	6.57E-02	8.33E-02	2.90E-01	8.19E-01	2.9E-01	1.0E-01
THALLIUM	2.30E+00	9.20E-03	3.38E-02	9.73E-04	3.48E-02	NV	NV	NV	NV
VANADIUM	6.50E+01	3.15E-01	9.55E-01	3.33E-02	9.89E-01	3.44E-01	1.69E+00	2.9E+00	5.9E-01
ZINC	6.34E+01	4.81E+01	9.32E-01	5.09E+00	6.02E+00	6.61E+01	1.71E+02	9.1E-02	3.5E-02

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.54E-01	kg
Food Ingestion Rate = (If)	1.63E-02	kg/day
Soil Ingestion Rate = (Is)	2.26E-03	kg/day
Home Range = (HR)	Assume 100% on site	
Contaminated Area = (CA)	Assume equal to home range	

Dose (soil) = (Cs * Is)(H)/BW
Dose (vegetation) = (Cv * If)(H)/BW
Cv = Contaminant concentration in vegetation
Cs = Contaminant concentration in soil
Total Dose = Dose (soil) + Dose (vegetation)
H=CA/HR (Assume = to 1)

Conc = Concentration
LOAEL = Lowest Observed Adverse Effects Concentration
NOAEL = No Observed Adverse Effects Concentration
NV- Value Not Available/Not Able to be Calculated

SHORT-TAILED SHREW - CONSERVATIVE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 7 to 10, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Max Soil Conc. (mg/kg)	Invertebrate Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Invert.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Volatiles									
ACETONE	2.20E+00	2.20E+00	7.04E-03	2.35E-01	2.42E-01	1.00E+01	5.00E+01	2.4E-02	4.8E-03
Semivolatile Organics									
ACENAPHTHENE	3.30E+00	4.85E+00	1.06E-02	5.18E-01	5.28E-01	6.56E+01	3.56E+02	8.1E-03	1.5E-03
ACENAPHTHYLENE	3.10E+00	7.10E+01	9.92E-03	7.57E+00	7.58E+00	6.56E+01	3.56E+02	1.2E-01	2.1E-02
ANTHRACENE	7.60E+00	1.84E+01	2.43E-02	1.96E+00	1.99E+00	6.56E+01	3.56E+02	3.0E-02	5.6E-03
BENZO(A)ANTHRACENE	1.70E+01	2.70E+01	5.44E-02	2.88E+00	2.94E+00	6.15E-01	3.84E+01	4.8E+00	7.7E-02
BENZO(A)PYRENE	1.50E+01	2.00E+01	4.80E-02	2.13E+00	2.18E+00	6.15E-01	3.84E+01	3.5E+00	5.7E-02
BENZO(B)FLUORANTHENE	1.70E+01	4.42E+01	5.44E-02	4.72E+00	4.77E+00	6.15E-01	3.84E+01	7.8E+00	1.2E-01
BENZO(G,H,I)PERYLENE	9.40E+00	2.76E+01	3.01E-02	2.95E+00	2.98E+00	6.15E-01	3.84E+01	4.8E+00	7.8E-02
BENZO(K)FLUORANTHENE	6.80E+00	1.77E+01	2.18E-02	1.89E+00	1.91E+00	6.15E-01	3.84E+01	3.1E+00	5.0E-02
BIS(2-ETHYLHEXYL)PHTHALATE	8.50E-02	8.50E-02	2.72E-04	9.07E-03	9.34E-03	1.83E+01	1.83E+02	5.1E-04	5.1E-05
CHRYSENE	1.70E+01	3.89E+01	5.44E-02	4.15E+00	4.21E+00	6.15E-01	3.84E+01	6.8E+00	1.1E-01
DI-N-BUTYL PHTHALATE	2.30E-02	2.30E-02	7.36E-05	2.45E-03	2.53E-03	5.50E+02	1.83E+03	4.6E-06	1.4E-06
DIBENZO(A,H)ANTHRACENE	1.40E+00	3.23E+00	4.48E-03	3.45E-01	3.50E-01	6.15E-01	3.84E+01	5.7E-01	9.1E-03
DIMETHYL PHTHALATE	1.90E-01	1.90E-01	6.08E-04	2.03E-02	2.09E-02	6.80E+01	6.80E+02	3.1E-04	3.1E-05
FLUORANTHENE	3.30E+01	1.00E+02	1.06E-01	1.07E+01	1.08E+01	6.56E+01	3.56E+02	1.6E-01	3.0E-02
FLUORENE	3.60E+00	3.45E+01	1.15E-02	3.68E+00	3.69E+00	6.56E+01	3.56E+02	5.6E-02	1.0E-02
INDENO(1,2,3-CD)PYRENE	7.50E+00	2.15E+01	2.40E-02	2.29E+00	2.31E+00	6.15E-01	3.84E+01	3.8E+00	6.0E-02
PHENANTHRENE	2.70E+01	4.64E+01	8.64E-02	4.95E+00	5.04E+00	6.56E+01	3.56E+02	7.7E-02	1.4E-02
PYRENE	3.40E+01	5.95E+01	1.09E-01	6.35E+00	6.46E+00	6.15E-01	3.84E+01	1.0E+01	1.7E-01
Inorganics									
ANTIMONY	8.40E-01	4.09E-02	2.69E-03	4.36E-03	7.05E-03	5.90E-02	2.76E+00	1.2E-01	2.6E-03
BERYLLIUM	1.60E+00	7.20E-02	5.12E-03	7.68E-03	1.28E-02	5.32E-01	6.73E-01	2.4E-02	1.9E-02
CADMIUM	6.80E-01	6.09E+00	2.18E-03	6.50E-01	6.52E-01	7.70E-01	6.90E+00	8.5E-01	9.5E-02
COPPER	6.80E+01	3.50E+01	2.18E-01	3.74E+00	3.95E+00	5.60E+00	8.27E+01	7.1E-01	4.8E-02
LEAD	4.89E+01	1.86E+01	1.57E-01	1.98E+00	2.14E+00	4.70E+00	1.86E+02	4.5E-01	1.1E-02
MERCURY	1.60E-01	5.83E-01	5.12E-04	6.22E-02	6.27E-02	3.20E-02	1.60E-01	2.0E+00	3.9E-01
SELENIUM	1.20E+00	1.06E+00	3.84E-03	1.13E-01	1.17E-01	1.43E-01	6.61E-01	8.2E-01	1.8E-01
THALLIUM	2.30E+00	1.24E-01	7.36E-03	1.33E-02	2.06E-02	7.40E-03	7.40E-02	2.8E+00	2.8E-01
VANADIUM	6.50E+01	2.73E+00	2.08E-01	2.91E-01	4.99E-01	4.16E+00	9.44E+00	1.2E-01	5.3E-02
ZINC	6.34E+01	3.34E+02	2.03E-01	3.56E+01	3.58E+01	7.54E+01	2.98E+02	4.7E-01	1.2E-01

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.50E-02	kg
Food Ingestion Rate = (If)	1.60E-03	kg/day
Soil Ingestion Rate = (Is)	4.80E-05	
Home Range = (HR)	Assume 100% on site	
Contaminated Area = (CA)	Assume equal to home range	

Dose (soil) = (Cs * Is)(H)/BW
Dose (vegetation) = (Cv * If)(H)/BW
Ci = Contaminant concentration in invertebrate
Cs = Contaminant concentration in soil
Total Dose = Dose (soil) + Dose (invertebrate)
H=CA/HR (Assume = to 1)

Conc = Concentration
LOAEL = Lowest Observed Adverse Effects Concentration
NOAEL = No Observed Adverse Effects Concentration

AMERICAN ROBIN - CONSERVATIVE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 7 to 10, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Max Soil Conc. (mg/kg)	Invertebrate Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Invert.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Volatiles									
ACETONE	2.20E+00	2.20E+00	5.82E-02	3.55E-01	4.13E-01	2.01E+04	2.01E+05	2.1E-05	2.1E-06
Semivolatile Organics									
ACENAPHTHENE	3.30E+00	4.85E+00	8.73E-02	7.83E-01	8.70E-01	2.00E+00	2.00E+01	4.4E-01	4.4E-02
ACENAPHTHYLENE	3.10E+00	7.10E+01	8.20E-02	1.15E+01	1.15E+01	2.00E+00	2.00E+01	5.8E+00	5.8E-01
ANTHRACENE	7.60E+00	1.84E+01	2.01E-01	2.97E+00	3.17E+00	2.00E+00	2.00E+01	1.6E+00	1.6E-01
BENZO(A)ANTHRACENE	1.70E+01	2.70E+01	4.50E-01	4.36E+00	4.81E+00	2.00E+00	2.00E+01	2.4E+00	2.4E-01
BENZO(A)PYRENE	1.50E+01	2.00E+01	3.97E-01	3.22E+00	3.62E+00	2.00E+00	2.00E+01	1.8E+00	1.8E-01
BENZO(B)FLUORANTHENE	1.70E+01	4.42E+01	4.50E-01	7.13E+00	7.58E+00	2.00E+00	2.00E+01	3.8E+00	3.8E-01
BENZO(G,H,I)PERYLENE	9.40E+00	2.76E+01	2.49E-01	4.46E+00	4.71E+00	2.00E+00	2.00E+01	2.4E+00	2.4E-01
BENZO(K)FLUORANTHENE	6.80E+00	1.77E+01	1.80E-01	2.85E+00	3.03E+00	2.00E+00	2.00E+01	1.5E+00	1.5E-01
BIS(2-ETHYLHEXYL)PHTHALATE	8.50E-02	8.50E-02	2.25E-03	1.37E-02	1.60E-02	1.11E+00	1.11E+01	1.4E-02	1.4E-03
CHRYSENE	1.70E+01	3.89E+01	4.50E-01	6.28E+00	6.73E+00	2.00E+00	2.00E+01	3.4E+00	3.4E-01
DI-N-BUTYL PHTHALATE	2.30E-02	2.30E-02	6.09E-04	3.71E-03	4.32E-03	1.11E-01	1.11E+00	3.9E-02	3.9E-03
DIBENZO(A,H)ANTHRACENE	1.40E+00	3.23E+00	3.71E-02	5.22E-01	5.59E-01	2.00E+00	2.00E+01	2.8E-01	2.8E-02
DIMETHYL PHTHALATE	1.90E-01	1.90E-01	5.03E-03	3.07E-02	3.57E-02	NV	NV	NV	NV
FLUORANTHENE	3.30E+01	1.00E+02	8.73E-01	1.62E+01	1.71E+01	2.00E+00	2.00E+01	8.5E+00	8.5E-01
FLUORENE	3.60E+00	3.45E+01	9.53E-02	5.56E+00	5.66E+00	2.00E+00	2.00E+01	2.8E+00	2.8E-01
INDENO(1,2,3-CD)PYRENE	7.50E+00	2.15E+01	1.98E-01	3.46E+00	3.66E+00	2.00E+00	2.00E+01	1.8E+00	1.8E-01
PHENANTHRENE	2.70E+01	4.64E+01	7.15E-01	7.49E+00	8.21E+00	2.00E+00	2.00E+01	4.1E+00	4.1E-01
PYRENE	3.40E+01	5.95E+01	9.00E-01	9.60E+00	1.05E+01	2.00E+00	2.00E+01	5.3E+00	5.3E-01
Inorganics									
ANTIMONY	8.40E-01	4.09E-02	2.22E-02	6.60E-03	2.88E-02	NV	NV	NV	NV
BERYLLIUM	1.60E+00	7.20E-02	4.23E-02	1.16E-02	5.40E-02	NV	NV	NV	NV
CADMIUM	6.80E-01	6.09E+00	1.80E-02	9.84E-01	1.00E+00	1.47E+00	6.35E+00	6.8E-01	1.6E-01
COPPER	6.80E+01	3.50E+01	1.80E+00	5.65E+00	7.45E+00	4.05E+00	3.49E+01	1.8E+00	2.1E-01
LEAD	4.89E+01	1.86E+01	1.29E+00	3.00E+00	4.29E+00	1.63E+00	4.46E+01	2.6E+00	9.6E-02
MERCURY	1.60E-01	5.83E-01	4.23E-03	9.41E-02	9.83E-02	6.40E-03	6.40E-02	1.5E+01	1.5E+00
SELENIUM	1.20E+00	1.06E+00	3.18E-02	1.71E-01	2.03E-01	2.90E-01	8.19E-01	7.0E-01	2.5E-01
THALLIUM	2.30E+00	1.24E-01	6.09E-02	2.01E-02	8.10E-02	NV	NV	NV	NV
VANADIUM	6.50E+01	2.73E+00	1.72E+00	4.41E-01	2.16E+00	3.44E-01	1.69E+00	6.3E+00	1.3E+00
ZINC	6.34E+01	3.34E+02	1.68E+00	5.38E+01	5.55E+01	6.61E+01	1.71E+02	8.4E-01	3.2E-01

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	7.73E-02	kg
Food Ingestion Rate = (If)	1.25E-02	kg/day
Soil Ingestion Rate = (Is)	2.05E-03	kg/day
Home Range = (HR)	Assume 100% on site	
Contaminated Area = (CA)	Assume equal to home range	

Dose (soil) = (Cs * Is)(H)/BW
Dose (invertebrate) = (Ci * If)(H)/BW
Ci = Contaminant concentration in invertebrate
Cs = Contaminant concentration in soil
Total Dose = Dose (soil) + Dose (invertebrate)
H=CA/HR (Assume = to 1)

Conc = Concentration
LOAEL = Lowest Observed Adverse Effects Concentration
NOAEL = No Observed Adverse Effects Concentration
NV- Value Not Available/Not Able to be Calculated

MEADOW VOLE - AVERAGE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 7 to 10, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Avg Soil Conc. (mg/kg)	Vegetation Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Veget.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Volatiles									
BENZO(G,H,I)PERYLENE	4.46E-04	4.29E-05	2.61E-07	2.09E-06	2.35E-06	6.15E-01	3.84E+01	3.82E-06	6.12E-08
PYRENE	1.25E-03	9.02E-04	7.32E-07	4.39E-05	4.47E-05	6.15E-01	3.84E+01	7.26E-05	1.16E-06

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	3.58E-02	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.74E-03	kg/day	Dose (vegetation) = (Cv * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	2.09E-05	kg/day	Cv = Contaminant concentration in vegetation	NOAEL = No Observed Adverse Effects Concentration
Home Range = (HR)	6.59E-02	acres	Cs = Contaminant concentration in soil	
Contaminated Area = (CA)	Assume equal to home range		Total Dose = Dose (soil) + Dose (vegetation)	
			H=CA/HR (Assume = to 1)	

BOBWHITE QUAIL - AVERAGE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 7 to 10, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Avg Soil Conc. (mg/kg)	Vegetation Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Veget.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Volatiles									
FLUORANTHENE	1.15E-03	5.73E-04	5.43E-06	4.45E-05	5.00E-05	2.00E+00	2.00E+01	2.5E-05	2.5E-06
PYRENE	1.25E-03	9.02E-04	5.94E-06	7.01E-05	7.60E-05	2.00E+00	2.00E+01	3.8E-05	3.8E-06
Inorganics									
VANADIUM	1.60E+01	7.78E-02	7.61E-02	6.05E-03	8.21E-02	3.44E-01	1.69E+00	2.4E-01	4.9E-02

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.75E-01	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.36E-02	kg/day	Dose (vegetation) = (Cv * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	8.30E-04	kg/day	Cv = Contaminant concentration in vegetation	NOAEL = No Observed Adverse Effects Concentration
Home Range = (HR)	1.88E+01	acres	Cs = Contaminant concentration in soil	
Contaminated Area = (CA)	Assume equal to home range		Total Dose = Dose (soil) + Dose (vegetation)	
			H=CA/HR (Assume = to 1)	

SHORT-TAILED SHREW - AVERAGE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 7 to 10, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Avg Soil Conc. (mg/kg)	Invertebrate Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Invert.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Volatiles									
BENZO(A)ANTHRACENE	6.20E-04	9.86E-04	4.97E-07	8.77E-05	8.82E-05	6.15E-01	3.84E+01	1.4E-04	2.3E-06
BENZO(A)PYRENE	6.21E-04	8.26E-04	4.97E-07	7.35E-05	7.40E-05	6.15E-01	3.84E+01	1.2E-04	1.9E-06
BENZO(B)FLUORANTHENE	6.96E-04	1.81E-03	5.57E-07	1.61E-04	1.62E-04	6.15E-01	3.84E+01	2.6E-04	4.2E-06
BENZO(G,H,I)PERYLENE	4.46E-04	1.31E-03	3.57E-07	1.17E-04	1.17E-04	6.15E-01	3.84E+01	1.9E-04	3.0E-06
BENZO(K)FLUORANTHENE	2.89E-04	7.51E-04	2.31E-07	6.68E-05	6.71E-05	6.15E-01	3.84E+01	1.1E-04	1.7E-06
CHRYSENE	6.65E-04	1.52E-03	5.33E-07	1.35E-04	1.36E-04	6.15E-01	3.84E+01	2.2E-04	3.5E-06
INDENO(1,2,3-CD)PYRENE	3.46E-04	9.90E-04	2.77E-07	8.81E-05	8.84E-05	6.15E-01	3.84E+01	1.4E-04	2.3E-06
PYRENE	1.25E-03	2.19E-03	1.00E-06	1.95E-04	1.96E-04	6.15E-01	3.84E+01	3.2E-04	5.1E-06
Inorganics									
ANTIMONY	1.81E-01	1.32E-03	1.45E-04	1.18E-04	2.63E-04	5.90E-02	2.76E+00	4.5E-03	9.5E-05

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.61E-02	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.43E-03	kg/day	Dose (invertebrate) = (Ci * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	1.29E-05	kg/day	Ci = Contaminant concentration in invertebrate	NOAEL = No Observed Adverse Effects Concentration
Home Range = (HR)	9.70E-01	acres	Cs = Contaminant concentration in soil	
	Assume equal to home range		Total Dose = Dose (soil) + Dose (invertebrate)	
			H=CA/HR (Assume = to 1)	

AMERICAN ROBIN - AVERAGE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 7 to 10, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Avg Soil Conc. (mg/kg)	Invertebrate Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Invert.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Volatiles									
ACENAPHTHYLENE	9.10E-05	2.08E-03	8.61E-07	3.08E-04	3.09E-04	2.00E+00	2.00E+01	1.5E-04	1.5E-05
ANTHRACENE	2.37E-04	5.73E-04	2.24E-06	8.47E-05	8.69E-05	2.00E+00	2.00E+01	4.3E-05	4.3E-06
BENZO(A)ANTHRACENE	6.20E-04	9.86E-04	5.86E-06	1.46E-04	1.52E-04	2.00E+00	2.00E+01	7.6E-05	7.6E-06
BENZO(A)PYRENE	6.21E-04	8.26E-04	5.87E-06	1.22E-04	1.28E-04	2.00E+00	2.00E+01	6.4E-05	6.4E-06
BENZO(B)FLUORANTHENE	6.96E-04	1.81E-03	6.58E-06	2.67E-04	2.74E-04	2.00E+00	2.00E+01	1.4E-04	1.4E-05
BENZO(G,H,I)PERYLENE	4.46E-04	1.31E-03	4.22E-06	1.94E-04	1.98E-04	2.00E+00	2.00E+01	9.9E-05	9.9E-06
BENZO(K)FLUORANTHENE	2.89E-04	7.51E-04	2.73E-06	1.11E-04	1.14E-04	2.00E+00	2.00E+01	5.7E-05	5.7E-06
CHRYSENE	6.65E-04	1.52E-03	6.29E-06	2.25E-04	2.31E-04	2.00E+00	2.00E+01	1.2E-04	1.2E-05
FLUORANTHENE	1.15E-03	3.48E-03	1.08E-05	5.15E-04	5.25E-04	2.00E+00	2.00E+01	2.6E-04	2.6E-05
FLUORENE	9.96E-05	9.53E-04	9.42E-07	1.41E-04	1.42E-04	2.00E+00	2.00E+01	7.1E-05	7.1E-06
INDENO(1,2,3-CD)PYRENE	3.46E-04	9.90E-04	3.27E-06	1.46E-04	1.50E-04	2.00E+00	2.00E+01	7.5E-05	7.5E-06
PHENANTHRENE	7.88E-04	1.36E-03	7.45E-06	2.00E-04	2.08E-04	2.00E+00	2.00E+01	1.0E-04	1.0E-05
PYRENE	1.25E-03	2.19E-03	1.18E-05	3.24E-04	3.36E-04	2.00E+00	2.00E+01	1.7E-04	1.7E-05
Inorganics									
LEAD	8.40E+00	4.48E+00	7.94E-02	6.62E-01	7.41E-01	1.63E+00	4.46E+01	4.5E-01	1.7E-02
VANADIUM	1.60E+01	6.74E-01	1.52E-01	9.96E-02	2.51E-01	3.44E-01	1.69E+00	7.3E-01	1.5E-01

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	8.04E-02	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.19E-02	kg/day	Dose (invertebrate) = (Ci * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	7.60E-04	kg/day	Ci = Contaminant concentration in invertebrate	NOAEL = No Observed Adverse Effects Concentration
Home Range = (HR)	6.10E-01	acres	Cs = Contaminant concentration in soil	
Contaminated Area = (CA)	Assume equal to home range		Total Dose = Dose (soil) + Dose (invertebrate)	
			H=CA/HR (Assume = to 1)	

FOOD CHAIN MODEL – SURFACE SOIL FROM REC #11

Chemical Concentrations in Surface Soil and Tissue
Greater Strawberry Point - REC 11
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Surface Soil Concentrations (mg/kg)		Surface Water Concentrations (mg/L)		Earthworm Bioaccumulation Factors		Earthworm Concentrations (mg/kg)		Plant Bioaccumulation Factors		Plant Concentrations (mg/kg)	
	Maximum Detection	Average [1]	Maximum Detection	Average Concentration[1]	Conservative	Average	Maximum Detection	Average	Conservative	Average	Maximum Detection	Average
Semivolatile Organics												
ACENAPHTHENE	5.20E-01	6.93E-02	0.00E+00	0.00E+00	1.47E+00	1.47E+00	7.64E-01	1.02E-01	Regression equation from Eco SSL		6.72E-03	3.77E-02
ACENAPHTHYLENE	3.00E-01	3.87E-02	0.00E+00	0.00E+00	2.29E+01	2.29E+01	6.87E+00	8.87E-01	Regression equation from Eco SSL		1.23E-01	2.43E-02
ANTHRACENE	1.90E+00	2.24E-01	0.00E+00	0.00E+00	2.42E+00	2.42E+00	4.60E+00	5.41E-01	Regression equation from Eco SSL		6.13E-01	1.16E-01
BENZO(A)ANTHRACENE	5.80E+00	7.62E-01	3.10E-04	6.59E-05	1.59E+00	1.59E+00	9.22E+00	1.21E+00	Regression equation from Eco SSL		1.90E-01	5.67E-02
BENZO(A)PYRENE	5.20E+00	7.32E-01	2.90E-04	5.86E-05	1.33E+00	1.33E+00	6.92E+00	9.74E-01	Regression equation from Eco SSL		6.35E-01	9.39E-02
BENZO(B)FLUORANTHENE	5.10E+00	8.45E-01	3.20E-04	7.47E-05	2.60E+00	2.60E+00	1.33E+01	2.20E+00	3.10E-01	3.10E-01	1.58E+00	2.62E-01
BENZO(G,H,I)PERYLENE	3.10E+00	4.22E-01	1.90E-04	4.39E-05	2.94E+00	2.94E+00	9.11E+00	1.24E+00	Regression equation from Eco SSL		1.50E+00	1.42E-01
BENZO(K)FLUORANTHENE	1.80E+00	3.68E-01	2.50E-04	5.08E-05	2.60E+00	2.60E+00	4.68E+00	9.58E-01	Regression equation from Eco SSL		1.92E-01	4.90E-02
BIS(2-ETHYLHEXYL)PHTHALATE	1.00E-01	3.21E-02	0.00E+00	0.00E+00	1.00E+00	1.00E+00	1.00E-01	3.21E-02	1.50E-03	1.50E-03	1.50E-04	4.81E-05
BUTYL BENZYL PHTHALATE	2.50E-01	1.63E-02	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-01	1.63E-02	6.95E-02	6.95E-02	1.74E-02	1.14E-03
CHRYSENE	6.20E+00	7.95E-01	3.30E-04	7.74E-05	2.29E+00	2.29E+00	1.42E+01	1.82E+00	Regression equation from Eco SSL		1.97E-01	5.82E-02
DI-N-BUTYL PHTHALATE	4.60E-02	1.89E-02	0.00E+00	0.00E+00	1.00E+00	1.00E+00	4.60E-02	1.89E-02	9.45E-02	9.45E-02	4.35E-03	1.78E-03
DIBENZO(A,H)ANTHRACENE	8.50E-01	1.11E-01	0.00E+00	0.00E+00	2.31E+00	2.31E+00	1.96E+00	2.56E-01	1.30E-01	1.30E-01	1.11E-01	1.44E-02
FLUORANTHENE	8.80E+00	1.32E+00	5.50E-04	1.57E-04	3.04E+00	3.04E+00	2.68E+01	4.03E+00	5.00E-01	5.00E-01	4.40E+00	6.62E-01
FLUORENE	9.10E-01	9.00E-02	0.00E+00	0.00E+00	9.57E+00	9.57E+00	8.71E+00	8.62E-01	Regression equation from Eco SSL		4.16E-03	3.01E-02
INDENO(1,2,3-CD)PYRENE	2.40E+00	3.54E-01	1.60E-04	3.89E-05	2.86E+00	2.86E+00	6.86E+00	1.01E+00	1.10E-01	1.10E-01	2.64E-01	3.90E-02
PHENANTHRENE	7.90E+00	7.82E-01	1.60E-04	4.70E-05	1.72E+00	1.72E+00	1.36E+01	1.35E+00	Regression equation from Eco SSL		3.05E+00	7.27E-01
PYRENE	1.30E+01	1.46E+00	5.10E-04	1.44E-04	1.75E+00	1.75E+00	2.28E+01	2.55E+00	7.20E-01	7.20E-01	9.36E+00	1.05E+00
PCBs												
AROCLOR-1260	1.20E+01	9.21E-01	0.00E+00	0.00E+00	1.59E+01	6.67E+00	1.91E+02	6.14E+00	6.15E-04	6.15E-04	7.38E-03	5.66E-04
Inorganics												
ANTIMONY	1.20E+00	2.83E-01	4.10E-03	1.56E-03	7.30E-03	7.30E-03	8.03E-02	2.06E-03	Regression equation from Eco SSL		4.68E-02	1.21E-02
BERYLLIUM	1.40E+00	3.15E-01	0.00E+00	0.00E+00	4.50E-02	4.50E-02	6.30E-02	1.42E-02	Regression equation from Eco SSL		7.49E-01	2.50E-01
CADMIUM	2.80E+00	1.71E-01	2.30E-04	2.04E-04	Regression equation from Eco SSL		1.88E+01	2.04E+00	Regression equation from Eco SSL		1.09E+00	2.37E-01
CHROMIUM	4.40E+01	1.42E+01	2.00E-02	6.91E-03	3.06E-01	3.06E-01	1.35E+01	4.33E+00	4.10E-02	4.10E-02	1.80E+00	5.80E-01
COPPER	8.10E+01	1.21E+01	3.90E-02	1.19E-02	5.15E-01	5.15E-01	4.17E+01	6.24E+00	Regression equation from Eco SSL		7.87E-01	5.21E+00
LEAD	4.10E+01	1.36E+01	2.00E-02	5.75E-03	Regression equation from Eco SSL		1.61E+01	6.60E+00	Regression equation from Eco SSL		2.13E+00	1.14E+00
MERCURY	6.70E-01	9.02E-02	2.10E-04	9.09E-05	Regression - Sample et al., (1998)		9.45E-01	4.81E-01	5.00E+00	6.52E-01	3.35E+00	5.88E-02
SELENIUM	3.10E+00	4.42E-01	0.00E+00	0.00E+00	Regression equation from Eco SSL		2.13E+00	5.10E-01	Regression equation from Eco SSL		1.77E+00	2.06E-01
THALLIUM	9.20E-01	1.91E-01	1.80E-03	1.15E-03	5.41E-02	5.41E-02	4.98E-02	1.04E-02	4.00E-03	4.00E-03	3.68E-03	7.66E-04
VANADIUM	7.20E+01	2.28E+01	5.10E-02	1.25E-02	4.20E-02	4.20E-02	3.02E+00	9.59E-01	4.85E-03	4.85E-03	3.49E-01	1.11E-01
ZINC	5.50E+01	2.78E+01	1.30E-01	5.20E-02	Regression equation from Eco SSL		3.18E+02	2.55E+02	Regression equation from Eco SSL		4.45E+01	3.05E+01

1 - If the average of all value is the greater than the maximum detection, the average of the positive detections was used as the average value.

MEADOW VOLE - CONSERVATIVE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 11, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Max Soil Conc. (mg/kg)	Max SW Conc. (mg/L)	Vegetation Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Surface Water	Veget.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	LOAEL
Semivolatile Organics											
ACENAPHTHENE	5.20E-01	0.00E+00	6.72E-03	1.84E-03	0.00E+00	0.00074256	2.58E-03	6.56E+01	3.56E+02	3.9E-05	7.2E-06
ACENAPHTHYLENE	3.00E-01	0.00E+00	1.23E-01	1.06E-03	0.00E+00	1.36E-02	1.46E-02	6.56E+01	3.56E+02	2.2E-04	4.1E-05
ANTHRACENE	1.90E+00	0.00E+00	6.13E-01	6.72E-03	0.00E+00	6.77E-02	7.45E-02	6.56E+01	3.56E+02	1.1E-03	2.1E-04
BENZO(A)ANTHRACENE	5.80E+00	3.10E-04	1.90E-01	2.05E-02	1.37E-04	2.09E-02	4.16E-02	6.15E-01	3.84E+01	6.8E-02	1.1E-03
BENZO(A)PYRENE	5.20E+00	2.90E-04	6.35E-01	1.84E-02	1.28E-04	7.02E-02	8.87E-02	6.15E-01	3.84E+01	1.4E-01	2.3E-03
BENZO(B)FLUORANTHENE	5.10E+00	3.20E-04	1.58E+00	1.80E-02	1.41E-04	1.75E-01	1.93E-01	6.15E-01	3.84E+01	3.1E-01	5.0E-03
BENZO(G,H,I)PERYLENE	3.10E+00	1.90E-04	1.50E+00	1.10E-02	8.40E-05	1.66E-01	1.77E-01	6.15E-01	3.84E+01	2.9E-01	4.6E-03
BENZO(K)FLUORANTHENE	1.80E+00	2.50E-04	1.92E-01	6.36E-03	1.10E-04	2.12E-02	2.76E-02	6.15E-01	3.84E+01	4.5E-02	7.2E-04
BIS(2-ETHYLHEXYL)PHTHALATE	1.00E-01	0.00E+00	1.50E-04	3.54E-04	0.00E+00	1.66E-05	3.70E-04	1.83E+01	1.83E+02	2.0E-05	2.0E-06
BUTYL BENZYL PHTHALATE	2.50E-01	0.00E+00	1.74E-02	8.84E-04	0.00E+00	1.92E-03	2.80E-03	1.59E+01	4.70E+01	1.8E-04	6.0E-05
CHRYSENE	6.20E+00	3.30E-04	1.97E-01	2.19E-02	1.46E-04	2.18E-02	4.39E-02	6.15E-01	3.84E+01	7.1E-02	1.1E-03
DI-N-BUTYL PHTHALATE	4.60E-02	0.00E+00	4.35E-03	1.63E-04	0.00E+00	4.80E-04	6.43E-04	5.50E+02	1.83E+03	1.2E-06	3.5E-07
DIBENZO(A,H)ANTHRACENE	8.50E-01	0.00E+00	1.11E-01	3.01E-03	0.00E+00	1.22E-02	1.52E-02	6.15E-01	3.84E+01	2.5E-02	4.0E-04
FLUORANTHENE	8.80E+00	5.50E-04	4.40E+00	3.11E-02	2.43E-04	4.86E-01	5.17E-01	6.56E+01	3.56E+02	7.9E-03	1.5E-03
FLUORENE	9.10E-01	0.00E+00	4.16E-03	3.22E-03	0.00E+00	4.60E-04	3.68E-03	6.56E+01	3.56E+02	5.6E-05	1.0E-05
INDENO(1,2,3-CD)PYRENE	2.40E+00	1.60E-04	2.64E-01	8.48E-03	7.07E-05	2.92E-02	3.77E-02	6.15E-01	3.84E+01	6.1E-02	9.8E-04
PHENANTHRENE	7.90E+00	1.60E-04	3.05E+00	2.79E-02	7.07E-05	3.37E-01	3.65E-01	6.56E+01	3.56E+02	5.6E-03	1.0E-03
PYRENE	1.30E+01	5.10E-04	9.36E+00	4.60E-02	2.25E-04	1.03E+00	1.08E+00	6.15E-01	3.84E+01	**1.8E+00**	2.8E-02
PCBs											
AROCLOR-1260	1.20E+01	0.00E+00	7.38E-03	4.24E-02	0.00E+00	8.15E-04	4.32E-02	6.80E-02	6.80E-01	6.4E-01	6.4E-02
Inorganics											
ANTIMONY	1.20E+00	4.10E-03	4.68E-02	4.24E-03	1.81E-03	5.17E-03	1.12E-02	5.90E-02	2.76E+00	1.9E-01	4.1E-03
BERYLLIUM	1.40E+00	0.00E+00	7.49E-01	4.95E-03	0.00E+00	8.28E-02	8.77E-02	5.32E-01	6.73E-01	1.6E-01	1.3E-01
CADMIUM	2.80E+00	2.30E-04	1.09E+00	9.90E-03	1.02E-04	1.21E-01	1.31E-01	7.70E-01	6.90E+00	1.7E-01	1.9E-02
CHROMIUM	4.40E+01	2.00E-02	1.80E+00	1.56E-01	8.84E-03	1.99E-01	3.64E-01	2.40E+00	5.82E+01	1.5E-01	6.3E-03
COPPER	8.10E+01	3.90E-02	7.87E-01	2.86E-01	1.72E-02	8.70E-02	3.91E-01	5.60E+00	8.27E+01	7.0E-02	4.7E-03
LEAD	4.10E+01	2.00E-02	2.13E+00	1.45E-01	8.84E-03	2.35E-01	3.89E-01	4.70E+00	1.86E+02	8.3E-02	2.1E-03
MERCURY	6.70E-01	2.10E-04	3.35E+00	2.37E-03	9.28E-05	3.70E-01	3.73E-01	3.20E-02	1.60E-01	**1.2E+01**	2.3E+00
SELENIUM	3.10E+00	0.00E+00	1.77E+00	1.10E-02	0.00E+00	1.96E-01	2.07E-01	1.43E-01	6.61E-01	**1.4E+00**	3.1E-01
THALLIUM	9.20E-01	1.80E-03	3.68E-03	3.25E-03	7.95E-04	4.07E-04	4.45E-03	7.40E-03	7.40E-02	6.0E-01	6.0E-02
VANADIUM	7.20E+01	5.10E-02	3.49E-01	2.55E-01	2.25E-02	3.86E-02	3.16E-01	4.16E+00	9.44E+00	7.6E-02	3.3E-02
ZINC	5.50E+01	1.30E-01	4.45E+01	1.94E-01	5.75E-02	4.91E+00	5.17E+00	7.54E+01	2.98E+02	6.9E-02	1.7E-02

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.70E-02	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.88E-03	kg/day	Dose (vegetation) = (Cv * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Water Ingestion Rate = (Iw)	7.51E-03	L/day	Dose (water) = (Cw * Iw)(H)/BW	NOAEL = No Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	6.01E-05	kg/day	Cv = Contaminant concentration in vegetation	
Home Range = (HR)	Assume 100% on site		Cs = Contaminant concentration in soil	
Contaminated Area = (CA)	Assume equal to home range		Cw = Contaminant concentration in water	
H=CA/HR (Assume = to 1)			Total Dose = Dose (soil) + Dose (water)+ Dose (vegetation)	

BOBWHITE QUAIL - CONSERVATIVE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 11, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Max Soil Conc. (mg/kg)	Max SW Conc. (mg/L)	Vegetation Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Surface Water	Veget.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	LOAEL
Semivolatile Organics											
ACENAPHTHENE	5.20E-01	0.00E+00	6.72E-03	7.64E-03	0.00E+00	7.11E-04	8.35E-03	2.00E+00	2.00E+01	4.2E-03	4.2E-04
ACENAPHTHYLENE	3.00E-01	0.00E+00	1.23E-01	4.41E-03	0.00E+00	1.30E-02	1.74E-02	2.00E+00	2.00E+01	8.7E-03	8.7E-04
ANTHRACENE	1.90E+00	0.00E+00	6.13E-01	2.79E-02	0.00E+00	6.48E-02	9.28E-02	2.00E+00	2.00E+01	4.6E-02	4.6E-03
BENZO(A)ANTHRACENE	5.80E+00	3.10E-04	1.90E-01	8.52E-02	4.58E-05	2.00E-02	1.05E-01	2.00E+00	2.00E+01	5.3E-02	5.3E-03
BENZO(A)PYRENE	5.20E+00	2.90E-04	6.35E-01	7.64E-02	4.29E-05	6.71E-02	1.44E-01	2.00E+00	2.00E+01	7.2E-02	7.2E-03
BENZO(B)FLUORANTHENE	5.10E+00	3.20E-04	1.58E+00	7.50E-02	4.73E-05	1.67E-01	2.42E-01	2.00E+00	2.00E+01	1.2E-01	1.2E-02
BENZO(G,H,I)PERYLENE	3.10E+00	1.90E-04	1.50E+00	4.56E-02	2.81E-05	1.59E-01	2.04E-01	2.00E+00	2.00E+01	1.0E-01	1.0E-02
BENZO(K)FLUORANTHENE	1.80E+00	2.50E-04	1.92E-01	2.65E-02	3.70E-05	2.03E-02	4.67E-02	2.00E+00	2.00E+01	2.3E-02	2.3E-03
BIS(2-ETHYLHEXYL)PHTHALATE	1.00E-01	0.00E+00	1.50E-04	1.47E-03	0.00E+00	1.59E-05	1.49E-03	1.11E+00	1.11E+01	1.3E-03	1.3E-04
BUTYL BENZYL PHTHALATE	2.50E-01	0.00E+00	1.74E-02	3.67E-03	0.00E+00	1.84E-03	5.51E-03	NV	NV	NV	NV
CHRYSENE	6.20E+00	3.30E-04	1.97E-01	9.11E-02	4.88E-05	2.09E-02	1.12E-01	2.00E+00	2.00E+01	5.6E-02	5.6E-03
DI-N-BUTYL PHTHALATE	4.60E-02	0.00E+00	4.35E-03	6.76E-04	0.00E+00	4.60E-04	1.14E-03	1.11E-01	1.11E+00	1.0E-02	1.0E-03
DIBENZO(A,H)ANTHRACENE	8.50E-01	0.00E+00	1.11E-01	1.25E-02	0.00E+00	1.17E-02	2.42E-02	2.00E+00	2.00E+01	1.2E-02	1.2E-03
FLUORANTHENE	8.80E+00	5.50E-04	4.40E+00	1.29E-01	8.13E-05	4.65E-01	5.95E-01	2.00E+00	2.00E+01	3.0E-01	3.0E-02
FLUORENE	9.10E-01	0.00E+00	4.16E-03	1.34E-02	0.00E+00	4.40E-04	1.38E-02	2.00E+00	2.00E+01	6.9E-03	6.9E-04
INDENO(1,2,3-CD)PYRENE	2.40E+00	1.60E-04	2.64E-01	3.53E-02	2.36E-05	2.79E-02	6.32E-02	2.00E+00	2.00E+01	3.2E-02	3.2E-03
PHENANTHRENE	7.90E+00	1.60E-04	3.05E+00	1.16E-01	2.36E-05	3.23E-01	4.39E-01	2.00E+00	2.00E+01	2.2E-01	2.2E-02
PYRENE	1.30E+01	5.10E-04	9.36E+00	1.91E-01	7.54E-05	9.90E-01	1.18E+00	2.00E+00	2.00E+01	5.9E-01	5.9E-02
PCBs											
AROCLOR-1260	1.20E+01	0.00E+00	7.38E-03	1.76E-01	0.00E+00	7.80E-04	1.77E-01	1.80E-01	1.80E+00	9.8E-01	9.8E-02
Inorganics											
ANTIMONY	1.20E+00	4.10E-03	4.68E-02	1.76E-02	6.06E-04	4.95E-03	2.32E-02	NV	NV	NV	NV
BERYLLIUM	1.40E+00	0.00E+00	7.49E-01	2.06E-02	0.00E+00	7.92E-02	9.98E-02	NV	NV	NV	NV
CADMIUM	2.80E+00	2.30E-04	1.09E+00	4.12E-02	3.40E-05	1.15E-01	1.57E-01	1.47E+00	6.35E+00	1.1E-01	2.5E-02
CHROMIUM	4.40E+01	2.00E-02	1.80E+00	6.47E-01	2.96E-03	1.91E-01	8.40E-01	2.66E+00	1.56E+01	3.2E-01	5.4E-02
COPPER	8.10E+01	3.90E-02	7.87E-01	1.19E+00	5.76E-03	8.32E-02	1.28E+00	4.05E+00	3.49E+01	3.2E-01	3.7E-02
LEAD	4.10E+01	2.00E-02	2.13E+00	6.03E-01	2.96E-03	2.25E-01	8.31E-01	1.63E+00	4.46E+01	5.1E-01	1.9E-02
MERCURY	6.70E-01	2.10E-04	3.35E+00	9.85E-03	3.10E-05	3.54E-01	3.64E-01	6.40E-03	6.40E-02	5.7E+01	5.7E+00
SELENIUM	3.10E+00	0.00E+00	1.77E+00	4.56E-02	0.00E+00	1.87E-01	2.33E-01	2.90E-01	8.19E-01	8.0E-01	2.8E-01
THALLIUM	9.20E-01	1.80E-03	3.68E-03	1.35E-02	2.66E-04	3.89E-04	1.42E-02	NV	NV	NV	NV
VANADIUM	7.20E+01	5.10E-02	3.49E-01	1.06E+00	7.54E-03	3.69E-02	1.10E+00	3.44E-01	1.69E+00	3.2E+00	6.5E-01
ZINC	5.50E+01	1.30E-01	4.45E+01	8.08E-01	1.92E-02	4.70E+00	5.53E+00	6.61E+01	1.71E+02	8.4E-02	3.2E-02

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.54E-01	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.63E-02	kg/day	Dose (vegetation) = (Cv * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Water Ingestion Rate = (Iw)	2.28E-02	L/day	Dose (water) = (Cw * Iw)(H)/BW	NOAEL = No Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	2.26E-03	kg/day	Cv = Contaminant concentration in vegetation	NV- Value Not Available/Not Able to be Calculated
Home Range = (HR)	Assume 100% on site		Cs = Contaminant concentration in soil	
Contaminated Area = (CA)	Assume equal to home range		Cw = Contaminant concentration in water	
H=CA/HR (Assume = to 1)			Total Dose = Dose (soil) + Dose (water)+ Dose (vegetation)	

SHORT-TAILED SHREW - CONSERVATIVE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 11, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Max Soil Conc. (mg/kg)	Max SW Conc. (mg/L)	Invertebrate Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Surface Water	Invert.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	LOAEL
Semivolatile Organics											
ACENAPHTHENE	5.20E-01	0.00E+00	7.64E-01	1.66E-03	0.00E+00	8.16E-02	8.32E-02	6.56E+01	3.56E+02	1.3E-03	2.3E-04
ACENAPHTHYLENE	3.00E-01	0.00E+00	6.87E+00	9.60E-04	0.00E+00	7.33E-01	7.34E-01	6.56E+01	3.56E+02	1.1E-02	2.1E-03
ANTHRACENE	1.90E+00	0.00E+00	4.60E+00	6.08E-03	0.00E+00	4.91E-01	4.97E-01	6.56E+01	3.56E+02	7.6E-03	1.4E-03
BENZO(A)ANTHRACENE	5.80E+00	3.10E-04	9.22E+00	1.86E-02	8.85E-05	9.84E-01	1.00E+00	6.15E-01	3.84E+01	1.6E+00	2.6E-02
BENZO(A)PYRENE	5.20E+00	2.90E-04	6.92E+00	1.66E-02	8.27E-05	7.38E-01	7.55E-01	6.15E-01	3.84E+01	1.2E+00	2.0E-02
BENZO(B)FLUORANTHENE	5.10E+00	3.20E-04	1.33E+01	1.63E-02	9.13E-05	1.41E+00	1.43E+00	6.15E-01	3.84E+01	2.3E+00	3.7E-02
BENZO(G,H,I)PERYLENE	3.10E+00	1.90E-04	9.11E+00	9.92E-03	5.42E-05	9.72E-01	9.82E-01	6.15E-01	3.84E+01	1.6E+00	2.6E-02
BENZO(K)FLUORANTHENE	1.80E+00	2.50E-04	4.68E+00	5.76E-03	7.13E-05	4.99E-01	5.05E-01	6.15E-01	3.84E+01	8.2E-01	1.3E-02
BIS(2-ETHYLHEXYL)PHTHALATE	1.00E-01	0.00E+00	1.00E-01	3.20E-04	0.00E+00	1.07E-02	1.10E-02	1.83E+01	1.83E+02	6.0E-04	6.0E-05
BUTYL BENZYL PHTHALATE	2.50E-01	0.00E+00	2.50E-01	8.00E-04	0.00E+00	2.67E-02	2.75E-02	1.59E+01	4.70E+01	1.7E-03	5.8E-04
CHRYSENE	6.20E+00	3.30E-04	1.42E+01	1.98E-02	9.42E-05	1.51E+00	1.53E+00	6.15E-01	3.84E+01	2.5E+00	4.0E-02
DI-N-BUTYL PHTHALATE	4.60E-02	0.00E+00	4.60E-02	1.47E-04	0.00E+00	4.91E-03	5.05E-03	5.50E+02	1.83E+03	9.2E-06	2.8E-06
DIBENZO(A,H)ANTHRACENE	8.50E-01	0.00E+00	1.96E+00	2.72E-03	0.00E+00	2.09E-01	2.12E-01	6.15E-01	3.84E+01	3.5E-01	5.5E-03
FLUORANTHENE	8.80E+00	5.50E-04	2.68E+01	2.82E-02	1.57E-04	2.85E+00	2.88E+00	6.56E+01	3.56E+02	4.4E-02	8.1E-03
FLUORENE	9.10E-01	0.00E+00	8.71E+00	2.91E-03	0.00E+00	9.29E-01	9.32E-01	6.56E+01	3.56E+02	1.4E-02	2.6E-03
INDENO(1,2,3-CD)PYRENE	2.40E+00	1.60E-04	6.86E+00	7.68E-03	4.57E-05	7.32E-01	7.40E-01	6.15E-01	3.84E+01	1.2E+00	1.9E-02
PHENANTHRENE	7.90E+00	1.60E-04	1.36E+01	2.53E-02	4.57E-05	1.45E+00	1.48E+00	6.56E+01	3.56E+02	2.2E-02	4.1E-03
PYRENE	1.30E+01	5.10E-04	2.28E+01	4.16E-02	1.46E-04	2.43E+00	2.47E+00	6.15E-01	3.84E+01	4.0E+00	6.4E-02
PCBs											
AROCLOR-1260	1.20E+01	0.00E+00	1.91E+02	3.84E-02	0.00E+00	2.04E+01	2.04E+01	6.80E-02	6.80E-01	3.0E+02	3.0E+01
Inorganics											
ANTIMONY	1.20E+00	4.10E-03	8.03E-02	3.84E-03	1.17E-03	8.57E-03	1.36E-02	5.90E-02	2.76E+00	2.3E-01	4.9E-03
BERYLLIUM	1.40E+00	0.00E+00	6.30E-02	4.48E-03	0.00E+00	6.72E-03	1.12E-02	5.32E-01	6.73E-01	2.1E-02	1.7E-02
CADMIUM	2.80E+00	2.30E-04	1.88E+01	8.96E-03	6.56E-05	2.00E+00	2.01E+00	7.70E-01	6.90E+00	2.6E+00	2.9E-01
CHROMIUM	4.40E+01	2.00E-02	1.35E+01	1.41E-01	5.71E-03	1.44E+00	1.58E+00	2.40E+00	5.82E+01	6.6E-01	2.7E-02
COPPER	8.10E+01	3.90E-02	4.17E+01	2.59E-01	1.11E-02	4.45E+00	4.72E+00	5.60E+00	8.27E+01	8.4E-01	5.7E-02
LEAD	4.10E+01	2.00E-02	1.61E+01	1.31E-01	5.71E-03	1.72E+00	1.85E+00	4.70E+00	1.86E+02	3.9E-01	1.0E-02
MERCURY	6.70E-01	2.10E-04	9.45E-01	2.14E-03	5.99E-05	1.01E-01	1.03E-01	3.20E-02	1.60E-01	3.2E+00	6.4E-01
SELENIUM	3.10E+00	0.00E+00	2.13E+00	9.92E-03	0.00E+00	2.27E-01	2.37E-01	1.43E-01	6.61E-01	1.7E+00	3.6E-01
THALLIUM	9.20E-01	1.80E-03	4.98E-02	2.94E-03	5.14E-04	5.31E-03	8.77E-03	7.40E-03	7.40E-02	1.2E+00	1.2E-01
VANADIUM	7.20E+01	5.10E-02	3.02E+00	2.30E-01	1.46E-02	3.23E-01	5.68E-01	4.16E+00	9.44E+00	1.4E-01	6.0E-02
ZINC	5.50E+01	1.30E-01	3.18E+02	1.76E-01	3.71E-02	3.40E+01	3.42E+01	7.54E+01	2.98E+02	4.5E-01	1.1E-01

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.50E-02	kg	Dose (soil) = (Cs * Is)(H)/BW
Food Ingestion Rate = (If)	1.60E-03	kg/day	Dose (vegetation) = (Cv * If)(H)/BW
Water Ingestion Rate = (Iw)	4.28E-03	L/day	Dose (water) = (Cw * Iw)(H)/BW
Soil Ingestion Rate = (Is)	4.80E-05 kg/day		Ci = Contaminant concentration in invertebrate
Home Range = (HR)	Assume 100% on site		Cs = Contaminant concentration in soil
Contaminated Area = (CA)	Assume equal to home range		Cw = Contaminant concentration in water
H=CA/HR (Assume = to 1)			Total Dose = Dose (soil) + Dose (water) + Dose (invertebrate)

Conc = Concentration
LOAEL = Lowest Observed Adverse Effects Concentration
NOAEL = No Observed Adverse Effects Concentration

AMERICAN ROBIN - CONSERVATIVE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 11, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Max Soil Conc. (mg/kg)	Max SW Conc. (mg/L)	Invertebrate Conc. (mg/kg)	Dose (mg/kg/d) from:			Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients	
				Soil	Surface Water	Invert.				NOAEL	LOAEL
Semivolatile Organics											
ACENAPHTHENE	5.20E-01	0.00E+00	7.64E-01	1.38E-02	0.00E+00	1.23E-01	1.37E-01	2.00E+00	2.00E+01	6.9E-02	6.9E-03
ACENAPHTHYLENE	3.00E-01	0.00E+00	6.87E+00	7.94E-03	0.00E+00	1.11E+00	1.12E+00	2.00E+00	2.00E+01	5.6E-01	5.6E-02
ANTHRACENE	1.90E+00	0.00E+00	4.60E+00	5.03E-02	0.00E+00	7.42E-01	7.92E-01	2.00E+00	2.00E+01	4.0E-01	4.0E-02
BENZO(A)ANTHRACENE	5.80E+00	3.10E-04	9.22E+00	1.54E-01	4.84E-05	1.49E+00	1.64E+00	2.00E+00	2.00E+01	8.2E-01	8.2E-02
BENZO(A)PYRENE	5.20E+00	2.90E-04	6.92E+00	1.38E-01	4.53E-05	1.12E+00	1.25E+00	2.00E+00	2.00E+01	6.3E-01	6.3E-02
BENZO(B)FLUORANTHENE	5.10E+00	3.20E-04	1.33E+01	1.35E-01	5.00E-05	2.14E+00	2.27E+00	2.00E+00	2.00E+01	1.1E+00	1.1E-01
BENZO(G,H,I)PERYLENE	3.10E+00	1.90E-04	9.11E+00	8.20E-02	2.97E-05	1.47E+00	1.55E+00	2.00E+00	2.00E+01	7.8E-01	7.8E-02
BENZO(K)FLUORANTHENE	1.80E+00	2.50E-04	4.68E+00	4.76E-02	3.90E-05	7.55E-01	8.03E-01	2.00E+00	2.00E+01	4.0E-01	4.0E-02
BIS(2-ETHYLHEXYL)PHTHALATE	1.00E-01	0.00E+00	1.00E-01	2.65E-03	0.00E+00	1.61E-02	1.88E-02	1.11E+00	1.11E+01	1.7E-02	1.7E-03
BUTYL BENZYL PHTHALATE	2.50E-01	0.00E+00	2.50E-01	6.62E-03	0.00E+00	4.03E-02	4.70E-02	NV	NV	NV	NV
CHRYSENE	6.20E+00	3.30E-04	1.42E+01	1.64E-01	5.15E-05	2.29E+00	2.46E+00	2.00E+00	2.00E+01	1.2E+00	1.2E-01
DI-N-BUTYL PHTHALATE	4.60E-02	0.00E+00	4.60E-02	1.22E-03	0.00E+00	7.42E-03	8.64E-03	1.11E-01	1.11E+00	7.8E-02	7.8E-03
DIBENZO(A,H)ANTHRACENE	8.50E-01	0.00E+00	1.96E+00	2.25E-02	0.00E+00	3.17E-01	3.39E-01	2.00E+00	2.00E+01	1.7E-01	1.7E-02
FLUORANTHENE	8.80E+00	5.50E-04	2.68E+01	2.33E-01	8.59E-05	4.32E+00	4.55E+00	2.00E+00	2.00E+01	2.3E+00	2.3E-01
FLUORENE	9.10E-01	0.00E+00	8.71E+00	2.41E-02	0.00E+00	1.41E+00	1.43E+00	2.00E+00	2.00E+01	7.1E-01	7.1E-02
INDENO(1,2,3-CD)PYRENE	2.40E+00	1.60E-04	6.86E+00	6.35E-02	2.50E-05	1.11E+00	1.17E+00	2.00E+00	2.00E+01	5.9E-01	5.9E-02
PHENANTHRENE	7.90E+00	1.60E-04	1.36E+01	2.09E-01	2.50E-05	2.19E+00	2.40E+00	2.00E+00	2.00E+01	1.2E+00	1.2E-01
PYRENE	1.30E+01	5.10E-04	2.28E+01	3.44E-01	7.96E-05	3.67E+00	4.02E+00	2.00E+00	2.00E+01	2.0E+00	2.0E-01
PCBs											
AROCLOR-1260	1.20E+01	0.00E+00	1.91E+02	3.18E-01	0.00E+00	3.08E+01	3.11E+01	1.80E-01	1.80E+00	1.7E+02	1.7E+01
Inorganics											
ANTIMONY	1.20E+00	4.10E-03	8.03E-02	3.18E-02	6.40E-04	1.30E-02	4.54E-02	NV	NV	NV	NV
BERYLLIUM	1.40E+00	0.00E+00	6.30E-02	3.71E-02	0.00E+00	1.02E-02	4.72E-02	NV	NV	NV	NV
CADMIUM	2.80E+00	2.30E-04	1.88E+01	7.41E-02	3.59E-05	3.03E+00	3.10E+00	1.47E+00	6.35E+00	2.1E+00	4.9E-01
CHROMIUM	4.40E+01	2.00E-02	1.35E+01	1.16E+00	3.12E-03	2.17E+00	3.34E+00	2.66E+00	1.56E+01	1.3E+00	2.1E-01
COPPER	8.10E+01	3.90E-02	4.17E+01	2.14E+00	6.09E-03	6.73E+00	8.88E+00	4.05E+00	3.49E+01	2.2E+00	2.5E-01
LEAD	4.10E+01	2.00E-02	1.61E+01	1.09E+00	3.12E-03	2.60E+00	3.69E+00	1.63E+00	4.46E+01	2.3E+00	8.3E-02
MERCURY	6.70E-01	2.10E-04	9.45E-01	1.77E-02	3.28E-05	1.52E-01	1.70E-01	6.40E-03	6.40E-02	2.7E+01	2.7E+00
SELENIUM	3.10E+00	0.00E+00	2.13E+00	8.20E-02	0.00E+00	3.43E-01	4.25E-01	2.90E-01	8.19E-01	1.5E+00	5.2E-01
THALLIUM	9.20E-01	1.80E-03	4.98E-02	2.43E-02	2.81E-04	8.03E-03	3.27E-02	NV	NV	NV	NV
VANADIUM	7.20E+01	5.10E-02	3.02E+00	1.91E+00	7.96E-03	4.88E-01	2.40E+00	3.44E-01	1.69E+00	7.0E+00	1.4E+00
ZINC	5.50E+01	1.30E-01	3.18E+02	1.46E+00	2.03E-02	5.14E+01	5.29E+01	6.61E+01	1.71E+02	8.0E-01	3.1E-01

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	7.73E-02	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.25E-02	kg/day	Dose (invertebrate) = (Ci * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Water Ingestion Rate = (Iw)	1.21E-02	L/day	Dose (water) = (Cw * Iw)(H)/BW	NOAEL = No Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	2.05E-03	kg/day	Ci = Contaminant concentration in invertebrate	NV- Value Not Available/Not Able to be Calculated
Home Range = (HR)	Assume 100% on site		Cs = Contaminant concentration in soil	
Contaminated Area = (CA)	Assume equal to home range		Cw = Contaminant concentration in water	
H=CA/HR (Assume = to 1)			Total Dose = Dose (soil) + Dose (water) + Dose (invertebrate)	

MEADOW VOLE - AVERAGE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 11, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Avg Soil Conc. (mg/kg)	Avg SW Conc. (mg/L)	Vegetation Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Surface Water	Veget.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	LOAEL
Semivolatile Organics											
PYRENE	1.46E+00	1.44E-04	1.05E+00	8.53E-04	2.52E-05	5.12E-02	5.21E-02	6.15E-01	3.84E+01	8.47E-02	1.36E-03
Inorganics											
MERCURY	9.02E-02	9.09E-05	5.88E-02	5.27E-05	1.59E-05	2.86E-03	2.93E-03	3.20E-02	1.60E-01	9.17E-02	1.83E-02
SELENIUM	4.42E-01	0.00E+00	2.06E-01	2.58E-04	0.00E+00	1.00E-02	1.03E-02	1.43E-01	6.61E-01	7.20E-02	1.56E-02

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	3.58E-02	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.74E-03	kg/day	Dose (vegetation) = (Cv * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Water Ingestion Rate = (Iw)	6.26E-03	L/day	Dose (water) = (Cw * Iw)(H)/BW	NOAEL = No Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	2.09E-05	kg/day	Cv = Contaminant concentration in vegetation	
Home Range = (HR)	6.59E-02	acres	Cs = Contaminant concentration in soil	
Contaminated Area = (CA)	Assume equal to home range		Cw = Contaminant concentration in water	
H=CA/HR (Assume = to 1)			Total Dose = Dose (soil) + Dose (water)+ Dose (vegetation)	

BOBWHITE QUAIL - AVERAGE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 11, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Avg Soil Conc. (mg/kg)	Avg SW Conc. (mg/L)	Vegetation Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Surface Water	Veget.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	LOAEL
Inorganics											
MERCURY	9.02E-02	9.09E-05	5.88E-02	4.28E-04	1.00E-05	4.57E-03	5.01E-03	6.40E-03	6.40E-02	7.8E-01	7.8E-02
VANADIUM	2.28E+01	1.25E-02	1.11E-01	1.08E-01	1.37E-03	8.61E-03	1.18E-01	3.44E-01	1.69E+00	3.4E-01	7.0E-02

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.75E-01	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.36E-02	kg/day	Dose (vegetation) = (Cv * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Water Ingestion Rate = (Iw)	1.93E-02	L/day	Dose (water) = (Cw * Iw)(H)/BW	NOAEL = No Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	8.30E-04	kg/day	Cv = Contaminant concentration in vegetation	
Home Range = (HR)	1.88E+01	acres	Cs = Contaminant concentration in soil	
Contaminated Area = (CA)	Assume equal to home range		Cw = Contaminant concentration in water	
H=CA/HR (Assume = to 1)			Total Dose = Dose (soil) + Dose (water)+ Dose (vegetation)	

SHORT-TAILED SHREW - AVERAGE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 11, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Avg Soil Conc. (mg/kg)	Avg SW Conc. (mg/L)	Invertebrate Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Surface Water	Invert.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	LOAEL
Semivolatile Organics											
BENZO(A)ANTHRACENE	7.62E-01	6.59E-05	1.21E+00	6.10E-04	1.47E-05	1.08E-01	1.08E-01	6.15E-01	3.84E+01	1.8E-01	2.8E-03
BENZO(A)PYRENE	7.32E-01	5.86E-05	9.74E-01	5.86E-04	1.31E-05	8.67E-02	8.73E-02	6.15E-01	3.84E+01	1.4E-01	2.3E-03
BENZO(B)FLUORANTHENE	8.45E-01	7.47E-05	2.20E+00	6.77E-04	1.67E-05	1.96E-01	1.96E-01	6.15E-01	3.84E+01	3.2E-01	5.1E-03
BENZO(G,H,I)PERYLENE	4.22E-01	4.39E-05	1.24E+00	3.38E-04	9.82E-06	1.10E-01	1.11E-01	6.15E-01	3.84E+01	1.8E-01	2.9E-03
CHRYSENE	7.95E-01	7.74E-05	1.82E+00	6.37E-04	1.73E-05	1.62E-01	1.63E-01	6.15E-01	3.84E+01	2.6E-01	4.2E-03
INDENO(1,2,3-CD)PYRENE	3.54E-01	3.89E-05	1.01E+00	2.84E-04	8.69E-06	9.02E-02	9.05E-02	6.15E-01	3.84E+01	1.5E-01	2.4E-03
PYRENE	1.46E+00	1.44E-04	2.55E+00	1.17E-03	3.22E-05	2.27E-01	2.28E-01	6.15E-01	3.84E+01	3.7E-01	5.9E-03
PCBs											
AROCLOR-1260	9.21E-01	0.00E+00	6.14E+00	7.38E-04	0.00E+00	5.46E-01	5.47E-01	6.80E-02	6.80E-01	8.0E+00	8.0E-01
Inorganics											
CADMIUM	1.71E-01	2.04E-04	2.04E+00	1.37E-04	4.57E-05	1.81E-01	1.82E-01	7.70E-01	6.90E+00	2.4E-01	2.6E-02
MERCURY	9.02E-02	9.09E-05	4.81E-01	7.22E-05	2.03E-05	4.28E-02	4.29E-02	3.20E-02	1.60E-01	1.3E+00	2.7E-01
SELENIUM	4.42E-01	0.00E+00	5.10E-01	3.54E-04	0.00E+00	4.53E-02	4.57E-02	1.43E-01	6.61E-01	3.2E-01	6.9E-02

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.61E-02	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.43E-03	kg/day	Dose (invertebrate) = (Ci * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Water Ingestion Rate = (Iw)	3.60E-03	L/day	Dose (water) = (Cw * Iw)(H)/BW	NOAEL = No Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	1.29E-05	kg/day	Ci = Contaminant concentration in invertebrate	
Home Range = (HR)	9.70E-01	acres	Cs = Contaminant concentration in soil	
Contaminated Area = (CA)	Assume equal to home range		Cw = Contaminant concentration in water	
H=CA/HR (Assume = to 1)			Total Dose = Dose (soil) + Dose (water) + Dose (invertebrate)	

AMERICAN ROBIN - AVERAGE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 11, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Avg Soil Conc. (mg/kg)	Avg SW Conc. (mg/L)	Invertebrate Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Surface Water	Invert.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	LOAEL
Semivolatile Organics											
BENZO(B)FLUORANTHENE	8.45E-01	7.47E-05	2.20E+00	7.99E-03	1.05E-05	3.25E-01	3.33E-01	2.00E+00	2.00E+01	1.7E-01	1.7E-02
CHRYSENE	7.95E-01	7.74E-05	1.82E+00	7.52E-03	1.09E-05	2.69E-01	2.77E-01	2.00E+00	2.00E+01	1.4E-01	1.4E-02
FLUORANTHENE	1.32E+00	1.57E-04	4.03E+00	1.25E-02	2.22E-05	5.95E-01	6.08E-01	2.00E+00	2.00E+01	3.0E-01	3.0E-02
PHENANTHRENE	7.82E-01	4.70E-05	1.35E+00	7.40E-03	6.63E-06	1.99E-01	2.06E-01	2.00E+00	2.00E+01	1.0E-01	1.0E-02
PYRENE	1.46E+00	1.44E-04	2.55E+00	1.38E-02	2.03E-05	3.77E-01	3.91E-01	2.00E+00	2.00E+01	2.0E-01	2.0E-02
PCBs											
AROCLOR-1260	9.21E-01	0.00E+00	6.14E+00	8.71E-03	0.00E+00	9.07E-01	9.16E-01	1.80E-01	1.80E+00	5.1E+00	5.1E-01
Inorganics											
CADMIUM	1.71E-01	2.04E-04	2.04E+00	1.62E-03	2.88E-05	3.01E-01	3.03E-01	1.47E+00	6.35E+00	2.1E-01	4.8E-02
CHROMIUM	1.42E+01	6.91E-03	4.33E+00	1.34E-01	9.75E-04	6.40E-01	7.74E-01	2.66E+00	1.56E+01	2.9E-01	5.0E-02
COPPER	1.21E+01	1.19E-02	6.24E+00	1.15E-01	1.68E-03	9.22E-01	1.04E+00	4.05E+00	3.49E+01	2.6E-01	3.0E-02
MERCURY	9.02E-02	9.09E-05	4.81E-01	8.53E-04	1.28E-05	7.10E-02	7.19E-02	6.40E-03	6.40E-02	1.1E+01	1.1E+00
SELENIUM	4.42E-01	0.00E+00	5.10E-01	4.17E-03	0.00E+00	7.53E-02	7.95E-02	2.90E-01	8.19E-01	2.7E-01	9.7E-02
VANADIUM	2.28E+01	1.25E-02	9.59E-01	2.16E-01	1.76E-03	1.42E-01	3.59E-01	3.44E-01	1.69E+00	1.0E+00	2.1E-01

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	8.04E-02	kg	Dose (soil) = (Cs * Is)(H)/BW
Food Ingestion Rate = (If)	1.19E-02	kg/day	Dose (invertebrate) = (Ci * If)(H)/BW
Water Ingestion Rate = (Iw)	1.13E-02	L/day	Dose (water) = (Cw * Iw)(H)/BW
Soil Ingestion Rate = (Is)	7.60E-04	kg/day	Ci = Contaminant concentration in invertebrate
Home Range = (HR)	6.10E-01	acres	Cs = Contaminant concentration in soil
Contaminated Area = (CA)	Assume equal to home range		Cw = Contaminant concentration in water
H=CA/HR (Assume = to 1)			Total Dose = Dose (soil) + Dose (water) + Dose (invertebrate)

Conc = Concentration
LOAEL = Lowest Observed Adverse Effects Concentration
NOAEL = No Observed Adverse Effects Concentration

FOOD CHAIN MODEL – SEDIMENT

CHEMICAL CONCENTRATIONS IN SEDIMENT AND TISSUE
REC 11
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Chemical	Sediment Concentrations (mg/kg)		Surface Water Concentrations (mg/L)				Invertebrate Bioaccumulation Factors[2]		Invertebrate Concentrations (mg/kg)[3]	
	Maximum Detection	Average [1]	Maximum Detection	Overall Average	Average of Positive Detection	Average [1]	Conservative	Average	Maximum Detection	Average
SEMIVOLATILES										
ACENAPHTHENE	5.60E-01	1.57E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.90E-01	2.90E-01	1.38E+00	3.88E-01
ACENAPHTHYLENE	2.70E-02	1.13E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.90E-01	2.90E-01	6.66E-02	2.79E-02
ANTHRACENE	1.90E+00	5.20E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.90E-01	2.90E-01	4.68E+00	1.28E+00
BENZO(A)ANTHRACENE	6.10E+00	1.84E+00	3.10E-04	6.59E-05	2.20E-04	6.59E-05	2.90E-01	2.90E-01	1.50E+01	4.53E+00
BENZO(A)PYRENE	3.90E+00	1.38E+00	2.90E-04	5.86E-05	2.90E-04	5.86E-05	2.90E-01	2.90E-01	9.61E+00	3.41E+00
BENZO(B)FLUORANTHENE	5.70E+00	1.99E+00	3.20E-04	7.47E-05	2.40E-04	7.47E-05	2.90E-01	2.90E-01	1.41E+01	4.92E+00
BENZO(G,H,I)PERYLENE	1.70E+00	7.20E-01	1.90E-04	4.39E-05	1.90E-04	4.39E-05	2.90E-01	2.90E-01	4.19E+00	1.77E+00
BENZO(K)FLUORANTHENE	2.40E+00	8.34E-01	2.50E-04	5.08E-05	2.50E-04	5.08E-05	2.90E-01	2.90E-01	5.92E+00	2.06E+00
CHRYSENE	5.60E+00	1.83E+00	3.30E-04	7.74E-05	2.35E-04	7.74E-05	2.90E-01	2.90E-01	1.38E+01	4.51E+00
DIBENZO(A,H)ANTHRACENE	5.90E-01	2.19E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.90E-01	2.90E-01	1.45E+00	5.39E-01
FLUORANTHENE	1.30E+01	3.84E+00	5.50E-04	1.57E-04	2.38E-04	1.57E-04	2.90E-01	2.90E-01	3.20E+01	9.47E+00
FLUORENE	6.80E-01	1.76E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.90E-01	2.90E-01	1.68E+00	4.35E-01
INDENO(1,2,3-CD)PYRENE	1.80E+00	7.05E-01	1.60E-04	3.89E-05	1.60E-04	3.89E-05	2.90E-01	2.90E-01	4.44E+00	1.74E+00
PENTACHLOROPHENOL	1.50E-01	4.52E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.21E+01	5.21E+01	7.82E+00	2.35E+00
PHENANTHRENE	7.40E+00	2.02E+00	1.60E-04	4.70E-05	1.60E-04	4.70E-05	2.90E-01	2.90E-01	1.82E+01	4.98E+00
PHENOL	6.60E-02	3.43E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.43E-01	4.43E-01	2.92E-02	1.52E-02
PYRENE	1.10E+01	3.36E+00	5.10E-04	1.44E-04	2.18E-04	1.44E-04	2.90E-01	2.90E-01	2.71E+01	8.28E+00
PCBS										
AROCLOR-1260	9.30E-02	3.60E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.41E+01	3.62E+01	5.07E+01	1.11E+01
METALS										
ARSENIC	7.00E+00	4.44E+00	2.40E-02	5.59E-03	1.14E-02	5.59E-03	6.90E-01	1.43E-01	4.83E+00	6.35E-01
CADMIUM	1.90E+00	7.22E-01	2.30E-04	2.04E-04	1.83E-04	2.04E-04	7.99E+00	6.00E-01	1.52E+01	4.33E-01
CHROMIUM	3.70E+01	1.87E+01	2.00E-02	6.91E-03	7.77E-03	6.91E-03	4.68E-01	1.00E-01	1.73E+01	1.87E+00
COPPER	5.60E+01	2.11E+01	3.90E-02	1.19E-02	1.55E-02	1.19E-02	5.25E+00	1.56E+00	2.94E+02	3.29E+01
LEAD	3.00E+01	1.96E+01	2.00E-02	5.75E-03	7.35E-03	5.75E-03	6.07E-01	7.10E-02	1.82E+01	1.39E+00
MERCURY	1.80E-01	1.05E-01	2.10E-04	9.09E-05	1.67E-04	9.09E-05	2.87E+00	1.14E+00	5.16E-01	1.20E-01
NICKEL	2.70E+01	1.10E+01	1.40E-02	5.86E-03	7.15E-03	5.86E-03	2.32E+00	4.86E-01	6.26E+01	5.37E+00
SELENIUM	1.30E+00	4.79E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.90E-01	9.90E-01	1.29E+00	4.74E-01
SILVER	4.80E-01	2.59E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E+00	2.04E+00	9.79E-01	5.27E-01
ZINC	6.50E+02	1.73E+02	1.30E-01	5.20E-02	5.87E-02	5.20E-02	7.53E+00	1.94E+00	4.89E+03	3.36E+02

Percent TOC (default) 1.00E+00
percent Lipids (default) 8.50E+00

NA - Not applicable
(1) Average concentration is the mean

(2) Attachment 2-5 provides the sources of the bioaccumulation factors.
(3) Invertebrate concentrations for the organic

BLUE HERON - CONSERVATIVE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
REC 11
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Chemical	Max Sed. Conc. (mg/kg)	Max SW Conc. (mg/L)	Max Invert. Conc. (mg/kg)	Dose (mg/kg/d) from:			Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients	
				Sediment	Surface Water	Invertebrate				NOAEL	LOAEL
SEMIVOLATILES											
ACENAPHTHENE	5.60E-01	0.00E+00	1.38E+00	9.72E-04	0.00E+00	7.26E-02	7.36E-02	2.00E+00	2.00E+01	3.7E-02	3.7E-03
ACENAPHTHYLENE	2.70E-02	0.00E+00	6.66E-02	4.69E-05	0.00E+00	3.50E-03	3.55E-03	2.00E+00	2.00E+01	1.8E-03	1.8E-04
ANTHRACENE	1.90E+00	0.00E+00	4.68E+00	3.30E-03	0.00E+00	2.46E-01	2.50E-01	2.00E+00	2.00E+01	1.2E-01	1.2E-02
BENZO(A)ANTHRACENE	6.10E+00	3.10E-04	1.50E+01	1.06E-02	1.63E-05	7.91E-01	8.01E-01	2.00E+00	2.00E+01	4.0E-01	4.0E-02
BENZO(A)PYRENE	3.90E+00	2.90E-04	9.61E+00	6.77E-03	1.53E-05	5.06E-01	5.12E-01	2.00E+00	2.00E+01	2.6E-01	2.6E-02
BENZO(B)FLUORANTHENE	5.70E+00	3.20E-04	1.41E+01	9.89E-03	1.68E-05	7.39E-01	7.49E-01	2.00E+00	2.00E+01	3.7E-01	3.7E-02
BENZO(G,H,I)PERYLENE	1.70E+00	1.90E-04	4.19E+00	2.95E-03	9.99E-06	2.20E-01	2.23E-01	2.00E+00	2.00E+01	1.1E-01	1.1E-02
BENZO(K)FLUORANTHENE	2.40E+00	2.50E-04	5.92E+00	4.17E-03	1.31E-05	3.11E-01	3.15E-01	2.00E+00	2.00E+01	1.6E-01	1.6E-02
CHRYSENE	5.60E+00	3.30E-04	1.38E+01	9.72E-03	1.74E-05	7.26E-01	7.36E-01	2.00E+00	2.00E+01	3.7E-01	3.7E-02
DIBENZO(A,H)ANTHRACENE	5.90E-01	0.00E+00	1.45E+00	1.02E-03	0.00E+00	7.65E-02	7.75E-02	2.00E+00	2.00E+01	3.9E-02	3.9E-03
FLUORANTHENE	1.30E+01	5.50E-04	3.20E+01	2.26E-02	2.89E-05	1.69E+00	1.71E+00	2.00E+00	2.00E+01	8.5E-01	8.5E-02
FLUORENE	6.80E-01	0.00E+00	1.68E+00	1.18E-03	0.00E+00	8.82E-02	8.93E-02	2.00E+00	2.00E+01	4.5E-02	4.5E-03
INDENO(1,2,3-CD)PYRENE	1.80E+00	1.60E-04	4.44E+00	3.12E-03	8.42E-06	2.33E-01	2.36E-01	2.00E+00	2.00E+01	1.2E-01	1.2E-02
PENTACHLOROPHENOL	1.50E-01	0.00E+00	7.82E+00	2.60E-04	0.00E+00	4.11E-01	4.11E-01	6.73E+00	5.20E+01	6.1E-02	7.9E-03
PHENANTHRENE	7.40E+00	1.60E-04	1.82E+01	1.28E-02	8.42E-06	9.59E-01	9.72E-01	2.00E+00	2.00E+01	4.9E-01	4.9E-02
PHENOL	6.60E-02	0.00E+00	2.92E-02	1.15E-04	0.00E+00	1.54E-03	1.65E-03	NV	NV	NV	NV
PYRENE	1.10E+01	5.10E-04	2.71E+01	1.91E-02	2.68E-05	1.43E+00	1.45E+00	2.00E+00	2.00E+01	7.2E-01	7.2E-02
PCBS											
AROCLOR-1260	9.30E-02	0.00E+00	5.07E+01	1.61E-04	0.00E+00	2.67E+00	2.67E+00	1.80E-01	1.80E+00	1.5E+01	1.5E+00
METALS											
ARSENIC	7.00E+00	2.40E-02	4.83E+00	1.21E-02	1.26E-03	2.54E-01	2.67E-01	2.24E+00	4.51E+00	1.2E-01	5.9E-02
CADMIUM	1.90E+00	2.30E-04	1.52E+01	3.30E-03	1.21E-05	7.98E-01	8.02E-01	1.47E+00	6.35E+00	5.5E-01	1.3E-01
CHROMIUM	3.70E+01	2.00E-02	1.73E+01	6.42E-02	1.05E-03	9.11E-01	9.76E-01	2.66E+00	1.56E+01	3.7E-01	6.2E-02
COPPER	5.60E+01	3.90E-02	2.94E+02	9.72E-02	2.05E-03	1.55E+01	1.56E+01	4.05E+00	3.49E+01	3.8E+00	4.5E-01
LEAD	3.00E+01	2.00E-02	1.82E+01	5.21E-02	1.05E-03	9.58E-01	1.01E+00	1.63E+00	4.46E+01	6.2E-01	2.3E-02
MERCURY	1.80E-01	2.10E-04	5.16E-01	3.12E-04	1.10E-05	2.72E-02	2.75E-02	6.40E-03	6.40E-02	4.3E+00	4.3E-01
NICKEL	2.70E+01	1.40E-02	6.26E+01	4.69E-02	7.36E-04	3.29E+00	3.34E+00	6.71E+00	1.86E+01	5.0E-01	1.8E-01
SELENIUM	1.30E+00	0.00E+00	1.29E+00	2.26E-03	0.00E+00	6.77E-02	6.99E-02	2.90E-01	8.19E-01	2.4E-01	8.5E-02
SILVER	4.80E-01	0.00E+00	9.79E-01	8.33E-04	0.00E+00	5.15E-02	5.23E-02	2.02E+00	6.05E+01	2.6E-02	8.7E-04
ZINC	6.50E+02	1.30E-01	4.89E+03	1.13E+00	6.84E-03	2.57E+02	2.58E+02	6.61E+01	1.71E+02	3.9E+00	1.5E+00

Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	2.20E+00	kg	Dose (sediment) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.16E-01	kg/day	Dose (invert.) = (Cf * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Water Ingestion Rate = (Iw)	1.16E-01	L/day	Dose (water) = (Cw * Iw)(H)/BW	NOAEL = No Observed Adverse Effects Concentration
Sediment Ingestion Rate = (Is)	3.83E-03	kg/day	Cf = Contaminant concentration in invert.	Sed = Sediment
Home Range = (HR)	Assume 100% on site		Cs = Contaminant concentration in sediment	NV = Value not available
Contaminated Area = (CA)	Assume equal to home range		Total Dose = Dose (sediment) + Dose (water) + Dose (invert.)	
			H=CA/HR (Assume = to 1)	

BLUE HERON - AVERAGE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
REC 11
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Chemical	Avg Sediment Conc. (mg/kg)	Avg SW Conc. (mg/L)	Avg Invert. Conc. (mg/kg)	Dose (mg/kg/d) from:			Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients	
				Sediment	Surface Water	Invertebrate				NOAEL	LOAEL
SEMIVOLATILES											
ACENAPHTHENE	1.57E-01	0.00E+00	3.88E-01	2.34E-04	0.00E+00	1.75E-02	1.77E-02	2.00E+00	2.00E+01	8.8E-03	8.8E-04
ACENAPHTHYLENE	1.13E-02	0.00E+00	2.79E-02	1.68E-05	0.00E+00	1.26E-03	1.27E-03	2.00E+00	2.00E+01	6.4E-04	6.4E-05
ANTHRACENE	5.20E-01	0.00E+00	1.28E+00	7.72E-04	0.00E+00	5.77E-02	5.85E-02	2.00E+00	2.00E+01	2.9E-02	2.9E-03
BENZO(A)ANTHRACENE	1.84E+00	6.59E-05	4.53E+00	2.73E-03	2.96E-06	2.04E-01	2.06E-01	2.00E+00	2.00E+01	1.0E-01	1.0E-02
BENZO(A)PYRENE	1.38E+00	5.86E-05	3.41E+00	2.05E-03	2.64E-06	1.53E-01	1.55E-01	2.00E+00	2.00E+01	7.8E-02	7.8E-03
BENZO(B)FLUORANTHENE	1.99E+00	7.47E-05	4.92E+00	2.96E-03	3.36E-06	2.21E-01	2.24E-01	2.00E+00	2.00E+01	1.1E-01	1.1E-02
BENZO(G,H,I)PERYLENE	7.20E-01	4.39E-05	1.77E+00	1.07E-03	1.98E-06	7.99E-02	8.09E-02	2.00E+00	2.00E+01	4.0E-02	4.0E-03
BENZO(K)FLUORANTHENE	8.34E-01	5.08E-05	2.06E+00	1.24E-03	2.28E-06	9.25E-02	9.37E-02	2.00E+00	2.00E+01	4.7E-02	4.7E-03
CHRYSENE	1.83E+00	7.74E-05	4.51E+00	2.72E-03	3.48E-06	2.03E-01	2.06E-01	2.00E+00	2.00E+01	1.0E-01	1.0E-02
DIBENZO(A,H)ANTHRACENE	2.19E-01	0.00E+00	5.39E-01	3.25E-04	0.00E+00	2.42E-02	2.46E-02	2.00E+00	2.00E+01	1.2E-02	1.2E-03
FLUORANTHENE	3.84E+00	1.57E-04	9.47E+00	5.70E-03	7.07E-06	4.26E-01	4.32E-01	2.00E+00	2.00E+01	2.2E-01	2.2E-02
FLUORENE	1.76E-01	0.00E+00	4.35E-01	2.62E-04	0.00E+00	1.96E-02	1.98E-02	2.00E+00	2.00E+01	9.9E-03	9.9E-04
INDENO(1,2,3-CD)PYRENE	7.05E-01	3.89E-05	1.74E+00	1.05E-03	1.75E-06	7.82E-02	7.93E-02	2.00E+00	2.00E+01	4.0E-02	4.0E-03
PENTACHLOROPHENOL	4.52E-02	0.00E+00	2.35E+00	6.71E-05	0.00E+00	1.06E-01	1.06E-01	6.73E+00	5.20E+01	1.6E-02	2.0E-03
PHENANTHRENE	2.02E+00	4.70E-05	4.98E+00	3.00E-03	2.12E-06	2.24E-01	2.27E-01	2.00E+00	2.00E+01	1.1E-01	1.1E-02
PHENOL	3.43E-02	0.00E+00	1.52E-02	5.09E-05	0.00E+00	6.84E-04	7.35E-04	NV	NV	NV	NV
PYRENE	3.36E+00	1.44E-04	8.28E+00	4.99E-03	6.49E-06	3.73E-01	3.78E-01	2.00E+00	2.00E+01	1.9E-01	1.9E-02
PCBS											
AROCLOR-1260	3.60E-02	0.00E+00	1.11E+01	5.35E-05	0.00E+00	4.99E-01	4.99E-01	1.80E-01	1.80E+00	2.8E+00	2.8E-01
METALS											
ARSENIC	4.44E+00	5.59E-03	6.35E-01	6.59E-03	2.52E-04	2.86E-02	3.54E-02	2.24E+00	4.51E+00	1.6E-02	7.9E-03
CADMIUM	7.22E-01	2.04E-04	4.33E-01	1.07E-03	9.20E-06	1.95E-02	2.06E-02	1.47E+00	6.35E+00	1.4E-02	3.2E-03
CHROMIUM	1.87E+01	6.91E-03	1.87E+00	2.78E-02	3.11E-04	8.42E-02	1.12E-01	2.66E+00	1.56E+01	4.2E-02	7.2E-03
COPPER	2.11E+01	1.19E-02	3.29E+01	3.14E-02	5.34E-04	1.48E+00	1.51E+00	4.05E+00	3.49E+01	3.7E-01	4.3E-02
LEAD	1.96E+01	5.75E-03	1.39E+00	2.91E-02	2.59E-04	6.26E-02	9.19E-02	1.63E+00	4.46E+01	5.6E-02	2.1E-03
MERCURY	1.05E-01	9.09E-05	1.20E-01	1.56E-04	4.09E-06	5.38E-03	5.54E-03	6.40E-03	6.40E-02	8.7E-01	8.7E-02
NICKEL	1.10E+01	5.86E-03	5.37E+00	1.64E-02	2.64E-04	2.41E-01	2.58E-01	6.71E+00	1.86E+01	3.8E-02	1.4E-02
SELENIUM	4.79E-01	0.00E+00	4.74E-01	7.11E-04	0.00E+00	2.13E-02	2.21E-02	2.90E-01	8.19E-01	7.6E-02	2.7E-02
SILVER	2.59E-01	0.00E+00	5.27E-01	3.84E-04	0.00E+00	2.37E-02	2.41E-02	2.02E+00	6.05E+01	1.2E-02	4.0E-04
ZINC	1.73E+02	5.20E-02	3.36E+02	2.57E-01	2.34E-03	1.51E+01	1.54E+01	6.61E+01	1.71E+02	2.3E-01	9.0E-02

Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	2.31E+00	kg	Dose (sediment) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.04E-01	kg/day	Dose (invert.) = (Cf * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Water Ingestion Rate = (Iw)	1.04E-01	L/day	Dose (water) = (Cw * Iw)(H)/BW	NOAEL = No Observed Adverse Effects Concentration
Sediment Ingestion Rate = (Is)	3.43E-03	kg/day	Cf = Contaminant concentration in invert.	Sed = Sediment
Home Range = (HR)		km-radius	Cs = Contaminant concentration in sediment	NV = Value not available
Contaminated Area = (CA)	Assume equal to home range		Total Dose = Dose (sediment) + Dose (water) + Dose (invert.)	
			H=CA/HR (Assume = to 1)	

MINK - CONSERVATIVE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
REC 11
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Chemical	Max Sed Conc. (mg/kg)	Max SW Conc. (mg/L)	Max Invert. Conc. (mg/kg)	Dose (mg/kg/d) from: Sediment	Surface Water	Invertebrate	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	LOAEL
SEMIVOLATILES											
ACENAPHTHENE	5.60E-01	0.00E+00	1.38E+00	5.81E-03	0.00E+00	1.52E-01	1.58E-01	6.56E+01	3.56E+02	2.4E-03	4.4E-04
ACENAPHTHYLENE	2.70E-02	0.00E+00	6.66E-02	2.80E-04	0.00E+00	7.34E-03	7.62E-03	6.56E+01	3.56E+02	1.2E-04	2.1E-05
ANTHRACENE	1.90E+00	0.00E+00	4.68E+00	1.97E-02	0.00E+00	5.17E-01	5.36E-01	6.56E+01	3.56E+02	8.2E-03	1.5E-03
BENZO(A)ANTHRACENE	6.10E+00	3.10E-04	1.50E+01	6.33E-02	6.84E-05	1.66E+00	1.72E+00	6.15E-01	3.84E+01	2.8E+00	4.5E-02
BENZO(A)PYRENE	3.90E+00	2.90E-04	9.61E+00	4.04E-02	6.40E-05	1.06E+00	1.10E+00	6.15E-01	3.84E+01	1.8E+00	2.9E-02
BENZO(B)FLUORANTHENE	5.70E+00	3.20E-04	1.41E+01	5.91E-02	7.06E-05	1.55E+00	1.61E+00	6.15E-01	3.84E+01	2.6E+00	4.2E-02
BENZO(G,H,I)PERYLENE	1.70E+00	1.90E-04	4.19E+00	1.76E-02	4.19E-05	4.62E-01	4.80E-01	6.15E-01	3.84E+01	7.8E-01	1.2E-02
BENZO(K)FLUORANTHENE	2.40E+00	2.50E-04	5.92E+00	2.49E-02	5.52E-05	6.53E-01	6.78E-01	6.15E-01	3.84E+01	1.1E+00	1.8E-02
CHRYSENE	5.60E+00	3.30E-04	1.38E+01	5.81E-02	7.28E-05	1.52E+00	1.58E+00	6.15E-01	3.84E+01	2.6E+00	4.1E-02
DIBENZO(A,H)ANTHRACENE	5.90E-01	0.00E+00	1.45E+00	6.12E-03	0.00E+00	1.60E-01	1.67E-01	6.15E-01	3.84E+01	2.7E-01	4.3E-03
FLUORANTHENE	1.30E+01	5.50E-04	3.20E+01	1.35E-01	1.21E-04	3.53E+00	3.67E+00	6.56E+01	3.56E+02	5.6E-02	1.0E-02
FLUORENE	6.80E-01	0.00E+00	1.68E+00	7.05E-03	0.00E+00	1.85E-01	1.92E-01	6.56E+01	3.56E+02	2.9E-03	5.4E-04
INDENO(1,2,3-CD)PYRENE	1.80E+00	1.60E-04	4.44E+00	1.87E-02	3.53E-05	4.89E-01	5.08E-01	6.15E-01	3.84E+01	8.3E-01	1.3E-02
PENTACHLOROPHENOL	1.50E-01	0.00E+00	7.82E+00	1.56E-03	0.00E+00	8.62E-01	8.64E-01	8.42E+00	2.27E+01	1.0E-01	3.8E-02
PHENANTHRENE	7.40E+00	1.60E-04	1.82E+01	7.67E-02	3.53E-05	2.01E+00	2.09E+00	6.56E+01	3.56E+02	3.2E-02	5.9E-03
PHENOL	6.60E-02	0.00E+00	2.92E-02	6.84E-04	0.00E+00	3.23E-03	3.91E-03	9.30E+01	1.57E+02	4.2E-05	2.5E-05
PYRENE	1.10E+01	5.10E-04	2.71E+01	1.14E-01	1.13E-04	2.99E+00	3.11E+00	6.15E-01	3.84E+01	5.0E+00	8.1E-02
PCBS											
AROCLOR-1260	9.30E-02	0.00E+00	5.07E+01	9.64E-04	0.00E+00	5.59E+00	5.59E+00	6.80E-02	6.80E-01	8.2E+01	8.2E+00
METALS											
ARSENIC	7.00E+00	2.40E-02	4.83E+00	7.26E-02	5.30E-03	5.33E-01	6.11E-01	1.04E+00	4.55E+00	5.9E-01	1.3E-01
CADMIUM	1.90E+00	2.30E-04	1.52E+01	1.97E-02	5.07E-05	1.67E+00	1.69E+00	7.70E-01	6.90E+00	2.2E+00	2.5E-01
CHROMIUM	3.70E+01	2.00E-02	1.73E+01	3.84E-01	4.41E-03	1.91E+00	2.30E+00	2.40E+00	5.82E+01	9.6E-01	4.0E-02
COPPER	5.60E+01	3.90E-02	2.94E+02	5.81E-01	8.60E-03	3.24E+01	3.30E+01	5.60E+00	8.27E+01	5.9E+00	4.0E-01
LEAD	3.00E+01	2.00E-02	1.82E+01	3.11E-01	4.41E-03	2.01E+00	2.32E+00	4.70E+00	1.86E+02	4.9E-01	1.2E-02
MERCURY	1.80E-01	2.10E-04	5.16E-01	1.87E-03	4.63E-05	5.69E-02	5.89E-02	3.20E-02	1.60E-01	1.8E+00	3.7E-01
NICKEL	2.70E+01	1.40E-02	6.26E+01	2.80E-01	3.09E-03	6.91E+00	7.19E+00	1.70E+00	1.48E+01	4.2E+00	4.9E-01
SELENIUM	1.30E+00	0.00E+00	1.29E+00	1.35E-02	0.00E+00	1.42E-01	1.55E-01	1.43E-01	6.61E-01	1.1E+00	2.4E-01
SILVER	4.80E-01	0.00E+00	9.79E-01	4.98E-03	0.00E+00	1.08E-01	1.13E-01	6.02E+00	1.19E+02	1.9E-02	9.5E-04
ZINC	6.50E+02	1.30E-01	4.89E+03	6.74E+00	2.87E-02	5.40E+02	5.46E+02	7.54E+01	2.98E+02	7.2E+00	1.8E+00

Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	5.50E-01	kg	Dose (sediment) = (Cs * Is)(H)/BW
Food Ingestion Rate = (If)	6.07E-02	kg/day	Dose (invert.) = (Cf * If)(H)/BW
Water Ingestion Rate = (Iw)	1.21E-01	L/day	Dose (water) = (Cw * Iw)(H)/BW
Sediment Ingestion Rate = (Is)	5.70E-03	kg/day	Cf = Contaminant concentration in invert.
Home Range = (HR)	Assume 100% on site		Cs = Contaminant concentration in sediment
Contaminated Area = (CA)	Assume equal to home range		Total Dose = Dose (sediment) + Dose (water) + Dose (invert.)
			H=CA/HR (Assume = to 1)

Conc = Concentration
LOAEL = Lowest Observed Adverse Effects Concentration
NOAEL = No Observed Adverse Effects Concentration
Sed = Sediment

MINK - AVERAGE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
REC 11
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Chemical	Avg Sediment Conc. (mg/kg)	Avg SW Conc. (mg/L)	Avg Invert. Conc. (mg/kg)	Dose (mg/kg/d) from: Sediment	Surface Water	Invertebrate	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	LOAEL
SEMIVOLATILES											
ACENAPHTHENE	1.57E-01	0.00E+00	3.88E-01	6.04E-04	0.00E+00	1.58E-02	1.64E-02	6.56E+01	3.56E+02	2.5E-04	4.6E-05
ACENAPHTHYLENE	1.13E-02	0.00E+00	2.79E-02	4.35E-05	0.00E+00	1.14E-03	1.18E-03	6.56E+01	3.56E+02	1.8E-05	3.3E-06
ANTHRACENE	5.20E-01	0.00E+00	1.28E+00	2.00E-03	0.00E+00	5.24E-02	5.44E-02	6.56E+01	3.56E+02	8.3E-04	1.5E-04
BENZO(A)ANTHRACENE	1.84E+00	6.59E-05	4.53E+00	7.05E-03	4.36E-06	1.85E-01	1.92E-01	6.15E-01	3.84E+01	3.1E-01	5.0E-03
BENZO(A)PYRENE	1.38E+00	5.86E-05	3.41E+00	5.30E-03	3.88E-06	1.39E-01	1.44E-01	6.15E-01	3.84E+01	2.3E-01	3.8E-03
BENZO(B)FLUORANTHENE	1.99E+00	7.47E-05	4.92E+00	7.65E-03	4.95E-06	2.01E-01	2.08E-01	6.15E-01	3.84E+01	3.4E-01	5.4E-03
BENZO(G,H,I)PERYLENE	7.20E-01	4.39E-05	1.77E+00	2.76E-03	2.91E-06	7.25E-02	7.52E-02	6.15E-01	3.84E+01	1.2E-01	2.0E-03
BENZO(K)FLUORANTHENE	8.34E-01	5.08E-05	2.06E+00	3.20E-03	3.36E-06	8.39E-02	8.71E-02	6.15E-01	3.84E+01	1.4E-01	2.3E-03
CHRYSENE	1.83E+00	7.74E-05	4.51E+00	7.02E-03	5.13E-06	1.84E-01	1.91E-01	6.15E-01	3.84E+01	3.1E-01	5.0E-03
DIBENZO(A,H)ANTHRACENE	2.19E-01	0.00E+00	5.39E-01	8.39E-04	0.00E+00	2.20E-02	2.28E-02	6.15E-01	3.84E+01	3.7E-02	5.9E-04
FLUORANTHENE	3.84E+00	1.57E-04	9.47E+00	1.47E-02	1.04E-05	3.87E-01	4.01E-01	6.56E+01	3.56E+02	6.1E-03	1.1E-03
FLUORENE	1.76E-01	0.00E+00	4.35E-01	6.77E-04	0.00E+00	1.77E-02	1.84E-02	6.56E+01	3.56E+02	2.8E-04	5.2E-05
INDENO(1,2,3-CD)PYRENE	7.05E-01	3.89E-05	1.74E+00	2.71E-03	2.58E-06	7.10E-02	7.37E-02	6.15E-01	3.84E+01	1.2E-01	1.9E-03
PENTACHLOROPHENOL	4.52E-02	0.00E+00	2.35E+00	1.73E-04	0.00E+00	9.62E-02	9.63E-02	8.42E+00	2.27E+01	1.1E-02	4.3E-03
PHENANTHRENE	2.02E+00	4.70E-05	4.98E+00	7.76E-03	3.11E-06	2.04E-01	2.11E-01	6.56E+01	3.56E+02	3.2E-03	5.9E-04
PHENOL	3.43E-02	0.00E+00	1.52E-02	1.32E-04	0.00E+00	6.20E-04	7.52E-04	9.30E+01	1.57E+02	8.1E-06	4.8E-06
PYRENE	3.36E+00	1.44E-04	8.28E+00	1.29E-02	9.55E-06	3.38E-01	3.51E-01	6.15E-01	3.84E+01	5.7E-01	9.1E-03
PCBS											
AROCLOR-1260	3.60E-02	0.00E+00	1.11E+01	1.38E-04	0.00E+00	4.53E-01	4.53E-01	6.80E-02	6.80E-01	6.7E+00	6.7E-01
METALS											
ARSENIC	4.44E+00	5.59E-03	6.35E-01	1.70E-02	3.71E-04	2.59E-02	4.33E-02	1.04E+00	4.55E+00	4.2E-02	9.5E-03
CADMIUM	7.22E-01	2.04E-04	4.33E-01	2.77E-03	1.35E-05	1.77E-02	2.05E-02	7.70E-01	6.90E+00	2.7E-02	3.0E-03
CHROMIUM	1.87E+01	6.91E-03	1.87E+00	7.19E-02	4.58E-04	7.64E-02	1.49E-01	2.40E+00	5.82E+01	6.2E-02	2.6E-03
COPPER	2.11E+01	1.19E-02	3.29E+01	8.11E-02	7.87E-04	1.34E+00	1.43E+00	5.60E+00	8.27E+01	2.5E-01	1.7E-02
LEAD	1.96E+01	5.75E-03	1.39E+00	7.52E-02	3.81E-04	5.68E-02	1.32E-01	4.70E+00	1.86E+02	2.8E-02	7.1E-04
MERCURY	1.05E-01	9.09E-05	1.20E-01	4.04E-04	6.02E-06	4.88E-03	5.29E-03	3.20E-02	1.60E-01	1.7E-01	3.3E-02
NICKEL	1.10E+01	5.86E-03	5.37E+00	4.24E-02	3.88E-04	2.19E-01	2.62E-01	1.70E+00	1.48E+01	1.5E-01	1.8E-02
SELENIUM	4.79E-01	0.00E+00	4.74E-01	1.84E-03	0.00E+00	1.94E-02	2.12E-02	1.43E-01	6.61E-01	1.5E-01	3.2E-02
SILVER	2.59E-01	0.00E+00	5.27E-01	9.92E-04	0.00E+00	2.15E-02	2.25E-02	6.02E+00	1.19E+02	3.7E-03	1.9E-04
ZINC	1.73E+02	5.20E-02	3.36E+02	6.66E-01	3.44E-03	1.37E+01	1.44E+01	7.54E+01	2.98E+02	1.9E-01	4.8E-02

Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.10E+00	kg
Food Ingestion Rate = (If)	4.50E-02	kg/day
Water Ingestion Rate = (Iw)	7.31E-02	L/day
Sediment Ingestion Rate = (Is)	4.23E-03	kg/day
Home Range = (HR)	1.558E+03	acres
Contaminated Area = (CA)	Assume equal to home range	

Dose (sediment) = (Cs * Is)(H)/BW
Dose (invert.) = (Cf * If)(H)/BW
Dose (water) = (Cw * Iw)(H)/BW
Cf = Contaminant concentration in invert.
Cs = Contaminant concentration in sediment
Total Dose = Dose (sediment) + Dose (water) + Dose (invert.)
H=CA/HR (Assume = to 1)

Conc = Concentration
LOAEL = Lowest Observed Adverse Effects Concentration
NOAEL = No Observed Adverse Effects Concentration
Sed = Sediment

ATTACHMENT 3

TOXICITY REFERENCE

VALUES

TOXICITY REFERENCE VALUES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

PARAMETER	Mammal		Bird	
	NOAEL	LOAEL	NOAEL	LOAEL
VOLATILES				
Acetone	10	50	20089	200890
SEMIVOLATILES				
Acenaphthene	65.6	356	2	20
Acenaphthylene	65.6	356	2	20
Anthracene	65.6	356	2	20
Benzo(a)anthracene	0.615	38.4	2	20
Benzo(a)pyrene	0.615	38.4	2	20
Benzo(b)fluoranthene	0.615	38.4	2	20
Benzo(g,h,i)perylene	0.615	38.4	2	20
Benzo(k)fluoranthene	0.615	38.4	2	20
Bis(2-Ethylhexyl)phthalate	18.3	183	1.11	11.1
Butyl benzyl phthalate	15.9	47	NV	NV
Chrysene	0.615	38.4	2	20
Dibenzo(a,h)anthracene	0.615	38.4	2	20
Di-n-butyl phthalate	550	1833	0.111	1.11
Dimethyl phthalate	68	680	NV	NV
Fluoranthene	65.6	356	2	20
Fluorene	65.6	356	2	20
Indeno(1,2,3-cd)pyrene	0.615	38.4	2	20
Phenanthrene	65.6	356	2	20
Pyrene	0.615	38.4	2	20
PESTICIDES/PCBs				
Aroclor-1260	0.068	0.68	0.18	1.8
INORGANICS				
Antimony	0.059	2.76	NV	NV
Beryllium	0.532	0.673	NV	NV
Cadmium	0.77	6.9	1.47	6.35
Chromium	2.40	58.17	2.66	15.63
Copper	5.6	82.7	4.05	34.87
Iron	50	500	100	1000
Lead	4.7	186.4	1.63	44.63
Mercury	0.032	0.16	0.0064	0.064
Selenium	0.143	0.661	0.29	0.819
Thallium	0.0074	0.074	NV	NV
Vanadium	4.16	9.44	0.34	1.69
Zinc	75.4	297.58	66.1	171.44

Notes:
The sources of these NOAELS and LOAELS are presented in the table titled "Sources and Endpoints for NOAELS and LOAELS for Terrestrial Wildlife" in this appendix.

The NOAELS and LOAELS in the source table were divided by 10 if a subchronic study was the basis for the value. Also, if only a NOAEL was available, the value was multiplied by 10 to estimate the LOAEL. If only a LOAEL was available, the value was divided by 10 to estimate the NOAEL.

NV - No value available.

SOURCES AND ENDPOINTS FOR NOAELS AND LOAELS FOR TERRESTRIAL WILDLIFE
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameters	Concentration (mg/kg-day)	Endpoint	Effect	Chronic/ Subchronic	Species	Primary Reference	Source of Reference
Volatile Organics							
Acetone	500	LOAEL	systemic	subchronic	rat	USEPA, 1986	Sample et.al., 1996
Acetone	20089	NOAEL	mortality	chronic	Japanese quail	Hill, 1986	LANL, 2000
Acetone	100	NOEL	systemic	subchronic	rat	USEPA, 1986	Sample et.al., 1996
Semivolatiles Organics							
7,12-Dimethylbenz(a)anthracene	20	LOAEL	systemic	chronic	nestling/starlings	Trust et al., 1994	
7,12-Dimethylbenz(a)anthracene	2	NOAEL	systemic	chronic	nestling/starlings	Trust et al., 1994	
Bis(2-ethylhexyl)phthalate	183.3	LOAEL	reproductive	chronic	mouse	Lamb et al., 1987	Sample et.al., 1996
Bis(2-ethylhexyl)phthalate	18.33	NOAEL	reproductive	chronic	mouse	Lamb et al., 1987	Sample et.al., 1996
Bis(2-ethylhexyl)phthalate	1.11	NOAEL	reproductive	chronic	ringed dove	Peakall, 1974	Sample et.al., 1996
Butylbenzylphthalate	470	LOAEL	systemic	subchronic	rat	NTP, 1985	IRIS, 2011
Butylbenzylphthalate	159	NOAEL	systemic	subchronic	rat	NTP, 1985	IRIS, 2011
Di-n-butylphthalate	1833	LOAEL	reproductive	chronic	mouse	Lamb et al., 1987	Sample et.al., 1996
Di-n-butylphthalate	1.11	LOAEL	reproductive	chronic	ringed dove	Peakall, 1974	Sample et.al., 1996
Di-n-butylphthalate	550	NOAEL	reproductive	chronic	mouse	Lamb et al., 1987	Sample et.al., 1996
Dimethyl phthalate	680	LOAEL	LD50	chronic	mouse	LANL, 2015	
Dimethyl phthalate	68	NOAEL	LD50	chronic	mouse	LANL, 2015	
High Molecular Weight PAHs	38.4	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2007	
High Molecular Weight PAHs	0.615	NOAEL	reproduction & growth	chronic	mammals	USEPA, 2007	
Low Molecular Weight PAHs	356	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2007	
Low Molecular Weight PAHs	65.6	NOAEL	reproduction & growth	chronic	mammals	USEPA, 2007	
PCBs							
Aroclor-1254	1.8	LOAEL	reproductive	chronic	pheasant	Dahlgren et al., 1972	Sample et.al., 1996
Aroclor-1254	0.68	LOAEL	reproduction	chronic	mouse	McCoy et al., 1995	Sample et.al., 1996
Inorganics							
Antimony	2.76	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Antimony	0.059	NOAEL	reproduction & growth	chronic	rat	USEPA, 2005	
Beryllium	0.673	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Beryllium	0.532	NOAEL	Survival	chronic	rat	USEPA, 2005	
Cadmium	6.35	LOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Cadmium	6.9	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Cadmium	1.47	NOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Cadmium	0.77	NOAEL	reproduction & growth	chronic	rat	USEPA, 2005	
Chromium(III)	15.63	LOAEL	reproduction & growth	chronic	birds	USEPA, 2008	
Chromium(III)	58.17	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2008	
Chromium(III)	2.66	NOAEL	reproduction & growth	chronic	birds	USEPA, 2008	
Chromium(III)	2.4	NOAEL	reproduction & growth	chronic	mammals	USEPA, 2008	
Copper	34.87	LOAEL	reproduction & growth	chronic	birds	USEPA, 2007	
Copper	82.7	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2007	
Copper	4.05	NOAEL	reproduction & growth	chronic	chicken	USEPA, 2007	
Copper	5.6	NOAEL	reproduction & growth	chronic	pig	USEPA, 2007	
Iron	500	LOAEL	unknown	chronic	rabbit	NAS, 1980	
Iron	1000	LOAEL	unknown	chronic	poultry	NAS, 1980	
Lead	44.6	LOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Lead	186.4	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Lead	1.63	NOAEL	reproduction & growth	chronic	chicken	USEPA, 2005	
Lead	4.7	NOAEL	reproduction & growth	chronic	rat	USEPA, 2005	
Mercury	0.064	LOAEL	reproductive	chronic	mallard duck	Heinz, 1979	Sample et.al., 1996

SOURCES AND ENDPOINTS FOR NOAELS AND LOAELS FOR TERRESTRIAL WILDLIFE
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameters	Concentration (mg/kg-day)	Endpoint	Effect	Chronic/ Subchronic	Species	Primary Reference	Source of Reference
Mercury	0.16	LOAEL	reproductive	chronic	rat	Verschuuren et al., 1976	Sample et.al., 1996
Mercury	0.032	NOAEL	reproductive	chronic	rat	Verschuuren et al., 1976	Sample et.al., 1996
Selenium	0.819	LOAEL	reproduction & growth	chronic	birds	USEPA, 2007	
Selenium	0.661	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2007	
Selenium	0.29	NOAEL	reproduction & growth	chronic	chicken	USEPA, 2007	
Selenium	0.143	NOAEL	reproduction & growth	chronic	pig	USEPA, 2007	
Thallium	0.74	LOAEL	reproductive	subchronic	rat	Formigli et al., 1986	Sample et.al., 1996
Vanadium	1.686	LOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Vanadium	9.436	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Vanadium	0.344	NOAEL	reproduction & growth	chronic	chicken	USEPA, 2005	
Vanadium	4.16	NOAEL	reproduction & growth	chronic	mouse	USEPA, 2005	
Zinc	297.58	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2007	
Zinc	171.44	LOAEL	reproduction & growth	chronic	birds	USEPA, 2007	
Zinc	75.4	NOAEL	reproduction & growth	chronic	mammals	USEPA, 2007	
Zinc	66.1	NOAEL	reproduction & growth	chronic	birds	USEPA, 2007	

Notes:

NOAEL = No Observed Adverse Effects Level

LOAEL = Lowest Observed Adverse Effects Level

The NOAELS and LOAELS for the following PAHs are based on the Low Molecular Weight PAH values: acenapthylene, acenaphthene, anthracene, fluoranthene, fluorene, phenanthrene, and naphthalene.

The NOAELS and LOAELS for the following PAHs are based on the High Molecular Weight PAH values: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, chrysene, dibenzo(a,h)anthracene, dibenzofuran, indeno(1,2,3-c,d)pyrene, and pyrene.

The NOAELS and LOAELS for the PAHs for birds were based on 7,12-dimethylbenz(a)anthracene.

The LOAELs used for several metals were calculated as the geometric mean of growth and reproduction data from the Ecological Soil Screening Levels (U.S. EPA, 2005, 2006, 2007).

The LOAELs for Aroclor-1254 were used as surrogate for Aroclor-1260.

References for the NOAELS and LOAELs are presented in this Attachment and Titled "TRV Source and Endpoint References".

SOURCES AND ENDPOINTS FOR TRVS FOR TERRESTRIAL WILDLIFE
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

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USEPA, 2005. Ecological Soil Screening Level for Vanadium, Interim Final. Office of Emergency and Remedial Response. OSWER Directive 9285.7-75. April.

USEPA, 2007. Ecological Soil Screening Level for Copper, Interim Final. Office of Emergency and Remedial Response. OSWER Directive 9285.7-68. February.

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ATTACHMENT 4

BIOACCUMULATION FACTORS

TERRESTRIAL FOOD CHAIN MODEL - BAF VALUES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Plant Bioaccumulation Factors			Earthworm Bioaccumulation Factors		
	Conservative	Average		Conservative	Average	
Volatile Organic Compounds						
ACETONE	5.30E+01		(2)	1.00E+00	1.00E+00	
Semivolatile Organic Compounds						
ACENAPHTHENE	EXP(-0.8556*LN(C)-5.562)		(1)	1.47E+00		(1)
ACENAPHTHYLENE	EXP(0.791*LN(C)-1.144)		(1)	2.29E+01		(1)
ANTHRACENE	EXP(0.7784*LN(C)-0.9887)		(1)	2.42E+00		(1)
BENZO(A)ANTHRACENE	Regression equation from Eco SSL		(1)	1.59E+00		(1)
BENZO(A)PYRENE	EXP(0.975*LN(C)-2.0615)		(1)	1.33E+00		(1)
BENZO(B)FLUORANTHENE	3.10E-01		(1)	2.60E+00		(1)
BENZO(G,H,I)PERYLENE	EXP(1.1829*LN(C)-0.9313)		(1)	2.94E+00		(1)
BENZO(K)FLUORANTHENE	EXP(0.8595*LN(C)-2.1579)		(1)	2.60E+00		(1)
BIS(2-ETHYLHEXYL)PHTHALATE	1.50E-03		(2)	1.00E+00		
BUTYL BENZYL PHTHALATE	6.95E-02		(2)	1.00E+00		
CHRYSENE	EXP(0.5944*LN(C)-2.7078)		(1)	2.29E+00		(1)
DIBENZO(A,H)ANTHRACENE	1.30E-01		(1)	2.31E+00		(1)
DI-N-BUTYL PHTHALATE	9.45E-02		(2)	1.00E+00		
DIMETHYL PHTHALATE	4.54E+00		(2)	1.00E+00		
FLUORANTHENE	5.00E-01		(1)	3.04E+00		(1)
FLUORENE	EXP(-0.8556*LN(C)-5.562)		(1)	9.57E+00		(1)
INDENO(1,2,3-CD)PYRENE	1.10E-01		(1)	2.86E+00		(1)
PHENANTHRENE	EXP(0.6203*LN(C)-0.1665)		(1)	1.72E+00		(1)
PYRENE	7.20E-01		(1)	1.75E+00		(1)
PCBs						
AROCLOR-1260	6.15E-04		(2)	1.59E+01	6.67E+00	(3)
Metals						
ANTIMONY	EXP(0.938*LN(C)-3.233)		(1)	7.30E-03		(5)
BERYLLIUM	EXP(0.7345*LN(C)-0.5361)		(1)	4.50E-02		(1)
CADMIUM	EXP(0.546*LN(C)-0.475)		(1)	EXP(0.795*LN(C)+2.114)		(1)
CHROMIUM	4.10E-02		(1)	3.06E-01		(1)
COPPER	EXP(0.394*LN(C)+0.668)		(1)	5.15E-01		(1)
LEAD	EXP(0.561*LN(C)-1.328)		(1)	EXP(0.807*LN(C)-0.218)		(1)
MERCURY	5.00E+00	6.52E-01	(4)	EXP(0.3369*LN(C)+0.0781)		(3)
SELENIUM	EXP(1.104*LN(C)-0.677)		(1)	EXP(0.733*LN(C)-0.075)		(1)
THALLIUM	4.00E-03		(2)	5.41E-02		(5)
VANADIUM	4.85E-03		(1)	4.20E-02		(1)
ZINC	EXP(0.554*LN(C)+1.575)		(1)	EXP(0.328*LN(C)+4.449)		(1)

- A default value of 1.0 was assigned to chemicals with unknown BAFs. No footnotes are listed by these values.
1 - USEPA (2007). Where "Regression equation from Eco-SSL" is given, tissue concentration will be calculated using regression equations from USEPA (2007), Attachment 4-1, Tables 4a (for inorganics), 4b (for organics).
2 - ORNL Risk Assessment Information System (http://rais.ornl.gov/cgi-bin/tools/TOX_search?select=chem_spef)
3 - Sample et al., (February, 1998) conservative value is 90th percentile; average value is median value.
4 - ORNL (September, 1998) for all chemicals; conservative value is 90th percentile; average value is median value.
5 - LANL (2015). EcoRisk Database (Release 3.3).

SEDIMENT FOOD CHAIN MODEL - BSAF VALUES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Sediment Invertebrate Bioaccumulation Factors[1]		
	Conservative	Average	Source
SEMIVOLATILES			
ACENAPHTHENE	2.90E-01		USEPA, 2004[2]
ACENAPHTHYLENE	2.90E-01		USEPA, 2004[2]
ANTHRACENE	2.90E-01		USEPA, 2004[2]
BENZO(A)ANTHRACENE	2.90E-01		USEPA, 2004[2]
BENZO(A)PYRENE	2.90E-01		USEPA, 2004[2]
BENZO(B)FLUORANTHENE	2.90E-01		USEPA, 2004[2]
BENZO(G,H,I)PERYLENE	2.90E-01		USEPA, 2004[2]
BENZO(K)FLUORANTHENE	2.90E-01		USEPA, 2004[2]
CHRYSENE	2.90E-01		USEPA, 2004[2]
DIBENZO(A,H)ANTHRACENE	2.90E-01		USEPA, 2004[2]
FLUORANTHENE	2.90E-01		USEPA, 2004[2]
FLUORENE	2.90E-01		USEPA, 2004[2]
INDENO(1,2,3-CD)PYRENE	2.90E-01		USEPA, 2004[2]
PENTACHLOROPHENOL	5.21E+01		LANL, 2015[3]
PHENANTHRENE	2.90E-01		USEPA, 2004[2]
PHENOL	4.43E-01		LANL, 2015[3]
PYRENE	2.90E-01		USEPA, 2004[2]
LOW MOLECULAR WEIGHT PAHS	2.90E-01		USEPA, 2004[2]
HIGH MOLECULAR WEIGHT PAHS	2.90E-01		USEPA, 2004[2]
PCBS			
AROCLOR-1260	6.41E+01	3.62E+01	ORNL, August 1998
METALS			
ARSENIC	6.90E-01	1.43E-01	ORNL, August 1998
CADMIUM	7.99E+00	6.00E-01	ORNL, August 1998
CHROMIUM	4.68E-01	1.00E-01	ORNL, August 1998
COPPER	5.25E+00	1.56E+00	ORNL, August 1998
LEAD	6.07E-01	7.10E-02	ORNL, August 1998
MERCURY	2.87E+00	1.14E+00	ORNL, August 1998
NICKEL	2.32E+00	4.86E-01	ORNL, August 1998
SELENIUM	9.90E-01		LANL, 2015[3]
SILVER	2.04E+00		LANL, 2015[3]
ZINC	7.53E+00	1.94E+00	ORNL, August 1998

Notes:

1 - Values presented are sediment invertebrate bioaccumulation factor unless otherwise noted.

2 - Sediment to fish bioaccumulation factor.

3 - Soil to earthworm bioaccumulation factor.

A default value of 1.0 was assigned to chemicals with unknown BAFs. No footnotes are listed by these values.

For chemicals with multiple values available, the conservative value is 90th percentile and average value is median value.

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ATTACHMENT 5

DETECTED CONCENTRATIONS IN MEDIA COMPARED TO ECOLOGICAL SCREENING CRITERIA

TABLE 1
DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #7 to #10

LOCATION	Minimum Ecological Screening Value[(1)]	GSP-MW-09	GSP-MW-11	GSP-SB-043	GSP-SB-044	GSP-SB-045	GSP-SB-047	GSP-SB-050	GSP-SB-052	GSP-SB-053	GSP-SB-054
SAMPLE ID		GSP-MW-9-0-2	GSP-MW-11-0-2	GSP-SB-43-0-2	GSP-SB-44-0-2	GSP-SB-45-0-2	GSP-SB-47-0-2	GSP-SB-50-0-2	GSP-SB-52-0-2	GSP-SB-53-0-2	GSP-SB-54-0-2
REC		REC=08	REC=08	REC=07	REC=07	REC=07	REC=07	REC=08	REC=08	REC=08	REC=08
SAMPLE DATE		20120912	20120913	20100428	20100428	20100427	20100427	20100429	20100429	20100428	20100428
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	2	2	2	2
VOLATILES (MG/KG)											
1,1-DICHLOROETHENE	0.04	0.00071 J	0.00047 U	0.00045 U	0.00051 U	0.00044 U	0.0005 U	0.00047 U	0.00055 U	0.00048 U	0.00052 U
1,2,3-TRIMETHYLBENZENE	NC	0.0002 U	0.00015 U	0.00015 U	0.00017 U	0.00014 U	0.00016 U	0.00015 U	0.00018 U	0.00016 U	0.00017 U
1,2,4-TRICHLOROBENZENE	0.1	0.00032 U	0.00024 U	0.00023 U	0.00026 U	0.00023 U	0.00026 U	0.00024 U	0.00029 U	0.00025 U	0.00027 U
1,2,4-TRIMETHYLBENZENE	0.09	0.00078 U	0.00059 U	0.00056 U	0.00063 U	0.00055 U	0.00062 U	0.00058 U	0.00069 U	0.0006 U	0.00065 U
1,2-DICHLOROBENZENE	0.09	0.00043 U	0.00033 U	0.00031 U	0.00035 U	0.0003 U	0.00034 U	0.00032 U	0.00038 U	0.00033 U	0.00036 U
1,3-DICHLOROBENZENE	0.03	0.00042 U	0.00032 U	0.0003 U	0.00034 U	0.00029 U	0.00033 U	0.00031 U	0.00037 U	0.00032 U	0.00035 U
2-BUTANONE	1	0.0017 U	0.0026 J	0.0012 U	0.0014 U	0.0012 U	0.0013 U	0.0013 U	0.0015 U	0.0013 U	0.0014 U
4-METHYL-2-PENTANONE	9.8	0.00065 U	0.00049 U	0.00047 U	0.00052 U	0.00045 U	0.00052 U	0.0011 B	0.00057 U	0.0005 U	0.00054 U
ACETONE	0.04	0.0076 U	**0.043**	0.0054 U	0.0061 U	0.0053 U	0.03	0.0056 U	0.0067 U	0.0058 U	0.0063 U
BENZENE	25	0.00028 U	0.00021 U	0.0002 U	0.00022 U	0.00019 U	0.00022 U	0.00021 U	0.00024 U	0.00021 U	0.00023 U
CARBON DISULFIDE	0.005	0.00053 U	0.00046 J	0.00038 U	0.00091 J	0.00037 U	0.00042 U	0.00039 U	0.00047 U	0.00041 U	0.00044 U
CHLOROBENZENE	0.03	0.0004 U	0.0003 U	0.00028 U	0.00032 U	0.00028 U	0.00031 U	0.0003 U	0.00035 U	0.00031 U	0.00033 U
CIS-1,2-DICHLOROETHENE	0.04	0.00043 U	0.00033 U	0.00031 U	0.00035 U	0.0003 U	0.00034 U	0.00032 U	0.00038 U	0.00033 U	0.00036 U
ETHYLBENZENE	55	0.00031 U	0.00023 U	0.00022 U	0.00025 U	0.00022 U	0.00025 U	0.00023 U	0.00027 U	0.00024 U	0.00026 U
M+P-XYLENES	65	0.0014 U	0.0011 U	0.001 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0013 U	0.0011 U	0.0012 U
METHYL TERT-BUTYL ETHER	12.5	0.00052 U	0.00039 U	0.00037 U	0.0044 J	0.00036 U	0.00041 U	0.00039 U	0.00045 U	0.0004 U	0.00043 U
METHYLENE CHLORIDE	0.21	0.0008 U	0.00061 U	0.00058 U	0.00065 U	0.00056 U	0.00064 U	0.0006 U	0.00071 U	0.00062 U	0.00067 U
NAPHTHALENE	1	0.00058 B	0.00031 B	0.00016 U	0.00018 U	0.00036 B	0.00018 U	0.00051 B	0.0002 U	0.00018 U	0.00019 U
N-PROPYLBENZENE	NC	0.00048 U	0.00036 U	0.00034 U	0.00039 U	0.00034 U	0.00038 U	0.00036 U	0.00042 U	0.00037 U	0.0004 U
O-XYLENE	0.1	0.00042 U	0.00032 U	0.0003 U	0.00034 U	0.00029 U	0.00033 U	0.00031 U	0.00037 U	0.00032 U	0.00035 U
STYRENE	0.1	0.00018 U	0.00014 U	0.00013 U	0.00015 U	0.00013 U	0.00014 U	0.00013 U	0.00016 U	0.00014 U	0.00015 U
TERT-AMYL METHYL ETHER	NC	NA	NA	0.00032 U	0.00095 J	0.00031 U	0.00035 UJ	0.00033 UJ	0.00039 UJ	0.00034 U	0.00037 U
TERTIARY-BUTYL ALCOHOL	NC	0.0091 UR	0.0069 UR	0.0066 UR	0.0074 UR	0.0064 UR	0.0073 UR	0.0068 UR	0.008 UR	0.007 UR	0.0076 UR
TETRACHLOROETHENE	0.002	0.00062 U	0.00047 U	0.00045 U	0.00051 U	0.00044 U	0.0005 U	0.00047 U	0.00055 U	0.00048 U	0.00052 U
TOLUENE	75	0.0014 J	0.00026 J	0.00023 U	0.00026 U	0.00023 U	0.00026 U	0.00024 U	0.00029 U	0.00025 U	0.00027 U
TOTAL XYLENES	65	0.0008 U	0.00061 U	0.00058 U	0.00065 U	0.00056 U	0.00064 U	0.0006 U	0.00071 U	0.00062 U	0.00067 U
TRICHLOROETHENE	0.1	0.0005 U	0.00038 U	0.00036 U	0.00041 U	0.00035 U	0.0004 U	0.00038 U	0.00044 U	0.00039 U	0.00042 U
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (MG/KG)											
1,3,5-TRIMETHYLBENZENE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYL ACETATE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXANE	NC	NA	0.0018 NJ	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NC	0.012 NJ	0.0015 NJ	NA	NA	NA	NA	NA	NA	NA	NA
METHYLCYCLOHEXANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1-METHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (MG/KG)											
1,1-BIPHENYL	0.2	0.028 U	0.029 U	0.032 U	0.031 U	0.031 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
2-METHYLNAPHTHALENE	29	0.0043 J	0.0036 U	0.004 U	0.0037 U	0.0037 U	0.0037 U	0.0036 U	0.0037 U	0.0036 U	0.017
ACENAPHTHENE	0.1	0.022	0.013	0.004 U	0.0037 U	0.0037 U	0.0037 U	0.0036 U	0.0037 U	0.0036 U	0.075
ACENAPHTHYLENE	0.1	0.0076	0.0036 U	0.004 U	0.0037 U	0.0037 U	0.0037 U	0.0087	0.0037 U	0.0036 U	0.01
ANTHRACENE	0.1	0.077	0.031	0.004 U	0.0037 U	0.0037 U	0.0037 U	0.022	0.018	0.0036 U	**0.19**
BENZALDEHYDE	NC	0.012 U	0.013 U	0.014 U	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
BENZO(A)ANTHRACENE	0.8	0.4	0.11	0.004 U	0.0037 U	0.0037 U	0.0037 U	0.14	0.1	0.031	0.49
BENZO(A)PYRENE	0.1	**0.46**	0.084	0.004 U	0.0037 U	0.0037 U	0.0037 U	**0.14**	0.1	0.033	**0.36**
BENZO(B)FLUORANTHENE	0.1	**0.74**	**0.11**	0.004 U	0.0037 U	0.0037 U	0.0037 U	**0.18**	**0.14**	0.049	**0.54**

TABLE 1
DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #7 to #10

LOCATION	Minimum Ecological Screening Value[1]	GSP-MW-09	GSP-MW-11	GSP-SB-043	GSP-SB-044	GSP-SB-045	GSP-SB-047	GSP-SB-050	GSP-SB-052	GSP-SB-053	GSP-SB-054
SAMPLE ID		GSP-MW-9-0-2	GSP-MW-11-0-2	GSP-SB-43-0-2	GSP-SB-44-0-2	GSP-SB-45-0-2	GSP-SB-47-0-2	GSP-SB-50-0-2	GSP-SB-52-0-2	GSP-SB-53-0-2	GSP-SB-54-0-2
REC		REC=08	REC=08	REC=07	REC=07	REC=07	REC=07	REC=08	REC=08	REC=08	REC=08
SAMPLE DATE		20120912	20120913	20100428	20100428	20100427	20100427	20100429	20100429	20100428	20100428
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	2	2	2	2
BENZO(G,H,I)PERYLENE	0.1	**0.31**	0.035	0.004 U	0.0037 U	0.0037 U	0.0037 U	0.089	0.083	0.025	**0.23**
BENZO(K)FLUORANTHENE	0.1	**0.29**	0.056	0.004 U	0.0037 U	0.0037 U	0.0037 U	0.087	0.049	0.016	**0.19**
BIS(2-ETHYLHEXYL)PHTHALATE	0.02	**0.023 J**	0.021 U	0.058 B	0.026 B	0.022 U	**0.026 J**	**0.025 J**	**0.032 J**	0.04 B	0.061 B
BUTYL BENZYL PHTHALATE	0.1	0.01 U	0.011 U	0.012 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
CAPROLACTAM	NC	0.038 U	0.04 U	0.044 U	0.042 U	0.042 U	0.042 U	0.041 U	0.041 U	0.041 U	0.041 U
CARBAZOLE	0.16	0.045 J	0.029 U	0.032 U	0.031 U	0.031 U	0.03 U	0.03 U	0.03 U	0.03 U	0.075
CHRYSENE	0.1	**0.47**	**0.11**	0.0013 U	0.0012 U	0.0012 U	0.0012 U	**0.15**	**0.12**	0.037	**0.48**
DIBENZO(A,H)ANTHRACENE	0.1	0.0034 U	0.0036 U	0.004 U	0.0037 U	0.0037 U	0.0037 U	0.02	0.015	0.0036 U	0.064
DIBENZOFURAN	0.15	0.0098 J	0.007 J	0.024 U	0.023 U	0.023 U	0.022 U	0.022 U	0.022 U	0.022 U	0.048 J
DIETHYL PHTHALATE	0.1	0.017 U	0.017 U	0.019 U	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U
DIMETHYL PHTHALATE	0.1	**0.19**	0.018 U	0.02 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 J	0.019 U	0.046 J
DI-N-BUTYL PHTHALATE	0.011	0.016 U	0.016 U	0.023 J	**0.017 J**	0.017 U	0.017 U	**0.017 J**	0.017 U	**0.023 J**	0.017 U
FLUORANTHENE	0.1	**0.8**	**0.25**	0.004 U	0.0037 U	0.0037 U	0.0037 U	**0.22**	**0.16**	0.063	**1.2**
FLUORENE	0.1	0.021	0.017	0.004 U	0.0037 U	0.0037 U	0.0037 U	0.0036 U	0.0037 U	0.0036 U	**0.12**
HIGH MOLECULAR WEIGHT PAHS[2]	0.1	**3.68**	**0.746**	0 U	0 U	0 U	0 U	**1.127**	**0.841**	**0.26**	**3.374**
INDENO(1,2,3-CD)PYRENE	0.1	**0.27**	0.041	0.004 U	0.0037 U	0.0037 U	0.0037 U	0.071	0.064	0.021	**0.2**
LOW MOLECULAR WEIGHT PAHS[3]	0.1	**1.2403**	**0.391**	0 U	0 U	0 U	0 U	**0.3307**	**0.235**	0.082	**2.461**
NAPHTHALENE	1	0.0084	0.0036 U	0.004 U	0.0037 U	0.0037 U	0.0037 U	0.0036 U	0.0037 U	0.0036 U	0.019
N-NITROSO-DI-N-PROPYLAMINE	0.544	0.028 U	0.029 U	0.032 U	0.031 U	0.031 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
PHENANTHRENE	0.1	**0.3**	0.08	0.004 U	0.0037 U	0.0037 U	0.0037 U	0.08	0.057	0.019	**0.83**
PYRENE	0.1	**0.74**	**0.2**	0.004 U	0.0037 U	0.0037 U	0.0037 U	**0.25**	**0.17**	0.048	**0.82**
TOTAL PAHS[4]	0.10	**4.92**	**1.14**	0.00 U	0.00 U	0.00 U	0.00 U	**1.46**	**1.08**	**0.34**	**5.84**
PCBS (MG/KG)											
AROCLOR-1260	1.3	NA	NA	0.02 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U
METALS (MG/KG)											
ANTIMONY	0.27	0.35 UL	0.4 UL	0.086 J	0.058 J	0.041 B	0.033 B	0.05 J	0.056 J	0.17 J	**0.84 L**
ARSENIC	17.1	1.9	3	4.4	1.5	2.2	1.5	2.2	2 J	1.9	1.1
BARIUM	110	25	21	31.6	9.9	15.3	3.8	7.2	10	18	11.6
BERYLLIUM	1.1	0.064 J	0.048 J	0.32	0.091 J	0.13	0.032 J	0.099 J	0.11 K	0.11 J	0.072 J
CADMIUM	0.36	0.36 J	0.037 U	0.029 B	0.0031 B	0.008 B	0.0028 U	0.0073 B	0.016 B	0.063 J	**0.61 L**
CHROMIUM	26	9.1	8.9	17.2	6.2	9.7	3.3	4.3	4.8 J	11.1	6.2
COBALT	13	1.5	2.6	3.2	0.66	1.2	0.32	0.72	1.1 J	0.92	1
COPPER	28	**68**	4.4 L	10.6 L	6.6 L	6.4	2	3.4 L	3 J	6.5 L	8.5 L
IRON	12	NA	NA	20400	**3040**	**6530**	**2510**	**3200**	**3900 J**	**5550**	**3930**
LEAD	11	**24**	4.8	7.3	2.1	3.8	0.94	1.2	2.2	7.1	**48.9**
MANGANESE	220	NA	NA	45.9	7.9	17.3 K	6	12.4	36.9 J	23.8	45.9
MERCURY	0.013	**0.075 J**	**0.036 J**	0.02 UL	**0.022 J**	0.019 UL	0.019 UL	0.018 UL	0.019 UL	**0.12 L**	0.019 UL
MOLYBDENUM	2	0.67 B	0.52 B	0.68	0.28	0.43 B	0.25 B	0.25	0.25	0.75	0.38
NICKEL	38	4.3	4.2	6.2	1.7	2.9	0.79	1.2	1.7 J	2.2	2.8
SELENIUM	0.52	0.41 J	0.46 U	0.92 L	0.35 J	0.46 J	0.041 J	0.28 J	0.22 J	0.33 J	0.43 J
SILVER	4.2	0.09 U	1.3	0.0093 B	0.0058 B	0.0052 B	0.0017 U	0.0017 U	0.0031 B	0.026 B	0.027 B
THALLIUM	0.22	0.58 B	0.57 UL	0.079 B	0.035 B	0.063 B	0.015 B	0.049 B	0.043 B	0.055 B	0.021 B
VANADIUM	7.8	**12 J**	**15 J**	34.9	**12.5**	**14.7**	4.7	**10.1**	**9.6 J**	**13.3**	7.8
ZINC	46	**63 K**	15 K	21.7 L	4.7 L	9.5 J	2.9 B	3.8 L	6.7 J	12 L	36 L
PETROLEUM HYDROCARBONS (MG/KG)											
DIESEL RANGE ORGANICS	NC	NA	NA	6.1 J	4.2 J	9.3 J	5.2 J	3.1 U	10 J	310	15
GASOLINE RANGE ORGANICS	NC	NA	NA	0.034 U	0.032 U	0.032 U	0.031 U	0.031 U	0.031 U	0.031 U	0.031 U

TABLE 1

DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #7 to #10

LOCATION	Minimum Ecological Screening Value[1]	GSP-MW-09	GSP-MW-11	GSP-SB-043	GSP-SB-044	GSP-SB-045	GSP-SB-047	GSP-SB-050	GSP-SB-052	GSP-SB-053	GSP-SB-054
SAMPLE ID		GSP-MW-9-0-2	GSP-MW-11-0-2	GSP-SB-43-0-2	GSP-SB-44-0-2	GSP-SB-45-0-2	GSP-SB-47-0-2	GSP-SB-50-0-2	GSP-SB-52-0-2	GSP-SB-53-0-2	GSP-SB-54-0-2
REC		REC=08	REC=08	REC=07	REC=07	REC=07	REC=07	REC=08	REC=08	REC=08	REC=08
SAMPLE DATE		20120912	20120913	20100428	20100428	20100427	20100427	20100429	20100429	20100428	20100428
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	2	2	2	2
TPH (C06-C10)	NC	0.047 U	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NC	50	17 J	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)											
ARSENIC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1
DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #7 to #10

LOCATION	Minimum Ecological Screening Value[(1)]	GSP-SB-055	GSP-SB-057	GSP-SB-058	GSP-SB-059	GSP-SB-060	GSP-SB-061	GSP-SB-062	GSP-SB-063	GSP-SB-064	GSP-SB-065
SAMPLE ID		GSP-SB-55-0-2	GSP-SB-57-0-2	GSP-SB-58-0-2	GSP-SB-59-0-2	GSP-SB-60-0-2	GSP-SB-61-0-2	GSP-SB-62-0-2	GSP-SB-63-0-2	GSP-SB-64-0-2	GSP-SB-65-0-2
REC		REC=08	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=10	REC=10	REC=10
SAMPLE DATE		20100428	20100510	20100510	20100510	20100511	20100426	20100426	20100426	20100416	20100426
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	2	2	2	2
VOLATILES (MG/KG)											
1,1-DICHLOROETHENE	0.04	0.00048 U	0.00039 U	0.00043 U	0.00042 U	0.00043 U	0.00042 U	0.00052 U	0.00046 U	0.00049 U	0.00044 U
1,2,3-TRIMETHYLBENZENE	NC	0.00016 U	0.00013 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00017 U	0.00015 U	0.00016 U	0.00014 U
1,2,4-TRICHLOROBENZENE	0.1	0.00025 U	0.0002 U	0.00022 U	0.00022 U	0.00022 U	0.00022 U	0.00027 U	0.00024 U	0.00026 U	0.00023 U
1,2,4-TRIMETHYLBENZENE	0.09	0.0006 U	0.00048 U	0.00053 U	0.00052 U	0.00053 U	0.00053 U	0.00065 U	0.00057 U	0.00061 U	0.00055 U
1,2-DICHLOROBENZENE	0.09	0.00033 U	0.00027 U	0.0003 U	0.00029 U	0.0003 U	0.00029 U	0.00036 U	0.00032 U	0.00034 U	0.00031 U
1,3-DICHLOROBENZENE	0.03	0.00032 U	0.00026 U	0.00029 U	0.00028 U	0.00029 U	0.00028 U	0.00035 U	0.00031 U	0.00033 U	0.0003 U
2-BUTANONE	1	0.0013 U	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0042 J	0.0013 U	0.0012 U
4-METHYL-2-PENTANONE	9.8	0.0005 U	0.0004 U	0.00044 U	0.00043 U	0.00044 U	0.00044 U	0.00054 U	0.00047 U	0.00051 U	0.00046 U
ACETONE	0.04	0.0058 U	0.0047 U	0.0052 U	0.023 B	0.019 B	**0.063**	0.0063 U	0.018	**2.2 J**	0.0054 U
BENZENE	25	0.00021 U	0.00017 U	0.00019 U	0.00018 U	0.00019 U	0.00019 U	0.00023 U	0.0002 U	0.00022 U	0.0002 U
CARBON DISULFIDE	0.005	0.00041 U	0.00033 U	0.00036 U	0.00035 U	0.00036 U	0.00036 U	0.00044 U	0.00039 U	0.00042 U	0.00037 U
CHLOROBENZENE	0.03	0.0003 U	0.00025 U	0.00027 U	0.00026 U	0.00027 U	0.00027 U	0.00033 U	0.00029 U	0.00031 U	0.00028 U
CIS-1,2-DICHLOROETHENE	0.04	0.00033 U	0.00027 U	0.0003 U	0.00029 U	0.0003 U	0.00029 U	0.00036 U	0.00032 U	0.00034 U	0.00031 U
ETHYLBENZENE	55	0.00024 U	0.00019 U	0.00021 U	0.00021 U	0.00021 U	0.00021 U	0.00026 U	0.00023 U	0.00025 U	0.00022 U
M+P-XYLENES	65	0.0011 U	0.00089 U	0.00098 U	0.00096 U	0.00098 U	0.00097 U	0.0012 U	0.0011 U	0.0011 U	0.001 U
METHYL TERT-BUTYL ETHER	12.5	0.0004 U	0.00032 U	0.00035 U	0.00034 U	0.00035 UJ	0.00035 UJ	0.00043 UJ	0.00038 UJ	0.00041 U	0.00037 UJ
METHYLENE CHLORIDE	0.21	0.00062 U	0.0005 U	0.00055 U	0.00054 U	0.00055 U	0.0012 B	0.00067 U	0.00059 U	0.00063 U	0.00057 U
NAPHTHALENE	1	0.00018 U	0.00014 U	0.00016 U	0.00015 U	0.00016 U	0.00015 U	0.00019 U	0.00017 U	0.00018 U	0.00016 U
N-PROPYLBENZENE	NC	0.00037 U	0.0003 U	0.00033 U	0.00032 U	0.00033 U	0.00032 U	0.0004 U	0.00035 U	0.00038 U	0.00034 U
O-XYLENE	0.1	0.00032 U	0.00026 U	0.00029 U	0.00028 U	0.00029 U	0.00028 U	0.00035 U	0.00031 U	0.00033 U	0.0003 U
STYRENE	0.1	0.00014 U	0.00011 U	0.00012 U	0.00012 U	0.00012 U	0.00012 U	0.00015 U	0.00013 U	0.00014 U	0.00013 U
TERT-AMYL METHYL ETHER	NC	0.00034 U	0.00028 U	0.0003 U	0.0003 U	0.0003 UJ	0.0003 U	0.00037 U	0.00033 U	0.00035 U	0.00031 U
TERTIARY-BUTYL ALCOHOL	NC	0.007 UR	0.0057 UR	0.0062 UR	0.0061 UR	0.0062 UR	0.0061 UR	0.0076 UR	0.0067 UR	0.0072 UR	0.0065 UR
TETRACHLOROETHENE	0.002	0.00048 U	0.00039 U	0.00043 U	0.00042 U	0.00043 U	0.00042 U	0.00052 U	0.00046 U	0.00049 U	0.00044 U
TOLUENE	75	0.00025 U	0.0002 U	0.00022 U	0.00022 U	0.00022 U	0.00022 U	0.00027 U	0.00024 U	0.0005 J	0.00023 U
TOTAL XYLENES	65	0.00062 U	0.0005 U	0.00055 U	0.00054 U	0.00055 U	0.00054 U	0.00067 U	0.00059 U	0.00063 U	0.00057 U
TRICHLOROETHENE	0.1	0.00039 U	0.00031 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00042 U	0.00037 U	0.0004 U	0.00036 U
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (MG/KG)											
1,3,5-TRIMETHYLBENZENE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYL ACETATE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLCYCLOHEXANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1-METHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (MG/KG)											
1,1-BIPHENYL	0.2	0.029 U	0.031 U	0.029 U	0.03 U	0.03 U	0.032 U	0.32 U	0.16 U	0.035 U	0.031 U
2-METHYLNAPHTHALENE	29	0.0036 U	0.0038 U	0.0036 U	0.0036 U	0.0037 U	0.0039 U	0.039 U	0.019 U	0.037	0.0038 U
ACENAPHTHENE	0.1	0.0036 U	0.0038 U	0.0036 U	0.0036 U	0.0037 U	0.0039 U	**0.13**	0.019 U	0.026	0.0038 U
ACENAPHTHYLENE	0.1	0.0036 U	0.008	0.0036 U	0.0036 U	0.0037 U	0.0039 U	**0.35**	0.019 U	0.016	0.0038 U
ANTHRACENE	0.1	0.0036 U	0.017	0.0036 U	0.0036 U	0.0037 U	0.0039 U	**0.65**	0.019 U	0.016	0.0038 U
BENZALDEHYDE	NC	0.013 U	0.014 UJ	0.013 U	0.013 U	0.013 U	0.014 UJ	0.14 UJ	0.07 U	0.016 U	0.014 UJ
BENZO(A)ANTHRACENE	0.8	0.0036 U	0.1	0.0036 U	0.0036 U	0.011	0.02	**2.4**	0.019 U	0.059	0.028
BENZO(A)PYRENE	0.1	0.0036 U	0.1	0.0036 U	0.0036 U	0.013	0.027	**3**	0.019 U	0.069	0.027
BENZO(B)FLUORANTHENE	0.1	0.0036 U	**0.15**	0.0036 U	0.0036 U	0.018	0.028	**2.8**	0.08	0.076	0.038

TABLE 1
DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #7 to #10

LOCATION	Minimum Ecological Screening Value[1]	GSP-SB-055	GSP-SB-057	GSP-SB-058	GSP-SB-059	GSP-SB-060	GSP-SB-061	GSP-SB-062	GSP-SB-063	GSP-SB-064	GSP-SB-065
SAMPLE ID		GSP-SB-55-0-2	GSP-SB-57-0-2	GSP-SB-58-0-2	GSP-SB-59-0-2	GSP-SB-60-0-2	GSP-SB-61-0-2	GSP-SB-62-0-2	GSP-SB-63-0-2	GSP-SB-64-0-2	GSP-SB-65-0-2
REC		REC=08	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=10	REC=10	REC=10
SAMPLE DATE		20100428	20100510	20100510	20100510	20100511	20100426	20100426	20100426	20100416	20100426
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	2	2	2	2
BENZO(G,H,I)PERYLENE	0.1	0.0036 U	0.076	0.0036 U	0.0036 U	0.011	0.023	**2.2**	0.019 U	0.061	0.02
BENZO(K)FLUORANTHENE	0.1	0.0036 U	0.051	0.0036 U	0.0036 U	0.0037 U	0.0039 U	**1.6**	0.019 U	0.034	0.0038 U
BIS(2-ETHYLHEXYL)PHTHALATE	0.02	0.026 B	0.022 U	0.021 U	0.021 U	0.054 B	0.022 U	0.22 U	0.11 U	**0.056 J**	**0.029 J**
BUTYL BENZYL PHTHALATE	0.1	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.012 U	0.12 U	0.059 U	0.013 U	0.012 U
CAPROLACTAM	NC	0.04 U	0.042 U	0.04 U	0.041 U	0.041 U	0.043 U	0.43 U	0.22 U	0.048 U	0.043 U
CARBAZOLE	0.16	0.029 U	0.031 U	0.029 U	0.03 U	0.03 U	0.032 U	0.32 U	0.16 U	0.035 U	0.031 U
CHRYSENE	0.1	0.0012 U	**0.11**	0.0012 U	0.0012 U	0.015	0.022	**2.8**	0.0064 U	0.073	0.033
DIBENZO(A,H)ANTHRACENE	0.1	0.0036 U	0.0038 U	0.0036 U	0.0036 U	0.0037 U	0.0039 U	0.039 U	0.019 U	0.0043 U	0.0038 U
DIBENZOFURAN	0.15	0.022 U	0.023 U	0.022 U	0.022 U	0.022 U	0.023 U	0.23 U	0.12 U	0.026 U	0.023 U
DIETHYL PHTHALATE	0.1	0.017 U	0.018 U	0.017 U	0.018 U	0.018 U	0.019 U	0.19 U	0.094 U	0.021 U	0.019 U
DIMETHYL PHTHALATE	0.1	0.018 U	0.019 U	0.018 U	0.019 U	0.019 U	0.02 U	0.2 U	0.1 U	0.022 U	0.02 U
DI-N-BUTYL PHTHALATE	0.011	0.016 U	0.017 U	0.016 U	0.016 U	0.017 U	0.018 U	0.18 U	0.088 U	0.019 U	0.017 U
FLUORANTHENE	0.1	0.0036 U	**0.19**	0.0036 U	0.0036 U	0.017	0.03	**3.7**	0.058	0.086	0.054
FLUORENE	0.1	0.0036 U	0.0038 U	0.0036 U	0.0036 U	0.0037 U	0.0039 U	**0.18**	0.019 U	0.0043 U	0.0038 U
HIGH MOLECULAR WEIGHT PAHS[2]	0.1	0 U	**0.836**	0 U	0 U	0.0997	**0.168**	**20.9**	**0.162**	**0.526**	**0.21**
INDENO(1,2,3-CD)PYRENE	0.1	0.0036 U	0.059	0.0036 U	0.0036 U	0.0087	0.0039 U	**1.6**	0.019 U	0.044	0.016
LOW MOLECULAR WEIGHT PAHS[3]	0.1	0 U	**0.276**	0 U	0 U	0.0246	0.049	**6.69**	0.058	**0.235**	0.071
NAPHTHALENE	1	0.0036 U	0.0038 U	0.0036 U	0.0036 U	0.0037 U	0.0039 U	0.18	0.019 U	0.024	0.0038 U
N-NITROSO-DI-N-PROPYLAMINE	0.544	0.029 U	0.031 U	0.029 U	0.03 U	0.03 U	0.032 UJ	0.32 UJ	0.16 U	0.035 U	0.031 UJ
PHENANTHRENE	0.1	0.0036 U	0.061	0.0036 U	0.0036 U	0.0076	0.019	**1.5**	0.019 U	0.03	0.017
PYRENE	0.1	0.0036 U	**0.19**	0.0036 U	0.0036 U	0.023	0.048	**4.5**	0.082	**0.11**	0.048
TOTAL PAHS[4]	0.10	0.00 U	**1.11**	0.00 U	0.00 U	**0.12**	**0.22**	**27.59**	**0.22**	**0.76**	**0.28**
PCBS (MG/KG)											
AROCLOR-1260	1.3	0.018 U	0.019 U	0.018 U	0.019 U	0.019 U	0.02 U	0.022 J	0.02 U	0.022 U	0.02 U
METALS (MG/KG)											
ANTIMONY	0.27	0.026 B	0.049 B	0.033 B	0.037 B	0.042 B	0.083 J	0.24 L	0.11 J	0.1 J	0.11 J
ARSENIC	17.1	1.1	1.2	0.71	1.6	2.3	2	2.5	3.1	3.8	3.6
BARIUM	110	13.6	7.6 J	2.9 J	12.7 J	27.9 J	27 K	**192 K**	78.6 K	30.5 K	27 K
BERYLLIUM	1.1	0.11	0.086 J	0.03 B	0.13 K	0.23 J	0.3	0.87	0.88	0.28	0.44
CADMIUM	0.36	0.012 B	0.0036 B	0.0027 UL	0.0027 UL	0.035 J	0.052 J	0.33 L	0.073 J	0.093 J	0.019 B
CHROMIUM	26	4.1	3.6 J	2.1 J	5.7 J	8.5 J	7.2	13.7	15.7	13.6 K	14.2
COBALT	13	1.3	0.69 J	0.26 J	1.2 J	2.3 J	1.6	4	3.3	3.6	3.1
COPPER	28	1.9 B	2.1 J	1.1 J	2.6 J	3.7 J	3.4	8.7	5.4	6.6 L	6
IRON	12	**3410**	**3660 J**	**1860 J**	**4540 J**	**7570 J**	**5740**	**7670**	**12900**	**11400**	**12700**
LEAD	11	2.2	2.2 J	0.86 J	2.7 J	5 J	8.8	**25.1**	7.6	8.7	6.5
MANGANESE	220	15.8	17.2 J	4.6 J	15.1 J	29.3 J	74.3	**864**	**1590**	77	116
MERCURY	0.013	0.018 UL	0.019 U	0.018 U	0.018 U	**0.019 J**	**0.043 J**	**0.16**	0.02 U	**0.022 J**	**0.025 J**
MOLYBDENUM	2	0.31	0.23	0.13 J	0.25	0.61	0.36	0.4	1	0.69	0.74
NICKEL	38	2.1	1.3	0.56	2.3	5.4	3.7	8.1	8	6.5	5.6
SELENIUM	0.52	0.33 J	0.13 J	0.08 B	0.28 J	**0.53 J**	0.5 J	**0.89**	**0.69**	**0.63 J**	**0.66**
SILVER	4.2	0.0051 B	0.01 B	0.0028 B	0.013 B	0.018 B	0.053 J	0.21 K	0.038 J	0.033 B	0.025 B
THALLIUM	0.22	0.029 B	0.036 B	0.014 U	0.027 B	0.079 B	0.06 B	0.06 B	0.092 B	0.1 B	0.12 B
VANADIUM	7.8	7.1	6.1 J	3.5 J	**9 J**	**13.6 J**	**12.8**	**32.3**	**24.2**	**22.2**	**22.1**
ZINC	46	6.8 L	5.2	2.8 B	7.2	20.8	13.5 J	40.6 J	21.1 J	21.9	20.2 J
PETROLEUM HYDROCARBONS (MG/KG)											
DIESEL RANGE ORGANICS	NC	5.2 J	46	3 U	3.6 J	11 J	39	310	43	37 J	45
GASOLINE RANGE ORGANICS	NC	0.03 U	0.032 U	0.03 U	0.031 U	0.031 U	0.033 UJ	0.033 UJ	0.033 UJ	0.036 UJ	0.033 UJ

TABLE 1

DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #7 to #10

LOCATION	Minimum Ecological Screening Value[(1)]	GSP-SB-055	GSP-SB-057	GSP-SB-058	GSP-SB-059	GSP-SB-060	GSP-SB-061	GSP-SB-062	GSP-SB-063	GSP-SB-064	GSP-SB-065
SAMPLE ID		GSP-SB-55-0-2	GSP-SB-57-0-2	GSP-SB-58-0-2	GSP-SB-59-0-2	GSP-SB-60-0-2	GSP-SB-61-0-2	GSP-SB-62-0-2	GSP-SB-63-0-2	GSP-SB-64-0-2	GSP-SB-65-0-2
REC		REC=08	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=10	REC=10	REC=10
SAMPLE DATE		20100428	20100510	20100510	20100510	20100511	20100426	20100426	20100426	20100416	20100426
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	2	2	2	2
TPH (C06-C10)	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)											
ARSENIC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1
DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #7 to #10

LOCATION	Minimum Ecological Screening Value[(1)]	GSP-SB-066	GSP-SB-067	GSP-SB-068	GSP-SB-069	GSP-SB-070	GSP-SB-071	GSP-SB-091	GSP-SB-092	GSP-SB-093	GSP-SB-094
SAMPLE ID		GSP-SB-66-0-2	GSP-SB-67-0-2	GSP-SB-68-0-2	GSP-SB-69-0-2	GSP-SB-70-0-2	GSP-SB-71-0-2	GSP-SB-91-0-2	GSP-SB-92-0-2	GSP-SB-93-0-2	GSP-SB-94-0-2
REC		REC=10	REC=09	REC=10	REC=10	REC=10	REC=10	REC=08	REC=08	REC=09	REC=09
SAMPLE DATE		20100415	20100416	20100416	20100416	20100416	20100511	20110601	20110601	20110601	20110601
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	2	2	2	2
VOLATILES (MG/KG)											
1,1-DICHLOROETHENE	0.04	0.00044 U	0.0004 U	0.00048 U	0.00048 U	0.00042 U	0.00043 U	0.00046 U	0.00051 U	0.00035 U	0.00044 U
1,2,3-TRIMETHYLBENZENE	NC	0.00014 U	0.00013 U	0.00016 U	0.00016 U	0.00014 U	0.00014 U	0.00015 U	0.00017 U	0.00012 U	0.00014 U
1,2,4-TRICHLOROBENZENE	0.1	0.00023 UJ	0.00021 U	0.00025 U	0.00025 U	0.00022 U	0.00022 U	0.00024 U	0.00026 U	0.00018 U	0.00023 U
1,2,4-TRIMETHYLBENZENE	0.09	0.00055 UJ	0.0005 U	0.0006 U	0.0006 U	0.00053 U	0.00054 U	0.00058 U	0.00063 U	0.00044 U	0.00055 U
1,2-DICHLOROBENZENE	0.09	0.0003 UJ	0.00028 U	0.00033 U	0.00033 U	0.00029 U	0.0003 U	0.00032 U	0.00035 U	0.00024 U	0.00031 U
1,3-DICHLOROBENZENE	0.03	0.00029 UJ	0.00027 U	0.00032 U	0.00032 U	0.00028 U	0.00029 U	0.00031 U	0.00034 U	0.00024 U	0.0003 U
2-BUTANONE	1	0.0047 J	0.0011 U	0.0013 U	0.0039 J	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.00095 U	0.0012 U
4-METHYL-2-PENTANONE	9.8	0.00045 U	0.00041 U	0.0005 U	0.0005 U	0.00044 U	0.00045 U	0.00048 U	0.00052 U	0.00037 U	0.00046 U
ACETONE	0.04	**0.35 J**	0.0048 U	**0.32**	**0.42 J**	0.0059 J	0.018 B	0.0056 U	0.0061 U	0.0043 U	0.0054 U
BENZENE	25	0.00019 U	0.00018 U	0.00021 U	0.00021 U	0.00019 U	0.00019 U	0.0002 U	0.00022 U	0.00016 U	0.0002 U
CARBON DISULFIDE	0.005	0.00037 U	0.00034 U	0.00041 U	0.00041 U	0.00036 U	0.00037 U	0.00039 U	0.00043 U	0.0003 U	0.00037 U
CHLOROBENZENE	0.03	0.00028 U	0.00025 U	0.0003 U	0.0003 U	0.00027 U	0.00027 U	0.00029 U	0.00032 U	0.00022 U	0.00028 U
CIS-1,2-DICHLOROETHENE	0.04	0.0003 U	0.00028 U	0.00033 U	0.00033 U	0.00029 U	0.0003 U	0.00032 U	0.00035 U	0.00024 U	0.00031 U
ETHYLBENZENE	55	0.00022 U	0.0002 U	0.00024 U	0.00024 U	0.00021 U	0.00022 U	0.00023 U	0.00025 U	0.00018 U	0.00022 U
M+P-XYLENES	65	0.001 U	0.00092 U	0.0011 U	0.0011 U	0.00097 U	0.001 U	0.0011 U	0.0012 U	0.00081 U	0.001 U
METHYL TERT-BUTYL ETHER	12.5	0.00036 U	0.00033 U	0.0004 U	0.0004 U	0.00035 U	0.00036 UJ	0.00038 U	0.00042 U	0.00029 U	0.00037 U
METHYLENE CHLORIDE	0.21	0.00056 U	0.00051 U	0.00062 U	0.00062 U	0.00054 U	0.00056 U	0.00059 U	0.0034 J	0.0024 J	0.00057 U
NAPHTHALENE	1	0.00016 UJ	0.00059 B	0.00083 B	0.00018 U	0.00015 U	0.0013 B	0.00017 U	0.00018 U	0.00013 U	0.00016 U
N-PROPYLBENZENE	NC	0.00034 UJ	0.00031 U	0.00037 U	0.00037 U	0.00032 U	0.00033 U	0.00036 U	0.00039 U	0.00027 U	0.00034 U
O-XYLENE	0.1	0.00029 U	0.00027 U	0.00032 U	0.00032 U	0.00028 U	0.00029 U	0.00031 U	0.00034 U	0.00024 U	0.0003 U
STYRENE	0.1	0.00013 U	0.00012 U	0.00014 U	0.00014 U	0.00012 U	0.00012 U	0.00013 U	0.00015 U	0.0001 U	0.00013 U
TERT-AMYL METHYL ETHER	NC	0.00031 U	0.00028 U	0.00034 U	0.00034 U	0.0003 U	0.00031 UJ	0.00033 U	0.00036 U	0.00025 U	0.00031 U
TERTIARY-BUTYL ALCOHOL	NC	0.0064 UR	0.0058 UR	0.007 UR	0.007 UR	0.0061 UR	0.0063 UR	0.0067 UR	0.0074 UR	0.0051 UR	0.0065 UR
TETRACHLOROETHENE	0.002	0.00044 U	0.0004 U	0.00048 U	0.00048 U	0.00042 U	0.00043 U	0.00046 U	0.00051 U	0.00035 U	0.00044 U
TOLUENE	75	0.00023 U	0.00021 U	0.00054 J	0.00025 U	0.00022 U	0.00022 U	0.00024 U	0.00026 U	0.00018 U	0.00023 U
TOTAL XYLENES	65	0.00056 U	0.00051 U	0.00062 U	0.00062 U	0.00054 U	0.00056 U	0.00059 U	0.00065 U	0.00045 U	0.00057 U
TRICHLOROETHENE	0.1	0.00035 U	0.00032 U	0.00039 U	0.00039 U	0.00034 U	0.00035 U	0.00037 U	0.00041 U	0.00028 U	0.00036 U
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (MG/KG)											
1,3,5-TRIMETHYLBENZENE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE	NC	NA	NA	NA	NA	NA	NA	NA	0.0051 NJ	NA	NA
ETHYL ACETATE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NC	NA	NA	NA	NA	NA	NA	NA	0.004 NJ	0.0021 NJ	NA
METHYLCYCLOHEXANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1-METHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (MG/KG)											
1,1-BIPHENYL	0.2	0.032 U	0.29 U	0.82 U	0.064 U	0.2 U	0.29 U	0.03 U	0.028 U	0.03 U	0.03 U
2-METHYLNAPHTHALENE	29	0.004 U	0.18	1.7	0.14	0.11	0.5	0.0036 U	0.0034 U	0.0037 U	0.0037 U
ACENAPHTHENE	0.1	0.031	**0.11**	**3.3**	**0.14**	**0.92**	**0.33**	0.0036 U	0.0034 U	0.0037 U	0.0037 U
ACENAPHTHYLENE	0.1	0.004 U	**0.34**	**3.1**	**0.21**	0.066	**0.7**	0.0036 U	0.0034 U	0.0037 U	0.0037 U
ANTHRACENE	0.1	0.053	**0.65**	**7.6**	**0.35**	**1.3**	**1.5**	0.0046 J	0.013	0.0037 U	0.0055 J
BENZALDEHYDE	NC	0.014 U	0.13 U	0.36 U	0.028 U	0.091 U	0.13 U	0.013 U	0.012 U	0.013 U	0.013 U
BENZO(A)ANTHRACENE	0.8	0.28	**1.6**	**17**	**1**	**3.3**	**5.2**	0.021	0.088	0.015	0.03
BENZO(A)PYRENE	0.1	**0.27**	**1.8**	**15**	**1.2**	**2.8**	**6.4**	0.023	0.085	0.017	0.031
BENZO(B)FLUORANTHENE	0.1	**0.32**	**2**	**17**	**1.2**	**3.9**	**6.4**	0.025	**0.11**	0.019	0.033

TABLE 1
DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #7 to #10

LOCATION	Minimum Ecological Screening Value[1]	GSP-SB-066	GSP-SB-067	GSP-SB-068	GSP-SB-069	GSP-SB-070	GSP-SB-071	GSP-SB-091	GSP-SB-092	GSP-SB-093	GSP-SB-094
SAMPLE ID		GSP-SB-66-0-2	GSP-SB-67-0-2	GSP-SB-68-0-2	GSP-SB-69-0-2	GSP-SB-70-0-2	GSP-SB-71-0-2	GSP-SB-91-0-2	GSP-SB-92-0-2	GSP-SB-93-0-2	GSP-SB-94-0-2
REC		REC=10	REC=09	REC=10	REC=10	REC=10	REC=10	REC=08	REC=08	REC=09	REC=09
SAMPLE DATE		20100415	20100416	20100416	20100416	20100416	20100511	20110601	20110601	20110601	20110601
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	2	2	2	2
BENZO(G,H,I)PERYLENE	0.1	**0.18**	**1.3**	**9.4**	**0.96**	**1.7**	**5.9**	0.015	0.056	0.013	0.02
BENZO(K)FLUORANTHENE	0.1	**0.15**	**0.83**	**6.8**	**0.62**	**1.4**	**2.5**	0.0036 U	0.042	0.01	0.031
BIS(2-ETHYLHEXYL)PHTHALATE	0.02	0.023 U	0.2 U	0.58 U	0.045 U	0.14 U	0.62 B	0.021 U	0.02 U	0.021 U	0.029 B
BUTYL BENZYL PHTHALATE	0.1	0.012 U	0.11 U	0.3 U	0.024 U	0.076 U	0.11 U	0.011 U	0.01 U	0.011 U	0.011 U
CAPROLACTAM	NC	0.044 U	0.39 U	1.1 U	0.088 U	0.28 U	0.4 U	0.041 U	0.038 U	0.041 U	0.041 U
CARBAZOLE	0.16	0.032 U	0.29 U	**2**	0.064 U	**0.7**	0.29 U	0.03 U	0.028 U	0.03 U	0.03 U
CHRYSENE	0.1	**0.31**	**1.9**	**17**	**1.1**	**3.1**	**6.5**	0.025	0.096	0.018	0.037
DIBENZO(A,H)ANTHRACENE	0.1	0.047	0.035 U	0.1 U	0.0078 U	**0.52**	**1.4**	0.0036 U	0.016	0.0037 U	0.0037 U
DIBENZOFURAN	0.15	0.024 U	0.21 U	**1.2 J**	0.047 U	**0.3 J**	0.22 U	0.0036 U	0.0034 U	0.0037 U	0.0037 U
DIETHYL PHTHALATE	0.1	0.019 U	0.17 U	0.49 U	0.038 U	0.12 U	0.17 U	0.018 U	0.017 U	0.018 U	0.018 U
DIMETHYL PHTHALATE	0.1	0.02 U	0.18 U	0.52 U	0.04 U	0.13 U	0.18 U	0.019 U	0.018 U	0.019 U	0.019 U
DI-N-BUTYL PHTHALATE	0.011	0.018 U	0.16 U	0.46 U	0.035 U	0.11 U	0.16 U	0.016 U	0.015 U	**0.018 J**	0.017 U
FLUORANTHENE	0.1	**0.51**	**2.3**	**33**	**1.6**	**7**	**8.4**	0.036	**0.19**	0.027	0.06
FLUORENE	0.1	0.024	**0.21**	**3.6**	**0.11**	**0.57**	**0.47**	0.0036 U	0.0034 U	0.0037 U	0.0037 U
HIGH MOLECULAR WEIGHT PAHS[2]	0.1	**2.227**	**13.76**	**123.7**	**8.96**	**24.22**	**50.7**	0.162	**0.699**	**0.1284**	**0.255**
INDENO(1,2,3-CD)PYRENE	0.1	**0.16**	**0.93**	**7.5**	**0.68**	**1.6**	**4.4**	0.012	0.046	0.0094	0.015
LOW MOLECULAR WEIGHT PAHS[3]	0.1	**0.898**	**5.47**	**81.2**	**3.59**	**15.516**	**16.57**	0.0576	**0.259**	0.0351	0.0815
NAPHTHALENE	1	0.01	0.18	**1.9**	0.15	0.25	0.67	0.0036 U	0.0034 U	0.0037 U	0.0037 U
N-NITROSO-DI-N-PROPYLAMINE	0.544	0.032 U	0.29 U	0.82 U	0.064 U	0.2 U	0.29 U	0.03 U	0.028 U	0.03 U	0.03 U
PHENANTHRENE	0.1	**0.27**	**1.5**	**27**	**0.89**	**5.3**	**4**	0.017	0.056	0.0081	0.016
PYRENE	0.1	**0.51**	**3.4**	**34**	**2.2**	**5.9**	**12**	0.041	**0.16**	0.027	0.058
TOTAL PAHS[4]	0.10	**3.13**	**19.23**	**204.90**	**12.55**	**39.74**	**67.27**	0.22	**0.96**	**0.16**	**0.34**
PCBS (MG/KG)											
AROCLOR-1260	1.3	0.02 U	0.018 U	0.021 U	0.02 U	0.019 U	0.018 U	0.019 U	0.018 U	0.019 U	0.019 U
METALS (MG/KG)											
ANTIMONY	0.27	0.1 J	0.088 J	0.18 J	0.066 J	0.075 J	0.23 J	0.4 UL	0.37 UL	0.36 UL	0.42 UL
ARSENIC	17.1	2.2	1.5	3.4	1.7	3	1.9 J	2.3	1.6	2.8	2.1
BARIUM	110	26.1 K	53.2 K	36.7 K	25.4 K	21.9 K	**266 J**	11 J	8.3 J	11 J	22
BERYLLIUM	1.1	0.17	0.4	0.26	0.21	0.17	**1.6 J**	0.045 J	0.041 U	0.077 J	0.046 J
CADMIUM	0.36	0.079 J	0.26	**0.68**	0.06 J	0.13 K	0.15 J	0.037 U	0.034 U	0.033 U	0.039 U
CHROMIUM	26	11 K	9 K	11.7 K	7.1 K	8.1 K	16.2 J	7.1	3.6	7.2	7.2
COBALT	13	2	1.5	1.9	2.4	1.8	1.9 J	1	0.79 J	1.2	2
COPPER	28	6.5 L	5.7 L	9.7 L	4.5 L	5.7 L	7.8 J	4.4 K	6.6	6	**38**
IRON	12	**5750**	**3870**	**7000**	**5470**	**5750**	**8110 J**	NA	NA	NA	NA
LEAD	11	**13.6**	**11.2**	**18.2**	6.2	8.6	**25.1 J**	6.4	3.9	5.9	**12**
MANGANESE	220	34	**417**	202	93.6	41	**2390 J**	NA	NA	NA	NA
MERCURY	0.013	**0.032 J**	**0.052 J**	**0.033 J**	**0.026 J**	**0.028 J**	**0.024 J**	0.086 J	0.015 U	**0.06 J**	**0.063 J**
MOLYBDENUM	2	0.61	1	0.53	0.35	0.37	0.4 J	0.28 U	1 B	0.39 B	0.54 B
NICKEL	38	3.6	8	5.2	4.6	4.1	4 J	2 J	2.5 J	1.9 J	4 J
SELENIUM	0.52	0.51 J	0.41 J	**0.55 J**	**0.58 J**	0.52 J	**1.2 J**	0.46 U	0.43 U	0.42 U	0.49 J
SILVER	4.2	0.097 J	0.085 J	0.063 J	0.027 B	0.06 J	0.071 J	0.1 U	0.095 U	0.093 U	0.11 U
THALLIUM	0.22	0.11 B	0.033 B	0.076 B	0.074 B	0.065 B	0.035 B	0.57 U	0.52 U	0.51 U	0.59 U
VANADIUM	7.8	**19.6**	**19.3**	**15.1**	**13**	**13.3**	**59 J**	13	5.9	**14**	**17**
ZINC	46	13.7	17.8	**63.4**	15.3	15.7	15.4 J	11	10	13	41
PETROLEUM HYDROCARBONS (MG/KG)											
DIESEL RANGE ORGANICS	NC	57 J	650 J	1200 J	220 J	62 J	850	52	24	10 U	21
GASOLINE RANGE ORGANICS	NC	0.034 UJ	0.03 UJ	0.034 UJ	0.033 UJ	0.032 UJ	0.03 U	0.027 U	0.026 U	0.028 U	0.028 U

TABLE 1

DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #7 to #10

LOCATION	Minimum Ecological Screening Value[(1)]	GSP-SB-066	GSP-SB-067	GSP-SB-068	GSP-SB-069	GSP-SB-070	GSP-SB-071	GSP-SB-091	GSP-SB-092	GSP-SB-093	GSP-SB-094
SAMPLE ID		GSP-SB-66-0-2	GSP-SB-67-0-2	GSP-SB-68-0-2	GSP-SB-69-0-2	GSP-SB-70-0-2	GSP-SB-71-0-2	GSP-SB-91-0-2	GSP-SB-92-0-2	GSP-SB-93-0-2	GSP-SB-94-0-2
REC		REC=10	REC=09	REC=10	REC=10	REC=10	REC=10	REC=08	REC=08	REC=09	REC=09
SAMPLE DATE		20100415	20100416	20100416	20100416	20100416	20100511	20110601	20110601	20110601	20110601
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	2	2	2	2
TPH (C06-C10)	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)											
ARSENIC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1
DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #7 to #10

LOCATION	Minimum Ecological Screening Value[(1)]	GSP-SB-095	GSP-SB-096	GSP-SB-097	GSP-SB-098	GSP-SB-099	GSP-SB-101	GSP-SB-102	GSP-SB-103	GSP-SB-104	GSP-SB-105
SAMPLE ID		GSP-SB-95-0-2	GSP-SB-96-0-2	GSP-SB-97-0-2	GSP-SB-98-0-2	GSP-SB-99-0-2	GSP-SB-101-0-2	GSP-SB-102-0-2	GSP-SB-103-0-2	GSP-SB-104-0-2	GSP-SB-105-0-2
REC		REC=09	REC=09	REC=09	REC=09	REC=09	REC=10	REC=10	REC=10	REC=10	REC=10
SAMPLE DATE		20110601	20110601	20110601	20110601	20110602	20110602	20110602	20110602	20110601	20110602
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	2	2	2	2
VOLATILES (MG/KG)											
1,1-DICHLOROETHENE	0.04	0.0005 U	0.00045 U	0.00052 U	0.00032 U	0.0005 U	0.0005 U	0.00063 U	0.00039 U	0.00055 U	0.0005 U
1,2,3-TRIMETHYLBENZENE	NC	0.00016 U	0.00015 U	0.00017 U	0.00011 U	0.00016 U	0.00016 UJ	0.0002 U	0.00013 U	0.00018 U	0.00016 U
1,2,4-TRICHLOROBENZENE	0.1	0.00026 U	0.00023 U	0.00027 U	0.00017 U	0.00026 U	0.00026 UJ	0.00032 U	0.0002 U	0.00029 U	0.00026 U
1,2,4-TRIMETHYLBENZENE	0.09	0.00063 U	0.00057 U	0.00064 U	0.0004 U	0.00063 U	0.00063 UJ	0.00078 U	0.00049 U	0.00069 U	0.00063 U
1,2-DICHLOROBENZENE	0.09	0.00035 U	0.00031 U	0.00036 U	0.00022 U	0.00035 U	0.00035 UJ	0.00043 U	0.00027 U	0.00038 U	0.00035 U
1,3-DICHLOROBENZENE	0.03	0.00034 U	0.0003 U	0.00035 U	0.00022 U	0.00034 U	0.00034 UJ	0.00042 U	0.00027 U	0.00037 U	0.00034 U
2-BUTANONE	1	0.0013 U	0.0012 U	0.0014 U	0.00087 U	0.0013 U	0.0018 J	0.0017 U	0.0011 U	0.01 J	0.0098 J
4-METHYL-2-PENTANONE	9.8	0.00052 U	0.00047 U	0.00054 U	0.00034 U	0.00052 U	0.00052 U	0.00065 U	0.00041 U	0.00057 U	0.00052 U
ACETONE	0.04	0.0061 U	0.0055 U	0.0066 B	0.0039 U	0.0095 B	0.0061 U	0.0076 U	0.0048 U	**0.046**	**0.064**
BENZENE	25	0.00022 U	0.0002 U	0.00023 U	0.00014 U	0.00022 U	0.00022 U	0.00028 U	0.00017 U	0.00024 U	0.00022 U
CARBON DISULFIDE	0.005	0.00042 U	0.00038 U	0.00044 U	0.00027 U	0.00042 U	0.003 J	0.00053 U	0.00033 U	0.0008 J	0.00042 U
CHLOROBENZENE	0.03	0.00032 U	0.00029 U	0.00033 U	0.0002 U	0.00032 U	0.00032 U	0.0004 U	0.00025 U	0.00035 U	0.00032 U
CIS-1,2-DICHLOROETHENE	0.04	0.00035 U	0.00031 U	0.00036 U	0.00022 U	0.00035 U	0.00035 U	0.00043 U	0.00027 U	0.00038 U	0.00035 U
ETHYLBENZENE	55	0.00025 U	0.00023 U	0.00026 U	0.00016 U	0.00025 U	0.00025 U	0.00031 U	0.0002 U	0.00028 U	0.00025 U
M+P-XYLENES	65	0.0012 U	0.001 U	0.0012 U	0.00074 U	0.0012 U	0.0012 U	0.0014 U	0.00091 U	0.0013 U	0.0012 U
METHYL TERT-BUTYL ETHER	12.5	0.00041 U	0.00037 U	0.00043 U	0.00027 U	0.00041 U	0.00042 U	0.00052 U	0.00033 U	0.00046 U	0.00041 U
METHYLENE CHLORIDE	0.21	0.00065 U	0.0027 B	0.0036 J	0.0023 J	0.003 B	0.00065 U	0.0037 B	0.00051 U	0.00071 U	0.00064 U
NAPHTHALENE	1	0.00018 U	0.00017 U	0.00019 U	0.00012 U	0.00018 U	0.00018 UJ	0.004 J	0.00014 U	0.0002 U	0.00018 U
N-PROPYLBENZENE	NC	0.00039 U	0.00035 U	0.0004 U	0.00025 U	0.00039 U	0.00039 UJ	0.00048 U	0.0003 U	0.00042 U	0.00038 U
O-XYLENE	0.1	0.00034 U	0.0003 U	0.00035 U	0.00022 U	0.00034 U	0.00034 U	0.00042 U	0.00027 U	0.00037 U	0.00034 U
STYRENE	0.1	0.00014 U	0.00013 U	0.00015 U	0.000093 U	0.00014 U	0.00015 U	0.00018 U	0.00011 U	0.00016 U	0.00014 U
TERT-AMYL METHYL ETHER	NC	0.00036 U	0.00032 U	0.00037 U	0.00023 U	0.00036 U	0.00036 U	0.00045 U	0.00028 U	0.00039 U	0.00036 U
TERTIARY-BUTYL ALCOHOL	NC	0.0073 UR	0.0066 UR	0.0075 UR	0.0047 UR	0.0073 UR	0.0074 UR	0.0091 UR	0.0058 UR	0.0081 UR	0.0073 UR
TETRACHLOROETHENE	0.002	0.0005 U	0.00045 U	0.00052 U	0.00032 U	0.0005 U	0.0005 U	0.00063 U	0.00039 U	0.00055 U	0.0005 U
TOLUENE	75	0.00026 U	0.00023 U	0.00027 U	0.00017 U	0.00026 U	0.00026 U	0.00059 J	0.0002 U	0.00029 U	0.00026 U
TOTAL XYLENES	65	0.00065 U	0.00058 U	0.00066 U	0.00042 U	0.00065 U	0.00065 U	0.00081 U	0.00051 U	0.00071 U	0.00064 U
TRICHLOROETHENE	0.1	0.0004 U	0.00037 U	0.00042 U	0.00026 U	0.0004 U	0.00041 U	0.00051 U	0.00032 U	0.00045 U	0.0004 U
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (MG/KG)											
1,3,5-TRIMETHYLBENZENE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYL ACETATE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NC	NA	0.0019 NJ	NA	NA	0.0022 NJ	NA	0.0033 NJ	NA	NA	NA
METHYLCYCLOHEXANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1-METHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (MG/KG)											
1,1-BIPHENYL	0.2	0.029 U	0.03 U	0.029 U	0.03 U	0.031 U	0.14 U	0.028 U	0.032 U	0.031 U	0.16 U
2-METHYLNAPHTHALENE	29	0.0036 U	0.0037 U	0.0036 U	0.0037 U	0.0038 U	0.017 U	0.071	0.0039 U	0.0038 U	0.019 U
ACENAPHTHENE	0.1	0.0036 U	0.0037 U	0.0036 U	0.0037 U	0.017	0.017 U	0.017	0.0039 U	0.0038 U	0.019 U
ACENAPHTHYLENE	0.1	0.0036 U	0.0057 J	0.0036 U	0.0037 U	0.0038 U	0.017 U	0.045	0.0039 U	0.0038 U	0.019 U
ANTHRACENE	0.1	0.0036 U	0.012	0.012	0.0037 U	0.035	0.044	0.098	0.0039 U	0.0091	0.019 U
BENZALDEHYDE	NC	0.013 U	0.014 U	0.013 U	0.013 U	0.014 U	0.063 U	0.012 U	0.014 U	0.014 U	0.069 U
BENZO(A)ANTHRACENE	0.8	0.0036 U	0.04	0.08	0.0037 U	0.083	0.12	0.14	0.011	0.042	0.086
BENZO(A)PYRENE	0.1	0.0036 U	0.042	0.081	0.0037 U	0.085	**0.16**	**0.2**	0.011	0.042	**0.11**
BENZO(B)FLUORANTHENE	0.1	0.0036 U	0.066	0.1	0.0037 U	**0.11**	**0.19**	**0.14**	0.014	0.05	**0.12**

TABLE 1
DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #7 to #10

LOCATION	Minimum Ecological Screening Value[1]	GSP-SB-095	GSP-SB-096	GSP-SB-097	GSP-SB-098	GSP-SB-099	GSP-SB-101	GSP-SB-102	GSP-SB-103	GSP-SB-104	GSP-SB-105
SAMPLE ID		GSP-SB-95-0-2	GSP-SB-96-0-2	GSP-SB-97-0-2	GSP-SB-98-0-2	GSP-SB-99-0-2	GSP-SB-101-0-2	GSP-SB-102-0-2	GSP-SB-103-0-2	GSP-SB-104-0-2	GSP-SB-105-0-2
REC		REC=09	REC=09	REC=09	REC=09	REC=09	REC=10	REC=10	REC=10	REC=10	REC=10
SAMPLE DATE		20110601	20110601	20110601	20110601	20110602	20110602	20110602	20110602	20110601	20110602
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	2	2	2	2
BENZO(G,H,I)PERYLENE	0.1	0.0036 U	0.029	0.06	0.0037 U	0.06	**0.13**	**0.26**	0.0079	0.025	0.019 U
BENZO(K)FLUORANTHENE	0.1	0.0036 U	0.023	0.032	0.0037 U	0.046	0.09	0.09	0.0039 U	0.021	0.092
BIS(2-ETHYLHEXYL)PHTHALATE	0.02	0.024 B	0.088 B	0.034 B	0.021 U	0.022 U	0.1 U	0.02 U	0.022 U	0.058 B	0.11 U
BUTYL BENZYL PHTHALATE	0.1	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.053 U	0.01 U	0.012 U	0.011 U	0.058 U
CAPROLACTAM	NC	0.04 U	0.042 U	0.04 U	0.041 U	0.042 U	0.2 U	0.038 U	0.044 U	0.042 U	0.21 U
CARBAZOLE	0.16	0.029 U	0.03 U	0.029 U	0.03 U	0.031 U	0.14 U	0.028 U	0.032 U	0.031 U	0.16 U
CHRYSENE	0.1	0.0012 U	0.05	0.085	0.0012 U	0.09	**0.15**	**0.16**	0.013	0.046	**0.15**
DIBENZO(A,H)ANTHRACENE	0.1	0.0036 U	0.0037 U	0.015	0.0037 U	0.013	0.017 U	0.032	0.0039 U	0.0038 U	0.019 U
DIBENZOFURAN	0.15	0.0036 U	0.0037 U	0.0036 U	0.0037 U	0.0091 J	0.017 U	0.0034 U	0.0039 U	0.0038 U	0.019 U
DIETHYL PHTHALATE	0.1	0.017 U	0.018 U	0.017 U	0.018 U	0.018 U	0.085 U	0.017 U	0.019 U	0.045 J	0.093 U
DIMETHYL PHTHALATE	0.1	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.09 U	0.018 U	0.02 U	0.019 U	0.098 U
DI-N-BUTYL PHTHALATE	0.011	0.016 U	0.017 U	**0.016 J**	0.017 U	0.017 U	0.079 U	0.016 U	0.018 U	**0.02 J**	0.087 U
FLUORANTHENE	0.1	0.0036 U	0.095	**0.14**	0.0052 J	**0.21**	**0.23**	**0.2**	0.021	0.082	**0.19**
FLUORENE	0.1	0.0036 U	0.0037 U	0.0036 U	0.0037 U	0.015	0.017 U	0.035	0.0039 U	0.0038 U	0.019 U
HIGH MOLECULAR WEIGHT PAHS[2]	0.1	0 U	**0.351**	**0.639**	0.0077	**0.687**	**1.156**	**1.432**	0.0739	**0.323**	**0.738**
INDENO(1,2,3-CD)PYRENE	0.1	0.0036 U	0.026	0.046	0.0037 U	0.05	0.096	**0.16**	0.0039 U	0.022	0.019 U
LOW MOLECULAR WEIGHT PAHS[3]	0.1	0 U	**0.1377**	**0.192**	0.0052	**0.407**	**0.347**	**0.77**	0.0291	**0.1231**	**0.263**
NAPHTHALENE	1	0.0036 U	0.0037 U	0.0036 U	0.0037 U	0.01	0.017 U	0.094	0.0039 U	0.0038 U	0.019 U
N-NITROSO-DI-N-PROPYLAMINE	0.544	0.029 U	0.03 U	0.029 U	0.03 U	0.031 U	0.14 U	0.028 U	0.032 U	0.031 U	0.16 U
PHENANTHRENE	0.1	0.0036 U	0.025	0.04	0.0037 U	**0.12**	0.073	**0.21**	0.0081	0.032	0.073
PYRENE	0.1	0.0036 U	0.075	**0.14**	0.0077	**0.15**	**0.22**	**0.25**	0.017	0.075	**0.18**
TOTAL PAHS[4]	0.10	0.00 U	**0.49**	**0.83**	0.01	**1.09**	**1.50**	**2.20**	**0.10**	**0.45**	**1.00**
PCBS (MG/KG)											
AROCLOR-1260	1.3	0.019 U	0.063 J	0.018 U	0.019 U	0.02 U	0.018 U	0.018 U	0.02 U	0.019 U	0.02 U
METALS (MG/KG)											
ANTIMONY	0.27	0.35 UL	0.38 UL	0.42 U	0.32 UL	0.4 UL	0.37 UL	**0.72 J**	0.43 UL	0.4 UL	0.38 UL
ARSENIC	17.1	1.2 J	1.6	1.8	2	2.4	1.8	2.1	4.1	3.3	2
BARIUM	110	6.9 J	41	5.1 J	30	23	**190**	**140**	24	25	25
BERYLLIUM	1.1	0.038 U	0.52	0.046 U	0.047 J	0.073 J	1.1	0.044 U	0.12 J	0.21 J	0.072 J
CADMIUM	0.36	0.032 U	0.035 U	0.039 U	0.03 U	0.037 U	0.078 J	0.037 U	0.04 U	0.037 U	0.035 U
CHROMIUM	26	3.3	5.3	3.1	8.1	7.4 K	11 K	17 K	11 K	11	7.5 K
COBALT	13	0.69 J	1.4	0.59 J	1.7	2	1.6	5.6	2.5	3.2	1.5
COPPER	28	2.3 K	15	2.2 J	4 K	6.7	9.4	12	4.2	7.3	8
IRON	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	11	2.5	**16**	1.9 K	4.7	**13**	**16**	8.4	5.5	9.7	**17**
MANGANESE	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.013	**0.037 J**	0.017 U	0.015 U	0.013 J	**0.033 J**	**0.022 J**	**0.084 J**	0.015 U	**0.037 J**	**0.039 J**
MOLYBDENUM	2	0.29 B	0.42 B	0.45 B	0.22 B	0.28 U	0.26 U	0.28 U	0.34 B	0.49 B	0.27 U
NICKEL	38	0.82 J	2.6 J	0.89 J	3.8	3.7 J	3.9	7.6	4.8	5.2	3 J
SELENIUM	0.52	0.4 U	0.46 J	0.48 U	0.37 U	**0.68 J**	**0.55 J**	0.47 U	**0.75 J**	**0.62 J**	**0.6 J**
SILVER	4.2	0.089 U	0.098 U	0.11 U	0.083 U	0.38 J	0.095 U	0.1 U	0.11 U	0.1 U	0.098 U
THALLIUM	0.22	0.49 U	0.54 U	0.59 U	0.46 U	0.56 U	**2.3 K**	**2 J**	0.61 U	0.57 U	0.54 U
VANADIUM	7.8	5.9	**8.6**	5.8	**14**	**14**	**19**	**22**	**20**	**19**	**13**
ZINC	46	5 B	22	4.6 B	12	22	28	38	16	22	24
PETROLEUM HYDROCARBONS (MG/KG)											
DIESEL RANGE ORGANICS	NC	120	46	17 J	10 U	47 B	72 B	190	11 U	30 B	140
GASOLINE RANGE ORGANICS	NC	0.027 U	0.028 U	0.027 U	0.028 U	0.029 U	0.026 U	0.026 U	0.029 U	0.029 U	0.029 U

TABLE 1

DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #7 to #10

LOCATION	Minimum Ecological Screening Value[(1)]	GSP-SB-095	GSP-SB-096	GSP-SB-097	GSP-SB-098	GSP-SB-099	GSP-SB-101	GSP-SB-102	GSP-SB-103	GSP-SB-104	GSP-SB-105
SAMPLE ID		GSP-SB-95-0-2	GSP-SB-96-0-2	GSP-SB-97-0-2	GSP-SB-98-0-2	GSP-SB-99-0-2	GSP-SB-101-0-2	GSP-SB-102-0-2	GSP-SB-103-0-2	GSP-SB-104-0-2	GSP-SB-105-0-2
REC		REC=09	REC=09	REC=09	REC=09	REC=09	REC=10	REC=10	REC=10	REC=10	REC=10
SAMPLE DATE		20110601	20110601	20110601	20110601	20110602	20110602	20110602	20110602	20110601	20110602
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	2	2	2	2
TPH (C06-C10)	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)											
ARSENIC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1
DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #7 to #10

LOCATION	Minimum Ecological Screening Value[(1)]	GSP-SB-106	GSP-SB-107	GSP-SB-108	GSP-SB-109	GSP-SB-110	GSP-SB-135	GSP-SB-136	GSP-SB-139	GSP-SB-140	GSP-SB-156
SAMPLE ID		GSP-SB-106-0-2	GSP-SB-107-0-2	GSP-SB-108-0-2	GSP-SB-109-0-2	GSP-SB-110-0-2	GSP-SB-135-0'-2.5'	GSP-SB-136-02	GSP-SB-139-02	GSP-SB-140-02	GSP-SS-SB-156-0-2
REC		REC=10	REC=10	REC=10	REC=10	REC=10	REC=08	REC=08	REC=08	REC=08	REC=10
SAMPLE DATE		20110601	20110602	20110602	20110602	20110602	20120907	20120914	20121002	20120926	20140225
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2.5	2	2	2	2
VOLATILES (MG/KG)											
1,1-DICHLOROETHENE	0.04	0.00029 U	0.00057 U	0.00044 U	0.00048 U	0.00044 U	0.00037 U	0.00072 J	NA	0.00043 U	NA
1,2,3-TRIMETHYLBENZENE	NC	0.000095 U	0.00019 U	0.00014 U	0.00016 U	0.00014 U	0.00012 U	0.00017 U	NA	0.00014 U	NA
1,2,4-TRICHLOROBENZENE	0.1	0.00015 U	0.00029 U	0.00023 U	0.00025 U	0.00023 U	0.00019 U	0.00026 U	NA	0.00022 U	NA
1,2,4-TRIMETHYLBENZENE	0.09	0.00036 U	0.00071 U	0.00055 U	0.0006 U	0.00055 U	0.00046 U	0.00063 U	NA	0.00054 U	NA
1,2-DICHLOROBENZENE	0.09	0.0002 U	0.00039 U	0.0003 U	0.00033 U	0.00031 U	0.00025 U	0.00035 U	NA	0.0003 U	NA
1,3-DICHLOROBENZENE	0.03	0.0002 U	0.00038 U	0.00029 U	0.00032 U	0.0003 U	0.00025 U	0.00034 U	NA	0.00029 U	NA
2-BUTANONE	1	0.0053 J	0.0026 J	0.0012 U	0.0017 J	0.0012 U	0.00099 U	0.0014 U	NA	0.0074 J	NA
4-METHYL-2-PENTANONE	9.8	0.0003 U	0.00059 U	0.00045 U	0.0005 U	0.00046 U	0.00038 U	0.00052 U	NA	0.00045 U	NA
ACETONE	0.04	0.029 B	0.034 B	0.0059 B	0.012 B	0.016 B	0.0044 U	0.0061 U	NA	**0.061**	NA
BENZENE	25	0.00013 U	0.00025 U	0.00019 U	0.00021 U	0.0002 U	0.00016 U	0.00022 U	NA	0.00019 U	NA
CARBON DISULFIDE	0.005	0.00025 U	0.00048 U	0.00037 U	0.0004 U	0.00037 U	0.00031 U	0.00043 U	NA	0.00069 J	NA
CHLOROBENZENE	0.03	0.00018 U	0.00036 U	0.00028 U	0.0003 U	0.00028 U	0.00023 U	0.00032 U	NA	0.00027 U	NA
CIS-1,2-DICHLOROETHENE	0.04	0.0002 U	0.00039 U	0.0003 U	0.00033 U	0.00031 U	0.00025 U	0.00035 U	NA	0.0003 U	NA
ETHYLBENZENE	55	0.00021 J	0.00028 U	0.00022 U	0.00024 U	0.00022 U	0.00018 U	0.00025 U	NA	0.00021 U	NA
M+P-XYLENES	65	0.00067 U	0.0013 U	0.001 U	0.0011 U	0.001 U	0.00084 U	0.0012 U	NA	0.00099 U	NA
METHYL TERT-BUTYL ETHER	12.5	0.00024 U	0.00047 U	0.00036 U	0.00039 U	0.00037 U	0.0003 U	0.00042 U	NA	0.00035 U	NA
METHYLENE CHLORIDE	0.21	0.0017 J	0.004 B	0.0023 B	0.0023 B	0.003 B	0.00047 U	0.00065 U	NA	0.00055 U	NA
NAPHTHALENE	1	0.00011 U	0.00021 U	0.00016 U	0.00055 B	0.00016 U	0.00013 B	0.00063 B	NA	0.00016 U	NA
N-PROPYLBENZENE	NC	0.00024 J	0.00044 U	0.00034 U	0.00037 U	0.00034 U	0.00028 U	0.00039 U	NA	0.00033 U	NA
O-XYLENE	0.1	0.0002 U	0.00038 U	0.00029 U	0.00032 U	0.00052 J	0.00025 U	0.00034 U	NA	0.00029 U	NA
STYRENE	0.1	0.000084 U	0.00016 U	0.00013 U	0.00014 U	0.00013 U	0.00011 U	0.00015 U	NA	0.00012 U	NA
TERT-AMYL METHYL ETHER	NC	0.00021 U	0.0004 U	0.00031 U	0.00034 U	0.00031 U	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NC	0.0043 UR	0.0083 UR	0.0064 UR	0.007 UR	0.0065 UR	0.0054 UR	0.0074 UR	NA	0.0063 UR	NA
TETRACHLOROETHENE	0.002	0.00029 U	0.00057 U	0.00044 U	0.00048 U	0.00044 U	0.00037 U	0.00074 J	NA	0.00043 U	NA
TOLUENE	75	0.00015 U	0.00029 J	0.00027 J	0.00042 J	0.00066 J	0.00041 J	0.00026 J	NA	0.001 J	NA
TOTAL XYLENES	65	0.00038 U	0.00073 U	0.00056 U	0.00061 U	0.00057 U	0.00047 U	0.00065 U	NA	0.00055 U	NA
TRICHLOROETHENE	0.1	0.00024 U	0.00046 U	0.00035 U	0.00039 U	0.00036 U	0.0003 U	0.0012 J	NA	0.00035 U	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (MG/KG)											
1,3,5-TRIMETHYLBENZENE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYL ACETATE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXANE	NC	NA	NA	NA	0.0018 NJ	NA	NA	0.0016 NJ	NA	NA	NA
METHYL ACETATE	NC	0.0011 NJ	0.0019 NJ	NA	0.009 NJ	0.0023 NJ	0.0036 NJ	0.013 NJ	NA	0.0014 NJ	NA
METHYLCYCLOHEXANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1-METHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (MG/KG)											
1,1-BIPHENYL	0.2	0.03 U	0.033 U	0.031 U	0.28 U	0.031 U	0.031 U	0.029 U	NA	0.03 U	0.0043 U
2-METHYLNAPHTHALENE	29	0.029	0.0041 U	0.0038 U	0.035 U	0.021	0.0038 U	0.0035 U	NA	0.0036 U	0.011
ACENAPHTHENE	0.1	0.026	0.0041 U	0.0038 U	0.035 U	0.0037 U	0.0038 U	0.0036 J	NA	0.018	0.012
ACENAPHTHYLENE	0.1	0.075	0.0041 U	0.0038 U	0.035 U	0.016	0.0038 U	0.0048 J	NA	0.0036 U	0.007 J
ANTHRACENE	0.1	**0.15**	0.0041 U	0.0038 U	**0.15**	0.027	0.0038 U	0.013	NA	0.038	0.03
BENZALDEHYDE	NC	0.013 U	0.015 U	0.014 U	0.13 U	0.014 U	0.014 U	0.013 U	NA	0.013 U	0.015 U
BENZO(A)ANTHRACENE	0.8	0.52	0.012	0.0038 U	0.29	0.032	0.0038 U	0.085	NA	0.15	0.069
BENZO(A)PYRENE	0.1	**0.55**	0.015	0.0038 U	**0.46**	0.049	0.0038 U	0.094	NA	0.1	0.069
BENZO(B)FLUORANTHENE	0.1	**0.58**	0.019	0.0038 U	**0.38**	0.04	0.0038 U	**0.11**	NA	**0.13**	0.067

TABLE 1
DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #7 to #10

LOCATION	Minimum Ecological Screening Value[1]	GSP-SB-106	GSP-SB-107	GSP-SB-108	GSP-SB-109	GSP-SB-110	GSP-SB-135	GSP-SB-136	GSP-SB-139	GSP-SB-140	GSP-SB-156
SAMPLE ID		GSP-SB-106-0-2	GSP-SB-107-0-2	GSP-SB-108-0-2	GSP-SB-109-0-2	GSP-SB-110-0-2	GSP-SB-135-0'-2.5'	GSP-SB-136-02	GSP-SB-139-02	GSP-SB-140-02	GSP-SS-SB-156-0-2
REC		REC=10	REC=10	REC=10	REC=10	REC=10	REC=08	REC=08	REC=08	REC=08	REC=10
SAMPLE DATE		20110601	20110602	20110602	20110602	20110602	20120907	20120914	20121002	20120926	20140225
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2.5	2	2	2	2
BENZO(G,H,I)PERYLENE	0.1	**0.39**	0.013	0.0038 U	**0.55**	0.081	0.0038 U	0.062 J	NA	0.052	0.051
BENZO(K)FLUORANTHENE	0.1	**0.32**	0.0041 U	0.0038 U	**0.2**	0.016	0.0038 U	0.046	NA	0.066	0.025
BIS(2-ETHYLHEXYL)PHTHALATE	0.02	0.021 U	0.023 U	**0.025 J**	0.2 U	0.022 U	0.039 J	**0.025 J**	NA	**0.028 J**	0.023 U
BUTYL BENZYL PHTHALATE	0.1	0.011 U	0.012 U	0.012 U	0.1 U	0.011 U	0.011 U	0.011 U	NA	0.011 U	0.012 U
CAPROLACTAM	NC	0.041 U	0.046 U	0.043 U	0.39 U	0.042 U	0.042 U	0.039 U	NA	0.041 U	0.045 U
CARBAZOLE	0.16	0.03 U	0.033 U	0.031 U	0.28 U	0.031 U	0.031 U	0.029 U	NA	0.03 U	0.033 U
CHRYSENE	0.1	**0.55**	0.015	0.0013 U	**0.41**	0.037	0.0013 U	0.099	NA	**0.13**	0.075
DIBENZO(A,H)ANTHRACENE	0.1	0.0036 U	0.0041 U	0.0038 U	0.035 U	0.0037 U	0.0038 U	0.0035 U	NA	0.014	0.00081 U
DIBENZOFURAN	0.15	0.0036 U	0.0041 U	0.0038 U	0.035 U	0.0037 U	0.0038 U	0.0035 U	NA	0.0087 J	0.00081 U
DIETHYL PHTHALATE	0.1	0.018 U	0.02 U	0.019 U	0.17 U	0.018 U	0.018 U	0.017 U	NA	0.018 U	0.02 U
DIMETHYL PHTHALATE	0.1	0.019 U	0.021 U	0.02 U	0.18 U	0.019 U	0.019 U	0.018 U	NA	0.019 U	0.021 U
DI-N-BUTYL PHTHALATE	0.011	0.016 U	0.018 U	0.017 U	0.16 U	0.017 U	0.017 U	0.016 U	NA	0.017 U	0.018 U
FLUORANTHENE	0.1	**0.81**	0.022	0.0087	**0.48**	0.037	0.0038 U	**0.16**	NA	**0.31**	0.13
FLUORENE	0.1	0.036	0.0041 U	0.0038 U	0.035 U	0.0094	0.0038 U	0.0035 U	NA	0.022	0.017
HIGH MOLECULAR WEIGHT PAHS[2]	0.1	**4.28**	**0.107**	0.0071	**3.23**	**0.353**	0 U	**0.721**	NA	**0.927**	0.581
INDENO(1,2,3-CD)PYRENE	0.1	**0.27**	0.011	0.0038 U	**0.34**	0.044	0.0038 U	0.055	NA	0.045	0.035
LOW MOLECULAR WEIGHT PAHS[3]	0.1	**1.52**	0.0303	0.0087	**0.99**	**0.1804**	0 U	**0.236**	NA	**0.498**	0.3552
NAPHTHALENE	1	0.044	0.0041 U	0.0038 U	0.035 U	0.024	0.0038 U	0.0046 J	NA	0.0036 U	0.0082
N-NITROSO-DI-N-PROPYLAMINE	0.544	0.03 U	0.033 U	0.031 U	0.28 U	0.031 U	0.031 U	0.029 U	NA	0.03 U	0.0077 U
PHENANTHRENE	0.1	**0.35**	0.0083	0.0038 U	**0.36**	0.046	0.0038 U	0.05	NA	**0.11**	0.14
PYRENE	0.1	**1.1**	0.022	0.0071 J	**0.6**	0.054	0.0038 U	**0.17**	NA	**0.24**	0.19
TOTAL PAHS[4]	0.10	**5.80**	**0.14**	0.02	**4.22**	**0.53**	0.00 U	**0.96**	NA	**1.43**	**0.94**
PCBS (MG/KG)											
AROCLOR-1260	1.3	0.019 U	0.021 U	0.02 U	0.018 U	0.019 U	NA	NA	NA	NA	NA
METALS (MG/KG)											
ANTIMONY	0.27	0.43 UL	0.44 UL	0.39 UL	0.35 UL	0.41 UL	0.34 UL	0.39 UL	NA	0.31 UL	0.42 UJ
ARSENIC	17.1	3.1	1.9	5.5	3.6	5.6	1.5	2	NA	1.5	3.8
BARIUM	110	25	14 J	25	69	32	6 J	27	NA	20	27 J
BERYLLIUM	1.1	0.15 J	0.049 J	0.36 J	0.039 U	0.19 J	0.037 U	0.096 J	NA	0.16 J	0.22 J
CADMIUM	0.36	0.04 U	0.062 J	0.036 U	0.033 U	0.038 U	0.031 U	0.12 J	NA	0.044 J	0.039 U
CHROMIUM	26	12	9.5 K	24 K	17 K	23 K	3.6	7.8	NA	5.8	12 J
COBALT	13	2.9	1.6	7.1	4.9	5.6	0.65 J	2.3	NA	1.4	1.5
COPPER	28	9.6	6.8	14	9.9	14	2 J	15	NA	3.1	4.8
IRON	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	11	7.8	10	7.9	7.6	5.4	1.8	9.3	NA	3.9	5.7
MANGANESE	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.013	**0.06 J**	0.017 U	0.011 U	**0.11**	**0.035 J**	0.019 J	**0.039 J**	NA	0.016 U	0.017 U
MOLYBDENUM	2	0.61 B	0.3 U	0.27 U	1.1 B	0.28 U	0.23 U	0.67 B	NA	0.36 J	0.35 J
NICKEL	38	4.7	3.5 J	15	6.1	4.6	1.1 J	4.4	NA	2.7 J	3.8 J
SELENIUM	0.52	**0.56 J**	0.51 U	0.45 U	0.41 U	**0.78 J**	0.39 U	0.45 U	NA	0.35 U	0.48 U
SILVER	4.2	0.11 U	0.11 U	0.1 U	0.09 U	0.1 U	0.086 UL	0.2 J	NA	0.079 UL	0.11 U
THALLIUM	0.22	0.6 U	0.62 U	0.55 U	**0.7 J**	0.57 U	0.48 U	0.86 B	NA	0.43 U	0.59 U
VANADIUM	7.8	**19**	**13**	**65**	**18**	**47**	7.4 J	**12 J**	NA	**9.5**	21 J
ZINC	46	20	24	29	42	14	4.3	25 K	NA	11	12
PETROLEUM HYDROCARBONS (MG/KG)											
DIESEL RANGE ORGANICS	NC	140	11 U	24 B	290	320	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NC	0.027 U	0.031 U	0.029 U	0.026 U	0.028 U	NA	NA	NA	NA	NA

TABLE 1
DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #7 to #10

LOCATION	Minimum Ecological Screening Value[(1)]	GSP-SB-106	GSP-SB-107	GSP-SB-108	GSP-SB-109	GSP-SB-110	GSP-SB-135	GSP-SB-136	GSP-SB-139	GSP-SB-140	GSP-SB-156
SAMPLE ID		GSP-SB-106-0-2	GSP-SB-107-0-2	GSP-SB-108-0-2	GSP-SB-109-0-2	GSP-SB-110-0-2	GSP-SB-135-0'-2.5'	GSP-SB-136-02	GSP-SB-139-02	GSP-SB-140-02	GSP-SS-SB-156-0-2
REC		REC=10	REC=10	REC=10	REC=10	REC=10	REC=08	REC=08	REC=08	REC=08	REC=10
SAMPLE DATE		20110601	20110602	20110602	20110602	20110602	20120907	20120914	20121002	20120926	20140225
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2.5	2	2	2	2
TPH (C06-C10)	NC	NA	NA	NA	NA	NA	0.052 U	0.049 U	NA	0.05 U	0.058 U
TPH (C10-C32)	NC	NA	NA	NA	NA	NA	13 B	11 B	NA	27	22 J
TCLP METALS (MG/L)											
ARSENIC	NC	NA	NA	NA	NA	NA	NA	NA	0.0034 J	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA	0.2 J	NA	NA
CADMIUM	NC	NA	NA	NA	NA	NA	NA	NA	0.0012 J	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA	0.0049 J	NA	NA

TABLE 1
DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #7 to #10

LOCATION	Minimum Ecological Screening Value[(1)]	GSP-SB-157	GSP-SB-158	GSP-SB-161	GSP-SB-162	GSP-SB-163	GSP-SB-164	GSP-SB-165
SAMPLE ID		GSP-SS-157-0-2	GSP-SS-158-0-2	GSP-SS-161-0-2	GSP-SS-162-0-2	GSP-SB-163-0-5	GSP-SB-164-0-5	GSP-SB-165-0-5
REC		REC=10	REC=09	REC=10	REC=10	REC=09	REC=08	REC=08
SAMPLE DATE		20140225	20140224	20140224	20140225	20140306	20140227	20140228
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	5	5	5
VOLATILES (MG/KG)								
1,1-DICHLOROETHENE	0.04	NA	NA	NA	NA	0.00044 U	0.00045 U	0.016 U
1,2,3-TRIMETHYLBENZENE	NC	NA	NA	NA	NA	0.00014 U	0.00015 U	0.00015 U
1,2,4-TRICHLOROBENZENE	0.1	NA	NA	NA	NA	0.00023 U	0.00023 U	0.0064 U
1,2,4-TRIMETHYLBENZENE	0.09	NA	NA	NA	NA	0.00055 UJ	0.00057 U	0.0044 U
1,2-DICHLOROBENZENE	0.09	NA	NA	NA	NA	0.0003 U	0.00031 U	0.0076 U
1,3-DICHLOROBENZENE	0.03	NA	NA	NA	NA	0.00029 U	0.0003 U	0.0042 U
2-BUTANONE	1	NA	NA	NA	NA	0.0012 UJ	0.0038 J	0.044 J
4-METHYL-2-PENTANONE	9.8	NA	NA	NA	NA	0.00045 UJ	0.00047 U	0.042 UJ
ACETONE	0.04	NA	NA	NA	NA	0.022 J	**0.48 J**	0.15 UJ
BENZENE	25	NA	NA	NA	NA	0.00019 U	0.0002 U	0.011 U
CARBON DISULFIDE	0.005	NA	NA	NA	NA	0.00037 UJ	0.00038 U	0.011 U
CHLOROBENZENE	0.03	NA	NA	NA	NA	0.00028 U	0.00029 U	0.0056 U
CIS-1,2-DICHLOROETHENE	0.04	NA	NA	NA	NA	0.0003 U	0.00031 U	0.0061 U
ETHYLBENZENE	55	NA	NA	NA	NA	0.00022 U	0.00023 U	0.0048 U
M+P-XYLENES	65	NA	NA	NA	NA	0.001 UJ	0.001 U	0.008 U
METHYL TERT-BUTYL ETHER	12.5	NA	NA	NA	NA	0.00036 U	0.00037 U	0.0062 U
METHYLENE CHLORIDE	0.21	NA	NA	NA	NA	0.00056 U	0.00058 U	0.068 U
NAPHTHALENE	1	NA	NA	NA	NA	0.00016 U	0.00017 U	0.0059 U
N-PROPYLBENZENE	NC	NA	NA	NA	NA	0.00034 UJ	0.00035 U	0.012 U
O-XYLENE	0.1	NA	NA	NA	NA	0.00029 UJ	0.0003 U	0.0075 U
STYRENE	0.1	NA	NA	NA	NA	0.00013 UJ	0.00013 U	0.0059 J
TERT-AMYL METHYL ETHER	NC	NA	NA	NA	NA	0.00031 UJ	0.00032 U	0.00033 UJ
TERTIARY-BUTYL ALCOHOL	NC	NA	NA	NA	NA	0.0064 U	0.013 J	0.21 UJ
TETRACHLOROETHENE	0.002	NA	NA	NA	NA	0.00044 U	0.00045 U	0.011 U
TOLUENE	75	NA	NA	NA	NA	0.00023 U	0.00023 U	0.015 U
TOTAL XYLENES	65	NA	NA	NA	NA	0.00029 U	0.0003 U	0.008 U
TRICHLOROETHENE	0.1	NA	NA	NA	NA	0.00035 U	0.00037 U	0.0085 U
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (MG/KG)								
1,3,5-TRIMETHYLBENZENE	NC	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NC	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE	NC	NA	NA	NA	NA	NA	0.018 NJ	NA
ETHYL ACETATE	NC	NA	NA	NA	NA	NA	NA	NA
HEXANE	NC	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NC	NA	NA	NA	NA	NA	NA	NA
METHYLCYCLOHEXANE	NC	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1-METHYL-	NC	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (MG/KG)								
1,1-BIPHENYL	0.2	0.0045 U	0.0041 U	0.0044 U	0.0042 U	0.0038 U	0.0039 U	0.0039 U
2-METHYLNAPHTHALENE	29	0.00064 U	0.017	0.00064 U	0.0006 U	0.00055 U	0.00055 U	0.00056 U
ACENAPHTHENE	0.1	0.00097 U	0.021	0.00097 U	0.00091 U	0.00083 U	0.00084 U	0.00085 U
ACENAPHTHYLENE	0.1	0.00045 U	0.03	0.00044 U	0.00042 U	0.00038 U	0.00039 U	0.00039 U
ANTHRACENE	0.1	0.0065 J	0.085	0.00099 U	0.00093 U	0.00085 U	0.00087 U	0.00088 U
BENZALDEHYDE	NC	0.016 J	0.014 U	0.015 U	0.014 U	0.013 U	0.013 U	0.013 U
BENZO(A)ANTHRACENE	0.8	0.032	0.48	0.0066 J	0.00075 U	0.00069 U	0.0007 U	0.00071 U
BENZO(A)PYRENE	0.1	0.038	**0.6**	0.0057 J	0.00076 U	0.0007 U	0.00071 U	0.00072 U
BENZO(B)FLUORANTHENE	0.1	0.044	**0.83**	0.0082 J	0.0007 U	0.00064 U	0.00065 U	0.0048 J

TABLE 1
DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #7 to #10

LOCATION	Minimum Ecological Screening Value[1]	GSP-SB-157	GSP-SB-158	GSP-SB-161	GSP-SB-162	GSP-SB-163	GSP-SB-164	GSP-SB-165
SAMPLE ID		GSP-SS-157-0-2	GSP-SS-158-0-2	GSP-SS-161-0-2	GSP-SS-162-0-2	GSP-SB-163-0-5	GSP-SB-164-0-5	GSP-SB-165-0-5
REC		REC=10	REC=09	REC=10	REC=10	REC=09	REC=08	REC=08
SAMPLE DATE		20140225	20140224	20140224	20140225	20140306	20140227	20140228
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	5	5	5
BENZO(G,H,I)PERYLENE	0.1	0.033	**0.43**	0.00044 U	0.00042 U	0.00038 U	0.00039 U	0.00039 U
BENZO(K)FLUORANTHENE	0.1	0.024	**0.29**	0.00086 U	0.00081 U	0.00074 U	0.00075 U	0.00076 U
BIS(2-ETHYLHEXYL)PHTHALATE	0.02	0.024 U	**0.085**	0.024 U	0.023 U	0.021 U	**0.027 J**	**0.023 J**
BUTYL BENZYL PHTHALATE	0.1	0.013 U	0.012 U	0.013 U	0.012 U	0.011 U	0.011 U	0.011 U
CAPROLACTAM	NC	0.047 U	0.043 U	0.047 U	0.044 U	0.04 U	0.041 U	0.042 U
CARBAZOLE	0.16	0.034 U	0.042 J	0.034 U	0.032 U	0.029 U	0.03 U	0.03 U
CHRYSENE	0.1	0.043	**0.61**	0.0065 J	0.0013 U	0.0012 U	0.0012 U	0.0012 U
DIBENZO(A,H)ANTHRACENE	0.1	0.00084 U	**0.11**	0.00084 U	0.00079 U	0.00072 U	0.00073 U	0.00074 U
DIBENZOFURAN	0.15	0.00084 U	0.01 J	0.00084 U	0.00079 U	0.00072 U	0.00073 U	0.00074 U
DIETHYL PHTHALATE	0.1	0.02 U	0.019 U	0.02 U	0.019 U	0.017 U	0.018 U	0.018 U
DIMETHYL PHTHALATE	0.1	0.022 U	0.02 U	0.022 U	0.02 U	0.019 U	0.019 U	0.019 U
DI-N-BUTYL PHTHALATE	0.011	0.019 U	0.017 U	0.019 U	0.018 U	0.016 U	0.017 U	**0.019 J**
FLUORANTHENE	0.1	0.057	**0.99**	0.0099	0.00066 U	0.0006 U	0.00061 U	0.0057 J
FLUORENE	0.1	0.00068 U	0.022	0.00067 U	0.00063 U	0.00058 U	0.00059 U	0.0006 U
HIGH MOLECULAR WEIGHT PAHS[2]	0.1	**0.312**	**4.72**	0.037	0 U	0 U	0 U	0.0101
INDENO(1,2,3-CD)PYRENE	0.1	0.028	**0.37**	0.00044 U	0.00042 U	0.00038 U	0.00039 U	0.00039 U
LOW MOLECULAR WEIGHT PAHS[3]	0.1	0.0845	**1.557**	0.0152	0 U	0 U	0 U	0.0057
NAPHTHALENE	1	0.001 U	0.022	0.001 U	0.00098 U	0.00089 U	0.00091 U	0.00092 U
N-NITROSO-DI-N-PROPYLAMINE	0.544	0.008 U	0.0073 U	0.008 U	0.0075 U	0.0069 U	0.007 U	0.0071 U
PHENANTHRENE	0.1	0.021	**0.37**	0.0053 J	0.00087 U	0.0008 U	0.00081 U	0.00082 U
PYRENE	0.1	0.07	**1**	0.01	0.00053 U	0.00048 U	0.00049 U	0.0053 J
TOTAL PAHS[4]	0.10	**0.40**	**6.28**	0.05	0.00 U	0.00 U	0.00 U	0.02
PCBS (MG/KG)								
AROCLOR-1260	1.3	NA	NA	NA	NA	NA	NA	NA
METALS (MG/KG)								
ANTIMONY	0.27	0.39 UJ	0.31 UJ	0.43 UJ	0.4 UJ	0.42 U	**0.7 J**	0.75 U
ARSENIC	17.1	3.6	1.5	2.1	1.1 J	1.6	1.9	0.32 U
BARIUM	110	50 J	25 J	12 J	16 J	10 J	4.2 J	2.5 J
BERYLLIUM	1.1	0.47 J	0.14 J	0.1 J	0.081 J	0.094 J	0.065 J	0.046 U
CADMIUM	0.36	0.21 J	0.059 J	0.039 U	0.039 J	0.039 U	0.035 U	0.039 U
CHROMIUM	26	11 J	9.2 J	6.6 J	6.3 J	6.5	3	2.8
COBALT	13	10	1.2	0.8 J	0.35 J	0.36 J	1.5	0.17 U
COPPER	28	11	3.9	2.6 J	2.2 J	2.9	2.2 J	0.79 U
IRON	12	NA	NA	NA	NA	NA	NA	NA
LEAD	11	**16**	6.1	3.6	3	1.9	2	0.78 J
MANGANESE	220	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.013	**0.028 J**	**0.031 J**	0.018 U	0.017 U	0.015 U	0.017 U	0.018 U
MOLYBDENUM	2	0.27 U	0.22 U	0.29 U	0.28 U	0.29 U	0.42 J	0.3 U
NICKEL	38	8	2.1 J	1.7 J	1.9 J	0.98 J	4.6	0.58 U
SELENIUM	0.52	0.47 J	0.36 U	0.49 J	0.46 U	0.49 U	0.43 U	0.48 U
SILVER	4.2	0.099 U	0.08 U	0.11 U	0.1 U	0.11 U	0.097 U	0.11 U
THALLIUM	0.22	0.55 U	0.44 U	0.6 U	0.56 U	0.6 U	0.53 U	0.59 U
VANADIUM	7.8	**24 J**	**11 J**	**13 J**	6.8 J	**9.3**	2.4	2.2
ZINC	46	27	17	8.6	5.7 U	4.4 J	7.1	1.6 J
PETROLEUM HYDROCARBONS (MG/KG)								
DIESEL RANGE ORGANICS	NC	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NC	NA	NA	NA	NA	NA	NA	NA

TABLE 1
DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #7 to #10

LOCATION	Minimum Ecological Screening Value[(1)]	GSP-SB-157	GSP-SB-158	GSP-SB-161	GSP-SB-162	GSP-SB-163	GSP-SB-164	GSP-SB-165
SAMPLE ID		GSP-SS-157-0-2	GSP-SS-158-0-2	GSP-SS-161-0-2	GSP-SS-162-0-2	GSP-SB-163-0-5	GSP-SB-164-0-5	GSP-SB-165-0-5
REC		REC=10	REC=09	REC=10	REC=10	REC=09	REC=08	REC=08
SAMPLE DATE		20140225	20140224	20140224	20140225	20140306	20140227	20140228
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	5	5	5
TPH (C06-C10)	NC	0.06 U	0.053 U	0.057 U	0.055 U	NA	NA	NA
TPH (C10-C32)	NC	59	320 J	22	11 U	NA	NA	NA
TCLP METALS (MG/L)								
ARSENIC	NC	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NC	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA

Bolded font indicates detected results.
Shaded results indicate results that exceed the screening criteria, if available.

Footnotes:
1 - Ecological screening values presented in Attachment 2.
2 - Calculated as the sum of the nine high molecular weight PAHs defined below. A value of zero was used for non-detected results.
3 - Calculated as the sum of nine low molecular weight PAHs defined below. A value of zero was used for non-detected results.
4 - Calculated as the sum of both the high and low molecular weight PAHs defined below. A value of zero was used for non-detected results.

Compounds included in High Molecular Weight PAH Calculation:
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(g,h,i)perylene
Benzo(k)fluoranthene
Chrysene
Dibenzo(a,h)anthracene
Indeno(1,2,3-cd)pyrene
Pyrene

Compounds included in Low Molecular Weight PAH Calculation:
1-Methylnaphthalene
2-Methylnaphthalene
Acenaphthene
Acenaphthylene
Anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene

Abbreviations:
NC - No criteria.
NA - Not available.
B - Blank contamination
J - Estimated value
K -Biased high
L - Biased low
U - Nondetect

TABLE 2

DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #11

LOCATION	Minimum Ecological Screening Value[(1)]	GSP-MW-20	GSP-SB-072	GSP-SB-074	GSP-SB-075	GSP-SB-076	GSP-SB-077	GSP-SB-078	GSP-SB-080	GSP-SB-082
SAMPLE ID		GSP-MW-20-0-2	GSP-SB-72-0-2	GSP-SB-74-0-2	GSP-SB-75-0-2	GSP-SB-76-1-3	GSP-SB-77-1-3	GSP-SB-78-0-2	GSP-SB-80-0-2	GSP-SB-82-0-2
REC		REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE		20120912	20100511	20100511	20100412	20100413	20100414	20100413	20100413	20100415
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	1	1	0	0	0
BOTTOM DEPTH		2	2	2	2	3	3	2	2	2
VOLATILES (MG/KG)										
1,1-DICHLOROETHENE	0.04	0.00056 U	0.00047 U	0.00048 U	0.00038 U	0.00038 U	0.00046 U	0.00043 U	0.00045 U	0.00043 U
1,2,3-TRIMETHYLBENZENE	NC	0.00018 U	0.00015 U	0.00016 U	0.00018 J	0.00016 J	0.00055 J	0.00014 U	0.00015 U	0.00014 U
1,2,4-TRICHLOROBENZENE	0.1	0.00029 U	0.00024 U	0.00025 U	0.00028 B	0.0002 U	0.00024 U	0.00022 U	0.00023 U	0.00022 U
1,2,4-TRIMETHYLBENZENE	0.09	0.0007 U	0.00059 U	0.0006 U	0.00047 U	0.00048 U	0.00099 J	0.00054 U	0.00056 U	0.00054 U
1,2-DICHLOROBENZENE	0.09	0.00039 U	0.00032 U	0.00033 U	0.00026 U	0.00026 U	0.00032 U	0.0003 U	0.00031 U	0.0003 U
1,3-DICHLOROBENZENE	0.03	0.00038 U	0.00032 U	0.00032 U	0.00025 U	0.00026 U	0.00031 U	0.00029 U	0.0003 U	0.00029 U
2-BUTANONE	1	0.0015 U	0.0013 U	0.0013 U	0.001 U	0.0043 J	0.0079 J	0.0012 U	0.0012 U	0.0012 U
4-METHYL-2-PENTANONE	9.8	0.00058 U	0.00049 U	0.00049 U	0.00039 U	0.0004 U	0.00048 U	0.00045 U	0.00047 U	0.00045 U
ACETONE	0.04	0.15	0.012 B	0.012 B	0.029	**0.045**	0.036	0.0052 U	0.0055 U	**0.75 J**
BENZENE	25	0.00025 U	0.00021 U	0.00021 U	0.00017 U	0.00017 U	0.00055 J	0.00019 U	0.0002 U	0.00019 U
CARBON DISULFIDE	0.005	0.00048 U	0.0004 U	0.0004 U	0.00032 U	0.00032 U	0.00039 U	0.00036 U	0.00038 U	0.00037 U
CHLOROBENZENE	0.03	0.00036 U	0.0003 U	0.0003 U	0.00024 U	0.00024 U	0.00029 U	0.00027 U	0.00029 U	0.00027 U
CIS-1,2-DICHLOROETHENE	0.04	0.00039 U	0.00032 U	0.00096 J	0.00026 U	0.00026 U	0.00032 U	0.0003 U	0.00031 U	0.0003 U
ETHYLBENZENE	55	0.00028 U	0.00023 U	0.00024 U	0.00019 U	0.00019 U	0.00023 U	0.00021 U	0.00023 U	0.00022 U
M+P-XYLENES	65	0.0013 U	0.0011 U	0.0011 U	0.00087 U	0.00088 U	0.0011 U	0.00099 U	0.001 U	0.001 U
METHYL TERT-BUTYL ETHER	12.5	0.00046 U	0.00039 UJ	0.00039 UJ	0.00031 U	0.00032 U	0.00038 U	0.00035 U	0.00037 U	0.00036 U
METHYLENE CHLORIDE	0.21	0.00072 U	0.0006 U	0.00061 U	0.00049 U	0.00049 U	0.0006 U	0.00055 U	0.00058 U	0.00056 U
NAPHTHALENE	1	0.00033 B	0.00017 U	0.00017 U	0.00053 B	0.0011 B	0.0012 B	0.00016 U	0.00017 U	0.00063 B
N-PROPYLBENZENE	NC	0.00043 U	0.00036 U	0.00037 U	0.00029 U	0.00029 U	0.00036 U	0.00033 U	0.00035 U	0.00033 U
O-XYLENE	0.1	0.00038 U	0.00032 U	0.00032 U	0.00025 U	0.00026 U	0.00032 J	0.00029 U	0.0003 U	0.00029 U
STYRENE	0.1	0.00016 U	0.00014 U	0.00014 U	0.00011 U	0.00011 U	0.00013 U	0.00012 U	0.00013 U	0.00012 U
TERT-AMYL METHYL ETHER	NC	NA	0.00033 UJ	0.00034 UJ	0.00027 U	0.00027 UJ	0.00033 UJ	0.00031 UJ	0.00032 UJ	0.00031 U
TERTIARY-BUTYL ALCOHOL	NC	0.0082 UR	0.0068 UR	0.007 UR	0.0055 UR	0.0056 UR	0.0068 UR	0.0063 UR	0.0066 UR	0.0081 J
TETRACHLOROETHENE	0.002	0.00056 U	0.00047 U	0.00048 U	0.00038 U	0.00038 U	0.00046 U	0.00043 U	0.00045 U	0.00043 U
TOLUENE	75	0.00029 U	0.00024 U	0.00025 U	0.0002 U	0.00033 J	0.00068 J	0.00022 U	0.00023 U	0.00022 U
TOTAL XYLENES	65	0.00072 U	0.0006 U	0.00061 U	0.00056 J	0.00049 U	0.00088 J	0.00055 U	0.00058 U	0.00056 U
TRICHLOROETHENE	0.1	0.00045 U	0.00038 U	0.0041 J	0.0003 U	0.00031 U	0.00037 U	0.00035 U	0.00037 U	0.00035 U
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (MG/KG)										
1,3,5-TRIMETHYLBENZENE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYL ACETATE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXANE	NC	0.011 NJ	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NC	0.0036 NJ	NA	NA	NA	NA	NA	NA	NA	NA
METHYLCYCLOHEXANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1-METHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (MG/KG)										
1,1-BIPHENYL	0.2	0.03 U	0.033 U	0.033 U	0.031 U	0.059 U	0.03 U	0.031 U	0.031 U	0.062 U
2-METHYLNAPHTHALENE	29	0.018	0.004 U	0.004 U	0.0085	0.081	0.01	0.018	0.035	0.03
ACENAPHTHENE	0.1	0.059	0.013	0.004 U	0.039	**0.44**	0.0037 U	0.026	0.037	0.036
ACENAPHTHYLENE	0.1	0.014	0.004 U	0.004 U	0.016	0.043	0.0037 U	0.03	0.055	0.045
ANTHRACENE	0.1	0.13	0.038	0.004 U	0.082	**0.61**	0.017	**0.16**	**0.2**	**0.21**
BENZALDEHYDE	NC	0.013 U	0.015 U	0.015 U	0.014 U	0.026 U	0.014 U	0.014 U	0.014 U	0.027 U
BENZO(A)ANTHRACENE	0.8	0.57	0.19	0.004 U	0.34	**1.3**	0.064	0.53	0.67	**0.92**
BENZO(A)PYRENE	0.1	0.55	0.21	0.004 U	**0.33**	**1.2**	0.065	**0.48**	**0.66**	**0.88**
BENZO(B)FLUORANTHENE	0.1	0.82	0.29	0.013	**0.43**	**1.6**	0.087	**0.58**	**0.77**	**0.93**
BENZO(G,H,I)PERYLENE	0.1	0.21 J	0.14	0.004 U	**0.24**	**0.73**	0.047	**0.32**	**0.49**	**0.58**

TABLE 2

DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #11

LOCATION SAMPLE ID REC SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Minimum Ecological Screening Value[1]	GSP-MW-20 GSP-MW-20-0-2 REC=11 20120912 NORMAL SO NORMAL SS 0 2	GSP-SB-072 GSP-SB-72-0-2 REC=11 20100511 NORMAL SO NORMAL SS 0 2	GSP-SB-074 GSP-SB-74-0-2 REC=11 20100511 NORMAL SO NORMAL SS 0 2	GSP-SB-075 GSP-SB-75-0-2 REC=11 20100412 NORMAL SO NORMAL SS 0 2	GSP-SB-076 GSP-SB-76-1-3 REC=11 20100413 NORMAL SO NORMAL SS 1 3	GSP-SB-077 GSP-SB-77-1-3 REC=11 20100414 NORMAL SO NORMAL SS 1 3	GSP-SB-078 GSP-SB-78-0-2 REC=11 20100413 NORMAL SO NORMAL SS 0 2	GSP-SB-080 GSP-SB-80-0-2 REC=11 20100413 NORMAL SO NORMAL SS 0 2	GSP-SB-082 GSP-SB-82-0-2 REC=11 20100415 NORMAL SO NORMAL SS 0 2
BENZO(K)FLUORANTHENE	0.1	0.35	0.1	0.004 U	**0.21**	**0.52**	0.03	**0.28**	**0.33**	**0.4**
BIS(2-ETHYLHEXYL)PHTHALATE	0.02	0.021 U	0.041 B	0.045 B	0.032 B	0.044 B	0.021 U	0.022 U	0.022 U	0.043 U
BUTYL BENZYL PHTHALATE	0.1	0.011 U	0.012 U	0.012 U	0.011 U	0.022 U	0.011 U	0.011 U	0.011 U	0.023 U
CAPROLACTAM	NC	0.041 U	0.045 U	0.045 U	0.042 U	0.081 U	0.042 U	0.042 U	0.042 U	0.084 U
CARBAZOLE	0.16	0.053 J	0.033 U	0.033 U	0.045 J	**0.26**	0.03 U	0.037 J	0.037 J	0.062 U
CHRYSENE	0.1	0.61	0.22	0.0088	**0.35**	**1.3**	0.083	**0.5**	**0.64**	**0.96**
DIBENZO(A,H)ANTHRACENE	0.1	0.069 J	0.031	0.004 U	0.057	**0.2**	0.012	0.068	**0.11**	**0.14**
DIBENZOFURAN	0.15	0.022 J	0.024 U	0.024 U	0.023 U	**0.17**	0.023 U	0.023 U	0.023 U	0.046 U
DIETHYL PHTHALATE	0.1	0.018 U	0.019 U	0.02 U	0.018 U	0.035 U	0.018 U	0.018 U	0.018 U	0.037 U
DIMETHYL PHTHALATE	0.1	0.019 U	0.021 U	0.021 U	0.019 U	0.037 U	0.019 U	0.019 U	0.019 U	0.039 U
DI-N-BUTYL PHTHALATE	0.011	0.016 U	0.018 B	0.018 U	0.017 U	0.033 U	0.017 U	0.017 U	0.017 U	0.034 U
FLUORANTHENE	0.1	1.2	0.46	0.018	**0.72**	**3**	**0.11**	**1**	**1.2**	**1.4**
FLUORENE	0.1	0.049	0.012	0.004 U	0.03	**0.32**	0.0037 U	0.031	0.048	0.06
HIGH MOLECULAR WEIGHT PAHS[2]	0.10	4.37	1.68	0.04	**2.73**	**9.79**	**0.52**	**3.88**	**5.28**	**7.06**
INDENO(1,2,3-CD)PYRENE	0.1	0.19	0.12	0.004 U	**0.2**	**0.64**	0.036	**0.28**	**0.41**	**0.45**
LOW MOLECULAR WEIGHT PAHS[3]	0.10	2.05	0.68	0.03	**1.24**	**6.71**	**0.20**	**1.69**	**2.17**	**2.60**
NAPHTHALENE	1	0.023	0.004 U	0.004 U	0.012	0.12	0.0037 U	0.03	0.07	0.039
N-NITROSO-DI-N-PROPYLAMINE	0.544	0.03 U	0.12	0.033 U	0.031 U	0.059 U	0.03 U	0.031 U	0.031 U	0.062 U
PHENANTHRENE	0.1	0.56	0.16	0.012	**0.33**	**2.1**	0.058	**0.39**	**0.52**	**0.78**
PYRENE	0.1	1	0.38	0.015	**0.57**	**2.3**	0.1	**0.84**	**1.2**	**1.8**
TOTAL PAHS[5]	0.10	6.42	2.36	0.07	**3.96**	**16.50**	**0.72**	**5.56**	**7.45**	**9.66**
PCBS (MG/KG)										
AROCLOR-1260	1.3	NA	0.021 U	0.021 U	0.25	0.22	1.2	**12**	**3.1**	0.019 U
METALS (MG/KG)										
ANTIMONY	0.27	0.71 B	0.026 B	0.036 B	0.13 J	0.11 J	**0.3 L**	0.13 J	0.13 J	0.2 J
ARSENIC	17.1	3.9	0.98	1.9	3.4	2.5	2.6 J	2.6	3	4.3
BARIUM	110	46	3.9 J	5.2 J	24.8	25.8	34.7 J	21.2	41.3	20.5 K
BERYLLIUM	1.1	0.37 J	0.055 J	0.057 J	0.28	0.22 K	0.34 J	0.25	0.4	0.84
CADMIUM	0.36	0.2 J	0.0077 B	0.0031 UL	0.075 J	0.14 J	0.28 L	0.091 J	0.14 J	0.049 J
CHROMIUM	26	16	3.4 J	4.3 J	11.2 J	9.9 J	13.4 J	9.5 J	15.5 J	24.1 K
COBALT	13	4	0.22 J	0.38 J	2.7	1.5	3.2 J	2.3	2.7	4.9
COPPER	28	16	1.8 J	3.7 J	6.9	7.4	13.4	6.8	10.3	19.3 L
IRON	12	NA	866 J	**1390 J**	**9210**	**5970**	**9590 J**	**9650**	**9830**	**15000**
LEAD	11	28	1.1 J	1.1 J	8.3	**12.7**	**15.7 J**	9.3	9.2	8
MANGANESE	220	NA	2.5 J	3.3 J	57.8	75.2	113 J	101	164	49.5
MERCURY	0.013	0.39	0.02 U	0.02 U	0.019 U	**0.052 J**	**0.042 J**	**0.05 J**	**0.077 J**	**0.034 J**
MOLYBDENUM	2	0.25 U	0.051 J	0.23 J	0.38	0.39	0.47	0.34	0.39	0.35
NICKEL	38	7.7	3.9	0.47	4.1	3.8	5.8 J	3.6	6.5	9.8
SELENIUM	0.52	0.42 U	0.62	0.2 J	0.48 J	0.38 J	0.45 J	0.41 J	0.43 J	**3.1 L**
SILVER	4.2	0.31 J	0.0018 B	0.0018 U	0.038 B	0.046 B	0.088 J	0.045 B	0.092 J	0.073 J
THALLIUM	0.22	0.52 U	0.016 U	0.016 U	0.082 B	0.056 B	0.083 B	0.058 B	0.055 B	0.088 B
VANADIUM	7.8	24	5.6 J	**12 J**	**18.9 J**	**17.5 J**	**20.7**	**15.5 J**	**22 J**	**54.2**
ZINC	46	48	21.6	1.9 B	19.3 J	37.6 J	29 J	17 J	23.7 J	18.3

TABLE 2

DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #11

LOCATION	Minimum Ecological Screening Value[1]	GSP-MW-20	GSP-SB-072	GSP-SB-074	GSP-SB-075	GSP-SB-076	GSP-SB-077	GSP-SB-078	GSP-SB-080	GSP-SB-082
SAMPLE ID		GSP-MW-20-0-2	GSP-SB-72-0-2	GSP-SB-74-0-2	GSP-SB-75-0-2	GSP-SB-76-1-3	GSP-SB-77-1-3	GSP-SB-78-0-2	GSP-SB-80-0-2	GSP-SB-82-0-2
REC		REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE		20120912	20100511	20100511	20100412	20100413	20100414	20100413	20100413	20100415
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	1	1	0	0	0
BOTTOM DEPTH		2	2	2	2	3	3	2	2	2
PETROLEUM HYDROCARBONS (MG/KG)										
DIESEL RANGE ORGANICS	NC	NA	3.6 J	3.4 UJ	26	23	150	64	91	30 J
GASOLINE RANGE ORGANICS	NC	NA	0.034 U	0.034 U	0.032 U	0.076 J	0.06 J	0.089 J	0.032 U	0.032 UJ
TPH (C06-C10)	NC	0.14 B	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NC	94	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)										
ARSENIC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2

DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #11

LOCATION	Minimum Ecological Screening Value[(1)]	GSP-SB-083	GSP-SB-084	GSP-SB-086	GSP-SB-087	GSP-SB-090	GSP-SB-111	GSP-SB-112	GSP-SB-113	GSP-SB-114
SAMPLE ID		GSP-SB-83-0-2	GSP-SB-84-0-2	GSP-SB-86-0-2	GSP-SB-87-0-2	GSP-SB-90-0-2	GSP-SB-111-0-2	GSP-SB-112-0-2	GSP-SB-113-0-2	GSP-SB-114-0-2
REC		REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE		20100415	20100415	20100413	20100414	20100415	20110603	20110603	20110601	20110601
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	2	2	2
VOLATILES (MG/KG)										
1,1-DICHLOROETHENE	0.04	0.00046 U	0.00044 U	0.00055 U	0.00042 U	0.00044 U	0.00047 U	0.0005 U	0.00045 U	0.00051 U
1,2,3-TRIMETHYLBENZENE	NC	0.00015 U	0.00014 U	0.00018 U	0.00014 U	0.00014 U	0.00015 U	0.00016 U	0.00015 U	0.00017 U
1,2,4-TRICHLOROBENZENE	0.1	0.00024 U	0.00023 U	0.00029 U	0.00022 U	0.00023 U	0.00024 U	0.00026 U	0.00024 U	0.00026 U
1,2,4-TRIMETHYLBENZENE	0.09	0.00057 U	0.00055 U	0.00069 U	0.00052 U	0.00055 U	0.00058 U	0.00062 U	0.00057 U	0.00064 U
1,2-DICHLOROBENZENE	0.09	0.00032 U	0.00031 U	0.00038 U	0.00029 U	0.0003 U	0.00032 U	0.00035 U	0.00031 U	0.00035 U
1,3-DICHLOROBENZENE	0.03	0.00031 U	0.0003 U	0.00037 U	0.00028 U	0.0003 U	0.00031 U	0.00034 U	0.00031 U	0.00034 U
2-BUTANONE	1	0.0012 U	0.0012 U	0.0015 U	0.0011 U	0.0012 U	0.0013 U	0.0013 U	0.0012 U	0.0014 U
4-METHYL-2-PENTANONE	9.8	0.00048 U	0.00046 U	0.00057 U	0.00043 U	0.00046 U	0.00048 U	0.00052 U	0.00047 U	0.00053 U
ACETONE	0.04	**0.28**	**0.3**	**0.096**	**0.15**	0.025	0.0057 U	0.006 U	0.0055 U	0.0062 U
BENZENE	25	0.0002 U	0.0002 U	0.00024 U	0.00018 U	0.00019 U	0.00021 U	0.00022 U	0.0002 U	0.00023 U
CARBON DISULFIDE	0.005	0.00039 U	0.00038 U	0.00047 U	0.00035 U	0.00037 U	0.00039 U	0.00042 U	0.00038 U	0.00043 U
CHLOROBENZENE	0.03	0.00029 U	0.00028 U	0.00035 U	0.00027 U	0.00028 U	0.0003 U	0.00032 U	0.00029 U	0.00032 U
CIS-1,2-DICHLOROETHENE	0.04	0.00032 U	0.00031 U	0.00038 U	0.00029 U	0.0003 U	0.00032 U	0.00035 U	0.00031 U	0.00035 U
ETHYLBENZENE	55	0.00023 U	0.00022 U	0.00028 U	0.00021 U	0.00022 U	0.00023 U	0.00025 U	0.00023 U	0.00025 U
M+P-XYLENES	65	0.0011 U	0.001 U	0.0013 U	0.00096 U	0.001 U	0.0011 U	0.0012 U	0.001 U	0.0012 U
METHYL TERT-BUTYL ETHER	12.5	0.00038 U	0.00037 U	0.00046 U	0.00035 U	0.00036 U	0.00039 U	0.00041 U	0.00037 U	0.00042 U
METHYLENE CHLORIDE	0.21	0.00059 U	0.00057 U	0.00071 U	0.00054 U	0.00057 U	0.0006 U	0.00064 U	0.00058 U	0.00066 U
NAPHTHALENE	1	0.00017 U	0.00016 U	0.0002 U	0.00015 U	0.00016 U	0.00017 U	0.00018 U	0.00017 U	0.00019 U
N-PROPYLBENZENE	NC	0.00035 U	0.00034 U	0.00042 U	0.00032 U	0.00034 U	0.00036 U	0.00038 U	0.00035 U	0.00039 U
O-XYLENE	0.1	0.00031 U	0.0003 U	0.00037 U	0.00028 U	0.0003 U	0.00031 U	0.00034 U	0.00031 U	0.00034 U
STYRENE	0.1	0.00013 U	0.00013 U	0.00016 U	0.00012 U	0.00013 U	0.00013 U	0.00014 U	0.00013 U	0.00015 U
TERT-AMYL METHYL ETHER	NC	0.00033 U	0.00032 U	0.00039 UJ	0.0003 UJ	0.00031 U	0.00033 U	0.00035 U	0.00032 U	0.00036 U
TERTIARY-BUTYL ALCOHOL	NC	0.0067 UR	0.0065 UR	0.0081 UR	0.0061 UR	0.0064 UR	0.0068 UR	0.0073 UR	0.0066 UR	0.0074 UR
TETRACHLOROETHENE	0.002	0.00046 U	0.00044 U	0.00055 U	0.00042 U	0.00044 U	0.00047 U	0.0005 U	0.00045 U	0.00051 U
TOLUENE	75	0.00024 U	0.00023 U	0.00029 U	0.00022 U	0.00023 U	0.00024 U	0.00026 U	0.00024 U	0.00026 U
TOTAL XYLENES	65	0.00059 U	0.00057 U	0.00071 U	0.00054 U	0.00057 U	0.0006 U	0.00064 U	0.00058 U	0.00066 U
TRICHLOROETHENE	0.1	0.00037 U	0.00036 U	0.00045 U	0.00034 U	0.00036 U	0.00038 U	0.0004 U	0.00037 U	0.00041 U
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (MG/KG)										
1,3,5-TRIMETHYLBENZENE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYL ACETATE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLCYCLOHEXANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1-METHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (MG/KG)										
1,1-BIPHENYL	0.2	0.4 U	0.076 U	0.12 U	0.061 U	0.079 U	0.031 U	0.059 U	0.03 U	0.03 U
2-METHYLNAPHTHALENE	29	0.5	0.049	0.042	0.065	0.067	0.012	0.051	0.019	0.016
ACENAPHTHENE	0.1	**0.52**	0.069	**0.25**	**0.11**	**0.13**	0.018	0.069	0.022	0.025
ACENAPHTHYLENE	0.1	**0.28**	0.055	0.035	0.046	0.088	0.018	0.1	0.032	0.046
ANTHRACENE	0.1	**1.9**	**0.3**	**0.69**	**0.33**	**0.51**	0.1	**0.36**	0.093	0.098
BENZALDEHYDE	NC	0.18 U	0.034 U	0.055 U	0.027 U	0.035 U	0.014 U	0.026 U	0.013 U	0.013 U
BENZO(A)ANTHRACENE	0.8	**5.8**	**1**	**1.9**	**1.1**	**1.8**	0.45	**1.3**	0.34	0.39
BENZO(A)PYRENE	0.1	**5.2**	**1.1**	**1.7**	**1**	**1.6**	0.39	**1.2**	**0.32**	**0.39**
BENZO(B)FLUORANTHENE	0.1	**5.1**	**1**	**2.1**	**1.2**	**1.7**	0.41	**1.2**	**0.31**	**0.4**
BENZO(G,H,I)PERYLENE	0.1	**3.1**	**0.67**	**1.2**	**0.63**	**1.1**	0.26	**0.72**	**0.2**	**0.25**

TABLE 2

DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #11

LOCATION SAMPLE ID REC SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Minimum Ecological Screening Value[1]	GSP-SB-083 GSP-SB-83-0-2 REC=11 20100415 NORMAL SO NORMAL SS 0 2	GSP-SB-084 GSP-SB-84-0-2 REC=11 20100415 NORMAL SO NORMAL SS 0 2	GSP-SB-086 GSP-SB-86-0-2 REC=11 20100413 NORMAL SO NORMAL SS 0 2	GSP-SB-087 GSP-SB-87-0-2 REC=11 20100414 NORMAL SO NORMAL SS 0 2	GSP-SB-090 GSP-SB-90-0-2 REC=11 20100415 NORMAL SO NORMAL SS 0 2	GSP-SB-111 GSP-SB-111-0-2 REC=11 20110603 NORMAL SO NORMAL SS 0 2	GSP-SB-112 GSP-SB-112-0-2 REC=11 20110603 NORMAL SO NORMAL SS 0 2	GSP-SB-113 GSP-SB-113-0-2 REC=11 20110601 NORMAL SO NORMAL SS 0 2	GSP-SB-114 GSP-SB-114-0-2 REC=11 20110601 NORMAL SO NORMAL SS 0 2
BENZO(K)FLUORANTHENE	0.1	**1.8**	**0.44**	**1.1**	**0.49**	**0.83**	0.22	**0.69**	**0.24**	**0.24**
BIS(2-ETHYLHEXYL)PHTHALATE	0.02	0.28 U	0.053 U	0.087 U	**0.1 J**	0.056 U	0.03 J	0.042 U	0.031 B	0.031 B
BUTYL BENZYL PHTHALATE	0.1	0.15 U	0.028 U	**0.25**	0.023 U	0.029 U	0.011 U	0.022 U	0.011 U	0.011 U
CAPROLACTAM	NC	0.55 U	0.1 U	0.17 U	0.084 U	0.11 U	0.05 J	0.081 U	0.042 U	0.041 U
CARBAZOLE	0.16	0.4 U	0.076 U	**0.25**	0.082 J	0.081 J	0.031 U	0.072 J	0.03 U	0.03 J
CHRYSENE	0.1	**6.2**	**1.1**	**1.8**	**1.1**	**1.6**	0.42	**1.4**	**0.39**	**0.45**
DIBENZO(A,H)ANTHRACENE	0.1	**0.85**	**0.19**	**0.34**	**0.17**	**0.3**	0.094	**0.26**	0.0037 U	0.0037 U
DIBENZOFURAN	0.15	0.3 U	0.056 U	0.12 J	0.045 U	0.059 U	0.0037 U	0.0072 U	0.0052 J	0.0094 J
DIETHYL PHTHALATE	0.1	0.24 U	0.045 U	0.073 U	0.036 U	0.047 U	0.018 U	0.035 U	0.018 U	0.018 U
DIMETHYL PHTHALATE	0.1	0.25 U	0.048 U	0.078 U	0.038 U	0.05 U	0.019 U	0.037 U	0.019 U	0.019 U
DI-N-BUTYL PHTHALATE	0.011	0.22 U	0.042 U	0.069 U	0.034 U	0.044 U	0.017 U	0.033 U	0.017 U	0.017 U
FLUORANTHENE	0.1	**8.8**	**1.5**	**4.2**	**2.1**	**2.7**	0.82	**2.4**	**0.56**	**0.78**
FLUORENE	0.1	**0.91**	0.1	**0.29**	**0.12**	**0.18**	0.025	0.1	0.036	0.032
HIGH MOLECULAR WEIGHT PAHS[2]	0.10	**43.45**	**8.24**	**14.34**	**8.26**	**12.99**	3.22	**9.86**	**2.66**	**2.86**
INDENO(1,2,3-CD)PYRENE	0.1	**2.4**	**0.54**	**1**	**0.57**	**0.86**	0.2	**0.59**	**0.15**	**0.19**
LOW MOLECULAR WEIGHT PAHS[3]	0.10	**21.37**	**3.05**	**7.91**	**4.05**	**5.49**	1.35	**4.24**	**1.09**	**1.32**
NAPHTHALENE	1	0.56	0.076	0.1	0.074	0.11	0.015	0.06	0.027	0.022
N-NITROSO-DI-N-PROPYLAMINE	0.544	0.4 U	0.076 U	0.12 U	0.061 U	0.079 U	0.031 U	0.059 U	0.03 U	0.03 U
PHENANTHRENE	0.1	**7.9**	**0.9**	**2.3**	**1.2**	**1.7**	0.34	**1.1**	**0.3**	**0.3**
PYRENE	0.1	**13**	**2.2**	**3.2**	**2**	**3.2**	0.78	**2.5**	**0.71**	**0.55**
TOTAL PAHS[5]	0.10	**64.82**	**11.29**	**22.25**	**12.31**	**18.48**	4.57	**14.10**	**3.75**	**4.18**
PCBS (MG/KG)										
AROCLOR-1260	1.3	0.02 U	0.019 U	**3.5**	0.086	0.02 U	0.019 U	0.019 U	0.019 U	0.07
METALS (MG/KG)										
ANTIMONY	0.27	0.051 B	0.079 J	**0.42 L**	**0.29 J**	0.21 J	0.4 U	0.43 U	0.41 B	0.41 UL
ARSENIC	17.1	1.5	2.5	2.9	3.5 J	3.5	2.8	3.3	4	3.3
BARIUM	110	35.8 K	73 K	51.4	44.1 J	32.4 K	13 J	22	43	32
BERYLLIUM	1.1	0.19	0.87	0.74	0.55 J	0.56	0.046 J	0.37 J	0.44 J	0.36 J
CADMIUM	0.36	0.03 B	0.049 J	**0.49 J**	0.24 L	0.1 J	0.037 U	0.04 U	0.037 U	0.038 U
CHROMIUM	26	8.9 K	12.9 K	18.8 J	16 J	15 K	13	14	18	15
COBALT	13	1.2	2.3	3.3	10.8 J	4.6	1.4	2.7	5	3.6
COPPER	28	7.9 L	7.2 L	14.2	14	13.2 L	13	11	18	11
IRON	12	**3720**	**5590**	**10100**	**12000 J**	**14200**	NA	NA	NA	NA
LEAD	11	5.1	7.1	**25.6**	**15.6 J**	10.4	8.3	8.3	**21**	9.8
MANGANESE	220	24.3	**1050**	200	**323 J**	110	NA	NA	NA	NA
MERCURY	0.013	0.02 U	**0.028 J**	**0.051 J**	**0.076 J**	**0.14**	0.015 U	**0.035 J**	**0.3**	**0.1 J**
MOLYBDENUM	2	0.26	0.33	0.39	0.47	0.44	0.68 B	0.3 U	0.3 B	0.62 B
NICKEL	38	3	4.8	6.6	12.5 J	7.6	1.5 J	5.5	9.6	6.2
SELENIUM	0.52	**0.54 J**	**0.85 L**	**0.56 J**	**0.62**	**0.66 L**	0.48 J	**0.58 J**	0.51 J	0.48 U
SILVER	4.2	0.016 B	0.036 B	0.49	0.17 J	0.14 K	0.1 U	0.11 U	0.44 J	0.11 J
THALLIUM	0.22	0.095 B	0.075 B	0.05 B	0.065 B	0.081 B	0.7 B	0.65 B	0.56 U	0.58 U
VANADIUM	7.8	**15**	**21**	**19.7 J**	**26.5**	**26.6**	22	**25**	**29**	**25**
ZINC	46	13.9	13.2	43.9 J	29.3 J	24.7	4.6 J	22	43	23

TABLE 2

DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #11

LOCATION	Minimum Ecological Screening Value[1]	GSP-SB-083	GSP-SB-084	GSP-SB-086	GSP-SB-087	GSP-SB-090	GSP-SB-111	GSP-SB-112	GSP-SB-113	GSP-SB-114
SAMPLE ID		GSP-SB-83-0-2	GSP-SB-84-0-2	GSP-SB-86-0-2	GSP-SB-87-0-2	GSP-SB-90-0-2	GSP-SB-111-0-2	GSP-SB-112-0-2	GSP-SB-113-0-2	GSP-SB-114-0-2
REC		REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE		20100415	20100415	20100413	20100414	20100415	20110603	20110603	20110601	20110601
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	2	2	2
PETROLEUM HYDROCARBONS (MG/KG)										
DIESEL RANGE ORGANICS	NC	1800 J	1300 J	53	99	250 J	10 U	66	110	91
GASOLINE RANGE ORGANICS	NC	0.033 UJ	0.031 UJ	0.033 J	0.032 UJ	0.033 UJ	0.028 U	0.028 U	0.028 U	0.028 U
TPH (C06-C10)	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)										
ARSENIC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2
DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #11

LOCATION	Minimum Ecological Screening Value[(1)]	GSP-SB-115	GSP-SB-116	GSP-SB-117	GSP-SB-118	GSP-SB-119	GSP-SB-120	GSP-SB-121	GSP-SB-122	GSP-SB-123
SAMPLE ID		GSP-SB-115-0-2	GSP-SB-116-0-2	GSP-SB-117-0-2	GSP-SB-118-0-2	GSP-SB-119-0-2	GSP-SB-120-0-2	GSP-SB-121-0-3	GSP-SB-122-0-2	GSP-SB-123-0-2
REC		REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE		20110531	20110603	20110531	20110531	20110531	20110531	20110531	20110531	20110606
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	3	2	2
VOLATILES (MG/KG)										
1,1-DICHLOROETHENE	0.04	0.00054 U	0.00049 U	0.00053 U	0.00041 U	0.00048 U	0.00051 UL	0.00052 U	0.00049 U	0.00048 U
1,2,3-TRIMETHYLBENZENE	NC	0.00018 U	0.00016 U	0.00017 U	0.00013 U	0.00016 U	0.00017 UL	0.00041 J	0.00016 U	0.00016 U
1,2,4-TRICHLOROBENZENE	0.1	0.00028 U	0.00025 U	0.00028 U	0.00021 U	0.0042 J	0.00026 UL	0.00027 U	0.00026 U	0.00025 U
1,2,4-TRIMETHYLBENZENE	0.09	0.00068 U	0.00061 U	0.00067 U	0.00051 U	0.0006 U	0.00063 UL	0.00065 U	0.00062 U	0.0006 U
1,2-DICHLOROBENZENE	0.09	0.00037 U	0.00034 U	0.00037 U	0.00028 U	0.00035 J	0.00035 UL	0.00036 U	0.00034 U	0.00033 U
1,3-DICHLOROBENZENE	0.03	0.00036 U	0.00033 U	0.00036 U	0.00027 U	0.0066	0.00034 UL	0.00035 U	0.00033 U	0.00032 U
2-BUTANONE	1	0.0015 U	0.0013 U	0.0014 U	0.0011 U	0.0013 U	0.0014 UL	0.0014 U	0.0013 U	0.0013 U
4-METHYL-2-PENTANONE	9.8	0.00056 U	0.0005 U	0.00055 U	0.00042 U	0.00049 U	0.00053 UL	0.00054 U	0.00051 U	0.00058 J
ACETONE	0.04	0.0066 U	0.0059 U	0.0065 U	0.0049 U	0.022 B	0.0061 UL	0.037 B	0.006 U	0.017 B
BENZENE	25	0.00024 U	0.00021 U	0.00024 U	0.00018 U	0.00021 U	0.00022 UL	0.00023 U	0.00022 U	0.00021 U
CARBON DISULFIDE	0.005	0.00046 U	0.00041 U	0.00045 U	0.00034 U	0.0004 U	0.00043 UL	0.0019 J	0.00042 U	0.00041 U
CHLOROBENZENE	0.03	0.00034 U	0.00031 U	0.00034 U	0.00026 U	0.00036 J	0.00032 UL	0.00033 U	0.00031 U	0.0003 U
CIS-1,2-DICHLOROETHENE	0.04	0.00037 U	0.00034 U	0.00037 U	0.00028 U	0.00033 U	0.00035 UL	0.00036 U	0.00034 U	0.00033 U
ETHYLBENZENE	55	0.00027 U	0.00024 U	0.00027 U	0.0002 U	0.00024 U	0.00025 UL	0.00031 J	0.00025 U	0.00024 U
M+P-XYLENES	65	0.0012 U	0.0011 U	0.0012 U	0.00094 U	0.0011 U	0.0012 UL	0.0012 U	0.0011 U	0.0011 U
METHYL TERT-BUTYL ETHER	12.5	0.00045 U	0.0004 U	0.00044 U	0.00034 U	0.00039 U	0.00042 UL	0.00043 U	0.00041 U	0.0004 U
METHYLENE CHLORIDE	0.21	0.0024 B	0.0045 B	0.0021 B	0.0022 B	0.0022 B	0.0033 B	0.0034 B	0.0032 B	0.0037 B
NAPHTHALENE	1	0.0002 U	0.00018 U	0.0002 U	0.00015 U	0.00017 U	0.00076 J	0.032	0.00053 B	0.00018 U
N-PROPYLBENZENE	NC	0.00042 U	0.00037 U	0.00041 U	0.00031 U	0.00037 U	0.00039 UL	0.0004 U	0.00038 U	0.00037 U
O-XYLENE	0.1	0.00036 U	0.00033 U	0.00036 U	0.00027 U	0.00032 U	0.00034 UL	0.0005 J	0.00033 U	0.00032 U
STYRENE	0.1	0.00016 U	0.00014 U	0.00015 U	0.00012 U	0.00014 U	0.00015 UL	0.00015 U	0.00014 U	0.00014 U
TERT-AMYL METHYL ETHER	NC	0.00038 U	0.00035 U	0.00038 U	0.00029 U	0.00034 U	0.00036 UL	0.00037 U	0.00035 U	0.00034 U
TERTIARY-BUTYL ALCOHOL	NC	0.0079 UR	0.0071 UR	0.0078 UR	0.006 UR	0.007 UR	0.0074 UR	0.0076 UR	0.0072 UR	0.007 UR
TETRACHLOROETHENE	0.002	0.00054 U	0.00049 U	0.00053 U	0.00041 U	0.00048 U	0.00051 UL	0.00052 U	0.00049 U	0.00048 U
TOLUENE	75	0.00028 U	0.00025 U	0.00028 U	0.00021 U	0.00025 U	0.00026 UL	0.00029 J	0.00026 U	0.00025 U
TOTAL XYLENES	65	0.0007 U	0.00063 U	0.00069 U	0.00052 U	0.00061 U	0.00065 UL	0.00067 U	0.00064 U	0.00062 U
TRICHLOROETHENE	0.1	0.00044 U	0.00039 U	0.00043 U	0.00033 U	0.00038 U	0.00041 UL	0.00042 U	0.0004 U	0.00039 U
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (MG/KG)										
1,3,5-TRIMETHYLBENZENE	NC	NA	NA	NA	NA	NA	NA	0.00031 NJ	NA	NA
2-METHYLNAPHTHALENE	NC	NA	NA	NA	NA	NA	NA	0.0089 NJ	NA	NA
CYCLOPENTANE	NC	NA	NA	NA	NA	NA	NA	0.011 NJ	NA	NA
ETHYL ACETATE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NC	NA	0.013 NJ	0.0028 NJ	0.0019 NJ	NA	0.0051 NJ	0.012 NJ	0.0038 NJ	0.0027 NJ
METHYLCYCLOHEXANE	NC	NA	NA	NA	NA	NA	NA	0.00053 NJ	NA	NA
NAPHTHALENE, 1-METHYL-	NC	NA	NA	NA	NA	NA	NA	0.0069 NJ	NA	NA
SEMIVOLATILES (MG/KG)										
1,1-BIPHENYL	0.2	0.067 U	0.03 U	0.074 U	0.062 U	0.03 UR	0.078 U	0.063 U	0.029 U	0.03 U
2-METHYLNAPHTHALENE	29	0.4	0.02	0.026	0.056	0.028 L	0.036	0.088 J	0.024	0.0093
ACENAPHTHENE	0.1	**0.23**	0.017	0.1	0.037	0.02 L	0.08	**0.24**	0.025	0.028
ACENAPHTHYLENE	0.1	0.073	0.011	0.022	0.069	0.038 L	0.048	0.059	0.044	0.013
ANTHRACENE	0.1	**0.57 K**	0.036	**0.26**	**0.22**	0.1 L	**0.32**	**0.5**	**0.11**	0.068
BENZALDEHYDE	NC	0.03 U	0.013 U	0.033 U	0.028 U	0.013 UR	0.035 U	0.028 UJ	0.013 U	0.013 U
BENZO(A)ANTHRACENE	0.8	0.74 K	0.22	**1.2**	0.76	0.59 L	**1.6**	**1.2**	0.39	0.23
BENZO(A)PYRENE	0.1	**0.68**	**0.31**	**1**	**0.75**	**0.54 L**	**1.3**	**1.2**	**0.44**	**0.22**
BENZO(B)FLUORANTHENE	0.1	**0.71**	**0.27**	**1.3**	**0.73**	**0.72 L**	**1.6**	**1.4**	**0.46**	**0.27**
BENZO(G,H,I)PERYLENE	0.1	**0.36**	**0.22**	**0.69**	**0.45**	**0.38 L**	**0.76**	**0.71**	**0.3**	**0.12**

TABLE 2
DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #11

LOCATION SAMPLE ID REC SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Minimum Ecological Screening Value[1]	GSP-SB-115 GSP-SB-115-0-2 REC=11 20110531 NORMAL SO NORMAL SS 0 2	GSP-SB-116 GSP-SB-116-0-2 REC=11 20110603 NORMAL SO NORMAL SS 0 2	GSP-SB-117 GSP-SB-117-0-2 REC=11 20110531 NORMAL SO NORMAL SS 0 2	GSP-SB-118 GSP-SB-118-0-2 REC=11 20110531 NORMAL SO NORMAL SS 0 2	GSP-SB-119 GSP-SB-119-0-2 REC=11 20110531 NORMAL SO NORMAL SS 0 2	GSP-SB-120 GSP-SB-120-0-2 REC=11 20110531 NORMAL SO NORMAL SS 0 2	GSP-SB-121 GSP-SB-121-0-3 REC=11 20110531 NORMAL SO NORMAL SS 0 3	GSP-SB-122 GSP-SB-122-0-2 REC=11 20110531 NORMAL SO NORMAL SS 0 2	GSP-SB-123 GSP-SB-123-0-2 REC=11 20110606 NORMAL SO NORMAL SS 0 2
BENZO(K)FLUORANTHENE	0.1	**0.3**	**0.16**	**0.67**	**0.39**	**0.24 L**	**0.86**	**0.66**	**0.23**	**0.15**
BIS(2-ETHYLHEXYL)PHTHALATE	0.02	0.059 B	**0.023 J**	0.052 U	0.044 U	0.021 UR	0.055 U	0.074 B	0.022 B	**0.024 J**
BUTYL BENZYL PHTHALATE	0.1	0.025 U	0.011 U	0.028 U	0.023 U	0.011 UR	0.029 U	0.023 U	0.011 U	0.011 U
CAPROLACTAM	NC	0.092 UL	0.041 U	0.1 UL	0.085 UL	0.041 UR	0.11 UL	0.086 UJ	0.04 UL	0.041 U
CARBAZOLE	0.16	0.067 U	0.03 U	0.12 J	0.062 U	0.03 UR	0.13 J	**0.19**	0.029 U	0.03 J
CHRYSENE	0.1	**0.79 K**	**0.32**	**1.2**	**0.76**	**0.61 L**	**1.5**	**1.1**	**0.38**	**0.23**
DIBENZO(A,H)ANTHRACENE	0.1	**0.14**	0.0036 U	**0.18**	**0.14**	**0.13 L**	**0.23**	**0.24**	**0.13**	0.042
DIBENZOFURAN	0.15	0.073 J	0.0036 U	0.044 J	0.0076 U	0.009 L	0.031 J	0.12	0.0036 U	0.0036 U
DIETHYL PHTHALATE	0.1	0.04 U	0.018 U	0.044 U	0.037 U	0.018 UR	0.046 U	0.037 U	0.017 U	0.018 U
DIMETHYL PHTHALATE	0.1	0.042 U	0.019 U	0.047 U	0.039 U	0.019 UR	0.049 U	0.039 U	0.018 U	0.019 U
DI-N-BUTYL PHTHALATE	0.011	0.037 U	0.016 U	0.041 U	0.035 U	0.023 B	0.043 U	0.035 U	**0.017 J**	0.016 UJ
FLUORANTHENE	0.1	**1.3 K**	**0.38**	**2.2**	**1.2**	**1.1 L**	**2.8**	**2.4**	**0.6**	**0.47**
FLUORENE	0.1	**0.5 K**	0.017	0.085	0.08	0.028 L	0.09	**0.21**	0.029	0.023
HIGH MOLECULAR WEIGHT PAHS[2]	0.10	**5.73**	**2.13**	**8.93**	**5.76**	**4.52**	**11.38**	**9.36**	**3.23**	**1.78**
INDENO(1,2,3-CD)PYRENE	0.1	**0.31**	**0.19**	**0.59**	**0.38**	**0.32 L**	**0.73**	**0.65**	**0.25**	**0.11**
LOW MOLECULAR WEIGHT PAHS[3]	0.10	**5.62**	**0.64**	**3.61**	**2.37**	**1.69**	**4.52**	**5.12**	**1.11**	**0.84**
NAPHTHALENE	1	0.45	0.021	0.03	0.069	0.034 L	0.041	0.12 J	0.036	0.0036 U
N-NITROSO-DI-N-PROPYLAMINE	0.544	0.067 U	0.03 U	0.074 U	0.062 U	0.03 UR	0.078 U	0.063 UJ	0.029 U	0.03 U
PHENANTHRENE	0.1	**2.1 K**	**0.14**	**0.89**	**0.64**	**0.34 L**	**1.1**	**1.5**	**0.24**	**0.23**
PYRENE	0.1	**1.7 K**	**0.44**	**2.1**	**1.4**	**0.99 L**	**2.8**	**2.2**	**0.65**	**0.41**
TOTAL PAHS[5]	0.10	**11.35**	**2.77**	**12.54**	**8.13**	**6.21**	**15.90**	**14.48**	**4.34**	**2.62**
PCBS (MG/KG)										
AROCLOR-1260	1.3	0.021 U	0.019 U	0.019 U	1.2	0.092	**1.7**	**2.4**	**3.4**	0.64
METALS (MG/KG)										
ANTIMONY	0.27	0.43 UL	0.42 U	**0.41 J**	**0.71 J**	**0.41 J**	**0.69 J**	**1.2 J**	0.34 UL	**0.42 J**
ARSENIC	17.1	3.4	2.8	3.4	2.8	4.2	3.6	4.1	3.2	3.2
BARIUM	110	23	23	21	33	31	44	42	26	30
BERYLLIUM	1.1	0.11 J	0.79	0.12 J	0.28 J	0.37 J	0.33 J	0.32 J	0.19 J	0.24 J
CADMIUM	0.36	0.039 U	0.039 U	0.037 U	0.04 U	0.033 U	0.23 J	0.057 J	0.032 U	0.037 U
CHROMIUM	26	11	14	14	13	19	19	18	12	14
COBALT	13	2.4	5.9	3.8	3.4	4.4	4.1	3.7	3.2	2.4
COPPER	28	7.1	14	9.9	12	14	17	26	19	8.8
IRON	12	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	11	6.4	8.6	6.5	**19**	**15**	**23**	**27**	**14**	**15**
MANGANESE	220	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.013	**0.04 J**	**0.04 J**	**0.053 J**	**0.15**	**0.13**	**0.095 J**	**0.052 J**	**0.045 J**	**0.053 J**
MOLYBDENUM	2	0.66 B	0.45 B	0.31 B	0.5 B	0.3 B	0.33 B	0.29 U	0.24 U	0.31 B
NICKEL	38	4.3 J	10	6.2	6.8	7.8	7.9	7.8	5.1	4.4
SELENIUM	0.52	0.49 U	**0.53 J**	0.46 U	0.5 U	0.51 J	0.47 U	0.49 U	0.46 J	0.46 U
SILVER	4.2	0.11 U	0.11 U	0.1 U	0.11 U	0.25 J	0.2 J	0.11 U	0.088 U	0.1 U
THALLIUM	0.22	0.6 U	0.6 U	0.56 U	0.61 U	0.5 U	**0.92 J**	0.6 U	0.48 U	0.56 U
VANADIUM	7.8	**20**	**28**	**27**	**22**	**33**	**22**	**31**	**20**	**21**
ZINC	46	16	33	20	39	31	45	**51**	29	29

TABLE 2

DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #11

LOCATION	Minimum Ecological Screening Value[1]	GSP-SB-115	GSP-SB-116	GSP-SB-117	GSP-SB-118	GSP-SB-119	GSP-SB-120	GSP-SB-121	GSP-SB-122	GSP-SB-123
SAMPLE ID		GSP-SB-115-0-2	GSP-SB-116-0-2	GSP-SB-117-0-2	GSP-SB-118-0-2	GSP-SB-119-0-2	GSP-SB-120-0-2	GSP-SB-121-0-3	GSP-SB-122-0-2	GSP-SB-123-0-2
REC		REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE		20110531	20110603	20110531	20110531	20110531	20110531	20110531	20110531	20110606
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	3	2	2
PETROLEUM HYDROCARBONS (MG/KG)										
DIESEL RANGE ORGANICS	NC	700 L	13 J	210	110	61	280	280	150	42
GASOLINE RANGE ORGANICS	NC	0.057 J	0.027 U	0.028 U	0.029 U	0.028 U	0.029 U	0.029 U	0.027 U	0.028 U
TPH (C06-C10)	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)										
ARSENIC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2

DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #11

LOCATION	Minimum Ecological Screening Value[(1)]	GSP-SB-124	GSP-SB-125	GSP-SB-126	GSP-SB-127	GSP-SB-128	GSP-SB-129	GSP-SB-130	GSP-SB-141	GSP-SB-143
SAMPLE ID		GSP-SB-124-0-2	GSP-SB-125-0-2	GSP-SB-126-0-2	GSP-SB-127-0-2	GSP-SB-128-0-2	GSP-SB-129-0-2	GSP-SB-130-0-2	GSP-SB-141-02	GSP-SB-143-02
REC		REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE		20110606	20110603	20110606	20110606	20110606	20110531	20110606	20121001	20120927
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	2	2	2
VOLATILES (MG/KG)										
1,1-DICHLOROETHENE	0.04	0.00047 U	0.00061 U	0.00052 U	0.00046 U	0.00055 U	0.00057 U	0.00056 U	0.00047 U	0.00042 U
1,2,3-TRIMETHYLBENZENE	NC	0.00015 U	0.0002 U	0.00017 U	0.00015 U	0.00018 U	0.00019 U	0.00018 U	0.00015 U	0.00014 U
1,2,4-TRICHLOROBENZENE	0.1	0.00024 U	0.00031 U	0.00027 U	0.00024 U	0.00029 U	0.0003 U	0.00029 U	0.0004 B	0.00022 U
1,2,4-TRIMETHYLBENZENE	0.09	0.00058 U	0.00076 U	0.00065 U	0.00058 U	0.00069 U	0.00071 U	0.0007 U	0.00059 U	0.00052 U
1,2-DICHLOROBENZENE	0.09	0.00032 U	0.00042 U	0.00036 U	0.00032 U	0.00038 U	0.0004 U	0.00039 U	0.00032 U	0.00029 U
1,3-DICHLOROBENZENE	0.03	0.00031 U	0.00041 U	0.00035 U	0.00031 U	0.00037 U	0.00038 U	0.00038 U	0.00032 U	0.00028 U
2-BUTANONE	1	0.0016 B	0.0047 B	0.0014 U	0.0012 U	0.0015 U	0.0015 U	0.0015 U	0.0013 U	0.0011 U
4-METHYL-2-PENTANONE	9.8	0.00049 U	0.00063 U	0.00054 U	0.00048 U	0.00058 U	0.00059 U	0.00058 U	0.00049 U	0.00043 U
ACETONE	0.04	0.0057 U	0.028 B	0.0063 U	0.0056 U	0.0067 U	0.0069 U	0.0068 U	0.0057 U	0.005 U
BENZENE	25	0.00021 U	0.00027 U	0.00023 U	0.0002 U	0.00025 U	0.00025 U	0.00025 U	0.00021 U	0.00018 U
CARBON DISULFIDE	0.005	0.0004 U	0.00051 U	0.00044 U	0.00039 U	0.00047 U	0.00048 U	0.00047 U	0.0004 U	0.00035 U
CHLOROBENZENE	0.03	0.0003 U	0.00038 U	0.00033 U	0.00029 U	0.00035 U	0.00036 U	0.00036 U	0.0003 U	0.00026 U
CIS-1,2-DICHLOROETHENE	0.04	0.00032 U	0.00042 U	0.00036 U	0.00032 U	0.00038 U	0.0004 U	0.00039 U	0.00032 U	0.00029 U
ETHYLBENZENE	55	0.00023 U	0.0003 U	0.00026 U	0.00023 U	0.00028 U	0.00029 U	0.00028 U	0.00023 U	0.00021 U
M+P-XYLENES	65	0.0011 U	0.0014 U	0.0012 U	0.0011 U	0.0013 U	0.0013 U	0.0013 U	0.0011 U	0.00096 U
METHYL TERT-BUTYL ETHER	12.5	0.00039 U	0.0005 U	0.00043 U	0.00038 U	0.00046 U	0.00047 U	0.00046 U	0.00039 U	0.00034 U
METHYLENE CHLORIDE	0.21	0.0006 U	0.0041 B	0.00067 U	0.00059 U	0.0034 B	0.0044 B	0.00072 U	0.0006 U	0.00054 U
NAPHTHALENE	1	0.00017 U	0.00022 U	0.00019 U	0.00017 U	0.0002 U	0.00021 U	0.0002 U	0.011 J	0.00022 B
N-PROPYLBENZENE	NC	0.00036 U	0.00047 U	0.0004 U	0.00036 U	0.00043 U	0.00044 U	0.00043 U	0.00036 U	0.00032 U
O-XYLENE	0.1	0.00031 U	0.00041 U	0.00035 U	0.00031 U	0.00037 U	0.00038 U	0.00038 U	0.00032 U	0.00028 U
STYRENE	0.1	0.00013 U	0.00017 U	0.00015 U	0.00013 U	0.00016 U	0.00016 U	0.00016 U	0.00014 U	0.00012 U
TERT-AMYL METHYL ETHER	NC	0.00033 U	0.00043 U	0.00037 U	0.00033 U	0.00039 U	0.00041 U	0.0004 U	NA	NA
TERTIARY-BUTYL ALCOHOL	NC	0.0068 UR	0.0089 UR	0.0076 UR	0.0067 UR	0.0081 UR	0.0084 UR	0.0082 UR	0.0068 UR	0.0061 UR
TETRACHLOROETHENE	0.002	0.00047 U	0.00061 U	0.00052 U	0.00046 U	0.00055 U	0.00057 U	0.00056 U	0.00047 U	0.00042 U
TOLUENE	75	0.00024 U	0.00031 U	0.00027 U	0.00024 U	0.00037 J	0.0003 U	0.00029 U	0.00073 J	0.00043 J
TOTAL XYLENES	65	0.0006 U	0.00078 U	0.00067 U	0.00059 U	0.00071 U	0.00074 U	0.00072 U	0.0006 U	0.00054 U
TRICHLOROETHENE	0.1	0.00038 U	0.00049 U	0.00042 U	0.00037 U	0.00045 U	0.00046 U	0.00045 U	0.00038 U	0.00034 U
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (MG/KG)										
1,3,5-TRIMETHYLBENZENE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NC	NA	NA	NA	NA	NA	NA	NA	0.0047 NJ	NA
CYCLOPENTANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYL ACETATE	NC	NA	0.0027 NJ	NA	NA	NA	NA	NA	NA	NA
HEXANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NC	NA	0.0078 NJ	NA	NA	0.0092 NJ	0.017 NJ	NA	0.014 NJ	NA
METHYLCYCLOHEXANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1-METHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (MG/KG)										
1,1-BIPHENYL	0.2	0.59 UJ	0.035 U	0.03 UJ	0.031 UJ	0.034 U	0.031 U	0.13 UJ	0.06 U	0.03 U
2-METHYLNAPHTHALENE	29	0.36	0.016	0.0036 U	0.0037 U	0.015	0.0038 U	0.015 U	0.028	0.01
ACENAPHTHENE	0.1	**0.24**	0.031	0.0036 U	0.0037 U	0.024	0.0038 U	0.015 U	0.077	0.012
ACENAPHTHYLENE	0.1	**0.3**	0.017	0.0036 U	0.0037 U	0.023	0.0038 U	0.015 U	0.029	0.014
ANTHRACENE	0.1	**1.2**	**0.11**	0.01	0.02	0.086	0.01	0.034	0.19	0.048
BENZALDEHYDE	NC	0.26 U	0.016 U	0.013 U	0.014 U	0.015 U	0.014 U	0.056 U	0.027 U	0.013 U
BENZO(A)ANTHRACENE	0.8	**3.7**	0.51	0.042	0.062	0.36	0.05	0.12	0.88	0.32
BENZO(A)PYRENE	0.1	**4**	**0.6**	0.041	0.055	**0.31**	0.044	**0.12**	0.81	**0.33**
BENZO(B)FLUORANTHENE	0.1	**4**	**0.53**	0.05	0.072	**0.33**	0.06	**0.14**	1.3	**0.42**
BENZO(G,H,I)PERYLENE	0.1	**2.5**	**0.32**	0.031	0.038	**0.18**	0.026	0.077	0.32	**0.14**

TABLE 2
DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #11

LOCATION SAMPLE ID REC SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Minimum Ecological Screening Value[1]	GSP-SB-124 GSP-SB-124-0-2 REC=11 20110606 NORMAL SO NORMAL SS 0 2	GSP-SB-125 GSP-SB-125-0-2 REC=11 20110603 NORMAL SO NORMAL SS 0 2	GSP-SB-126 GSP-SB-126-0-2 REC=11 20110606 NORMAL SO NORMAL SS 0 2	GSP-SB-127 GSP-SB-127-0-2 REC=11 20110606 NORMAL SO NORMAL SS 0 2	GSP-SB-128 GSP-SB-128-0-2 REC=11 20110606 NORMAL SO NORMAL SS 0 2	GSP-SB-129 GSP-SB-129-0-2 REC=11 20110531 NORMAL SO NORMAL SS 0 2	GSP-SB-130 GSP-SB-130-0-2 REC=11 20110606 NORMAL SO NORMAL SS 0 2	GSP-SB-141 GSP-SB-141-02 REC=11 20121001 NORMAL SO NORMAL SS 0 2	GSP-SB-143 GSP-SB-143-02 REC=11 20120927 NORMAL SO NORMAL SS 0 2
BENZO(K)FLUORANTHENE	0.1	**1.1**	**0.33**	0.03	0.031	**0.25**	0.026	0.039	0.42	**0.16**
BIS(2-ETHYLHEXYL)PHTHALATE	0.02	0.42 U	0.025 U	0.021 U	0.022 U	**0.097**	**0.025 J**	0.089 U	0.042 U	0.021 U
BUTYL BENZYL PHTHALATE	0.1	0.22 UJ	0.013 U	0.011 UJ	0.011 UJ	0.012 U	0.011 U	0.047 UJ	0.022 U	0.011 U
CAPROLACTAM	NC	0.81 U	0.048 U	0.041 U	0.042 U	0.046 U	0.042 U	0.17 U	0.082 U	0.04 U
CARBAZOLE	0.16	0.59 U	0.035 U	0.03 U	0.031 U	0.045 J	0.031 U	0.13 U	0.06 U	0.03 U
CHRYSENE	0.1	**4.2**	**0.52**	0.045	0.057	**0.36**	0.055	**0.13**	0.99	**0.37**
DIBENZO(A,H)ANTHRACENE	0.1	**0.78**	0.0043 U	0.0075	0.01	0.04	0.0063 J	0.02 J	0.0073 U	0.0036 U
DIBENZOFURAN	0.15	0.072 U	0.0043 U	0.0036 U	0.0037 U	0.015 J	0.0038 U	0.015 U	0.018 J	0.0038 J
DIETHYL PHTHALATE	0.1	0.35 U	0.021 U	0.018 U	0.018 U	0.02 U	0.018 U	0.075 U	0.036 U	0.017 U
DIMETHYL PHTHALATE	0.1	0.37 U	0.022 U	0.019 U	0.019 U	0.021 U	0.019 U	0.079 U	0.038 U	0.019 U
DI-N-BUTYL PHTHALATE	0.011	0.33 U	0.02 U	0.017 U	0.017 U	0.019 U	0.017 U	0.07 U	0.033 U	0.016 U
FLUORANTHENE	0.1	**5**	**1**	0.088	**0.13**	**0.73**	**0.11**	**0.21**	1.7	**0.54**
FLUORENE	0.1	**0.45**	0.037	0.0036 U	0.0037 U	0.026	0.0038 U	0.015 U	0.062	0.013
HIGH MOLECULAR WEIGHT PAHS[2]	0.10	**29.98**	**4.01**	**0.35**	**0.46**	**2.59**	**0.39**	**0.89**	6.81	**2.45**
INDENO(1,2,3-CD)PYRENE	0.1	**1.9**	**0.3**	0.026	0.032	**0.17**	0.022	0.066	0.29	**0.12**
LOW MOLECULAR WEIGHT PAHS[3]	0.10	**11.45**	**1.63**	**0.14**	**0.22**	**1.18**	**0.16**	**0.34**	3.02	**0.85**
NAPHTHALENE	1	0.4	0.016	0.0036 U	0.0037 U	0.014	0.0038 U	0.015 U	0.033	0.019
N-NITROSO-DI-N-PROPYLAMINE	0.544	0.59 U	0.035 U	0.03 U	0.031 U	0.034 U	0.031 U	0.13 U	0.06 U	0.03 U
PHENANTHRENE	0.1	**3.5**	**0.4**	0.043	0.068	**0.26**	0.038	0.096	0.9	**0.19**
PYRENE	0.1	**7.8**	**0.9**	0.073	0.099	**0.59**	0.097	**0.18**	1.8	**0.59**
TOTAL PAHS[5]	0.10	**41.43**	**5.64**	**0.49**	**0.67**	**3.77**	**0.54**	**1.23**	9.83	**3.30**
PCBS (MG/KG)										
AROCLOR-1260	1.3	0.024 J	0.022 U	0.019 U	0.062	0.03 J	0.22	0.056	NA	NA
METALS (MG/KG)										
ANTIMONY	0.27	**1.1 J**	1.2 B	0.4 U	0.39 U	0.48 U	0.39 UL	0.43 U	0.46 J	0.38 UL
ARSENIC	17.1	4.1	3.9	4.5	1.9	3.7	2.6	2.4	11 J	2.6
BARIUM	110	72	33	20 J	20	8.3 J	18 J	26	45	24
BERYLLIUM	1.1	0.37 J	0.28 J	0.081 J	0.088 J	0.053 U	0.11 J	0.24 J	0.49 J	0.87 L
CADMIUM	0.36	0.038 U	0.046 U	0.037 U	0.036 U	0.044 U	0.036 U	**1**	0.32 J	0.05 J
CHROMIUM	26	13	16	11	6.7	11	10	9.6	39 J	11
COBALT	13	3.8	3.9	1.1	0.88 J	0.53 J	2.1	1.7	4.6	3.7
COPPER	28	12	20	7.2	4 K	3.4 K	6.6	7.8	19	11
IRON	12	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	11	**34**	**41**	5.7	7.9	2.3 K	9.5	**19**	30 J	7.5
MANGANESE	220	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.013	0.014 U	**0.085 J**	0.016 U	0.017 U	0.017 U	**0.099 J**	**0.1 J**	0.51	0.019 U
MOLYBDENUM	2	0.31 B	0.5 B	0.28 U	0.47 B	0.33 U	0.44 B	0.32 B	0.52 J	0.3 J
NICKEL	38	5.2	6.6	2.4 J	2 J	0.95 J	3.6 J	5.1	12	8.3
SELENIUM	0.52	**0.61 J**	**0.66 J**	0.46 U	0.45 U	0.56 U	0.45 U	0.5 U	0.46 U	0.44 U
SILVER	4.2	0.11 U	0.13 U	0.1 U	0.1 U	0.12 U	0.1 U	0.26 J	0.25 J	0.097 UL
THALLIUM	0.22	0.58 U	0.7 U	0.57 U	0.55 U	0.68 U	0.55 U	0.61 U	0.57 U	0.54 U
VANADIUM	7.8	**23**	**24**	**16**	**13**	**22**	**15**	**18**	29	**21**
ZINC	46	41	**50**	15	29	5.5 J	20	44	51	28

TABLE 2

DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #11

LOCATION	Minimum Ecological Screening Value[(1)]	GSP-SB-124	GSP-SB-125	GSP-SB-126	GSP-SB-127	GSP-SB-128	GSP-SB-129	GSP-SB-130	GSP-SB-141	GSP-SB-143
SAMPLE ID		GSP-SB-124-0-2	GSP-SB-125-0-2	GSP-SB-126-0-2	GSP-SB-127-0-2	GSP-SB-128-0-2	GSP-SB-129-0-2	GSP-SB-130-0-2	GSP-SB-141-02	GSP-SB-143-02
REC		REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE		20110606	20110603	20110606	20110606	20110606	20110531	20110606	20121001	20120927
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	2	2	2
PETROLEUM HYDROCARBONS (MG/KG)										
DIESEL RANGE ORGANICS	NC	890	410	10 U	10 U	12 U	22 B	100	NA	NA
GASOLINE RANGE ORGANICS	NC	0.028 U	0.033 U	0.028 U	0.028 U	0.031 U	0.029 U	0.029 U	NA	NA
TPH (C06-C10)	NC	NA	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U
TPH (C10-C32)	NC	NA	NA	NA	NA	NA	NA	NA	110	190
TCLP METALS (MG/L)										
ARSENIC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2

DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #11

LOCATION	Minimum Ecological Screening Value[1]	GSP-SB-148	GSP-SB-150	GSP-SB-153	GSP-SB-154	GSP-SB-155	GSP-SB-170	GSP-SB-171	GSP-SB-172	GSP-SB-174
SAMPLE ID		GSP-SB-148-02	GSP-SB-150-02	GSP-SB-153-02	GSP-SB-154-02	GSP-SB-155-02	GSP-SB-170-SS	GSP-SB-171-SS	GSP-SB-172-SS	GSP-SB-174-SS
REC		REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE		20120927	20120924	20120925	20120925	20120925	20160112	20160113	20160113	20160112
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	2	2	2
VOLATILES (MG/KG)										
1,1-DICHLOROETHENE	0.04	0.00043 U	0.00052 U	0.00049 U	0.00042 U	0.00049 U	0.00062 U	0.0011 U	0.00083 U	0.00058 U
1,2,3-TRIMETHYLBENZENE	NC	0.00014 U	0.00017 U	0.00016 U	0.00014 U	0.00016 U	0.00035 U	0.00065 U	0.00048 U	0.00034 U
1,2,4-TRICHLOROBENZENE	0.1	0.00023 U	0.00027 U	0.00025 U	0.00022 U	0.00025 U	0.00029 U	0.00054 U	0.00039 U	0.00028 U
1,2,4-TRIMETHYLBENZENE	0.09	0.00054 U	0.00065 U	0.00061 U	0.00052 U	0.00061 U	0.00045 U	0.00082 U	0.0006 U	0.00042 U
1,2-DICHLOROBENZENE	0.09	0.0003 U	0.00036 U	0.00034 U	0.00029 U	0.00034 U	0.00026 U	0.00048 U	0.00035 U	0.00025 U
1,3-DICHLOROBENZENE	0.03	0.00029 U	0.00035 U	0.00033 U	0.00028 U	0.00033 U	0.00053 U	0.00098 U	0.00071 U	0.0005 U
2-BUTANONE	1	0.0085 J	0.0014 J	0.0013 U	0.0011 U	0.0013 U	0.00086 U	0.0016 U	0.0012 U	0.00082 U
4-METHYL-2-PENTANONE	9.8	0.00045 U	0.00071 J	0.00051 U	0.00044 U	0.00051 U	0.00094 U	0.0017 U	0.0013 U	0.00089 U
ACETONE	0.04	**0.049**	0.0063 U	0.012 B	0.0051 U	0.0059 U	0.0044 U	0.0081 U	0.0059 U	0.0042 U
BENZENE	25	0.00019 U	0.00023 U	0.00022 U	0.00019 U	0.00022 U	0.00069 U	0.0013 U	0.00093 U	0.00066 U
CARBON DISULFIDE	0.005	0.00037 U	0.00044 U	0.00041 U	0.00036 U	0.00041 U	0.00046 U	0.00084 U	0.00061 U	0.00043 U
CHLOROBENZENE	0.03	0.00028 U	0.00033 U	0.00031 U	0.00027 U	0.00031 U	0.00041 U	0.00075 U	0.00055 U	0.00039 U
CIS-1,2-DICHLOROETHENE	0.04	0.0003 U	0.00036 U	0.00034 U	0.00029 U	0.00034 U	0.00022 U	0.0004 U	0.00029 U	0.0002 U
ETHYLBENZENE	55	0.00022 U	0.00026 U	0.00024 U	0.00021 U	0.00024 U	0.00025 U	0.00045 U	0.00033 U	0.00023 U
M+P-XYLENES	65	0.001 U	0.0012 U	0.0011 U	0.00097 U	0.0011 U	0.00032 U	0.00086 J	0.00043 U	0.00031 U
METHYL TERT-BUTYL ETHER	12.5	0.00036 U	0.00043 U	0.0004 U	0.00035 U	0.0004 U	0.00033 U	0.00061 U	0.00044 U	0.00031 U
METHYLENE CHLORIDE	0.21	0.00056 U	0.00067 U	0.00063 U	0.00054 U	0.00063 U	0.00057 U	0.0011 U	0.00077 U	0.00054 U
NAPHTHALENE	1	0.00016 U	0.00019 U	0.00022 B	0.00018 B	0.00055 B	0.00033 U	0.0005 U	0.00036 U	0.00026 U
N-PROPYLBENZENE	NC	0.00033 U	0.0004 U	0.00038 U	0.00032 U	0.00037 U	0.00046 U	0.00085 U	0.00062 U	0.00044 U
O-XYLENE	0.1	0.00029 U	0.00035 U	0.00033 U	0.00028 U	0.00033 U	0.00044 U	0.00081 U	0.00059 U	0.00042 U
STYRENE	0.1	0.00013 U	0.00015 U	0.00014 U	0.00012 U	0.00014 U	0.00031 U	0.00057 U	0.00041 U	0.00029 U
TERT-AMYL METHYL ETHER	NC	NA	NA	NA	NA	NA	0.00033 U	0.00061 U	0.00044 U	0.00031 U
TERTIARY-BUTYL ALCOHOL	NC	0.0064 UR	0.0076 UR	0.0071 UR	0.0061 UR	0.0071 UR	0.0044 U	0.0081 U	0.0059 U	0.0042 U
TETRACHLOROETHENE	0.002	0.00043 U	0.00052 U	0.00049 U	0.00042 U	0.00049 U	0.00062 U	0.0011 U	0.00083 U	0.00058 U
TOLUENE	75	0.00081 J	0.0004 J	0.0008 J	0.0004 J	0.00087 J	0.00021 U	0.00038 U	0.00028 U	0.0002 U
TOTAL XYLENES	65	0.00056 U	0.00067 U	0.00063 U	0.00054 U	0.00063 U	0.00042 U	0.00086 J	0.00056 U	0.00039 U
TRICHLOROETHENE	0.1	0.00035 U	0.00042 U	0.00039 U	0.00034 U	0.00039 U	0.00029 U	0.00054 U	0.00039 U	0.00028 U
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (MG/KG)										
1,3,5-TRIMETHYLBENZENE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYL ACETATE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXANE	NC	NA	NA	0.0025 NJ	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NC	NA	NA	0.0066 NJ	0.0015 NJ	0.0036 NJ	NA	NA	NA	NA
METHYLCYCLOHEXANE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1-METHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (MG/KG)										
1,1-BIPHENYL	0.2	0.031 U	0.031 U	0.033 U	0.031 U	0.03 U	0.0059 J	0.0039 U	0.0086 U	0.004 U
2-METHYLNAPHTHALENE	29	0.004 J	0.0037 U	0.004 U	0.0038 U	0.04	0.023	0.00056 U	0.055	0.023
ACENAPHTHENE	0.1	0.023	0.0037 U	0.011	0.0038 U	0.041	0.039	0.00085 U	0.084	0.044
ACENAPHTHYLENE	0.1	0.0037 U	0.0037 U	0.004 U	0.0038 U	**0.11**	0.03	0.00039 U	0.027	0.03
ANTHRACENE	0.1	0.062	0.01	0.027	0.022	**0.23**	0.13	0.005 J	**0.27**	**0.14**
BENZALDEHYDE	NC	0.014 U	0.014 U	0.044 J	0.019 J	0.013 U	0.013 U	0.013 U	0.029 U	0.014 U
BENZO(A)ANTHRACENE	0.8	0.15	0.038	0.14	0.16	0.65	0.52	0.016	**1.2**	0.49
BENZO(A)PYRENE	0.1	**0.13**	0.044	**0.15**	**0.21**	**0.71**	0.57	0.015	**1.1**	**0.54**
BENZO(B)FLUORANTHENE	0.1	**0.19**	0.057	**0.22**	**0.31**	**0.72**	0.78	0.025	**1.4**	**0.81**
BENZO(G,H,I)PERYLENE	0.1	0.045	0.019 J	0.096	**0.16**	**0.52**	0.22	0.019	**0.4**	**0.21**

TABLE 2

DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #11

LOCATION SAMPLE ID REC SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Minimum Ecological Screening Value[1]	GSP-SB-148 GSP-SB-148-02 REC=11 20120927 NORMAL SO NORMAL SS 0 2	GSP-SB-150 GSP-SB-150-02 REC=11 20120924 NORMAL SO NORMAL SS 0 2	GSP-SB-153 GSP-SB-153-02 REC=11 20120925 NORMAL SO NORMAL SS 0 2	GSP-SB-154 GSP-SB-154-02 REC=11 20120925 NORMAL SO NORMAL SS 0 2	GSP-SB-155 GSP-SB-155-02 REC=11 20120925 NORMAL SO NORMAL SS 0 2	GSP-SB-170 GSP-SB-170-SS REC=11 20160112 NORMAL SO NORMAL SS 0 2	GSP-SB-171 GSP-SB-171-SS REC=11 20160113 NORMAL SO NORMAL SS 0 2	GSP-SB-172 GSP-SB-172-SS REC=11 20160113 NORMAL SO NORMAL SS 0 2	GSP-SB-174 GSP-SB-174-SS REC=11 20160112 NORMAL SO NORMAL SS 0 2
BENZO(K)FLUORANTHENE	0.1	0.083	0.023	0.089	**0.11**	**0.42**	0.24	0.0088	**0.71**	**0.29**
BIS(2-ETHYLHEXYL)PHTHALATE	0.02	0.021 U	0.022 U	**0.043 J**	**0.047 J**	**0.083**	0.021 U	**0.032 J**	0.047 U	0.022 U
BUTYL BENZYL PHTHALATE	0.1	0.011 U	0.011 U	0.012 U	0.011 U	0.011 U	0.011 U	0.011 U	0.025 U	0.011 U
CAPROLACTAM	NC	0.042 U	0.042 U	0.045 U	0.042 U	0.04 U	0.041 U	0.041 U	0.091 U	0.042 U
CARBAZOLE	0.16	0.031 U	0.031 U	0.033 U	0.031 U	0.03 U	0.03 U	0.03 U	0.11 J	0.048 J
CHRYSENE	0.1	**0.14**	0.043	**0.17**	**0.23**	**0.79**	0.58	0.024	**1.3**	**0.54**
DIBENZO(A,H)ANTHRACENE	0.1	0.0037 U	0.0037 U	0.004 U	0.03	**0.13**	0.067	0.00074 U	**0.13**	0.079
DIBENZOFURAN	0.15	0.021 J	0.0037 U	0.004 U	0.0038 U	0.014 J	0.012 J	0.00074 U	0.037 J	0.019 J
DIETHYL PHTHALATE	0.1	0.018 U	0.018 U	0.019 U	0.018 U	0.017 U	0.018 U	0.018 U	0.039 U	0.018 U
DIMETHYL PHTHALATE	0.1	0.019 U	0.019 U	0.021 U	0.019 U	0.019 U	0.019 U	0.019 U	0.042 U	0.019 U
DI-N-BUTYL PHTHALATE	0.011	0.017 U	0.017 U	**0.046 J**	**0.027 J**	0.016 U	0.017 U	0.017 U	0.037 U	0.017 U
FLUORANTHENE	0.1	**0.35**	0.08	**0.27**	**0.26**	**1**	0.89	0.036	**2**	**0.92**
FLUORENE	0.1	0.022	0.0037 U	0.004 U	0.0038 U	0.061	0.042	0.00059 U	**0.12**	0.041
HIGH MOLECULAR WEIGHT PAHS[2]	0.10	**1.06**	**0.32**	**1.19**	**1.58**	**5.66**	4.16	**0.15**	**8.72**	**4.05**
INDENO(1,2,3-CD)PYRENE	0.1	0.052	0.028	0.085	**0.14**	**0.42**	0.22	0.011	**0.38**	**0.19**
LOW MOLECULAR WEIGHT PAHS[3]	0.10	**0.69**	**0.13**	**0.40**	**0.37**	**2.15**	1.61	0.06	**3.91**	**1.68**
NAPHTHALENE	1	0.0071 J	0.0037 U	0.004 U	0.0038 U	0.06	0.039	0.00091 U	0.058	0.047
N-NITROSO-DI-N-PROPYLAMINE	0.544	0.031 U	0.031 U	0.033 U	0.031 U	0.03 U	0.007 U	0.007 U	0.015 U	0.0071 U
PHENANTHRENE	0.1	**0.22**	0.037	0.094	0.084	**0.61**	0.42	0.018	**1.3**	**0.43**
PYRENE	0.1	**0.27**	0.065	**0.24**	**0.23**	**1.3**	0.96	0.035	**2.1**	**0.9**
TOTAL PAHS[5]	0.10	**1.75**	**0.44**	**1.59**	**1.95**	**7.81**	5.77	**0.21**	**12.63**	**5.72**
PCBS (MG/KG)										
AROCLOR-1260	1.3	NA	NA	NA	NA	NA	0.58	0.046	0.17	0.7 J
METALS (MG/KG)										
ANTIMONY	0.27	0.4 UL	0.38 U	0.43 U	0.36 U	0.37 U	0.52 UJ	0.44 U	0.45 U	0.53 UJ
ARSENIC	17.1	2.9	1.6	3.5	1 J	3	3	3	3.4	3.2
BARIUM	110	16 J	29	18 J	11 J	100	29	39	27	28
BERYLLIUM	1.1	0.11 J	0.27 J	0.19 J	0.15 J	**1.4**	0.45 U	0.24 U	0.41 U	0.36 U
CADMIUM	0.36	0.036 UL	0.048 J	0.084 J	0.041 J	0.22 J	0.19 J	**2.8**	0.3 J	0.26 J
CHROMIUM	26	11	4.9	9.6	4.7	12	14	13	**44**	15
COBALT	13	0.64 J	0.49 J	1.2	0.62 J	2.2	3.3	1.8	4.7	3.9
COPPER	28	7.6	3.5	5.4	3.3	8.7	11	12	12	11
IRON	12	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	11	6.5	8.7	9.9	5.9	**15**	15	**23**	**13**	**21**
MANGANESE	220	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.013	0.016 U	0.019 U	**0.05 J**	**0.065 J**	**0.67**	0.059 J	**0.027 J**	**0.048 J**	**0.13**
MOLYBDENUM	2	0.27 U	0.26 U	0.3 J	0.25 U	0.25 U	0.38 U	0.34 U	0.37 U	0.32 U
NICKEL	38	2.3 J	1.3 J	2.2 J	1.5 J	11	6	4.5	7.6	22
SELENIUM	0.52	0.46 U	0.44 U	0.49 U	0.41 U	**1 J**	0.37 U	**0.81 J**	0.38 J	0.44 J
SILVER	4.2	0.1 UL	0.097 U	0.11 U	0.092 U	0.13 J	0.085 J	0.087 U	0.21 U	0.13 J
THALLIUM	0.22	0.56 U	0.53 U	0.6 U	0.51 U	0.52 U	0.14 U	0.12 U	0.12 U	0.14 U
VANADIUM	7.8	**16**	7.3	**25**	7.5	**27**	22	**22**	**41**	**19**
ZINC	46	9.2	6.3	25	10	**51**	31	**50**	32	35

TABLE 2

DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #11

LOCATION	Minimum Ecological Screening Value[(1)]	GSP-SB-148	GSP-SB-150	GSP-SB-153	GSP-SB-154	GSP-SB-155	GSP-SB-170	GSP-SB-171	GSP-SB-172	GSP-SB-174
SAMPLE ID		GSP-SB-148-02	GSP-SB-150-02	GSP-SB-153-02	GSP-SB-154-02	GSP-SB-155-02	GSP-SB-170-SS	GSP-SB-171-SS	GSP-SB-172-SS	GSP-SB-174-SS
REC		REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE		20120927	20120924	20120925	20120925	20120925	20160112	20160113	20160113	20160112
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2	2	2	2
PETROLEUM HYDROCARBONS (MG/KG)										
DIESEL RANGE ORGANICS	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NC	0.056 J	0.052 U	0.056 U	0.052 U	0.05 U	0.051 U	0.052 U	0.055 U	0.052 U
TPH (C10-C32)	NC	72	10 U	33	98	88	53 U	450	130	48 U
TCLP METALS (MG/L)										
ARSENIC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2

DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #11

LOCATION SAMPLE ID REC SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	**Minimum Ecological Screening Value[(1)]**	**GSP-SB-175 GSP-SB-175-SS REC=11 20160113 NORMAL SO NORMAL SS 0 2**	**GSP-SB-176 GSP-SB-176-SS REC=11 20160113 NORMAL SO NORMAL SS 0 2**	**GSP-SB-177 GSP-SB-177-SS REC=11 20160114 NORMAL SO NORMAL SS 0 2**	**GSP-SB-178 GSP-SB-178-SS REC=11 20160114 NORMAL SO NORMAL SS 0 2**	**GSP-SB-179 GSP-SB-179-SS REC=11 20160113 NORMAL SO NORMAL SS 0 2**	**GSP-SB-181 GSP-SB-181-SS REC=11 20160114 NORMAL SO NORMAL SS 0 2**
VOLATILES (MG/KG)							
1,1-DICHLOROETHENE	0.04	0.00086 U	0.00062 U	0.00072 U	0.00078 U	0.001 U	0.00069 U
1,2,3-TRIMETHYLBENZENE	NC	0.00049 U	0.00036 U	0.00041 U	0.00045 U	0.00058 U	0.0004 U
1,2,4-TRICHLOROBENZENE	0.1	0.00041 U	0.00029 U	0.00034 U	0.00037 U	0.00048 U	0.00033 U
1,2,4-TRIMETHYLBENZENE	0.09	0.00062 U	0.00045 U	0.00052 U	0.00057 U	0.00073 U	0.0005 U
1,2-DICHLOROBENZENE	0.09	0.00037 U	0.00026 U	0.00031 U	0.00033 U	0.00043 U	0.00029 U
1,3-DICHLOROBENZENE	0.03	0.00074 U	0.00053 U	0.00062 U	0.00067 U	0.00087 U	0.00059 U
2-BUTANONE	1	0.0012 U	0.00087 U	0.001 U	0.0011 U	0.0014 U	0.00096 U
4-METHYL-2-PENTANONE	9.8	0.0013 U	0.00094 U	0.0011 U	0.0012 U	0.0015 U	0.0011 U
ACETONE	0.04	0.0061 U	0.0044 U	0.0051 U	0.0056 U	0.0072 U	0.0049 U
BENZENE	25	0.00097 U	0.0007 U	0.00081 U	0.00088 U	0.0011 U	0.00078 U
CARBON DISULFIDE	0.005	0.00063 U	0.00046 U	0.00053 U	0.00058 U	0.00074 U	0.00051 U
CHLOROBENZENE	0.03	0.00057 U	0.00041 U	0.00048 U	0.00052 U	0.00067 U	0.00046 U
CIS-1,2-DICHLOROETHENE	0.04	0.0003 U	0.00022 U	0.00025 U	0.00027 U	0.00035 U	0.00024 U
ETHYLBENZENE	55	0.00034 U	0.00025 U	0.00029 U	0.00031 U	0.0004 U	0.00028 U
M+P-XYLENES	65	0.00045 U	0.00033 U	0.00079 J	0.00041 U	0.00053 U	0.00036 U
METHYL TERT-BUTYL ETHER	12.5	0.00046 U	0.00033 U	0.00039 U	0.00042 U	0.00054 U	0.00037 U
METHYLENE CHLORIDE	0.21	0.00079 U	0.00057 U	0.00067 U	0.00072 U	0.00093 U	0.00064 U
NAPHTHALENE	1	0.00038 U	0.00027 U	0.00032 U	0.00034 U	0.00044 U	0.0003 U
N-PROPYLBENZENE	NC	0.00064 U	0.00046 U	0.00054 U	0.00059 U	0.00076 U	0.00052 U
O-XYLENE	0.1	0.00061 U	0.00044 U	0.00051 U	0.00056 U	0.00072 U	0.00049 U
STYRENE	0.1	0.00043 U	0.00031 U	0.00036 U	0.00039 U	0.0005 U	0.00034 U
TERT-AMYL METHYL ETHER	NC	0.00046 U	0.00033 U	0.00039 U	0.00042 U	0.00054 U	0.00037 U
TERTIARY-BUTYL ALCOHOL	NC	0.0061 U	0.0044 U	0.0051 U	0.0056 U	0.0072 U	0.0049 U
TETRACHLOROETHENE	0.002	0.00086 U	0.00062 U	0.00072 U	0.00078 U	0.001 U	0.00069 U
TOLUENE	75	0.00029 U	0.00021 U	0.00024 U	0.00026 U	0.00034 U	0.00023 U
TOTAL XYLENES	65	0.00058 U	0.00042 U	0.00079 J	0.00053 U	0.00068 U	0.00047 U
TRICHLOROETHENE	0.1	0.00041 U	0.00029 U	0.00034 U	0.00037 U	0.00048 U	0.00033 U
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (MG/KG)							
1,3,5-TRIMETHYLBENZENE	NC	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NC	NA	NA	NA	NA	NA	NA
CYCLOPENTANE	NC	NA	NA	NA	NA	NA	NA
ETHYL ACETATE	NC	NA	NA	NA	NA	NA	NA
HEXANE	NC	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NC	NA	NA	NA	NA	NA	NA
METHYLCYCLOHEXANE	NC	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1-METHYL-	NC	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (MG/KG)							
1,1-BIPHENYL	0.2	0.0041 U	0.004 U	0.013 J	0.0082 U	0.004 U	0.0043 U
2-METHYLNAPHTHALENE	29	0.015	0.00056 U	0.072	0.055	0.00057 U	0.033
ACENAPHTHENE	0.1	0.025	0.013	0.1	0.071	0.00086 U	0.04
ACENAPHTHYLENE	0.1	0.013	0.0083	0.018	0.039	0.0004 U	0.011
ANTHRACENE	0.1	0.083	0.042	**0.3**	**0.21**	0.0066 J	**0.14**
BENZALDEHYDE	NC	0.014 U	0.014 U	0.028 U	0.028 U	0.014 U	0.015 U
BENZO(A)ANTHRACENE	0.8	0.55	0.34	**0.99**	**1.2**	0.057	0.72
BENZO(A)PYRENE	0.1	**0.54**	**0.36**	**0.92**	**1.3**	0.059	**0.67**
BENZO(B)FLUORANTHENE	0.1	**0.74**	**0.51**	**1.4**	**1.7**	0.08	**0.87**
BENZO(G,H,I)PERYLENE	0.1	**0.19**	**0.11**	**0.29**	**0.44**	0.032	**0.28**

TABLE 2
DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #11

LOCATION SAMPLE ID REC SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Minimum Ecological Screening Value[1]	GSP-SB-175 GSP-SB-175-SS REC=11 20160113 NORMAL SO NORMAL SS 0 2	GSP-SB-176 GSP-SB-176-SS REC=11 20160113 NORMAL SO NORMAL SS 0 2	GSP-SB-177 GSP-SB-177-SS REC=11 20160114 NORMAL SO NORMAL SS 0 2	GSP-SB-178 GSP-SB-178-SS REC=11 20160114 NORMAL SO NORMAL SS 0 2	GSP-SB-179 GSP-SB-179-SS REC=11 20160113 NORMAL SO NORMAL SS 0 2	GSP-SB-181 GSP-SB-181-SS REC=11 20160114 NORMAL SO NORMAL SS 0 2
BENZO(K)FLUORANTHENE	0.1	**0.36**	**0.25**	**0.5**	**0.85**	0.04	**0.5**
BIS(2-ETHYLHEXYL)PHTHALATE	0.02	**0.024 J**	**0.021 J**	0.044 U	0.044 U	**0.023 J**	0.023 U
BUTYL BENZYL PHTHALATE	0.1	0.012 U	0.011 U	0.023 U	0.023 U	0.011 U	0.012 U
CAPROLACTAM	NC	0.043 U	0.042 U	0.085 U	0.086 U	0.042 U	0.046 U
CARBAZOLE	0.16	0.04 J	0.031 U	0.074 J	0.072 J	0.031 U	0.046 J
CHRYSENE	0.1	**0.54**	**0.35**	**0.97**	**1.3**	0.062	**0.77**
DIBENZO(A,H)ANTHRACENE	0.1	0.00077 U	0.039	0.075	0.0015 U	0.00075 U	0.09
DIBENZOFURAN	0.15	0.014 J	0.00075 U	0.037 J	0.018 J	0.00075 U	0.014 J
DIETHYL PHTHALATE	0.1	0.019 U	0.018 U	0.037 U	0.037 U	0.018 U	0.02 U
DIMETHYL PHTHALATE	0.1	0.02 U	0.019 U	0.039 U	0.04 U	0.019 U	0.021 U
DI-N-BUTYL PHTHALATE	0.011	0.018 U	0.017 U	0.035 U	0.035 U	0.017 U	0.018 U
FLUORANTHENE	0.1	**0.98**	**0.56**	**1.9**	**2**	0.1	**1.3**
FLUORENE	0.1	0.022	0.011	**0.13**	0.087	0.0006 U	0.039
HIGH MOLECULAR WEIGHT PAHS[2]	0.10	**4.10**	**2.64**	**7.31**	**9.59**	**0.46**	**5.38**
INDENO(1,2,3-CD)PYRENE	0.1	**0.19**	**0.11**	**0.26**	**0.4**	0.027	**0.28**
LOW MOLECULAR WEIGHT PAHS[3]	0.10	**1.48**	**0.79**	**3.70**	**3.48**	**0.13**	**2.28**
NAPHTHALENE	1	0.024	0.0084	0.08	0.1	0.00093 U	0.17
N-NITROSO-DI-N-PROPYLAMINE	0.544	0.0074 U	0.0071 U	0.015 U	0.015 U	0.0071 U	0.0078 U
PHENANTHRENE	0.1	**0.32**	**0.15**	**1.1**	**0.92**	0.028	**0.55**
PYRENE	0.1	**0.99**	**0.57**	**1.9**	**2.4**	0.098	**1.2**
TOTAL PAHS[5]	0.10	**5.58**	**3.43**	**11.01**	**13.07**	**0.59**	**7.66**
PCBS (MG/KG)							
AROCLOR-1260	1.3	**6.2**	0.064	1.3	0.12	0.023 J	0.015 J
METALS (MG/KG)							
ANTIMONY	0.27	0.55 U	0.41 U	0.45 U	0.42 U	0.52 U	0.46 U
ARSENIC	17.1	3.1	3.2	3.4	3.1	8.2	3.1
BARIUM	110	15 J	23	27	24	10 J	38
BERYLLIUM	1.1	0.39 U	0.29 U	0.34 U	0.34 U	0.11 U	0.44 U
CADMIUM	0.36	0.047 J	0.077 J	0.18 U	0.13 U	0.023 U	**0.64**
CHROMIUM	26	9.3	11	12	22	13	26
COBALT	13	2.5	2.7	2.9	2.6	0.28 J	3.8
COPPER	28	7.5	6.8	9.3	**81**	10	15
IRON	12	NA	NA	NA	NA	NA	NA
LEAD	11	8.6	9.5	**14**	**15**	4	**27**
MANGANESE	220	NA	NA	NA	NA	NA	NA
MERCURY	0.013	**0.028 J**	**0.032 J**	**0.17**	**0.14**	0.014 U	**0.24**
MOLYBDENUM	2	0.44 U	0.3 U	0.32 U	0.42 U	0.33 U	0.47 U
NICKEL	38	4.5	4.6	5.1	9.8	1 J	9
SELENIUM	0.52	0.39 U	0.32 J	0.32 U	0.3 U	**0.63 J**	0.33 U
SILVER	4.2	0.072 U	0.054 U	0.12 J	0.083 J	0.068 U	0.42 J
THALLIUM	0.22	0.15 U	0.11 U	0.12 U	0.11 U	0.14 U	0.13 U
VANADIUM	7.8	**16**	**18**	**19**	**21**	**72**	**26**
ZINC	46	19	25	28	26	6.7	**55**

TABLE 2
DETECTED CONCENTRATIONS IN SURFACE SOIL COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA - REC #11

LOCATION	Minimum Ecological Screening Value[(1)]	GSP-SB-175	GSP-SB-176	GSP-SB-177	GSP-SB-178	GSP-SB-179	GSP-SB-181
SAMPLE ID		GSP-SB-175-SS	GSP-SB-176-SS	GSP-SB-177-SS	GSP-SB-178-SS	GSP-SB-179-SS	GSP-SB-181-SS
REC		REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE		20160113	20160113	20160114	20160114	20160113	20160114
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SO	SO	SO	SO	SO	SO
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		SS	SS	SS	SS	SS	SS
TOP DEPTH		0	0	0	0	0	0
BOTTOM DEPTH		2	2	2	2	2	2
PETROLEUM HYDROCARBONS (MG/KG)							
DIESEL RANGE ORGANICS	NC	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NC	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NC	0.054 U	0.052 U	0.053 U	0.054 U	0.052 U	0.057 U
TPH (C10-C32)	NC	160	33 U	45	150	60	78
TCLP METALS (MG/L)							
ARSENIC	NC	NA	NA	NA	NA	NA	NA
BARIUM	NC	NA	NA	NA	NA	NA	NA
CADMIUM	NC	NA	NA	NA	NA	NA	NA
CHROMIUM	NC	NA	NA	NA	NA	NA	NA

Bolded font indicates detected results.
Shaded results indica

Footnotes:
1 - Ecological screening values presented in Attachment 2.
2 - Calculated as the sum of the nine high molecular weight PAHs defined below. A value of zero was used for non-detected results.
3 - Calculated as the sum of nine low molecular weight PAHs defined below. A value of zero was used for non-detected results.
4 - Calculated as the sum of both the high and low molecular weight PAHs defined below. A value of zero was used for non-detected results.

Compounds included in High Molecular Weight PAH Calculation:
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(g,h,i)perylene
Benzo(k)fluoranthene
Chrysene
Dibenzo(a,h)anthracene
Indeno(1,2,3-cd)pyrene
Pyrene

Compounds included in Low Molecular Weight PAH Calculation:
1-Methylnaphthalene
2-Methylnaphthalene
Acenaphthene
Acenaphthylene
Anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene

Abbreviations:
NC - No criteria.
NA - Not available.
B - Blank contamination
J - Estimated value
K -Biased high
L - Biased low
NJ - Tentatively identified
U - Nondetect

TABLE 3
DETECTED CONCENTRATIONS IN SEDIMENT COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA

LOCATION	Ecological Screening Value[1]	GSP-SWSD-C1	GSP-SWSD-C2	GSP-SWSD-DP1	GSP-SWSD-DP2	GSP-SWSD-DP3
SAMPLE ID		GSP-SED-C1-0-1-011116	GSP-SED-C2-011116 0-1	GSP-SED-DP1-0-1-011116	GSP-SED-DP2-0-1-011116	GSP-SED-DP3-0-1-011116
SAMPLE DATE		20160111	20160111	20160111	20160111	20160111
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SD	SD	SD	SD	SD
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		NA	NA	NA	NA	NA
TOP DEPTH		0	0	0	0	0
BOTTOM DEPTH		1	1	1	1	1
VOLATILES (UG/KG)						
1,2-DICHLOROETHANE	175	0.62 U	0.58 U	1.1 U	0.89 U	11 UJ
2-BUTANONE	631	8.3 J	1.8 J	24 J	9.7 U	180 J
ACETONE	36	31	7.1 U	79	30 U	5200 J
CARBON DISULFIDE	0.5	0.79 U	0.76 J	1.4 U	1.1 U	14 UJ
CIS-1,2-DICHLOROETHENE	246	0.37 U	1.5 J	0.64 U	0.69 J	6.7 UJ
DICHLORODIFLUOROMETHANE	NC	0.37 U	0.35 U	0.64 U	0.87 J	13 J
TOLUENE	145	0.36 U	0.34 U	0.62 U	0.52 U	6.5 UJ
TRICHLOROETHENE	96.9	0.51 U	0.48 U	0.87 U	0.74 U	9.1 UJ
VINYL CHLORIDE	202	0.4 U	0.48 J	0.69 U	0.58 U	7.2 UJ
SEMIVOLATILES (UG/KG)						
2-METHYLNAPHTHALENE	20.2	0.8 U	7.2 U	21 J	14 J	29 J
ACENAPHTHENE	6.7	1.2 U	560 J	130 J	64	32 J
ACENAPHTHYLENE	5.87	0.56 U	5 U	27 J	26	1.8 UJ
ANTHRACENE	46.9	17	1900 J	410	180	94 J
BENZALDEHYDE	462	37 J	170 U	58 U	27 U	84 J
BENZO(A)ANTHRACENE	74.8	**100**	6100 J	1500	970	510 J
BENZO(A)PYRENE	88.8	**99**	3900 J	1400	950	560 J
BENZO(B)FLUORANTHENE	190	140	5700 J	1900	1300	930 J
BENZO(G,H,I)PERYLENE	170	50	1700 J	930	560	360 J
BENZO(K)FLUORANTHENE	240	59	2400 J	800	510	400 J
BIS(2-ETHYLHEXYL)PHTHALATE	180	110 U	270 U	130 U	110 U	590 U
CARBAZOLE	900	43 U	1100 J	190 J	91 J	140 UJ
CHRYSENE	108	**110**	5600 J	1700	1000	740 J
DIBENZO(A,H)ANTHRACENE	6.22	**13**	590 J	250 J	150	90 J
DIBENZOFURAN	415	1.1 U	250 J	66 J	28 J	3.4 UJ
DI-N-BUTYL PHTHALATE	1160	29 J	220 U	73 U	33 U	78 UJ
FLUORANTHENE	113	**200**	13000 J	3100	1700	1200 J
FLUORENE	21.2	0.85 U	680 J	110 J	46	45 J
INDENO(1,2,3-CD)PYRENE	17	**47**	1800 J	830	520	330 J
NAPHTHALENE	34.6	1.3 U	12 U	30 J	18	28 J
PENTACHLOROPHENOL	504	15 U	150 J	44 U	23 J	47 UJ
PHENANTHRENE	86.7	61	7400 J	1500	680	470 J
PHENOL	420	12 U	100 U	35 U	32 J	66 J
PYRENE	153	**200**	11000 J	2900	1700	1000 J
LOW MOLECULAR WEIGHT PAHS[2]	312	78	10540	2228	1028	698
HIGH MOLECULAR WEIGHT PAHS[3]	655	**722**	40190	10850	6470	4100
TOTAL PAHS[4]	1610	800	50730	13078	7498	4798
PCBS (UG/KG)						
AROCLOR-1254	63.3	23 U	20 U	34 U	31 U	73 UJ
AROCLOR-1260	59	15 U	29 J	27 J	93	47 UJ
TOTAL AROCLOR[5]	40	0 U	29	27	93	0 U
METALS (MG/KG)						
ARSENIC	7.24	1.6 U	4.6	4.5	5.3	7 J
BARIUM	20	10 J	7.7 J	42	46	36 J
BERYLLIUM	NC	0.15 U	0.57	0.46 U	0.49 U	0.83 U
CADMIUM	0.68	0.089 J	0.82	0.51 J	0.29 J	1.9 J
CHROMIUM	43.4	5.6	17	16	18	37 J

TABLE 3
DETECTED CONCENTRATIONS IN SEDIMENT COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA
PAGE 2 of 2

LOCATION	Ecological Screening Value[(1)]	GSP-SWSD-C1	GSP-SWSD-C2	GSP-SWSD-DP1	GSP-SWSD-DP2	GSP-SWSD-DP3
SAMPLE ID		GSP-SED-C1-0-1-011116	GSP-SED-C2-011116 0-1	GSP-SED-DP1-0-1-011116	GSP-SED-DP2-0-1-011116	GSP-SED-DP3-0-1-011116
SAMPLE DATE		20160111	20160111	20160111	20160111	20160111
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SD	SD	SD	SD	SD
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		NA	NA	NA	NA	NA
TOP DEPTH		0	0	0	0	0
BOTTOM DEPTH		1	1	1	1	1
COBALT	50	1.6	6.2	6.8	3.9	9.7 J
COPPER	18.7	3.7	15	16	15	56 J
LEAD	30.2	3.9	18	21	25	30 J
MERCURY	0.13	0.021 U	0.066 J	0.18 J	0.15 J	0.12 J
NICKEL	15.9	2.6 U	9.1	9.3	8.5	27 J
SELENIUM	2	0.46 U	0.37 U	0.72 U	0.64 U	1.3 J
SILVER	0.73	0.085 U	0.16 J	0.36 J	0.25 J	0.48 J
VANADIUM	57	9.7	18	25	30	74 J
ZINC	121	24	84	57	52	650 J
PETROLEUM HYDROCARBONS (MG/KG)						
TPH (C10-C32)	340	45 U	240	88 U	72 U	250 U

Bolded font indicates detected results.
Shaded results indicate results that exceed the screening criteria, if available.
Footnotes:
1 - Ecological screening values presented in Attachment 2.
2 - Calculated as the sum of nine low molecular weight PAHs defined below. A value of zero was used for non-detected results.
3 - Calculated as the sum of the nine high molecular weight PAHs defined below. A value of zero was used for non-detected results.
4 - Calculated as the sum of both the high and low molecular weight PAHs defined below. A value of zero was used for non-detected results.
5 - Calculated as the sum of all Aroclors parameters. A value of zero was used for non-detected results.

Compounds included in High Molecular Weight PAH Calculation:
Benzo(a)anthracene
Benzo(a)pyrene
Chrysene
Dibenzo(a,h)anthracene
Fluoranthene
Pyrene

Compounds included in Low Molecular Weight PAH Calculation:
2-Methylnaphthalene
Acenaphthene
Acenaphthylene
Anthracene
Fluorene
Naphthalene
Phenanthrene

Abbreviations:
NC - No criteria.
NA - Not available.
B - Blank contamination
J - Estimated value
K -Biased high
L - Biased low
U - Nondetect

TABLE 4
DETECTED CONCENTRATIONS IN SURFACE WATER COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA

LOCATION	Ecological Screening Value[1]	GSP-SW-DP4	GSP-SW-DP5		GSP-SW-OF12		GSP-SWSD-C1	GSP-SWSD-C2
SAMPLE ID		GSP-SW-DP4-010616	GSP-SW-DP5-010616	GSP-SW-DP5-010716	GSP-SW-OF12-011112	GSP-SW-OF12-011116	GSP-SW-C1-010716	GSP-SW-C2-011116
SAMPLE DATE		20160106	20160106	20160107	20160111	20160111	20160107	20160111
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SW	SW	SW	SW	SW	SW	SW
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		NA	NA	NA	NA	NA	NA	NA
TOP DEPTH		0	0	0	0	0	0	0
BOTTOM DEPTH		0.5	0.5	0.5	0.5	0.5	0.5	0.5
VOLATILES (UG/L)								
1,2-DICHLOROETHANE	100	0.23 U	NA	1.1	NA	0.23 U	7	0.23 U
ACETONE	1500	0.94 UJ	NA	4.4 U	NA	1.6 J	4.7 U	1.6 J
CIS-1,2-DICHLOROETHENE	590	0.26 U	NA	0.55 J	NA	0.26 U	2.1	0.26 U
TRICHLOROETHENE	21	0.22 U	NA	0.22 U	NA	0.22 U	0.59 J	0.22 U
VINYL CHLORIDE	930	0.29 U	NA	0.29 U	NA	0.29 U	1.9	0.29 U
SEMIVOLATILES (UG/L)								
BENZO(A)ANTHRACENE	0.018	0.028 U	NA	0.032 U	NA	0.028 U	0.029 U	**0.13 J**
BENZO(A)PYRENE	0.015	0.049 U	NA	0.056 U	NA	0.049 U	0.051 U	0.053 U
BENZO(B)FLUORANTHENE	0.68	0.038 U	NA	0.043 U	NA	0.038 U	0.039 U	0.16 J
BENZO(G,H,I)PERYLENE	0.44	0.044 U	NA	0.051 U	NA	0.045 U	0.046 U	0.048 U
BENZO(K)FLUORANTHENE	0.64	0.043 U	NA	0.049 U	NA	0.043 U	0.044 U	0.046 U
CHRYSENE	2	0.048 U	NA	0.055 U	NA	0.048 U	0.05 U	0.14 J
FLUORANTHENE	0.04	**0.11 J**	NA	0.049 U	NA	**0.15 J**	**0.12 J**	**0.26**
INDENO(1,2,3-CD)PYRENE	0.28	0.041 U	NA	0.048 U	NA	0.042 U	0.043 U	0.045 U
ISOPHORONE	129	0.26 U	NA	0.3 U	NA	0.57 U	0.27 J	0.76 U
PHENANTHRENE	0.4	0.059 U	NA	0.068 U	NA	0.06 U	0.061 U	0.064 U
PYRENE	0.025	**0.12 J**	NA	0.046 U	NA	**0.14 J**	**0.1 J**	**0.22**
LOW MOLECULAR WEIGHT PAHS[2]	NC	0	0	0	0	0	0	0
HIGH MOLECULAR WEIGHT PAHS[3]	NC	0.23	0	0	0	0.29	0.22	0.75
TOTAL PAHS[4]	NC	0.23	0	0	0	0.29	0.22	0.75
METALS (UG/L)								
ANTIMONY	30	4.1 J	NA	2.4 U	NA	2.4 U	2.4 U	2.4 U
ARSENIC	36	24	NA	2.9 U	NA	6.5 U	2.9 J	5.9 U
BARIUM	4	**290**	NA	45 U	NA	33 U	100 U	29 U
CADMIUM	0.25	0.91 U	NA	0.18 J	NA	0.14 U	0.23 J	0.14 J
CHROMIUM	57.5	20	NA	2.8 J	NA	1.9 J	8.5 J	4 J
COBALT	23	8.9 J	NA	1.5 J	NA	2.5 J	2 J	2.8 J
COPPER	3.1	**39**	NA	1.9 U	NA	**4.4 J**	**7.4 J**	**7.7 J**
LEAD	2.5	**20**	NA	1.9 J	NA	2.4 J	**4.7 J**	**3.1 J**
MERCURY	0.77	0.21	NA	0.09 U	NA	0.09 UJ	0.09 U	0.2 J
NICKEL	8.2	**14 J**	NA	2.3 J	NA	4 U	3.8 J	4 U
THALLIUM	0.8	1.7 U	NA	2.5 U	NA	1.7 U	1.7 U	**1.8 J**
VANADIUM	20	**51**	NA	2.4 U	NA	3.3 J	16	4.9 J
ZINC	81	**120**	NA	20 J	NA	17 J	**130**	30 J
DISSOLVED METALS (UG/L)								
BARIUM	4	**42 J**	NA	34 U	NA	30 U	57 U	23 U
CADMIUM	0.25	0.14 U	NA	0.14 U	NA	0.14 U	0.21 J	0.14 U
CHROMIUM	57.5	1.1 U	NA	1.7 J	NA	0.81 J	2.4 J	1.1 J
COBALT	23	0.56 U	NA	1.7 J	NA	2.1 J	1.1 J	1.6 J
COPPER	3.1	1.9 U	NA	1.9 U	NA	1.9 U	1.9 U	2.6 J
LEAD	2.5	1.9 U	NA	1.9 U	NA	1.9 U	1.9 U	1.9 J
NICKEL	8.2	1.9 J	NA	1.7 J	NA	2.7 U	1.3 J	2.5 U
THALLIUM	0.8	**2.3 J**	NA	2 U	NA	1.7 U	2.6 U	**1.9 J**
ZINC	81	9.6 U	NA	9.6 U	NA	9.6 U	9.6 U	9.6 U
PETROLEUM HYDROCARBONS (UG/L)								
TPH (C10-C32)	NC	620	NA	370 J	NA	770 U	570	460 U
MISCELLANEOUS PARAMETERS (UG/L)								

TABLE 4
DETECTED CONCENTRATIONS IN SURFACE WATER COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA

LOCATION	Ecological	GSP-SW-DP4	GSP-SW-DP5		GSP-SW-OF12		GSP-SWSD-C1	GSP-SWSD-C2
SAMPLE ID	Screening Value[1]	GSP-SW-DP4-010616	GSP-SW-DP5-010616	GSP-SW-DP5-010716	GSP-SW-OF12-011112	GSP-SW-OF12-011116	GSP-SW-C1-010716	GSP-SW-C2-011116
SAMPLE DATE		20160106	20160106	20160107	20160111	20160111	20160107	20160111
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		SW	SW	SW	SW	SW	SW	SW
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX		NA	NA	NA	NA	NA	NA	NA
TOP DEPTH		0	0	0	0	0	0	0
BOTTOM DEPTH		0.5	0.5	0.5	0.5	0.5	0.5	0.5
HEXAVALENT CHROMIUM	11	0.051 U	0.051 U	NA	0.051 U	NA	0.083 J	0.051 U

TABLE 4
DETECTED CONCENTRATIONS IN SURFACE WATER COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value[1]	**GSP-SWSD-DP1** **GSP-SW-DP1-010616** **20160106** **NORMAL** **SW** **NORMAL** **NA** **0** **0.5**	**GSP-SWSD-DP2** **GSP-SW-DP2-010616** **20160106** **NORMAL** **SW** **NORMAL** **NA** **0** **0.5**	**GSP-SWSD-DP3** **GSP-SW-DP3-010716** **20160107** **NORMAL** **SW** **NORMAL** **NA** **0** **0.5**
VOLATILES (UG/L)				
1,2-DICHLOROETHANE	100	0.23 U	0.23 U	0.27 J
ACETONE	1500	1.4 U	2.1 U	5.7 U
CIS-1,2-DICHLOROETHENE	590	0.26 U	0.26 U	0.34 J
TRICHLOROETHENE	21	0.22 U	0.22 U	0.22 U
VINYL CHLORIDE	930	0.29 U	0.29 U	0.29 U
SEMIVOLATILES (UG/L)				
BENZO(A)ANTHRACENE	0.018	0.028 U	**0.31**	0.029 U
BENZO(A)PYRENE	0.015	0.049 U	**0.29**	0.05 U
BENZO(B)FLUORANTHENE	0.68	0.038 U	0.32	0.039 U
BENZO(G,H,I)PERYLENE	0.44	0.044 U	0.19 J	0.045 U
BENZO(K)FLUORANTHENE	0.64	0.043 U	0.25	0.044 U
CHRYSENE	2	0.048 U	0.33	0.049 U
FLUORANTHENE	0.04	0.042 U	**0.55**	0.044 U
INDENO(1,2,3-CD)PYRENE	0.28	0.041 U	0.16 J	0.042 U
ISOPHORONE	129	0.26 U	0.26 U	0.26 U
PHENANTHRENE	0.4	0.059 U	0.16 J	0.061 U
PYRENE	0.025	0.04 U	**0.51**	0.041 U
LOW MOLECULAR WEIGHT PAHS[2]	NC	0	0.16	0
HIGH MOLECULAR WEIGHT PAHS[3]	NC	0	1.99	0
TOTAL PAHS[4]	NC	0	2.15	0
METALS (UG/L)				
ANTIMONY	30	2.4 U	2.4 U	2.4 U
ARSENIC	36	2.9 U	7.3 J	2.9 U
BARIUM	4	**40 J**	**170 J**	33 U
CADMIUM	0.25	0.24 U	0.74 U	0.14 U
CHROMIUM	57.5	1.8 U	16	1.2 J
COBALT	23	1.9 J	14	0.56 U
COPPER	3.1	2.6 J	**32**	1.9 U
LEAD	2.5	1.9 U	**12**	1.9 U
MERCURY	0.77	0.09 U	0.092 J	0.09 U
NICKEL	8.2	7.8 J	**13 J**	2 J
THALLIUM	0.8	1.7 U	1.7 U	3.8 U
VANADIUM	20	2.4 U	**21**	2.4 U
ZINC	81	23 J	71	9.6 U
DISSOLVED METALS (UG/L)				
BARIUM	4	**41 J**	**32 J**	30 U
CADMIUM	0.25	0.39 U	0.14 U	0.14 U
CHROMIUM	57.5	1.3 U	1.3 U	0.76 J
COBALT	23	1.7 J	1.6 J	0.64 J
COPPER	3.1	2 J	1.9 U	1.9 U
LEAD	2.5	1.9 U	1.9 U	1.9 U
NICKEL	8.2	7.8 J	2.8 J	2.1 J
THALLIUM	0.8	**2 J**	1.7 U	3.6 U
ZINC	81	12 J	9.6 U	9.6 U
PETROLEUM HYDROCARBONS (UG/L)				
TPH (C10-C32)	NC	440 J	430 J	620
MISCELLANEOUS PARAMETERS (UG/L)				

TABLE 4
DETECTED CONCENTRATIONS IN SURFACE WATER COMPARED TO MINIMUM ECOLOGICAL SCREENING CRITERIA

LOCATION SAMPLE ID	Ecological Screening Value[(1)]	**GSP-SWSD-DP1** **GSP-SW-DP1-010616**	**GSP-SWSD-DP2** **GSP-SW-DP2-010616**	**GSP-SWSD-DP3** **GSP-SW-DP3-010716**
SAMPLE DATE		**20160106**	**20160106**	**20160107**
SAMPLE CODE		**NORMAL**	**NORMAL**	**NORMAL**
MATRIX		**SW**	**SW**	**SW**
SAMPLE TYPE		**NORMAL**	**NORMAL**	**NORMAL**
SUBMATRIX		**NA**	**NA**	**NA**
TOP DEPTH		**0**	**0**	**0**
BOTTOM DEPTH		**0.5**	**0.5**	**0.5**
HEXAVALENT CHROMIUM	11	0.051 U	0.051 U	0.051 U

Bolded font indicates detected results.
Shaded results indicate results that exceed the s
Footnotes:
1 - Ecological screening values presented in Attachment 2.
2 - Calculated as the sum of nine low molecular weight PAHs defined below. A value of zero was used for non-detected results.
3 - Calculated as the sum of the nine high molecular weight PAHs defined below. A value of zero was used for non-detected results.
4 - Calculated as the sum of both the high and low molecular weight PAHs defined below. A value of zero was used for non-detected results.

Compounds included in High Molecular Weight
Benzo(a)anthracene
Benzo(a)pyrene
Chrysene
Dibenzo(a,h)anthracene
Fluoranthene
Pyrene

Compounds included in Low Molecular Weight PAH Calculation:
2-Methylnaphthalene
Acenaphthene
Acenaphthylene
Anthracene
Fluorene
Naphthalene
Phenanthrene

Abbreviations:
NC - No criteria.
NA - Not available.
J - Estimated value
U - Nondetect

APPENDIX D—SOIL AND GROUNDWATER CHEMICAL-DETECTION SUMMARY TABLES

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-MW/SB-021I		GSP-MW/SB-022I		GSP-MW/SB-023I		GSP-MW/SB-024I		GSP-MW/SB-025I	
SAMPLE ID			GSP-SB-21I-30-32	GSP-SB-21I-8-10	GSP-SB-22I-30-32	GSP-SB-22I-8-10	GSP-SB-23I-30-32	GSP-SB-23I-8-10	GSP-SB-24I-30-32	GSP-SB-24I-8-10	GSP-SB-25I-30-32	GSP-SB-25I-8-10
			GSP-SB-21I-30-32	GSP-SB-21I-8-10	GSP-SB-22I-30-32	GSP-SB-22I-8-10	GSP-SB-23I-30-32	GSP-SB-23I-8-10	GSP-SB-24I-30-32	GSP-SB-24I-8-10	GSP-SB-25I-30-32	GSP-SB-25I-8-10
			REC=07	REC=07	REC=08	REC=08	REC=09	REC=09	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20160209	20160209	20160209	20160209	20160215	20160215	20160208	20160208	20160201	20160201
TOP DEPTH	Residential		30	8	30	8	30	8	30	8	30	8
BOTTOM DEPTH	Soil Standard		32	10	32	10	32	10	32	10	32	10
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.00041 U	0.00039 U	0.00042 U	0.00036 U	0.00038 UJ	0.00037 UJ	0.00038 UJ	0.00039 UJ	0.00039 UJ	0.00036 UJ
1,1-DICHLOROETHENE	390	NA	0.00079 U	0.00075 U	0.0008 U	0.00069 U	0.00073 UJ	0.00071 UJ	0.00072 UJ	0.00075 UJ	0.00075 UJ	0.00069 UJ
1,2,3-TRICHLOROBENZENE	NA	NA	0.00049 U	0.00047 U	0.0005 U	0.00043 U	0.00045 UJ	0.00044 UJ	0.00045 UJ	0.00047 UJ	0.00047 UJ	0.00043 UJ
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00045 U	0.00043 U	0.00046 U	0.0004 U	0.00042 UJ	0.00041 UJ	0.00042 UJ	0.00043 UJ	0.00043 UJ	0.0004 UJ
1,2,4-TRICHLOROBENZENE	78	NA	0.00037 U	0.00036 U	0.00038 U	0.00033 U	0.00035 UJ	0.00034 UJ	0.00034 UJ	0.00035 UJ	0.00035 UJ	0.00033 UJ
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00057 U	0.00055 U	0.00058 U	0.0005 U	0.00053 UJ	0.00052 UJ	0.00053 UJ	0.00054 UJ	0.00054 UJ	0.0005 UJ
1,2-DICHLOROBENZENE	700	NA	0.00034 U	0.00032 U	0.00034 U	0.00029 U	0.00031 UJ	0.0003 UJ	0.00031 UJ	0.00032 UJ	0.00032 UJ	0.0003 UJ
1,2-DICHLOROETHANE	7	NA	0.00045 U	0.00043 U	0.00046 U	0.0004 U	0.00042 UJ	0.00041 UJ	0.00042 UJ	0.00043 UJ	0.00043 UJ	0.0004 UJ
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00068 U	0.00065 U	0.00069 U	0.00059 U	0.00063 UJ	0.00061 UJ	0.00062 UJ	0.00064 UJ	0.00064 UJ	0.0006 UJ
1,4-DICHLOROBENZENE	27	NA	0.00028 U	0.00026 U	0.00028 U	0.00024 U	0.00025 UJ	0.00025 UJ	0.00025 UJ	0.00026 UJ	0.00026 UJ	0.00024 UJ
2-BUTANONE	4700	NA	**0.0015 J**	0.0011 U	0.0011 U	0.00096 U	0.001 UJ	0.00099 UJ	0.001 UJ	0.001 UJ	0.001 UJ	**0.0015 J**
2-HEXANONE	NA	NA	0.00067 U	0.00064 U	0.00068 U	0.00059 U	0.00062 UJ	0.0006 UJ	0.00062 UJ	0.00063 UJ	0.00063 UJ	0.00059 UJ
4-ISOPROPYLTOLUENE	NA	NA	0.0004 U	0.00039 U	0.00041 U	0.00035 U	0.00037 UJ	0.00036 UJ	0.00037 UJ	0.00038 UJ	0.00038 UJ	0.00036 UJ
4-METHYL-2-PENTANONE	NA	NA	0.0012 U	0.0011 U	0.0012 U	0.0011 U	0.0011 UJ	0.0011 UJ	0.0011 UJ	0.0011 UJ	0.0011 UJ	0.0011 UJ
ACETONE	7000	NA	0.0078 U	0.0054 U	0.0057 U	0.0049 U	0.0052 UJ	0.0051 UJ	0.0052 UJ	0.0053 UJ	0.012 U	0.0065 U
BENZENE	12	NA	0.00089 U	0.00085 U	0.0009 U	0.00077 U	0.00082 UJ	0.0008 UJ	0.00082 UJ	0.00084 UJ	0.00084 UJ	0.00078 UJ
BROMOMETHANE	11	NA	0.00041 U	0.00039 U	0.00042 U	0.00036 U	0.00038 UJ	0.00037 UJ	0.00038 UJ	0.00039 UJ	0.00039 UJ	0.00036 UJ
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00058 U	0.00055 U	0.00059 U	0.00051 U	0.00054 UJ	0.00052 UJ	0.00053 UJ	0.00055 UJ	**0.0023 J**	**0.00065 J**
CARBON TETRACHLORIDE	4.9	NA	0.00064 U	0.00061 U	0.00065 U	0.00056 U	0.00059 UJ	0.00058 UJ	0.00059 UJ	0.00061 UJ	0.00061 UJ	0.00056 UJ
CHLOROBENZENE	160	NA	0.00052 U	0.0005 U	0.00053 U	0.00046 U	0.00048 UJ	0.00047 UJ	0.00048 UJ	0.00049 UJ	0.00049 UJ	0.00046 UJ
CHLOROETHANE	220	NA	0.00043 U	0.00041 U	0.00044 U	0.00038 U	0.0004 UJ	0.00039 UJ	0.0004 UJ	0.00041 UJ	0.00041 UJ	0.00038 UJ
CHLOROFORM	78	NA	0.00035 U	0.00034 U	0.00036 U	0.00031 U	0.00033 UJ	0.00032 UJ	0.00033 UJ	0.00034 UJ	0.00034 UJ	0.00031 UJ
CHLOROMETHANE	NA	NA	**0.0015 J**	0.00074 U	0.00079 U	0.00068 U	0.00072 UJ	0.0007 UJ	0.00072 UJ	0.00074 UJ	0.00074 UJ	0.00069 UJ
CIS-1,2-DICHLOROETHENE	78	NA	0.00028 U	0.00026 U	0.00028 U	0.00024 U	0.00025 UJ	0.00025 UJ	0.00025 UJ	0.00026 UJU	0.00026 UJ	0.00024 UJ
DIISOPROPYL ETHER	NA	NA	0.00058 U	0.00055 U	0.00059 U	0.00051 U	0.00054 UJ	0.00052 UJ	0.00053 UJ	0.00055 UJ	0.00055 UJ	0.00051 UJ
ETHYLBENZENE	780	NA	0.00032 U	0.0003 U	0.00032 U	0.00028 U	0.00029 UJ	0.00028 UJ	0.00029 UJ	0.0003 UJ	0.0003 UJ	0.00028 UJ
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.0002 U	0.00019 U	0.0002 U	0.00017 U	0.00018 UJ	0.00018 UJ	0.00018 UJ	0.00019 UJ	0.00019 UJ	0.00017 UJ
M+P-XYLENES	NA	NA	0.00041 U	0.00039 U	0.00042 U	0.00036 U	0.00038 UJ	0.00037 UJ	0.00038 UJ	0.00039 UJ	0.00039 UJ	0.00036 UJ
METHYL TERT-BUTYL ETHER	160	NA	0.00042 U	0.0004 U	0.00043 U	0.00037 U	0.00039 UJ	0.00038 UJ	0.00039 UJ	0.0004 UJ	0.0004 UJ	0.00037 UJ
METHYLENE CHLORIDE	85	NA	0.0014 U	0.0007 U	0.00074 U	0.00064 U	0.00067 UJ	0.00066 UJ	0.00067 UJ	0.00069 UJ	0.00069 UJ	0.00064 UJ
NAPHTHALENE	160	NA	0.00077 U	0.00061 U	0.00035 UJ	0.0003 UJ	0.00032 UJ	0.00031 UJ	0.00059 U	0.00033 UJ	0.00037 U	**0.015 J**
N-BUTYLBENZENE	NA	NA	0.00058 U	0.00055 U	0.00059 U	0.00051 U	0.00054 UJ	0.00052 UJ	0.00053 UJ	0.00055 UJ	0.00055 UJ	0.00051 UJ
N-PROPYLBENZENE	NA	NA	0.00059 U	0.00056 U	0.0006 U	0.00052 U	0.00055 UJ	0.00053 UJ	0.00054 UJ	0.00056 UJ	0.00056 UJ	0.00052 UJ
O-XYLENE	NA	NA	0.00056 U	0.00054 U	0.00057 U	0.00049 U	0.00052 UJ	0.00051 UJ	0.00052 UJ	0.00053 UJ	0.00053 UJ	0.00049 UJ
SEC-BUTYLBENZENE	NA	NA	0.0009 U	0.00086 U	0.00091 U	0.00078 U	0.00083 UJ	0.00081 UJ	0.00082 UJ	0.00085 UJ	0.00085 UJ	0.00079 UJ
STYRENE	1600	NA	0.00039 U	0.00038 U	0.0004 U	0.00034 U	0.00036 UJ	0.00036 UJ	0.00036 UJ	0.00037 UJ	0.00037 UJ	0.00035 UJ
TERT-AMYL METHYL ETHER	NA	NA	0.00042 U	0.0004 U	0.00043 U	0.00037 U	0.00039 UJ	0.00038 UJ	0.00039 UJ	0.0004 UJ	0.0004 UJ	0.00037 UJ
TERT-BUTYLBENZENE	NA	NA	0.00066 U	0.00063 U	0.00067 U	0.00058 U	0.00061 UJ	0.0006 UJ	0.00061 UJ	0.00062 UJ	0.00063 UJ	0.00058 UJ
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0056 U	0.0054 U	0.0057 U	0.0049 U	0.0052 UJ	0.0051 UJ	0.0052 UJ	0.0053 UJ	0.0053 UJ	0.005 UJ
TETRACHLOROETHENE	1.2	NA	0.00079 U	0.00075 U	0.0008 U	0.00069 U	0.00073 UJ	0.00071 UJ	0.00072 UJ	0.00075 UJ	0.00075 UJ	0.00069 UJ
TOLUENE	630	NA	0.00027 U	0.00025 U	0.00027 U	0.00023 U	0.00025 UJ	0.00024 UJ	0.00024 UJ	0.00025 UJ	0.00025 UJ	0.00023 UJ
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00053 U	0.00051 U	0.00054 U	0.00046 U	0.00049 UJ	0.00048 UJ	0.00049 UJ	0.0005 UJ	0.0005 UJ	0.00047 UJ
TRANS-1,2-DICHLOROETHENE	160	NA	0.00032 U	0.0003 U	0.00032 U	0.00028 U	0.00029 UJ	0.00028 UJ	0.00029 UJ	0.0003 UJ	0.0003 UJ	0.00028 UJ
TRICHLOROETHENE	1.6	NA	0.00037 U	0.00036 U	**0.00049 J**	0.00033 U	**0.0083 J**	0.00034 UJ	**0.0008 J**	**0.00044 J**	0.00035 UJ	0.00033 UJ
TRICHLOROFLUOROMETHANE	NA	NA	0.00029 U	0.00027 U	0.00029 U	0.00025 U	0.00026 UJ	0.00026 UJ	0.00026 UJ	0.00027 UJ	0.00027 UJ	0.00025 UJ
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.0003 U	0.00028 U	0.0003 U	0.00026 U	0.00027 UJ	0.00027 UJ	0.00027 UJ	0.00028 UJ	0.00028 UJ	0.00026 UJ
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.0041 U	0.0044 U	0.0045 U	0.0042 U	0.0044 U	0.0041 U	0.0044 U	0.0045 U	0.0044 UJ	0.0042 U
2,4-DICHLOROPHENOL	23	NA	0.023 U	0.025 U	0.026 U	0.024 U	0.025 U	0.024 U	0.025 U	0.026 U	0.025 UJ	0.024 U
2-CHLOROPHENOL	39	NA	0.0096 U	0.01 U	0.011 U	0.0099 U	0.01 U	0.0097 U	0.01 U	0.011 U	0.01 UJ	0.0099 U
2-METHYLNAPHTHALENE	31	NA	0.00058 U	0.00063 U	0.00065 U	0.0006 U	0.00063 U	0.00059 U	0.00063 U	0.00064 U	0.00063 UJ	**0.0071 J**
3&4-METHYLPHENOL	NA	NA	0.023 U	0.025 U	0.026 U	0.024 U	0.025 U	0.024 U	0.025 U	0.026 U	0.025 UJ	0.024 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-MW/SB-021I		GSP-MW/SB-022I		GSP-MW/SB-023I		GSP-MW/SB-024I		GSP-MW/SB-025I	
SAMPLE ID			GSP-SB-21I-30-32	GSP-SB-21I-8-10	GSP-SB-22I-30-32	GSP-SB-22I-8-10	GSP-SB-23I-30-32	GSP-SB-23I-8-10	GSP-SB-24I-30-32	GSP-SB-24I-8-10	GSP-SB-25I-30-32	GSP-SB-25I-8-10
			GSP-SB-21I-30-32	GSP-SB-21I-8-10	GSP-SB-22I-30-32	GSP-SB-22I-8-10	GSP-SB-23I-30-32	GSP-SB-23I-8-10	GSP-SB-24I-30-32	GSP-SB-24I-8-10	GSP-SB-25I-30-32	GSP-SB-25I-8-10
			REC=07	REC=07	REC=08	REC=08	REC=09	REC=09	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20160209	20160209	20160209	20160209	20160215	20160215	20160208	20160208	20160201	20160201
TOP DEPTH	Residential		30	8	30	8	30	8	30	8	30	8
BOTTOM DEPTH	Soil Standard		32	10	32	10	32	10	32	10	32	10
ACENAPHTHENE	470	NA	0.00089 U	0.00096 U	0.00098 U	0.00092 U	0.00095 U	0.0009 U	0.00096 U	0.00098 U	0.00096 UJ	**0.0047 J**
ACENAPHTHYLENE	470	NA	0.00041 U	0.00044 U	0.00045 U	0.00042 U	0.00044 U	0.00041 U	0.00044 U	0.00045 U	0.00044 UJ	0.00042 U
ANTHRACENE	2300	NA	0.00091 U	0.00098 U	0.001 U	0.00094 U	0.00098 U	0.00092 U	0.00098 U	0.001 U	0.00098 UJ	**0.012**
BAP EQUIVALENT-HALFND	NA	NA	0.00075 U	0.00081 U	0.00083 U	0.00077 U	0.0008 U	0.00075 U	0.00081 U	0.00082 U	0.00081 U	**0.020616**
BAP EQUIVALENT-POS	NA	NA	0.00075 U	0.00081 U	0.00083 U	0.00077 U	0.0008 U	0.00075 U	0.00081 U	0.00082 U	0.00081 U	**0.020221**
BENZALDEHYDE	NA	NA	**0.2**	0.015 U	0.015 U	0.015 U	0.015 U	0.014 U	0.015 U	0.015 U	0.015 UJ	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	0.00073 U	0.00079 U	0.00081 U	0.00076 U	0.00079 U	0.00074 U	0.00079 U	0.00081 U	0.00079 UJ	**0.018**
BENZO(A)PYRENE	0.022	NA	0.00075 U	0.00081 UJ	0.00083 U	0.00077 U	0.0008 U	0.00075 U	0.00081 U	0.00082 U	0.00081 UJ	**0.016**
BENZO(B)FLUORANTHENE	0.22	NA	0.00069 U	0.00074 UJ	0.00076 U	0.00071 U	0.00074 U	0.0007 U	0.00074 U	0.00076 U	0.00074 UJ	**0.016**
BENZO(G,H,I)PERYLENE	230	NA	0.00041 U	0.00044 UJ	0.00045 U	0.00042 U	0.00044 U	0.00041 U	0.00044 U	0.00045 U	0.00044 UJ	**0.01**
BENZO(K)FLUORANTHENE	2.2	NA	0.00079 U	0.00086 UJ	0.00088 U	0.00082 U	0.00085 U	0.0008 U	0.00086 U	0.00087 U	0.00086 UJ	**0.0069 J**
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.041 J**	0.024 U	0.025 U	0.023 U	0.024 U	0.022 U	0.024 U	0.024 U	0.024 UJ	0.075 U
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.013 U	0.013 U	0.012 U	0.013 U	0.012 U	0.013 U	0.013 U	0.013 UJ	0.012 U
CAPROLACTAM	NA	NA	0.043 U	0.047 U	0.048 U	0.045 U	0.046 U	0.044 U	0.047 U	0.048 U	0.047 UJ	0.045 U
CARBAZOLE	32	NA	0.031 U	0.034 U	0.035 U	0.033 U	0.034 U	0.032 U	0.034 U	0.035 U	0.034 UJ	0.032 U
CHRYSENE	22	NA	0.0013 U	0.0014 U	0.0014 U	0.0013 U	0.0014 U	0.0013 U	0.0014 U	0.0014 U	0.0014 UJ	**0.022**
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.00077 U	0.00083 UJ	0.00085 U	0.0008 U	0.00083 U	0.00078 U	0.00083 U	0.00085 U	0.00083 UJ	0.00079 U
DIBENZOFURAN	7.8	NA	0.00077 U	0.00083 U	0.00085 U	0.0008 U	0.00083 U	0.00078 U	0.00083 U	0.00085 U	0.00083 UJ	0.00079 U
DIETHYL PHTHALATE	6300	NA	0.019 U	0.02 U	0.021 U	0.019 U	0.02 U	0.019 U	0.02 U	0.021 U	0.02 UJ	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.02 U	0.021 U	0.022 U	0.021 U	0.021 U	0.02 U	0.021 U	0.022 U	0.021 UJ	0.02 U
DI-N-BUTYL PHTHALATE	780	NA	0.017 U	0.019 U	0.019 U	0.018 U	0.019 U	0.018 U	0.019 U	0.019 U	0.019 UJ	0.018 U
FLUORANTHENE	310	NA	0.00064 U	0.00069 U	0.00071 U	0.00067 U	0.00069 U	0.00065 U	0.00069 U	0.00071 U	0.00069 UJ	**0.034**
FLUORENE	310	NA	0.00062 U	0.00067 U	0.00068 U	0.00064 U	0.00066 U	0.00062 U	0.00067 U	0.00068 U	0.00067 UJ	**0.01**
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	**0.1422**
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.00318**	**0.00343**	**0.0035**	**0.003265**	**0.00342**	**0.003205**	**0.00343**	**0.00349**	**0.003435**	**0.142595**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.00041 U	0.00044 UJ	0.00045 U	0.00042 U	0.00044 U	0.00041 U	0.00044 U	0.00045 U	0.00044 UJ	**0.0073 J**
ISOPHORONE	670	NA	0.015 U	0.016 U	0.017 U	0.016 U	0.016 U	0.015 U	0.016 U	0.017 U	0.016 UJ	0.016 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	**0.1338**
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.00293**	**0.003145**	**0.003255**	**0.00303**	**0.003135**	**0.00296**	**0.003145**	**0.00325**	**0.003145**	**0.13401**
NAPHTHALENE	160	NA	0.00096 U	0.001 U	0.0011 U	0.00099 U	0.001 U	0.00097 U	0.001 U	0.0011 U	0.001 UJ	**0.008**
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.0073 U	0.0079 U	0.0081 U	0.0076 U	0.0079 U	0.0074 U	0.0079 U	0.0081 U	0.0079 UJ	0.0076 U
PENTACHLOROPHENOL	5.3	NA	0.011 U	0.011 U	0.012 UJ	0.011 UJ	0.011 U	0.011 U	0.011 UJ	0.012 UJ	0.011 UJ	0.011 U
PHENANTHRENE	2300	NA	0.00085 U	0.00092 U	0.00094 U	0.00088 U	0.00092 U	0.00086 U	0.00092 U	0.00094 U	0.00092 UJ	**0.058**
PHENOL	2300	NA	0.0085 U	0.0092 U	0.0094 U	0.0088 U	0.0092 U	0.0086 U	0.0092 U	0.0094 U	0.0092 UJ	0.0088 U
PYRENE	230	NA	0.00051 U	0.00055 U	0.00057 U	0.00053 U	0.00055 U	0.00052 U	0.00055 U	0.00057 U	0.00056 UJ	**0.046**
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.013 U	0.014 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.013 U
AROCLOR-1260	0.32	NA	0.011 U	0.011 U	0.012 U	0.011 U	0.011 U	0.011 U	0.012 U	0.012 U	0.011 U	0.011 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.05375**	**0.056**	**0.058**	**0.0538**	**0.056**	**0.05375**	**0.0575**	**0.0585**	**0.0565**	**0.0538**
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.47 U	0.54 U	0.54 U	0.55 U	0.42 U	0.48 U	0.45 U	0.54 U	0.43 U	0.51 U
ARSENIC	0.43	3.6	**1.8**	**1.4 J**	**1 J**	**0.65 J**	**0.46 J**	**1.2 J**	**0.39 J**	**1.6 J**	**14**	**3.9**
BARIUM	1600	NA	**4.6 J**	**5.6 J**	**2.6 J**	**5.8 J**	**5.8 J**	**3.7 J**	**2.6 J**	**1.9 J**	**3.5 J**	**9.8 J**
BERYLLIUM	16	NA	0.063 U	0.042 U	0.039 U	0.053 U	0.031 U	0.041 U	0.042 U	0.039 U	0.055 U	0.15 U
CADMIUM	3.9	NA	**0.076 J**	0.024 U	0.024 U	0.024 U	**0.018 J**	0.021 U	0.02 U	0.023 U	**0.21 J**	0.022 U
CHROMIUM	23	28	**7.4**	**4**	**2.7**	**2.1**	**2.3**	**3.9**	**3.5**	**3.8**	**4.3**	**22**
COBALT	NA	NA	**0.36 J**	**0.12 J**	**0.11 J**	**0.4 J**	**0.28 J**	**0.22 J**	**0.31 J**	**0.058 J**	**9**	**0.73 J**
COPPER	310	NA	**2.2 J**	**2.1 J**	**2.7 J**	**1.3 J**	**1.3 J**	**2.4 J**	**1.2 J**	**0.97 J**	**100**	**22**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**1.4**	**1.1**	**0.82 J**	**0.99 J**	**1.6**	**0.84 J**	**1**	**0.94 J**	**8.3**	**3.1**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	0.019 U	0.017 U	0.019 U	0.022 U	0.016 U	0.016 U	0.02 U	0.02 U	0.02 U	0.017 U
MOLYBDENUM	NA	NA	**0.68 J**	**0.23 J**	**0.16 J**	**0.22 J**	0.051 U	0.25 U	**0.072 J**	**0.21 J**	**0.68 J**	**1 J**
NICKEL	160	NA	**1.3 J**	**0.4 J**	**0.39 J**	**0.7 J**	**0.32 J**	**0.45 J**	**0.48 J**	**0.16 J**	**9.4**	**1.4 J**
SELENIUM	39	NA	0.33 U	0.38 U	0.38 U	0.39 U	0.3 U	0.34 U	0.32 U	0.38 U	0.31 U	0.36 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-MW/SB-021I		GSP-MW/SB-022I		GSP-MW/SB-023I		GSP-MW/SB-024I		GSP-MW/SB-025I	
SAMPLE ID			GSP-SB-21I-30-32	GSP-SB-21I-8-10	GSP-SB-22I-30-32	GSP-SB-22I-8-10	GSP-SB-23I-30-32	GSP-SB-23I-8-10	GSP-SB-24I-30-32	GSP-SB-24I-8-10	GSP-SB-25I-30-32	GSP-SB-25I-8-10
			GSP-SB-21I-30-32	GSP-SB-21I-8-10	GSP-SB-22I-30-32	GSP-SB-22I-8-10	GSP-SB-23I-30-32	GSP-SB-23I-8-10	GSP-SB-24I-30-32	GSP-SB-24I-8-10	GSP-SB-25I-30-32	GSP-SB-25I-8-10
			REC=07	REC=07	REC=08	REC=08	REC=09	REC=09	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20160209	20160209	20160209	20160209	20160215	20160215	20160208	20160208	20160201	20160201
TOP DEPTH	Residential		30	8	30	8	30	8	30	8	30	8
BOTTOM DEPTH	Soil Standard		32	10	32	10	32	10	32	10	32	10
SILVER	39	NA	0.061 U	0.071 U	0.071 U	0.072 U	0.055 U	0.064 U	0.059 U	0.07 U	0.057 U	0.067 U
THALLIUM	0.55	3.9	0.13 U	0.15 U	0.15 U	**0.18 J**	0.11 U	0.13 U	0.12 U	0.15 U	0.12 U	0.14 U
VANADIUM	7.8	30	**7.3**	**9.1**	**5.6**	**4.2**	**3.3**	**5.5**	**5.7**	**13**	**10**	**17**
ZINC	2300	NA	**6.2**	2 U	**1.7 J**	**2.9 J**	**1.1 J**	**1.6 J**	**1.6 J**	**1 J**	**37**	**7.3**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	230	NA	0.054 U	**0.064 J**	0.059 U	0.055 U	0.057 U	0.055 U	0.059 U	0.059 U	0.058 U	0.056 U
TPH (C10-C32)	230	NA	7.5 U	7.9 U	8.4 U	7.6 U	12 U	9.6 U	8.3 U	8.1 U	8 UJ	7.6 UJ
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-MW/SB-026I		GSP-MW-09		GSP-MW-10		GSP-MW-11		GSP-MW-12	
SAMPLE ID			GSP-SB-26I-30-32	GSP-SB-26I-8-10	GSP-MW-9-0-2	GSP-MW-9-8-10	GSP-MW-10-20-22	GSP-MW-10-2-4	GSP-MW-11-0-2	GSP-MW-11-2-4	GSP-MW-12-10-12	GSP-MW-12-2-4
			GSP-SB-26I-30-32	GSP-SB-26I-8-10	GSP-MW-9-0-2	GSP-MW-9-8-10	GSP-MW-10-20-22	GSP-MW-10-2-4	GSP-MW-11-0-2	GSP-MW-11-2-4	GSP-MW-12-10-12	GSP-MW-12-2-4
			REC=11	REC=11	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08
SAMPLE DATE	Maryland	ATCs	20160203	20160203	20120912	20120912	20120913	20120913	20120913	20120913	20120917	20120917
TOP DEPTH	Residential		30	8	0	8	20	2	0	2	10	2
BOTTOM DEPTH	Soil Standard		32	10	2	10	22	4	2	4	12	4
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.00035 UJ	0.00032 UJ	0.0016 U	0.0013 U	0.0013 U	0.0013 U	0.0012 U	0.0012 U	0.0015 U	0.0013 U
1,1-DICHLOROETHENE	390	NA	0.00067 U	0.0006 U	**0.00071 J**	0.00053 U	**0.00055 J**	0.00052 U	0.00047 U	**0.00082 J**	**0.00085 J**	**0.00063 J**
1,2,3-TRICHLOROBENZENE	NA	NA	0.00042 U	0.00038 U	0.00046 U	0.00039 U	0.00038 U	0.00038 U	0.00034 U	0.00034 U	0.00044 U	0.00039 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00039 U	0.00035 U	0.0002 U	0.00017 U	0.00017 U	0.00017 U	0.00015 U	0.00015 U	0.0002 U	0.00017 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00032 U	0.00029 U	0.00032 U	0.00028 U	0.00027 U	0.00027 U	0.00024 U	0.00024 U	0.00032 U	0.00027 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00049 U	0.00044 U	0.00078 U	0.00067 U	0.00064 U	0.00065 U	0.00059 U	0.00058 U	0.00076 U	0.00066 U
1,2-DICHLOROBENZENE	700	NA	0.00029 U	0.00026 U	0.00043 U	0.00037 U	0.00036 U	0.00036 U	0.00033 U	0.00032 U	0.00042 U	0.00037 U
1,2-DICHLOROETHANE	7	NA	0.00039 U	0.00035 U	0.00041 U	0.00035 U	0.00034 U	0.00034 U	0.00031 U	0.0003 U	0.0004 U	0.00035 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00058 U	0.00052 U	0.00042 U	0.00036 U	0.00035 U	0.00035 U	0.00032 U	0.00031 U	0.00041 U	0.00036 U
1,4-DICHLOROBENZENE	27	NA	0.00024 U	0.00021 U	0.00079 U	0.00068 U	0.00065 U	0.00066 U	0.0006 U	0.00059 U	0.00077 U	0.00067 U
2-BUTANONE	4700	NA	0.00094 U	**0.0046 J**	0.0017 U	0.0014 U	**0.0015 J**	0.0014 U	**0.0026 J**	**0.011 J**	0.0016 U	0.0014 U
2-HEXANONE	NA	NA	0.00057 U	0.00051 U	0.00076 U	0.00065 U	0.00062 U	0.00063 U	0.00057 U	0.00056 U	0.00074 U	0.00064 U
4-ISOPROPYLTOLUENE	NA	NA	0.00035 U	0.00031 U	0.00025 U	0.00022 U	0.00021 U	0.00021 U	0.00019 U	0.00019 U	0.00025 U	0.00021 U
4-METHYL-2-PENTANONE	NA	NA	0.001 U	0.00092 U	0.00065 U	0.00055 U	0.00053 U	0.00054 U	0.00049 U	0.00048 U	0.00063 U	0.00055 U
ACETONE	7000	NA	0.0065 U	0.026 U	0.0076 U	**0.0073 B**	**0.018 B**	**0.033**	**0.043**	**0.095**	**0.028 B**	**0.017 B**
BENZENE	12	NA	0.00076 U	0.00068 U	0.00028 U	0.00024 U	**0.002 J**	0.00023 U	0.00021 U	0.0002 U	0.00027 U	0.00023 U
BROMOMETHANE	11	NA	0.00035 U	0.00032 U	0.00065 U	0.00055 U	0.00053 U	0.00054 U	0.00049 U	0.00048 U	0.00063 U	0.00055 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.0005 U	0.00045 U	0.00053 U	0.00045 U	0.00044 U	0.00044 U	**0.00046 J**	**0.00053 J**	0.00052 U	0.00045 U
CARBON TETRACHLORIDE	4.9	NA	0.00055 U	0.00049 U	0.00044 U	0.00038 U	0.00037 U	0.00037 U	0.00033 U	0.00033 U	0.00043 U	0.00038 U
CHLOROBENZENE	160	NA	0.00045 U	0.0004 U	0.0004 U	0.00034 U	0.00033 U	0.00033 U	0.0003 U	0.00029 U	0.00039 U	0.00034 U
CHLOROETHANE	220	NA	0.00037 U	0.00033 U	0.001 U	0.00088 U	0.00085 U	0.00086 U	0.00078 U	0.00076 U	0.001 U	0.00087 U
CHLOROFORM	78	NA	0.0003 U	0.00027 U	0.00035 U	0.0003 U	0.00029 U	0.00029 U	0.00026 U	0.00026 U	0.00034 U	0.00029 U
CHLOROMETHANE	NA	NA	0.00067 U	0.0006 U	0.00049 U	**0.0014 J**	0.00041 U	0.00041 U	0.00037 U	0.00036 U	0.00048 U	0.00042 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00024 U	0.00021 U	0.00043 U	0.00037 U	**0.00064 J**	0.00036 U	0.00033 U	0.00032 U	0.00042 U	0.00037 U
DIISOPROPYL ETHER	NA	NA	0.0005 U	0.00045 U	0.0018 U	0.0015 U	0.0015 U	0.0015 U	0.0014 U	0.0013 U	0.0018 U	0.0015 U
ETHYLBENZENE	780	NA	0.00027 U	**0.00045 J**	0.00031 U	0.00027 U	0.00026 U	0.00026 U	0.00023 U	0.00023 U	0.0003 U	0.00026 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00017 U	0.00015 U	0.00019 U	0.00016 U	0.00016 U	0.00016 U	0.00014 U	0.00014 U	0.00019 U	0.00016 U
M+P-XYLENES	NA	NA	0.00035 U	0.00032 U	0.0014 U	0.0012 U	0.0012 U	0.0012 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U
METHYL TERT-BUTYL ETHER	160	NA	0.00036 U	0.00032 U	0.00052 U	0.00044 U	0.00043 U	0.00043 U	0.00039 U	0.00038 U	0.0005 U	0.00044 U
METHYLENE CHLORIDE	85	NA	0.00062 U	0.00056 U	0.0008 U	0.00069 U	0.00066 U	0.00067 U	0.00061 U	0.0006 U	0.00078 U	0.00068 U
NAPHTHALENE	160	NA	0.00029 U	0.00026 U	**0.00058 B**	**0.00036 B**	**0.0003 B**	**0.00037 B**	**0.00031 B**	**0.0017 B**	0.00022 U	0.00019 U
N-BUTYLBENZENE	NA	NA	0.0005 U	0.00045 U	0.00028 U	0.00024 U	0.00023 U	0.00023 U	0.00021 U	0.0002 U	0.00027 U	0.00023 U
N-PROPYLBENZENE	NA	NA	0.00051 U	0.00045 U	0.00048 U	0.00041 U	0.0004 U	0.0004 U	0.00036 U	0.00036 U	0.00047 U	0.00041 U
O-XYLENE	NA	NA	0.00048 U	0.00043 U	0.00042 U	0.00036 U	0.00035 U	0.00035 U	0.00032 U	0.00031 U	0.00041 U	0.00036 U
SEC-BUTYLBENZENE	NA	NA	0.00077 U	0.00069 U	0.00022 U	0.00018 U	0.00018 U	0.00018 U	0.00016 U	0.00016 U	0.00021 U	0.00018 U
STYRENE	1600	NA	0.00034 U	0.0003 U	0.00018 U	0.00015 U	0.00015 U	0.00015 U	0.00014 U	0.00013 U	0.00018 U	0.00015 U
TERT-AMYL METHYL ETHER	NA	NA	0.00036 U	0.00032 U	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	0.00056 U	0.00051 U	0.00035 U	0.0003 U	0.00029 U	0.00029 U	0.00026 U	0.00026 U	0.00034 U	0.00029 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0048 U	0.0043 U	0.0091 UR	0.0078 UR	0.0075 UR	0.0076 UR	0.0069 UR	0.0068 UR	0.0089 UR	0.0077 UR
TETRACHLOROETHENE	1.2	NA	0.00067 U	0.0006 U	0.00062 U	0.00053 U	0.00051 U	0.00052 U	0.00047 U	0.00046 U	**0.00072 J**	0.00053 U
TOLUENE	630	NA	0.00023 U	**0.029**	**0.0014 J**	**0.0003 J**	**0.0034 J**	**0.00045 J**	**0.00026 J**	**0.001 J**	0.00032 U	**0.0012 J**
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00045 U	0.00041 U	0.0008 U	0.00069 U	0.00066 U	0.00067 U	0.00061 U	0.0006 U	0.00078 U	0.00068 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00027 U	0.00024 U	0.00049 U	0.00042 U	0.00041 U	0.00041 U	0.00037 U	0.00036 U	0.00048 U	0.00042 U
TRICHLOROETHENE	1.6	NA	0.00032 U	0.00029 U	0.0005 U	0.00043 U	0.00042 U	0.00042 U	0.00038 U	0.00037 U	**0.00056 J**	0.00043 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00024 U	0.00022 U	0.00041 U	0.00035 U	0.00034 U	0.00034 U	0.00031 U	0.0003 U	0.0004 U	0.00035 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00025 U	0.00023 U	0.00047 U	0.0004 U	0.00039 U	0.00039 U	0.00035 U	0.00035 U	0.00046 U	0.0004 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.0042 U	0.0041 U	0.028 U	0.031 U	0.033 U	0.03 U	0.029 U	0.15 U	0.033 U	0.031 U
2,4-DICHLOROPHENOL	23	NA	0.024 U	0.023 U	0.021 U	0.023 U	0.024 U	0.022 U	0.022 U	0.11 U	0.024 U	0.023 U
2-CHLOROPHENOL	39	NA	0.0098 U	0.0095 U	0.028 U	0.031 U	0.033 U	0.03 U	0.029 U	0.15 U	0.033 U	0.031 U
2-METHYLNAPHTHALENE	31	NA	0.0006 U	0.00058 U	**0.0043 J**	0.0038 U	0.004 U	0.0037 U	0.0036 U	0.019 U	0.004 U	0.0038 U
3&4-METHYLPHENOL	NA	NA	0.024 U	**0.043 J**	0.021 U	0.023 U	0.024 U	0.022 U	0.022 U	0.11 U	0.024 U	0.023 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-MW/SB-026I		GSP-MW-09		GSP-MW-10		GSP-MW-11		GSP-MW-12	
SAMPLE ID			GSP-SB-26I-30-32 GSP-SB-26I-30-32 REC=11	GSP-SB-26I-8-10 GSP-SB-26I-8-10 REC=11	GSP-MW-9-0-2 GSP-MW-9-0-2 REC=08	GSP-MW-9-8-10 GSP-MW-9-8-10 REC=08	GSP-MW-10-20-22 GSP-MW-10-20-22 REC=08	GSP-MW-10-2-4 GSP-MW-10-2-4 REC=08	GSP-MW-11-0-2 GSP-MW-11-0-2 REC=08	GSP-MW-11-2-4 GSP-MW-11-2-4 REC=08	GSP-MW-12-10-12 GSP-MW-12-10-12 REC=08	GSP-MW-12-2-4 GSP-MW-12-2-4 REC=08
SAMPLE DATE	Maryland	ATCs	20160203	20160203	20120912	20120912	20120913	20120913	20120913	20120913	20120917	20120917
TOP DEPTH	Residential		30	8	0	8	20	2	0	2	10	2
BOTTOM DEPTH	Soil Standard		32	10	2	10	22	4	2	4	12	4
ACENAPHTHENE	470	NA	0.00091 U	0.00088 U	**0.022**	0.0038 U	0.004 U	0.0037 U	**0.013**	**0.29**	0.004 U	0.0038 U
ACENAPHTHYLENE	470	NA	0.00042 U	0.00041 U	**0.0076**	0.0038 U	0.004 U	0.0037 U	0.0036 U	0.019 U	0.004 U	0.0038 U
ANTHRACENE	2300	NA	0.00093 U	0.00091 U	**0.077**	0.0038 U	0.004 U	0.0037 U	**0.031**	**0.91 J**	0.004 U	0.0038 U
BAP EQUIVALENT-HALFND	NA	NA	0.00077 U	0.00075 U	**0.60607**	0.0038 U	0.004 U	**0.060519**	**0.11257**	**2.2151**	0.004 U	0.0038 U
BAP EQUIVALENT-POS	NA	NA	0.00077 U	0.00075 U	**0.60437**	0.0038 U	0.004 U	**0.058669**	**0.11077**	**2.2056**	0.004 U	0.0038 U
BENZALDEHYDE	NA	NA	0.014 U	0.014 U	0.012 U	0.014 U	0.015 U	0.013 U	0.013 U	0.067 U	0.015 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	0.00075 U	0.00073 U	**0.4**	0.0038 U	0.004 U	**0.039**	**0.11**	**2.7 J**	0.004 U	0.0038 U
BENZO(A)PYRENE	0.022	NA	0.00077 U	0.00075 U	**0.46**	0.0038 U	0.004 U	**0.046**	**0.084**	**1.6 J**	0.004 U	0.0038 U
BENZO(B)FLUORANTHENE	0.22	NA	0.00071 U	0.00069 U	**0.74**	0.0038 U	0.004 U	**0.055**	**0.11**	**2.6 J**	0.004 U	0.0038 U
BENZO(G,H,I)PERYLENE	230	NA	0.00042 U	0.00041 U	**0.31**	0.0038 U	0.004 U	**0.021**	**0.035**	**0.65 J**	0.004 U	0.0038 U
BENZO(K)FLUORANTHENE	2.2	NA	0.00081 U	0.00079 U	**0.29**	0.0038 U	0.004 U	**0.023**	**0.056**	**1 J**	0.004 U	0.0038 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.07 U	0.024 U	**0.023 J**	0.022 U	0.023 U	0.021 U	0.021 U	0.11 U	0.023 U	0.022 U
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.012 U	0.01 U	0.011 U	0.012 U	0.011 U	0.011 U	0.056 U	0.012 U	0.011 U
CAPROLACTAM	NA	NA	0.044 U	0.043 U	0.038 U	0.042 U	0.045 U	0.041 U	0.04 U	0.21 U	0.045 U	0.042 U
CARBAZOLE	32	NA	0.032 U	0.031 U	**0.045 J**	0.031 U	0.033 U	0.03 U	0.029 U	**0.29**	0.033 U	0.031 U
CHRYSENE	22	NA	0.0013 U	0.0013 U	**0.47**	0.0013 U	0.0013 U	**0.039**	**0.11**	**2.6 J**	0.0013 U	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.00079 U	0.00077 U	0.0034 U	0.0038 U	0.004 U	0.0037 U	0.0036 U	0.019 U	0.004 U	0.0038 U
DIBENZOFURAN	7.8	NA	0.00079 U	0.00077 U	**0.0098 J**	0.0038 U	0.004 U	0.0037 U	**0.007 J**	**0.18 J**	0.004 U	0.0038 U
DIETHYL PHTHALATE	6300	NA	0.019 U	0.019 U	0.017 U	0.018 U	0.02 U	0.018 U	0.017 U	0.09 U	0.02 U	0.018 U
DIMETHYL PHTHALATE	NA	NA	0.02 U	0.02 U	**0.19**	0.019 U	0.021 U	0.019 U	0.018 U	0.096 U	0.021 U	0.019 U
DI-N-BUTYL PHTHALATE	780	NA	0.018 U	0.017 U	0.016 U	0.017 U	0.018 U	0.017 U	0.016 U	0.084 U	0.018 U	0.017 U
FLUORANTHENE	310	NA	0.00066 U	0.00064 U	**0.8**	0.0038 U	0.004 U	**0.023**	**0.25**	**6.6**	0.004 U	0.0038 U
FLUORENE	310	NA	0.00063 U	0.00062 U	**0.021**	0.0038 U	0.004 U	0.0037 U	**0.017**	**0.47**	0.004 U	0.0038 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	**3.68**	0 U	0 U	**0.273**	**0.746**	**16.78**	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.00325**	**0.00318**	**3.6817**	**0.01585**	**0.01665**	**0.27485**	**0.7478**	**16.7895**	**0.01665**	**0.01585**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.00042 U	0.00041 U	**0.27**	0.0038 U	0.004 U	**0.03**	**0.041**	**0.63 J**	0.004 U	0.0038 U
ISOPHORONE	670	NA	0.016 U	0.015 U	0.013 U	0.015 U	0.016 U	0.014 U	0.014 U	0.073 U	0.016 U	0.015 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	**0.0044**	**0.0076**	**1.2403**	**0.004**	0 U	**0.023**	**0.391**	**10.8**	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.00691**	**0.010045**	**1.2403**	**0.0173**	**0.016**	**0.03595**	**0.3964**	**10.819**	**0.016**	**0.0152**
NAPHTHALENE	160	NA	**0.0044 J**	**0.0076 J**	**0.0084**	**0.004 J**	0.004 U	0.0037 U	0.0036 U	**0.03 J**	0.004 U	0.0038 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.0075 U	0.0073 U	0.028 U	0.031 U	0.033 U	0.03 U	0.029 U	0.15 U	0.033 U	0.031 U
PENTACHLOROPHENOL	5.3	NA	0.011 U	0.011 U	0.083 U	0.092 U	0.098 U	0.089 U	0.086 U	0.45 U	0.098 U	0.091 U
PHENANTHRENE	2300	NA	0.00087 U	0.00085 U	**0.3**	0.0038 U	0.004 U	0.0037 U	**0.08**	**2.5 J**	0.004 U	0.0038 U
PHENOL	2300	NA	0.0087 U	0.0085 U	0.028 U	0.031 U	0.033 U	0.03 U	0.029 U	0.15 U	0.033 U	0.031 U
PYRENE	230	NA	0.00053 U	0.00051 U	**0.74**	0.0038 U	0.004 U	**0.02**	**0.2**	**5**	0.004 U	0.0038 U
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.013 U	0.013 U	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1260	0.32	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR	0.32	NA	0 U	0 U	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR HALFND	0.32	NA	**0.05215**	**0.05215**	NA	NA	NA	NA	NA	NA	NA	NA
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.47 U	0.46 U	0.35 UL	0.35 UL	0.37 UL	0.4 UL	0.4 UL	0.4 UL	0.42 U	0.43 U
ARSENIC	0.43	3.6	**1.2 J**	**3.5**	**1.9**	**0.84 J**	**0.57 J**	**1.7**	**3**	**1.7**	6.2	**3.4**
BARIUM	1600	NA	**12 J**	**21**	**25**	**5.1 J**	**7.3 J**	**7.7 J**	**21**	**24**	**4.6 J**	**5.5 J**
BERYLLIUM	16	NA	0.37 U	0.082 U	**0.064 J**	0.039 U	**0.06 J**	0.044 U	**0.048 J**	**0.073 J**	0.046 U	0.047 U
CADMIUM	3.9	NA	0.021 U	**0.021 J**	**0.36 J**	0.033 U	0.034 U	0.037 U	0.037 U	0.037 U	0.039 U	0.04 U
CHROMIUM	23	28	**16**	**6.5**	**9.1**	**3.5**	**8.4**	**4.3**	**8.9**	**5.9**	**25**	**12**
COBALT	NA	NA	**4.2**	**0.77 J**	**1.5**	**0.16 J**	**0.17 J**	**0.64 J**	**2.6**	**2.1**	**0.34 J**	**0.35 J**
COPPER	310	NA	**13**	**6.1**	**68**	**1.6 J**	**5**	**2 J**	**4.4 L**	**2.6 L**	**5.2 L**	**4.1 L**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**3.7**	**4.5**	**24**	**1**	**2.2**	**1.8**	**4.8**	**3.7**	**2.2**	**2.2**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	0.018 U	0.019 U	**0.075 J**	**0.016 J**	**0.052 J**	**0.022 J**	**0.036 J**	**0.037 J**	**0.02 J**	**0.023 J**
MOLYBDENUM	NA	NA	**0.076 J**	**0.16 J**	**0.67 B**	**0.25 B**	0.26 U	0.28 U	**0.52 B**	**0.34 B**	**0.55 B**	**0.72 B**
NICKEL	160	NA	**8.5**	**1.3 J**	**4.3**	**0.44 J**	**0.72 J**	**0.92 J**	**4.2**	**3.3 J**	0.29 U	**0.79 J**
SELENIUM	39	NA	0.33 U	**0.36 J**	**0.41 J**	0.41 U	0.43 U	0.46 U	0.46 U	**0.55 J**	0.49 U	0.5 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-MW/SB-026I		GSP-MW-09		GSP-MW-10		GSP-MW-11		GSP-MW-12	
SAMPLE ID			GSP-SB-26I-30-32	GSP-SB-26I-8-10	GSP-MW-9-0-2	GSP-MW-9-8-10	GSP-MW-10-20-22	GSP-MW-10-2-4	GSP-MW-11-0-2	GSP-MW-11-2-4	GSP-MW-12-10-12	GSP-MW-12-2-4
			GSP-SB-26I-30-32	GSP-SB-26I-8-10	GSP-MW-9-0-2	GSP-MW-9-8-10	GSP-MW-10-20-22	GSP-MW-10-2-4	GSP-MW-11-0-2	GSP-MW-11-2-4	GSP-MW-12-10-12	GSP-MW-12-2-4
			REC=11	REC=11	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08
SAMPLE DATE	Maryland	ATCs	20160203	20160203	20120912	20120912	20120913	20120913	20120913	20120913	20120917	20120917
TOP DEPTH	Residential		30	8	0	8	20	2	0	2	10	2
BOTTOM DEPTH	Soil Standard		32	10	2	10	22	4	2	4	12	4
SILVER	39	NA	0.062 U	0.06 U	0.09 U	0.091 U	0.095 U	0.1 U	**1.3**	0.1 U	0.11 U	0.11 U
THALLIUM	0.55	3.9	0.13 U	0.12 U	**0.58 B**	0.5 UL	0.52 UL	0.57 UL	0.57 UL	0.56 UL	0.59 UL	0.61 UL
VANADIUM	7.8	30	**20**	**16**	**12 J**	**4.8 J**	**11 J**	**7.5 J**	**15 J**	**9.9 J**	**18**	**22**
ZINC	2300	NA	**9.1**	**11**	**63 K**	**1.7 J**	**2.7 J**	**6.3 K**	**15 K**	**12 K**	**2.4 J**	**3.6 J**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	230	NA	0.055 U	0.054 U	0.047 U	0.052 U	0.055 U	0.052 U	0.05 U	**0.051 J**	0.056 U	0.052 U
TPH (C10-C32)	230	NA	11 U	8.5 U	**50**	11 U	**13 B**	11 U	**17 J**	**60**	11 U	10 U
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-MW-13		GSP-MW-14		GSP-MW-15		GSP-MW-16		GSP-MW-17	
SAMPLE ID			GSP-MW-13-0-2 GSP-MW-13-0-2 REC=07	GSP-MW-13-2-4 GSP-MW-13-2-4 REC=07	GSP-MW-14-10-12 GSP-MW-14-10-12 REC=07	GSP-MW-14-8-10 GSP-MW-14-8-10 REC=07	GSP-MW-15-10-11 GSP-MW-15-10-11 REC=07	GSP-MW-15-6-8 GSP-MW-15-6-8 REC=07	GSP-MW-16-16-18 GSP-MW-16-16-18 REC=07	GSP-MW-16-2-4 GSP-MW-16-2-4 REC=07	GSP-MW-17-14-16 GSP-MW-17-14-16 REC=11	GSP-MW-17-24-26 GSP-MW-17-24-26 REC=11
SAMPLE DATE	Maryland	ATCs	20120913	20120913	20120914	20120914	20120917	20120917	20120914	20120914	20120911	20120911
TOP DEPTH	Residential		0	2	10	8	10	6	16	2	14	24
BOTTOM DEPTH	Soil Standard		2	4	12	10	11	8	18	4	16	26
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0013 U	0.0016 U	0.0014 U	0.0013 U	0.0013 U	0.0013 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U
1,1-DICHLOROETHENE	390	NA	0.00053 U	0.00064 U	**0.0009 J**	**0.006**	0.00052 U	0.00051 U	0.00048 U	0.00049 U	**0.00061 J**	0.00047 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00039 U	0.00047 U	0.00041 U	0.00037 U	0.00038 U	0.00037 U	0.00035 U	0.00036 U	0.00036 U	0.00034 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00017 U	0.00021 U	0.00018 U	0.00017 U	0.00017 U	0.00017 U	0.00016 U	0.00016 U	0.00016 U	0.00015 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00028 U	0.00033 U	0.00029 U	0.00027 U	0.00027 U	0.00026 U	0.00025 U	0.00025 U	0.00026 U	0.00024 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00066 U	0.0008 U	0.0007 U	0.00064 U	0.00064 U	0.00063 U	0.0006 U	0.00061 U	0.00062 U	0.00059 U
1,2-DICHLOROBENZENE	700	NA	0.00037 U	0.00044 U	0.00039 U	0.00035 U	0.00036 U	0.00035 U	0.00033 U	0.00034 U	0.00034 U	0.00032 U
1,2-DICHLOROETHANE	7	NA	0.00035 U	0.00042 U	0.00037 U	0.00033 U	0.00034 U	0.00033 U	0.00032 U	0.00032 U	**0.00035 J**	0.00031 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00036 U	0.00043 U	0.00038 U	0.00034 U	0.00035 U	0.00034 U	0.00033 U	0.00033 U	0.00033 U	0.00032 U
1,4-DICHLOROBENZENE	27	NA	0.00067 U	0.00082 U	0.00071 U	0.00065 U	0.00065 U	0.00064 U	0.00061 U	0.00062 U	0.00063 U	0.00059 U
2-BUTANONE	4700	NA	0.0014 U	0.0017 U	**0.0021 J**	**0.0032 J**	**0.0014 J**	**0.0015 J**	0.0013 U	**0.0057 J**	0.0013 U	0.0013 U
2-HEXANONE	NA	NA	0.00064 U	0.00078 U	0.00068 U	0.00062 U	0.00062 U	0.00062 U	0.00059 U	0.00059 U	0.0006 U	0.00057 U
4-ISOPROPYLTOLUENE	NA	NA	0.00021 U	0.00026 U	0.00023 U	0.00021 U	0.00021 U	0.00021 U	0.0002 U	0.0002 U	0.0002 U	0.00019 U
4-METHYL-2-PENTANONE	NA	NA	0.00055 U	0.00067 U	0.00058 U	0.00053 U	0.00054 U	0.00053 U	0.0005 U	0.00051 U	0.00051 U	0.00049 U
ACETONE	7000	NA	0.0064 U	0.0078 U	**0.033**	**0.15**	**0.18 B**	**0.014 B**	**0.072**	**0.14**	0.006 U	**0.054**
BENZENE	12	NA	0.00024 U	0.00028 U	0.00025 U	0.00023 U	0.00023 U	0.00022 U	0.00021 U	0.00022 U	0.00022 U	0.00021 U
BROMOMETHANE	11	NA	0.00055 U	0.00067 U	0.00058 U	0.00053 U	0.00054 U	0.00053 U	0.0005 U	0.00051 U	0.00051 U	0.00049 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00045 U	0.00054 U	0.00047 U	0.00043 U	0.00044 U	0.00043 U	0.00041 U	0.00041 U	0.00042 U	0.0004 U
CARBON TETRACHLORIDE	4.9	NA	0.00038 U	0.00046 U	0.0004 U	0.00036 U	0.00037 U	0.00036 U	0.00034 U	0.00035 U	0.00035 U	0.00033 U
CHLOROBENZENE	160	NA	0.00034 U	0.00041 U	0.00036 U	0.00032 U	0.00033 U	0.00032 U	0.00031 U	0.00031 U	0.00031 U	0.0003 U
CHLOROETHANE	220	NA	0.00088 U	0.0011 U	0.00093 U	0.00085 U	0.00085 U	0.00084 U	0.0008 U	0.00081 U	0.00082 U	0.00077 U
CHLOROFORM	78	NA	0.0003 U	0.00036 U	0.00031 U	0.00029 U	0.00029 U	0.00028 U	0.00027 U	0.00027 U	0.00028 U	0.00026 U
CHLOROMETHANE	NA	NA	0.00042 U	0.00051 U	0.00044 U	0.0004 U	0.00041 U	0.0004 U	0.00038 U	0.00039 U	0.00039 U	0.00037 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00037 U	0.00044 U	0.00039 U	0.00035 U	0.00036 U	0.00035 U	0.00033 U	0.00034 U	**0.0013 J**	0.00032 U
DIISOPROPYL ETHER	NA	NA	0.0015 U	0.0019 U	0.0016 U	0.0015 U	0.0015 U	0.0015 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U
ETHYLBENZENE	780	NA	0.00027 U	0.00032 U	0.00028 U	0.00026 U	0.00026 U	0.00025 U	0.00024 U	0.00024 U	0.00025 U	0.00023 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00016 U	0.0002 U	0.00017 U	0.00016 U	0.00016 U	0.00016 U	0.00015 U	0.00015 U	0.00015 U	0.00014 U
M+P-XYLENES	NA	NA	0.0012 U	0.0015 U	0.0013 U	0.0012 U	0.0012 U	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
METHYL TERT-BUTYL ETHER	160	NA	0.00044 U	0.00053 U	0.00046 U	0.00042 U	0.00043 U	0.00042 U	0.0004 U	0.0004 U	0.00041 U	0.00039 U
METHYLENE CHLORIDE	85	NA	0.00068 U	0.00083 U	0.00072 U	0.00066 U	0.00066 U	0.00065 U	0.00062 U	0.00063 U	0.00064 U	0.0006 U
NAPHTHALENE	160	NA	**0.00033 B**	**0.00036 B**	**0.00033 B**	**0.00027 B**	0.00019 U	0.00019 U	**0.0003 B**	**0.00028 B**	**0.0013 B**	**0.00023 B**
N-BUTYLBENZENE	NA	NA	0.00024 U	0.00028 U	0.00025 U	0.00023 U	0.00023 U	0.00022 U	0.00021 U	0.00022 U	0.00022 U	0.00021 U
N-PROPYLBENZENE	NA	NA	0.00041 U	0.00049 U	0.00043 U	0.00039 U	0.0004 U	0.00039 U	0.00037 U	0.00038 U	0.00038 U	0.00036 U
O-XYLENE	NA	NA	0.00036 U	0.00043 U	0.00038 U	0.00034 U	0.00035 U	0.00034 U	0.00033 U	0.00033 U	0.00033 U	0.00032 U
SEC-BUTYLBENZENE	NA	NA	0.00018 U	0.00022 U	0.00019 U	0.00018 U	0.00018 U	0.00018 U	0.00017 U	0.00017 U	0.00017 U	0.00016 U
STYRENE	1600	NA	0.00015 U	0.00019 U	0.00016 U	0.00015 U	0.00015 U	**0.00021 B**	0.00014 U	0.00014 U	0.00014 U	0.00014 U
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	0.0003 U	0.00036 U	0.00031 U	0.00029 U	0.00029 U	0.00028 U	0.00027 U	0.00027 U	0.00028 U	0.00026 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0078 UR	0.0094 UR	0.0082 UR	0.0075 UR	0.0075 UR	0.0074 UR	0.0071 UR	0.0072 UR	0.0072 UR	0.0068 UR
TETRACHLOROETHENE	1.2	NA	**0.001 J**	0.00064 U	0.00056 U	0.00051 U	0.00052 U	0.00051 U	**0.00053 J**	0.00049 U	0.00049 U	0.00047 U
TOLUENE	630	NA	**0.00075 J**	**0.0017 J**	**0.0032 J**	**0.00035 J**	0.00027 U	**0.0003 J**	0.00025 U	**0.001 J**	**0.0014 J**	**0.00025 J**
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00068 U	0.00083 U	0.00072 U	0.00066 U	0.00066 U	0.00065 U	0.00062 U	0.00063 U	0.00064 U	0.0006 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00042 U	0.00051 U	0.00044 U	0.0004 U	0.00041 U	0.0004 U	0.00038 U	0.00039 U	0.00039 U	0.00037 U
TRICHLOROETHENE	1.6	NA	**0.00049 J**	**0.00089 J**	**0.0011 J**	**0.00057 J**	0.00042 U	0.00041 U	**0.0013 J**	**0.0005 J**	**0.0024 J**	0.00038 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00035 U	0.00042 U	0.00037 U	0.00033 U	0.00034 U	0.00033 U	0.00032 U	0.00032 U	0.00032 U	0.00031 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.0004 U	0.00048 U	0.00042 U	0.00038 U	0.00039 U	0.00038 U	0.00036 U	0.00037 U	0.00037 U	0.00035 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.031 U	0.036 U	0.032 U	0.031 U	0.031 U	0.029 U	0.031 U	0.03 U	0.034 U	0.032 U
2,4-DICHLOROPHENOL	23	NA	0.023 U	0.027 U	0.024 U	0.023 U	0.023 U	0.021 U	0.023 U	0.022 U	0.025 U	0.024 U
2-CHLOROPHENOL	39	NA	0.031 U	0.036 U	0.032 U	0.031 U	0.031 U	0.029 U	0.031 U	0.03 U	0.034 U	0.032 U
2-METHYLNAPHTHALENE	31	NA	0.0037 U	0.0044 U	0.004 U	0.0038 U	0.0038 U	0.0035 U	0.0038 U	0.0037 U	0.0041 U	0.0039 U
3&4-METHYLPHENOL	NA	NA	0.023 U	0.027 U	0.024 U	0.023 U	0.023 U	0.021 U	0.023 U	0.022 U	0.025 U	0.024 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-MW-13		GSP-MW-14		GSP-MW-15		GSP-MW-16		GSP-MW-17	
SAMPLE ID			GSP-MW-13-0-2 GSP-MW-13-0-2 REC=07	GSP-MW-13-2-4 GSP-MW-13-2-4 REC=07	GSP-MW-14-10-12 GSP-MW-14-10-12 REC=07	GSP-MW-14-8-10 GSP-MW-14-8-10 REC=07	GSP-MW-15-10-11 GSP-MW-15-10-11 REC=07	GSP-MW-15-6-8 GSP-MW-15-6-8 REC=07	GSP-MW-16-16-18 GSP-MW-16-16-18 REC=07	GSP-MW-16-2-4 GSP-MW-16-2-4 REC=07	GSP-MW-17-14-16 GSP-MW-17-14-16 REC=11	GSP-MW-17-24-26 GSP-MW-17-24-26 REC=11
SAMPLE DATE	Maryland	ATCs	20120913	20120913	20120914	20120914	20120917	20120917	20120914	20120914	20120911	20120911
TOP DEPTH	Residential		0	2	10	8	10	6	16	2	14	24
BOTTOM DEPTH	Soil Standard		2	4	12	10	11	8	18	4	16	26
ACENAPHTHENE	470	NA	0.0037 U	0.0044 U	0.004 U	0.0038 U	0.0038 U	0.0035 U	0.0038 U	0.0037 U	0.0041 U	0.0039 U
ACENAPHTHYLENE	470	NA	0.0037 U	0.0044 U	0.004 U	0.0038 U	0.0038 U	0.0035 U	0.0038 U	0.0037 U	0.0041 U	0.0039 U
ANTHRACENE	2300	NA	0.0037 U	0.0044 U	0.004 U	0.0038 U	0.0038 U	0.0035 U	0.0038 U	0.0037 U	0.0041 U	0.0039 U
BAP EQUIVALENT-HALFND	NA	NA	0.0037 U	0.0044 U	**0.018907**	**0.01549**	0.0038 U	0.0035 U	0.0038 U	0.0037 U	0.0041 U	0.0039 U
BAP EQUIVALENT-POS	NA	NA	0.0037 U	0.0044 U	**0.016687**	**0.013**	0.0038 U	0.0035 U	0.0038 U	0.0037 U	0.0041 U	0.0039 U
BENZALDEHYDE	NA	NA	0.014 U	0.016 U	0.014 U	0.014 U	0.014 U	0.013 U	0.014 U	0.013 U	0.015 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	0.0037 U	0.0044 U	**0.0089**	0.0038 U	0.0038 U	0.0035 U	0.0038 U	0.0037 U	0.0041 U	0.0039 U
BENZO(A)PYRENE	0.022	NA	0.0037 U	0.0044 U	**0.015**	**0.013**	0.0038 U	0.0035 U	0.0038 U	0.0037 U	0.0041 U	0.0039 U
BENZO(B)FLUORANTHENE	0.22	NA	0.0037 U	0.0044 U	**0.0079 J**	0.0038 U	0.0038 U	0.0035 U	0.0038 U	0.0037 U	0.0041 U	0.0039 U
BENZO(G,H,I)PERYLENE	230	NA	0.0037 U	0.0044 U	0.004 U	0.0038 U	0.0038 U	0.0035 U	0.0038 U	0.0037 U	0.0041 U	0.0039 U
BENZO(K)FLUORANTHENE	2.2	NA	0.0037 U	0.0044 U	0.004 U	0.0038 U	0.0038 U	0.0035 U	0.0038 U	0.0037 U	0.0041 U	0.0039 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.022 U	0.026 U	0.023 U	0.022 U	0.022 U	0.02 U	**0.042 J**	0.021 U	0.024 U	0.022 U
BUTYL BENZYL PHTHALATE	NA	NA	0.011 U	0.013 U	0.012 U	0.012 U	0.011 U	0.011 U	0.012 U	0.011 U	0.012 U	0.012 U
CAPROLACTAM	NA	NA	0.042 U	0.05 U	0.044 U	0.043 U	0.042 U	0.04 U	0.043 U	0.041 U	0.046 U	0.044 U
CARBAZOLE	32	NA	0.031 U	0.036 U	0.032 U	0.031 U	0.031 U	0.029 U	0.031 U	0.03 U	0.034 U	0.032 U
CHRYSENE	22	NA	0.0012 U	0.0015 U	**0.0074 J**	0.0013 U	0.0013 U	0.0012 U	0.0013 U	0.0012 U	0.0014 U	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0037 U	0.0044 U	0.004 U	0.0038 U	0.0038 U	0.0035 U	0.0038 U	0.0037 U	0.0041 U	0.0039 U
DIBENZOFURAN	7.8	NA	0.0037 U	0.0044 U	0.004 U	0.0038 U	0.0038 U	0.0035 U	0.0038 U	0.0037 U	0.0041 U	0.0039 U
DIETHYL PHTHALATE	6300	NA	0.018 U	0.021 U	0.019 U	0.018 U	0.018 U	0.017 U	0.019 U	0.018 U	0.02 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.019 U	0.023 U	0.02 U	0.02 U	0.019 U	0.018 U	0.02 U	0.019 U	0.021 U	0.02 U
DI-N-BUTYL PHTHALATE	780	NA	0.017 U	0.02 U	0.018 U	0.017 U	0.017 U	0.016 U	0.017 U	0.017 U	0.019 U	0.018 U
FLUORANTHENE	310	NA	0.0037 U	0.0044 U	**0.019**	**0.009**	0.0038 U	0.0035 U	0.0038 U	0.0037 U	0.0041 U	0.0039 U
FLUORENE	310	NA	0.0037 U	0.0044 U	0.004 U	0.0038 U	0.0038 U	0.0035 U	0.0038 U	0.0037 U	0.0041 U	0.0039 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	**0.0542**	**0.0205**	0 U	0 U	0 U	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0154**	**0.01835**	**0.0622**	**0.03255**	**0.01585**	**0.0146**	**0.01585**	**0.0154**	**0.0171**	**0.01625**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.0037 U	0.0044 U	0.004 U	0.0038 U	0.0038 U	0.0035 U	0.0038 U	0.0037 U	0.0041 U	0.0039 U
ISOPHORONE	670	NA	0.015 U	0.017 U	0.016 U	0.015 U	0.015 U	0.014 U	0.015 U	0.014 U	0.016 U	0.015 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	**0.032**	**0.0145**	0 U	0 U	0 U	0 U	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0148**	**0.0176**	**0.044**	**0.0259**	**0.0152**	**0.014**	**0.0152**	**0.0148**	**0.0164**	**0.0156**
NAPHTHALENE	160	NA	0.0037 U	0.0044 U	0.004 U	0.0038 U	0.0038 U	0.0035 U	0.0038 U	0.0037 U	0.0041 U	0.0039 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.031 U	0.036 U	0.032 U	0.031 U	0.031 U	0.029 U	0.031 U	0.03 U	0.034 U	0.032 U
PENTACHLOROPHENOL	5.3	NA	0.091 U	0.11 U	0.096 U	0.092 U	0.091 U	0.086 U	0.093 U	0.089 U	0.1 U	0.094 U
PHENANTHRENE	2300	NA	0.0037 U	0.0044 U	**0.013**	**0.0055 J**	0.0038 U	0.0035 U	0.0038 U	0.0037 U	0.0041 U	0.0039 U
PHENOL	2300	NA	0.031 U	0.036 U	0.032 U	0.031 U	0.031 U	0.029 U	0.031 U	0.03 U	0.034 U	0.032 U
PYRENE	230	NA	0.0037 U	0.0044 U	**0.015**	**0.0075 J**	0.0038 U	0.0035 U	0.0038 U	0.0037 U	0.0041 U	0.0039 U
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1260	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR HALFND	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.42 UL	0.48 UL	**1.9 B**	0.42 UL	0.37 U	0.34 U	0.42 UL	0.39 UL	0.48 U	**0.48 B**
ARSENIC	0.43	3.6	**1.1 J**	0.37 U	**12**	**2.5**	**0.61 J**	**1.8**	**0.54 J**	**2.2**	0.37 U	**5.1**
BARIUM	1600	NA	**12 J**	**1.1 J**	**5.8 J**	**4.7 J**	**7.1 J**	**11 J**	**4.9 J**	**23**	**2.5 J**	**3.5 J**
BERYLLIUM	16	NA	0.046 U	0.053 U	0.044 U	0.046 U	0.041 U	**0.045 J**	0.046 U	**0.073 J**	0.053 U	0.042 U
CADMIUM	3.9	NA	0.039 U	0.044 U	0.037 U	**0.046 J**	0.034 U	0.031 U	**0.043 J**	0.036 U	0.044 U	0.035 U
CHROMIUM	23	28	**5**	**0.48 J**	**120**	**6.4**	**5.2**	**8.9**	**2.6**	**7.3**	**1.5 L**	**27**
COBALT	NA	NA	**0.74 J**	0.2 U	**2.2**	**0.54 J**	**0.16 J**	**1**	**0.34 J**	**2**	0.2 U	**0.27 J**
COPPER	310	NA	**2.4 J**	0.91 UL	**5.3**	**7.3**	**1.1 J**	**3.6 L**	**1.3 J**	**2.1 J**	0.9 U	**6.8**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**7.7**	**0.43 J**	**12**	**1.3**	**1.8**	**2.3**	**1.2**	**4.2**	**0.89 J**	**1.5**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	**0.037 J**	**0.019 J**	**0.022 J**	**0.026 J**	0.018 U	**0.017 J**	0.015 U	**0.028 J**	**0.02 J**	0.016 U
MOLYBDENUM	NA	NA	**0.39 B**	0.33 U	**1.1 J**	**0.51 B**	0.26 U	**0.31 B**	0.29 U	**0.37 B**	0.33 U	**0.54 B**
NICKEL	160	NA	**2.1 J**	0.33 U	**0.41 J**	**0.95 J**	0.26 U	**1.6 J**	**0.39 J**	**4.1**	0.33 U	**0.27 J**
SELENIUM	39	NA	0.49 U	0.55 U	**0.55 J**	0.48 U	0.43 U	0.39 U	0.48 U	0.45 U	0.55 U	0.44 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-MW-13		GSP-MW-14		GSP-MW-15		GSP-MW-16		GSP-MW-17	
SAMPLE ID			GSP-MW-13-0-2	GSP-MW-13-2-4	GSP-MW-14-10-12	GSP-MW-14-8-10	GSP-MW-15-10-11	GSP-MW-15-6-8	GSP-MW-16-16-18	GSP-MW-16-2-4	GSP-MW-17-14-16	GSP-MW-17-24-26
			GSP-MW-13-0-2	GSP-MW-13-2-4	GSP-MW-14-10-12	GSP-MW-14-8-10	GSP-MW-15-10-11	GSP-MW-15-6-8	GSP-MW-16-16-18	GSP-MW-16-2-4	GSP-MW-17-14-16	GSP-MW-17-24-26
			REC=07	REC=07	REC=07	REC=07	REC=07	REC=07	REC=07	REC=07	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20120913	20120913	20120914	20120914	20120917	20120917	20120914	20120914	20120911	20120911
TOP DEPTH	Residential		0	2	10	8	10	6	16	2	14	24
BOTTOM DEPTH	Soil Standard		2	4	12	10	11	8	18	4	16	26
SILVER	39	NA	0.11 U	0.12 U	0.1 U	0.11 U	0.095 U	0.087 U	**0.12 J**	0.1 U	0.12 UL	0.097 UL
THALLIUM	0.55	3.9	0.59 UL	0.68 UL	0.57 UL	0.59 UL	0.52 UL	0.48 UL	0.59 UL	0.55 UL	0.67 U	0.54 U
VANADIUM	7.8	30	**8.7 J**	**0.51 J**	**160 J**	**11 J**	**4.6**	**14**	**3.4 J**	**12 J**	**2.6**	**19**
ZINC	2300	NA	**12 K**	1.2 U	**3.1 J**	**3.9 J**	**1.2 J**	**4.5**	1.1 U	**9.5 K**	1.2 U	**1.2 J**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	230	NA	0.052 U	0.062 U	0.055 U	0.053 U	0.053 U	0.049 U	0.053 U	0.052 U	**0.063 B**	**0.059 B**
TPH (C10-C32)	230	NA	11 U	12 U	**15 B**	**14 B**	11 U	9.9 U	11 U	**11 B**	**13 B**	**16 B**
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-MW-18		GSP-MW-19		GSP-MW-20		GSP-SB-001		GSP-SB-002	
SAMPLE ID			GSP-MW-18-22-24	GSP-MW-18-28-30	GSP-MW-19-12-14	GSP-MW-19-14-16	GSP-MW-20-0-2	GSP-MW-20-4-6	GSP-SB-1-0-2	GSP-SB-1-20-22	GSP-SB-2-0-2	GSP-SB-2-23-25
			GSP-MW-18-22-24	GSP-MW-18-28-30	GSP-MW-19-12-14	GSP-MW-19-14-16	GSP-MW-20-0-2	GSP-MW-20-4-6	GSP-SB-1-0-2	GSP-SB-1-20-22	GSP-SB-2-0-2	GSP-SB-2-23-25
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=02	REC=02	REC=02	REC=02
SAMPLE DATE	Maryland	ATCs	20120911	20120911	20120912	20120912	20120912	20120912	20100506	20100506	20100506	20100506
TOP DEPTH	Residential		22	28	12	14	0	4	0	20	0	23
BOTTOM DEPTH	Soil Standard		24	30	14	16	2	6	2	22	2	25
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0013 U	0.0012 U	0.0016 U	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.0014 U
1,1-DICHLOROETHENE	390	NA	**0.00074 J**	0.00049 U	0.00065 U	0.00049 U	0.00056 U	0.00043 U	0.00047 U	0.00047 U	0.00043 U	0.00055 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00037 U	0.00036 U	0.00047 U	0.00036 UJ	0.00041 U	0.00031 U	0.00034 U	0.00034 U	0.00031 U	0.0004 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00017 U	0.00016 U	0.00021 U	0.00016 U	0.00018 U	**0.00015 J**	0.00015 U	0.00015 U	0.00014 U	0.00018 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00026 U	0.00025 U	0.00034 U	0.00026 UJ	0.00029 U	0.00022 U	0.00024 U	0.00024 U	0.00022 U	0.00028 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00064 U	0.00061 U	0.00081 U	0.00062 UJ	0.0007 U	0.00053 U	0.00059 U	0.00058 U	0.00053 U	0.00068 U
1,2-DICHLOROBENZENE	700	NA	0.00035 U	0.00034 U	0.00045 U	0.00034 UJ	0.00039 U	0.0003 U	0.00033 U	0.00032 U	0.0003 U	0.00038 U
1,2-DICHLOROETHANE	7	NA	**0.0054**	**0.0041 J**	0.00042 U	0.00032 U	0.00037 U	0.00028 U	0.00031 U	0.0003 U	0.00028 U	0.00036 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00034 U	0.00033 U	0.00044 U	0.00033 UJ	0.00038 U	0.00029 U	0.00032 U	0.00031 U	0.00029 U	0.00037 U
1,4-DICHLOROBENZENE	27	NA	0.00065 U	0.00062 U	0.00082 U	0.00063 UJ	0.00071 U	0.00054 U	0.0006 U	0.00059 U	0.00054 U	0.00069 U
2-BUTANONE	4700	NA	0.0014 U	0.0013 U	0.0017 U	**0.0057 J**	0.0015 U	**0.0046 J**	0.0013 U	0.0013 U	0.0011 U	**0.0017 J**
2-HEXANONE	NA	NA	0.00062 U	0.00059 U	0.00078 U	0.0006 U	0.00068 U	0.00052 U	0.00057 U	0.00056 U	0.00052 U	0.00066 U
4-ISOPROPYLTOLUENE	NA	NA	0.00021 U	0.0002 U	0.00026 U	0.0002 UJ	0.00023 U	0.00017 U	0.00019 U	0.00019 U	0.00017 U	0.00022 U
4-METHYL-2-PENTANONE	NA	NA	0.00053 U	0.00051 U	0.00067 U	0.00051 U	0.00058 U	0.00044 U	0.00049 U	0.00048 U	0.00044 U	0.00057 U
ACETONE	7000	NA	**0.015 B**	**0.0073 B**	**0.012 J**	**0.25**	**0.15**	**0.091**	**0.0072 B**	**0.018 B**	**0.01 B**	**0.026 B**
BENZENE	12	NA	**0.00028 J**	0.00022 U	0.00029 U	0.00022 U	0.00025 U	0.00019 U	0.00021 U	0.00021 U	0.00019 U	0.00024 U
BROMOMETHANE	11	NA	0.00053 U	0.00051 U	0.00067 U	0.00051 U	0.00058 U	0.00044 U	0.00049 U	0.00048 U	0.00044 U	0.00057 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00043 U	0.00041 U	0.00055 U	**0.0017 J**	0.00048 U	0.00036 U	0.0004 U	0.00039 U	0.00036 U	0.00046 U
CARBON TETRACHLORIDE	4.9	NA	0.00036 U	0.00035 U	0.00046 U	0.00035 U	0.0004 U	0.0003 U	0.00033 U	0.00033 U	0.0003 U	0.00039 U
CHLOROBENZENE	160	NA	0.00032 U	0.00031 U	0.00041 U	0.00031 U	0.00036 U	0.00027 U	0.0003 U	0.0003 U	0.00027 U	0.00035 U
CHLOROETHANE	220	NA	0.00084 U	0.00081 U	0.0011 U	0.00082 U	0.00093 U	0.0007 U	0.00078 U	0.00077 U	0.00071 U	0.00091 U
CHLOROFORM	78	NA	**0.00089 J**	0.00027 U	0.00036 U	0.00027 U	0.00031 U	0.00024 U	0.00026 U	0.00026 U	0.00024 U	0.00031 U
CHLOROMETHANE	NA	NA	0.0004 U	0.00039 U	0.00051 U	0.00039 U	0.00044 U	0.00034 U	0.00037 U	0.00037 U	0.00034 U	0.00043 U
CIS-1,2-DICHLOROETHENE	78	NA	**0.025**	**0.0099**	0.00045 U	0.00034 U	0.00039 U	0.0003 U	0.00033 U	0.00032 U	0.0003 U	0.00038 U
DIISOPROPYL ETHER	NA	NA	0.0015 U	0.0014 U	0.0019 U	0.0014 U	0.0016 U	0.0012 U	0.0014 U	0.0013 U	0.0012 U	0.0016 U
ETHYLBENZENE	780	NA	0.00025 U	0.00025 U	0.00032 U	0.00025 U	0.00028 U	0.00021 U	0.00024 U	0.00023 U	0.00021 U	0.00027 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00016 U	0.00015 U	0.0002 U	0.00015 U	0.00017 U	0.00013 U	0.00014 U	0.00014 U	0.00013 U	0.00017 U
M+P-XYLENES	NA	NA	0.0012 U	0.0011 U	0.0015 U	0.0011 U	0.0013 U	0.00098 U	0.0011 U	0.0011 U	0.00098 U	0.0013 U
METHYL TERT-BUTYL ETHER	160	NA	0.00042 U	0.00041 U	0.00053 U	0.00041 U	0.00046 U	0.00035 U	0.00039 U	0.00038 U	0.00035 U	**0.0074 J**
METHYLENE CHLORIDE	85	NA	0.00066 U	0.00063 U	0.00083 U	0.00064 U	0.00072 U	0.00055 U	0.00061 U	0.0006 U	0.00055 U	0.00071 U
NAPHTHALENE	160	NA	**0.0092**	**0.0014 B**	**0.00063 B**	**0.00083 B**	**0.00033 B**	**0.015**	0.00017 U	0.00017 U	0.00016 U	0.0002 U
N-BUTYLBENZENE	NA	NA	0.00023 U	0.00022 U	0.00029 U	0.00022 UJ	0.00025 U	0.00019 U	0.00021 U	0.00021 U	0.00019 U	0.00024 U
N-PROPYLBENZENE	NA	NA	0.00039 U	0.00038 U	0.0005 U	0.00038 UJ	0.00043 U	0.00033 U	0.00036 U	0.00036 U	0.00033 U	0.00042 U
O-XYLENE	NA	NA	0.00034 U	0.00033 U	0.00044 U	0.00033 U	0.00038 U	0.00029 U	0.00032 U	0.00031 U	0.00029 U	0.00037 U
SEC-BUTYLBENZENE	NA	NA	0.00018 U	0.00017 U	0.00022 U	0.00017 UJ	0.00019 U	0.00015 U	0.00016 U	0.00016 U	0.00015 U	0.00019 U
STYRENE	1600	NA	0.00015 U	0.00014 U	0.00019 U	0.00014 U	0.00016 U	0.00012 U	0.00014 U	0.00013 U	0.00012 U	0.00016 U
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	0.00033 U	0.00033 U	0.0003 U	0.00039 U
TERT-BUTYLBENZENE	NA	NA	0.00028 U	0.00027 U	0.00036 U	0.00027 UJ	0.00031 U	0.00024 U	0.00026 U	0.00026 U	0.00024 U	0.00031 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0075 UR	0.0072 UR	0.0095 UR	**0.01 J**	0.0082 UR	0.0062 UR	0.0069 UR	0.0068 UR	0.0062 UR	**0.013 J**
TETRACHLOROETHENE	1.2	NA	0.00051 U	0.00049 U	0.00065 U	0.00049 U	0.00056 U	0.00043 U	0.00047 U	0.00047 U	0.00043 U	0.00055 U
TOLUENE	630	NA	**0.0017 J**	**0.00099 J**	**0.00054 J**	**0.00032 J**	0.00029 U	**0.00023 J**	0.00024 U	0.00024 U	0.00022 U	0.00028 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00066 U	0.00063 U	0.00083 U	0.00064 U	0.00072 U	0.00055 U	0.00061 U	0.0006 U	0.00055 U	0.00071 U
TRANS-1,2-DICHLOROETHENE	160	NA	**0.00079 J**	0.00039 U	0.00051 U	0.00039 U	0.00044 U	0.00034 U	0.00037 U	0.00037 U	0.00034 U	0.00043 U
TRICHLOROETHENE	1.6	NA	**0.11**	**0.053**	0.00052 U	0.0004 U	0.00045 U	0.00034 U	0.00038 U	0.00038 U	0.00034 U	0.00044 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00033 U	0.00032 U	0.00042 U	0.00032 U	0.00037 U	0.00028 U	0.00031 U	0.0003 U	0.00028 U	0.00036 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	**0.004 J**	**0.0012 J**	0.00049 U	0.00037 U	0.00042 U	0.00032 U	0.00035 U	0.00035 U	0.00032 U	0.00041 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.031 U	0.031 U	0.033 U	0.031 U	0.03 U	0.062 U	0.031 U	0.034 U	0.03 U	0.036 U
2,4-DICHLOROPHENOL	23	NA	0.023 U	0.023 U	0.025 U	0.023 U	0.022 U	0.046 U	0.023 U	0.025 U	0.022 U	0.027 U
2-CHLOROPHENOL	39	NA	0.031 U	0.031 U	0.033 U	0.031 U	0.03 U	0.062 U	0.031 U	0.034 U	0.03 U	0.036 U
2-METHYLNAPHTHALENE	31	NA	0.0038 U	0.0038 U	0.0041 U	0.0038 U	**0.018**	**0.058**	0.0037 U	0.0041 U	0.0037 U	0.0044 U
3&4-METHYLPHENOL	NA	NA	0.023 U	0.023 U	0.025 U	0.023 U	0.022 U	0.046 U	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-MW-18		GSP-MW-19		GSP-MW-20		GSP-SB-001		GSP-SB-002	
SAMPLE ID			GSP-MW-18-22-24	GSP-MW-18-28-30	GSP-MW-19-12-14	GSP-MW-19-14-16	GSP-MW-20-0-2	GSP-MW-20-4-6	GSP-SB-1-0-2	GSP-SB-1-20-22	GSP-SB-2-0-2	GSP-SB-2-23-25
			GSP-MW-18-22-24	GSP-MW-18-28-30	GSP-MW-19-12-14	GSP-MW-19-14-16	GSP-MW-20-0-2	GSP-MW-20-4-6	GSP-SB-1-0-2	GSP-SB-1-20-22	GSP-SB-2-0-2	GSP-SB-2-23-25
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=02	REC=02	REC=02	REC=02
SAMPLE DATE	Maryland	ATCs	20120911	20120911	20120912	20120912	20120912	20120912	20100506	20100506	20100506	20100506
TOP DEPTH	Residential		22	28	12	14	0	4	0	20	0	23
BOTTOM DEPTH	Soil Standard		24	30	14	16	2	6	2	22	2	25
ACENAPHTHENE	470	NA	0.0038 U	0.0038 U	0.0041 U	0.0038 U	**0.059**	**0.15**	0.0037 U	0.0041 U	0.0037 U	0.0044 U
ACENAPHTHYLENE	470	NA	0.0038 U	0.0038 U	0.0041 U	0.0038 U	**0.014**	**0.011 J**	0.0037 U	0.0041 U	**0.0098**	0.0044 U
ANTHRACENE	2300	NA	0.0038 U	0.0038 U	0.0041 U	0.0038 U	**0.13**	**0.4**	0.0037 U	0.0041 U	**0.024**	0.0044 U
BAP EQUIVALENT-HALFND	NA	NA	0.0038 U	0.0038 U	0.0041 U	**0.0056**	**0.78111**	**0.92605**	**0.004929**	0.0041 U	**0.20623**	0.0044 U
BAP EQUIVALENT-POS	NA	NA	0.0038 U	0.0038 U	0.0041 U	**0.0014**	**0.78111**	**0.9223**	**0.00084**	0.0041 U	**0.20623**	0.0044 U
BENZALDEHYDE	NA	NA	0.014 U	0.014 U	0.015 U	0.014 U	0.013 U	0.027 U	0.014 U	0.015 U	0.013 U	0.016 U
BENZO(A)ANTHRACENE	0.22	NA	0.0038 U	0.0038 U	0.0041 U	0.0038 U	**0.57**	**0.84**	**0.0084**	0.0041 U	**0.14**	0.0044 U
BENZO(A)PYRENE	0.022	NA	0.0038 U	0.0038 U	0.0041 U	0.0038 U	**0.55**	**0.7**	0.0037 U	0.0041 U	**0.14**	0.0044 U
BENZO(B)FLUORANTHENE	0.22	NA	0.0038 U	0.0038 U	0.0041 U	**0.014**	**0.82**	**1.1**	0.0037 U	0.0041 U	**0.19**	0.0044 U
BENZO(G,H,I)PERYLENE	230	NA	0.0038 U	0.0038 U	0.0041 U	0.0038 U	**0.21 J**	**0.22 J**	0.0037 U	0.0041 U	**0.091**	0.0044 U
BENZO(K)FLUORANTHENE	2.2	NA	0.0038 U	0.0038 U	0.0041 U	0.0038 U	**0.35**	**0.45**	0.0037 U	0.0041 U	**0.069**	0.0044 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.022 U	0.022 U	**0.036 J**	**0.024 J**	0.021 U	**0.057 J**	0.022 U	0.024 U	**0.089**	**0.026 J**
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.011 U	**0.072 J**	0.012 U	0.011 U	0.023 U	0.011 U	0.012 U	0.011 U	0.013 U
CAPROLACTAM	NA	NA	0.043 U	0.042 U	0.046 U	0.043 U	0.041 U	0.084 U	0.042 U	0.046 U	0.041 U	0.049 U
CARBAZOLE	32	NA	0.031 U	0.031 U	0.033 U	0.031 U	**0.053 J**	**0.13**	0.031 U	0.034 U	0.03 U	0.036 U
CHRYSENE	22	NA	0.0013 U	0.0013 U	0.0014 U	0.0013 U	**0.61**	**0.8**	0.0012 U	0.0014 U	**0.14**	0.0015 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0038 U	0.0038 U	0.0041 U	0.0038 U	**0.069 J**	0.0075 U	0.0037 U	0.0041 U	**0.023**	0.0044 U
DIBENZOFURAN	7.8	NA	0.0038 U	0.0038 U	0.0041 U	0.0038 U	**0.022 J**	**0.094 J**	0.023 U	0.025 U	0.022 U	0.027 U
DIETHYL PHTHALATE	6300	NA	0.018 U	0.018 U	0.02 U	0.019 U	0.018 U	0.037 U	0.018 U	0.02 U	0.018 U	0.021 U
DIMETHYL PHTHALATE	NA	NA	0.02 U	0.019 U	0.021 U	0.02 U	0.019 U	0.039 U	0.019 U	0.021 U	0.019 U	0.023 U
DI-N-BUTYL PHTHALATE	780	NA	0.017 U	0.017 U	0.019 U	0.017 U	0.016 U	0.034 U	0.017 U	0.019 U	0.017 U	**0.02 J**
FLUORANTHENE	310	NA	0.0038 U	0.0038 U	**0.012**	0.0038 U	**1.2**	**1.9**	0.0037 U	0.0041 U	**0.28**	0.0044 U
FLUORENE	310	NA	0.0038 U	0.0038 U	0.0041 U	0.0038 U	**0.049**	**0.22**	0.0037 U	0.0041 U	0.0037 U	0.0044 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	**0.034**	**0.014**	**4.369**	**5.84**	**0.0084**	0 U	**1.117**	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	**0.0238**	0.01915 U	**1.397**	0.02055 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.01585**	**0.01585**	**0.04905**	**0.02795**	**4.369**	**5.84375**	**0.02195**	**0.0171**	**1.117**	**0.01835**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.0038 U	0.0038 U	0.0041 U	0.0038 U	**0.19**	**0.23**	0.0037 U	0.0041 U	**0.094**	0.0044 U
ISOPHORONE	670	NA	0.015 U	0.015 U	0.016 U	0.015 U	0.014 U	0.03 U	0.015 U	0.016 U	0.014 U	0.017 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	**0.012**	0 U	**2.053**	**4.226**	0 U	0 U	**0.4138**	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	0.01295 U	0.01435 U	**0.1412**	0.0154 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0152**	**0.0152**	**0.02635**	**0.0152**	**2.053**	**4.226**	**0.0148**	**0.0164**	**0.4212**	**0.0176**
NAPHTHALENE	160	NA	0.0038 U	0.0038 U	0.0041 U	0.0038 U	**0.023**	**0.087**	0.0037 U	0.0041 U	0.0037 U	0.0044 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.031 U	0.031 U	0.033 U	0.031 U	0.03 U	0.062 U	0.031 U	0.034 U	0.03 U	0.036 U
PENTACHLOROPHENOL	5.3	NA	0.092 U	0.091 U	0.099 U	0.093 U	0.088 U	0.18 U	0.091 U	0.099 U	0.089 U	0.11 U
PHENANTHRENE	2300	NA	0.0038 U	0.0038 U	0.0041 U	0.0038 U	**0.56**	**1.4**	0.0037 U	0.0041 U	**0.1**	0.0044 U
PHENOL	2300	NA	0.031 U	0.031 U	0.033 U	0.031 U	0.03 U	0.062 U	0.031 U	0.034 U	0.03 U	0.036 U
PYRENE	230	NA	0.0038 U	0.0038 U	**0.034**	0.0038 U	**1**	**1.5**	0.0037 U	0.0041 U	**0.23**	0.0044 U
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	**0.0084**	0 U	**1.5308**	0 U
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	**0.03675**	0.0335 U	**1.5382**	0.03595 U
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	**0.03675**	0.0335 U	**1.5382**	0.03595 U
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	NA	NA	NA	NA	NA	NA	0.015 U	0.016 U	0.014 U	0.017 U
AROCLOR-1260	0.32	NA	NA	NA	NA	NA	NA	NA	0.019 U	0.021 U	0.019 U	0.023 U
TOTAL AROCLOR	0.32	NA	NA	NA	NA	NA	NA	NA	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	NA	NA	NA	NA	NA	NA	**0.065**	**0.071**	**0.064**	**0.077**
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.49 B**	**0.65 B**	0.43 U	0.39 U	**0.71 B**	0.36 U	**0.072 B**	**1.2 J**	**0.17 J**	**0.037 B**
ARSENIC	0.43	3.6	**0.61 J**	**1.6**	**4.9**	**2**	**3.9**	**2.8**	**5 J**	**43.5 J**	**5.5 J**	**1.8 J**
BARIUM	1600	NA	**3.9 J**	**6.5 J**	**9.7 J**	**16 J**	**46**	**19**	**27.5 J**	**6.4 J**	**21.2 J**	**6.8 J**
BERYLLIUM	16	NA	0.05 U	0.041 U	**0.059 J**	**0.36 J**	**0.37 J**	**0.056 J**	**0.63**	**0.74 J**	**0.32**	**0.12 J**
CADMIUM	3.9	NA	0.042 U	0.034 U	0.039 U	**0.094 J**	**0.2 J**	**0.051 J**	**0.032 B**	**0.015 B**	**0.066 J**	**0.025 B**
CHROMIUM	23	28	**7.6**	**7.8**	**13**	**19**	**16**	**10**	**14.5 J**	**103 J**	**20.3 J**	**7.2 J**
COBALT	NA	NA	**0.35 J**	**0.61 J**	**1.5**	**13**	**4**	**1.3**	**12.1**	**3.7**	**3.6**	**2.8**
COPPER	310	NA	**1.5 J**	**2.7**	**4.4**	**20**	**16**	**9.6**	**11.3 J**	**35.6 J**	**19.2 J**	**7.8 J**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	**12100 J**	**102000 J**	**19900 J**	**5410 J**
LEAD	400	NA	**0.92 J**	**1.8**	**6.5**	**3.7**	**28**	**9.2**	**8.7**	**39**	**9.4**	**2.6**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	**124 J**	**16.7 J**	**27.7 J**	**4.1 J**
MERCURY	2.3	NA	0.016 U	**0.05 J**	0.017 U	0.016 U	**0.39**	**0.086 J**	**0.048 B**	**0.088 J**	**0.057 B**	**0.035 B**
MOLYBDENUM	NA	NA	0.31 U	0.26 U	0.3 U	**0.71 B**	0.25 U	**0.27 B**	**0.48**	**0.82**	**0.51**	**0.29**
NICKEL	160	NA	**0.38 J**	**0.63 J**	**4.9**	**16**	**7.7**	**2.7 J**	**12.5**	**8.3 K**	**5**	**3.3**
SELENIUM	39	NA	0.52 U	0.43 U	0.49 U	0.44 U	0.42 U	0.42 U	**0.81 J**	**2.9 J**	**1.1 J**	**0.4 J**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-MW-18		GSP-MW-19		GSP-MW-20		GSP-SB-001		GSP-SB-002	
SAMPLE ID			GSP-MW-18-22-24	GSP-MW-18-28-30	GSP-MW-19-12-14	GSP-MW-19-14-16	GSP-MW-20-0-2	GSP-MW-20-4-6	GSP-SB-1-0-2	GSP-SB-1-20-22	GSP-SB-2-0-2	GSP-SB-2-23-25
			GSP-MW-18-22-24 REC=11	GSP-MW-18-28-30 REC=11	GSP-MW-19-12-14 REC=11	GSP-MW-19-14-16 REC=11	GSP-MW-20-0-2 REC=11	GSP-MW-20-4-6 REC=11	GSP-SB-1-0-2 REC=02	GSP-SB-1-20-22 REC=02	GSP-SB-2-0-2 REC=02	GSP-SB-2-23-25 REC=02
SAMPLE DATE	Maryland	ATCs	20120911	20120911	20120912	20120912	20120912	20120912	20100506	20100506	20100506	20100506
TOP DEPTH	Residential		22	28	12	14	0	4	0	20	0	23
BOTTOM DEPTH	Soil Standard		24	30	14	16	2	6	2	22	2	25
SILVER	39	NA	0.12 UL	0.094 UL	0.11 UL	0.099 UL	**0.31 J**	0.093 UL	**0.037 B**	**0.029 B**	**0.031 B**	**0.0085 B**
THALLIUM	0.55	3.9	0.64 U	0.52 U	0.6 U	**0.67 J**	0.52 U	0.51 U	**0.16 B**	**0.094 B**	**0.1 B**	**0.059 B**
VANADIUM	7.8	30	**9.1**	**29**	**28**	34	**24**	**24**	**27.6 J**	133 J	37.4 J	**10.3 J**
ZINC	2300	NA	**1.9 J**	**3.5 J**	**25**	**100**	**48**	**20**	**41.7 L**	**19.9 L**	**20 L**	**7.1 L**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	**19**	**12**	**36**	**6 J**
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	0.032 U	0.035 U	0.031 U	0.037 U
TPH (C06-C10)	230	NA	0.053 U	0.053 U	**0.12 B**	**0.071 B**	**0.14 B**	**0.19 B**	NA	NA	NA	NA
TPH (C10-C32)	230	NA	**18 B**	**18 B**	**27 B**	**25 B**	**94**	**110**	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-003		GSP-SB-004		GSP-SB-005		GSP-SB-006			GSP-S
SAMPLE ID			GSP-SB-3-0-2	GSP-SB-3-22-24	GSP-SB-4-0-2	GSP-SB-4-22-24	GSP-SB-5-20-22	GSP-SB-5-5-7	GSP-SB-6-0-2	GSP-SB-6-23-25	GSP-SB-7-0-2	GSP-SB-7-23-25
			GSP-SB-3-0-2	GSP-SB-3-22-24	GSP-SB-4-0-2	GSP-SB-4-22-24	GSP-SB-5-20-22	GSP-SB-5-5-7	GSP-SB-6-0-2	GSP-SB-6-23-25	GSP-SB-7-0-2	GSP-SB-7-23-25
			REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=02
SAMPLE DATE	Maryland	ATCs	20100505	20100505	20100506	20100506	20100505	20100505	20100518	20100518	20100506	20100506
TOP DEPTH	Residential		0	22	0	22	20	5	0	23	0	23
BOTTOM DEPTH	Soil Standard		2	24	2	24	22	7	2	25	2	25
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0011 U	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.0012 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U
1,1-DICHLOROETHENE	390	NA	0.00044 U	0.00043 U	0.00046 U	0.00047 U	0.00044 U	0.00048 U	0.00043 U	0.00045 U	0.00048 U	0.00043 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00032 U	0.00031 U	0.00034 U	0.00034 U	0.00032 U	0.00035 U	0.00031 U	0.00033 U	0.00035 U	0.00032 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00015 U	0.00014 U	0.00015 U	0.00015 U	0.00014 U	0.00016 U	**0.009**	0.00015 U	0.00016 U	0.00014 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00023 U	0.00022 U	0.00024 U	0.00024 U	0.00023 U	0.00025 U	0.00022 U	0.00023 U	0.00025 U	0.00022 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00055 U	0.00054 U	0.00058 U	0.00058 U	0.00055 U	0.0006 U	**0.015**	0.00056 U	0.0006 U	0.00054 U
1,2-DICHLOROBENZENE	700	NA	0.00031 U	0.0003 U	0.00032 U	0.00032 U	0.0003 U	0.00033 U	0.0003 U	0.00031 U	0.00033 U	0.0003 U
1,2-DICHLOROETHANE	7	NA	0.00029 U	0.00028 U	0.0003 U	0.0003 U	0.00029 U	0.00032 U	0.00028 U	0.00029 U	0.00031 U	0.00028 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.0003 U	0.00029 U	0.00031 U	0.00031 U	0.00029 U	0.00032 U	0.00029 U	0.0003 U	0.00032 U	0.00029 U
1,4-DICHLOROBENZENE	27	NA	0.00056 U	0.00055 U	0.00059 U	0.00059 U	0.00055 U	0.00061 U	0.00055 U	0.00057 U	0.00061 U	0.00055 U
2-BUTANONE	4700	NA	0.0012 U	0.0012 U	0.0012 U	0.0013 U	0.0012 U	**0.028**	0.0012 U	0.0012 U	0.0013 U	0.0012 U
2-HEXANONE	NA	NA	0.00054 U	0.00052 U	0.00056 U	0.00056 U	0.00053 U	0.00058 U	0.00052 U	0.00054 U	0.00058 U	0.00052 U
4-ISOPROPYLTOLUENE	NA	NA	0.00018 U	0.00017 U	0.00019 U	0.00019 U	0.00018 U	0.00019 U	**0.0019 J**	0.00018 U	0.00019 U	0.00017 U
4-METHYL-2-PENTANONE	NA	NA	0.00046 U	0.00045 U	0.00048 U	0.00048 U	0.00045 U	0.0005 U	0.00045 U	0.00047 U	0.0005 U	0.00045 U
ACETONE	7000	NA	**0.012 B**	0.0052 U	**0.0088 B**	**0.01 B**	0.0053 U	**0.099**	0.0052 U	**0.0058 B**	**0.015 B**	**0.0086 B**
BENZENE	12	NA	0.0002 U	0.00019 U	0.00021 U	0.00021 U	0.00019 U	0.00021 U	0.00019 U	0.0002 U	0.00021 U	0.00019 U
BROMOMETHANE	11	NA	0.00046 U	0.00045 U	0.00048 U	0.00048 U	0.00045 U	0.0005 U	0.00045 U	0.00047 U	0.0005 U	0.00045 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00038 U	0.00036 U	0.00039 U	0.00039 U	0.00037 U	**0.00074 J**	**0.0018 J**	0.00038 U	0.0004 U	0.00037 U
CARBON TETRACHLORIDE	4.9	NA	0.00032 U	0.00031 U	0.00033 U	0.00033 U	0.00031 U	0.00034 U	0.00031 U	0.00032 U	0.00034 U	0.00031 U
CHLOROBENZENE	160	NA	0.00028 U	0.00027 U	0.00029 U	0.0003 U	0.00028 U	0.00031 U	0.00027 U	0.00029 U	0.0003 U	0.00027 U
CHLOROETHANE	220	NA	0.00073 U	0.00071 U	0.00077 U	0.00077 U	0.00072 U	0.0008 U	0.00071 U	0.00074 U	0.00079 U	0.00071 U
CHLOROFORM	78	NA	0.00025 U	0.00024 U	0.00026 U	0.00026 U	0.00024 U	0.00027 U	0.00024 U	0.00025 U	0.00027 U	0.00024 U
CHLOROMETHANE	NA	NA	0.00035 U	0.00034 U	0.00037 U	0.00037 U	0.00034 U	0.00038 U	0.00034 U	0.00035 U	0.00038 U	0.00034 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00031 U	0.0003 U	0.00032 U	0.00032 U	0.0003 U	0.00033 U	0.0003 U	0.00031 U	0.00033 U	0.0003 U
DIISOPROPYL ETHER	NA	NA	0.0013 U	0.0012 U	0.0013 U	0.0013 U	0.0013 U	0.0014 U	0.0012 U	0.0013 U	0.0014 U	0.0012 U
ETHYLBENZENE	780	NA	0.00022 U	0.00022 U	0.00023 U	0.00023 U	0.00022 U	0.00024 U	**0.00097 J**	0.00022 U	0.00024 U	0.00022 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00014 U	0.00013 U	0.00014 U	0.00014 U	0.00013 U	**0.0033 J**	**0.0022 J**	0.00014 U	0.00015 U	0.00013 U
M+P-XYLENES	NA	NA	0.001 U	0.00099 U	0.0011 U	0.0011 U	0.001 U	0.0011 U	**0.0017 J**	0.001 U	0.0011 U	0.001 U
METHYL TERT-BUTYL ETHER	160	NA	**0.0022 J**	0.00036 U	**0.00067 J**	0.00039 U	0.00036 U	**0.0064 J**	0.00036 U	0.00037 U	0.0004 U	0.00036 U
METHYLENE CHLORIDE	85	NA	0.00057 U	0.00055 U	0.0006 U	0.0006 U	0.00056 U	0.00062 U	**0.0018 B**	**0.0006 B**	0.00062 U	0.00056 U
NAPHTHALENE	160	NA	0.00016 U	0.00016 U	0.00017 U	0.00017 U	0.00016 U	0.00018 U	**0.0018 B**	0.00016 U	0.00017 U	0.00016 U
N-BUTYLBENZENE	NA	NA	0.0002 U	0.00019 U	0.00021 U	0.00021 U	0.00019 U	**0.0068**	0.00019 U	0.0002 U	0.00021 U	0.00019 U
N-PROPYLBENZENE	NA	NA	0.00034 U	0.00033 U	0.00036 U	0.00036 U	0.00034 U	**0.01**	**0.0024 J**	0.00035 U	0.00037 U	0.00033 U
O-XYLENE	NA	NA	0.0003 U	0.00029 U	0.00031 U	0.00031 U	0.00029 U	0.00032 U	**0.002 J**	0.0003 U	0.00032 U	0.00029 U
SEC-BUTYLBENZENE	NA	NA	0.00015 U	0.00015 U	0.00016 U	0.00016 U	0.00015 U	**0.011**	**0.0021 J**	0.00016 U	0.00017 U	0.00015 U
STYRENE	1600	NA	0.00013 U	0.00012 U	0.00013 U	0.00013 U	0.00013 U	0.00014 U	0.00012 U	0.00013 U	0.00014 U	0.00012 U
TERT-AMYL METHYL ETHER	NA	NA	0.00032 U	0.00031 U	0.00033 U	0.00033 U	0.00031 U	**0.0011 J**	0.00031 U	0.00032 U	0.00034 U	0.00031 U
TERT-BUTYLBENZENE	NA	NA	0.00025 U	0.00024 U	0.00026 U	0.00026 U	0.00024 U	**0.0019 J**	**0.0005 J**	0.00025 U	0.00027 U	0.00024 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0065 UR	0.0063 UR	0.0068 UR	0.0068 UR	0.0064 UR	0.007 UR	0.0063 UR	0.0066 UR	0.007 UR	0.0063 UR
TETRACHLOROETHENE	1.2	NA	0.00044 U	0.00043 U	0.00046 U	0.00047 U	0.00044 U	0.00048 U	0.00043 U	0.00045 U	0.00048 U	0.00043 U
TOLUENE	630	NA	0.00023 U	0.00022 U	0.00024 U	0.00024 U	0.00023 U	**0.00033 J**	**0.0011 J**	0.00023 U	0.00025 U	0.00022 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00057 U	0.00055 U	0.0006 U	0.0006 U	0.00056 U	**0.0009 B**	**0.0037 J**	0.00058 U	0.00062 U	0.00056 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00035 U	0.00034 U	0.00037 U	0.00037 U	0.00034 U	0.00038 U	0.00034 U	0.00035 U	0.00038 U	0.00034 U
TRICHLOROETHENE	1.6	NA	0.00036 U	0.00035 U	0.00037 U	0.00038 U	0.00035 U	0.00039 U	0.00035 U	0.00036 U	0.00039 U	0.00035 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00029 U	0.00028 U	0.0003 U	0.0003 U	0.00029 U	0.00032 U	0.00028 U	0.00029 U	0.00031 U	0.00028 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00033 U	0.00032 U	0.00035 U	0.00035 U	0.00033 U	0.00036 U	0.00032 U	0.00034 U	0.00036 U	0.00032 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.032 U	0.031 U	0.034 U	0.034 U	0.031 U	0.079 U	0.032 U	0.032 U	0.034 U	0.031 U
2,4-DICHLOROPHENOL	23	NA	0.024 U	0.023 U	0.025 U	0.025 U	0.023 UR	0.059 U	0.024 U	0.023 U	0.025 U	0.023 U
2-CHLOROPHENOL	39	NA	0.032 U	0.031 U	0.034 U	0.034 U	0.031 UR	0.079 U	0.032 U	0.032 U	0.034 U	0.031 U
2-METHYLNAPHTHALENE	31	NA	**0.027**	0.0038 U	0.0041 U	0.0041 U	0.0038 U	**0.022**	**0.025**	0.0039 U	0.0041 U	0.0038 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-003		GSP-SB-004		GSP-SB-005		GSP-SB-006			GSP-S
SAMPLE ID			GSP-SB-3-0-2	GSP-SB-3-22-24	GSP-SB-4-0-2	GSP-SB-4-22-24	GSP-SB-5-20-22	GSP-SB-5-5-7	GSP-SB-6-0-2	GSP-SB-6-23-25	GSP-SB-7-0-2	GSP-SB-7-23-25
			GSP-SB-3-0-2	GSP-SB-3-22-24	GSP-SB-4-0-2	GSP-SB-4-22-24	GSP-SB-5-20-22	GSP-SB-5-5-7	GSP-SB-6-0-2	GSP-SB-6-23-25	GSP-SB-7-0-2	GSP-SB-7-23-25
			REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=02
SAMPLE DATE	Maryland	ATCs	20100505	20100505	20100506	20100506	20100505	20100505	20100518	20100518	20100506	20100506
TOP DEPTH	Residential		0	22	0	22	20	5	0	23	0	23
BOTTOM DEPTH	Soil Standard		2	24	2	24	22	7	2	25	2	25
ACENAPHTHENE	470	NA	0.004 U	0.0038 U	0.0041 U	0.0041 U	0.0038 U	0.0097 U	**0.053**	0.0039 U	0.0041 U	0.0038 U
ACENAPHTHYLENE	470	NA	0.004 U	0.0038 U	0.0041 U	0.0041 U	0.0038 U	**0.025**	0.0039 U	0.0039 U	0.0041 U	0.0038 U
ANTHRACENE	2300	NA	0.004 U	0.0038 U	0.0041 U	0.0041 U	0.0038 U	**0.074**	0.0039 U	0.0039 U	0.0041 U	0.0038 U
BAP EQUIVALENT-HALFND	NA	NA	0.004 U	0.0038 U	0.0041 U	0.0041 U	0.0038 U	**0.51356**	**0.00516**	0.0039 U	0.0041 U	0.0038 U
BAP EQUIVALENT-POS	NA	NA	0.004 U	0.0038 U	0.0041 U	0.0041 U	0.0038 U	**0.51356**	**0.00085**	0.0039 U	0.0041 U	0.0038 U
BENZALDEHYDE	NA	NA	0.014 U	0.014 U	0.015 U	0.015 U	0.014 U	0.035 U	0.014 U	0.014 U	0.015 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	0.004 U	0.0038 U	0.0041 U	0.0041 U	0.0038 U	**0.32**	0.0039 U	0.0039 U	0.0041 U	0.0038 U
BENZO(A)PYRENE	0.022	NA	0.004 U	0.0038 U	0.0041 U	0.0041 U	0.0038 U	**0.34**	0.0039 U	0.0039 U	0.0041 U	0.0038 U
BENZO(B)FLUORANTHENE	0.22	NA	0.004 U	0.0038 U	0.0041 U	0.0041 U	0.0038 U	**0.39**	**0.0085**	0.0039 U	0.0041 U	0.0038 U
BENZO(G,H,I)PERYLENE	230	NA	0.004 U	0.0038 U	0.0041 U	0.0041 U	0.0038 U	**0.24**	0.0039 U	0.0039 U	0.0041 U	0.0038 U
BENZO(K)FLUORANTHENE	2.2	NA	0.004 U	0.0038 U	0.0041 U	0.0041 U	0.0038 U	**0.12**	0.0039 U	0.0039 U	0.0041 U	0.0038 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.023 U	0.022 U	0.024 U	0.024 U	**0.11**	**0.063 J**	0.022 U	0.022 U	0.024 U	**0.042 J**
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.029 U	0.012 U	0.012 U	0.012 U	0.012 U
CAPROLACTAM	NA	NA	0.044 U	0.043 U	0.047 U	0.046 U	0.043 U	0.11 U	0.044 U	0.043 U	0.046 U	0.043 U
CARBAZOLE	32	NA	0.032 U	0.031 U	0.034 U	0.034 U	0.031 U	0.079 U	**0.054 J**	0.032 U	0.034 U	0.031 U
CHRYSENE	22	NA	0.0013 U	0.0013 U	0.0014 U	0.0014 U	0.0013 U	**0.36**	0.0013 U	0.0013 U	0.0014 U	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.004 U	0.0038 U	0.0041 U	0.0041 U	0.0038 U	**0.08**	0.0039 U	0.0039 U	0.0041 U	0.0038 U
DIBENZOFURAN	7.8	NA	0.024 U	0.023 U	0.025 U	0.025 U	0.023 U	0.059 U	**0.03 J**	0.023 U	0.025 U	0.023 U
DIETHYL PHTHALATE	6300	NA	0.019 U	0.019 U	0.02 U	0.02 U	0.018 U	0.047 U	0.019 U	0.019 U	0.02 U	0.018 U
DIMETHYL PHTHALATE	NA	NA	0.02 U	0.02 U	0.021 U	0.021 U	0.02 U	0.05 U	0.02 U	0.02 U	0.021 U	0.02 U
DI-N-BUTYL PHTHALATE	780	NA	0.018 U	0.017 U	0.019 U	0.019 U	0.017 U	0.044 U	0.018 U	0.018 U	0.019 U	0.017 U
FLUORANTHENE	310	NA	0.004 U	0.0038 U	0.0041 U	0.0041 U	0.0038 U	**0.55**	**0.019**	0.0039 U	0.0041 U	0.0038 U
FLUORENE	310	NA	0.004 U	0.0038 U	0.0041 U	0.0041 U	0.0038 U	0.0097 U	**0.039**	0.0039 U	0.0041 U	0.0038 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	0 U	**2.72**	**0.0235**	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.01865 U	0.01775 U	0.01915 U	0.01915 U	0.01775 U	**3.27**	**0.05485**	0.0182 U	0.01915 U	0.01775 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.01665**	**0.01585**	**0.0171**	**0.0171**	**0.01585**	**2.72**	**0.03585**	**0.01625**	**0.0171**	**0.01585**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.004 U	0.0038 U	0.0041 U	0.0041 U	0.0038 U	**0.21**	0.0039 U	0.0039 U	0.0041 U	0.0038 U
ISOPHORONE	670	NA	0.016 U	0.015 U	0.016 U	0.016 U	0.015 U	0.038 U	0.015 U	0.015 U	0.016 U	0.015 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	**0.0481**	0 U	0 U	0 U	0 U	**0.932**	**0.25**	0 U	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**0.0561**	0.0133 U	0.01435 U	0.01435 U	0.0133 U	**0.3917**	**0.2349**	0.01365 U	0.01435 U	0.0133 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0581**	**0.0152**	**0.0164**	**0.0164**	**0.0152**	**0.9417**	**0.2539**	**0.0156**	**0.0164**	**0.0152**
NAPHTHALENE	160	NA	**0.013**	0.0038 U	0.0041 U	0.0041 U	0.0038 U	**0.031**	**0.078**	0.0039 U	0.0041 U	0.0038 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.032 U	0.031 U	0.034 U	0.034 U	0.031 U	0.079 U	0.032 U	0.032 U	0.034 U	0.031 U
PENTACHLOROPHENOL	5.3	NA	0.096 U	0.093 U	0.1 U	0.1 U	0.092 UR	0.23 U	0.095 U	0.093 U	0.099 U	0.092 U
PHENANTHRENE	2300	NA	**0.0081**	0.0038 U	0.0041 U	0.0041 U	0.0038 U	**0.23**	**0.036**	0.0039 U	0.0041 U	0.0038 U
PHENOL	2300	NA	0.032 U	0.031 U	0.034 U	0.034 U	0.031 UR	0.079 U	0.032 U	0.032 U	0.034 U	0.031 U
PYRENE	230	NA	0.004 U	0.0038 U	0.0041 U	0.0041 U	0.0038 U	**0.66**	**0.015**	0.0039 U	0.0041 U	0.0038 U
TOTAL PAHS	NA	NA	**0.0481**	0 U	0 U	0 U	0 U	**3.652**	**0.2735**	0 U	0 U	0 U
TOTAL PAHS ECO HALFND	NA	NA	**0.07475**	0.03105 U	0.0335 U	0.0335 U	0.03105 U	**3.6617**	**0.28975**	0.03185 U	0.0335 U	0.03105 U
TOTAL PAHS HALFND	NA	NA	**0.07475**	0.03105 U	0.0335 U	0.0335 U	0.03105 U	**3.6617**	**0.28975**	0.03185 U	0.0335 U	0.03105 U
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.016 U	0.015 U	0.016 U	0.016 U	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U	0.015 U
AROCLOR-1260	0.32	NA	0.02 U	0.02 U	0.021 U	0.021 U	0.02 U	0.02 U	0.02 U	0.02 UJ	0.021 U	0.02 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.0685**	**0.067**	**0.0715**	**0.071**	**0.0665**	**0.0675**	**0.068**	**0.0675**	**0.071**	**0.0665**
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.14 J**	**0.035 J**	**0.1 J**	**0.038 B**	**0.024 J**	0.063 UR	**0.081 B**	**0.054 B**	**0.11 J**	**0.023 B**
ARSENIC	0.43	3.6	**5.4 L**	**6.4 L**	**7.3 J**	**4.4 J**	**0.85 L**	**2 L**	**4 J**	**2.2 J**	**5.1 J**	**0.8 J**
BARIUM	1600	NA	**25.2**	**5.8**	**17.4 J**	**4.9 J**	**8**	**18.1**	**64 J**	**5.3 J**	**10.3 J**	**10.6 J**
BERYLLIUM	16	NA	**0.49 J**	**0.071 J**	**0.84**	**0.13**	**0.1 J**	**0.22 K**	**1 J**	**0.11 J**	**0.2**	**0.3**
CADMIUM	3.9	NA	**0.01 B**	**0.076 J**	**0.017 B**	**0.024 B**	0.0029 U	**0.082 J**	**0.017 B**	**0.012 B**	**0.012 B**	**0.0029 B**
CHROMIUM	23	28	**10.9**	**2.3**	**24.9 J**	**5.7 J**	**4.2**	**10.2**	**14.9 J**	**14.3 J**	**13.4 J**	**8.5 J**
COBALT	NA	NA	**2.4 J**	**14.5 J**	**9.1**	**120**	**3.3 J**	**6.3 J**	**22.9 J**	**92 J**	**0.76**	**3.3**
COPPER	310	NA	**12.5**	**2.1**	**16.7 J**	**18 J**	**7.5**	**7.3**	**10.2 J**	**24.1 J**	**21 J**	**4.2 J**
IRON	5500	15000	**8300**	**633**	**12800 J**	**1040 J**	**1110**	**5450**	**13600 J**	**942 J**	**3590 J**	**3030 J**
LEAD	400	NA	**10.3**	**2.5**	**7.6**	**9.6**	**2.2**	**7.4**	**7.1**	**4.4**	**5.6**	**3.8**
MANGANESE	160	480	**32.8 J**	**10.1 J**	**34.7 J**	**22.8 J**	**10.3 J**	**70.2 J**	**415 J**	**7.1 J**	**3.2 J**	**105 J**
MERCURY	2.3	NA	0.02 U	**0.21**	**0.023 B**	**0.042 B**	**0.036 J**	**0.034 J**	0.02 UL	0.019 UL	0.021 U	**0.11 J**
MOLYBDENUM	NA	NA	**0.12 B**	**0.093 B**	**0.22 J**	**0.047 B**	**0.076 B**	**0.29**	**0.49**	**0.43**	**0.44**	**0.059 B**
NICKEL	160	NA	**2.8**	**10.5**	**14.5**	**128**	**3.6**	**3.6**	**10.8 J**	**59.7 J**	**1.3**	**5.1**
SELENIUM	39	NA	**1 J**	**1.1 J**	**1.5 J**	**0.46 J**	**0.46 J**	**0.46 J**	**1 J**	**0.54 J**	**1.2 J**	**0.95 J**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-003		GSP-SB-004		GSP-SB-005		GSP-SB-006			GSP-S
SAMPLE ID			GSP-SB-3-0-2	GSP-SB-3-22-24	GSP-SB-4-0-2	GSP-SB-4-22-24	GSP-SB-5-20-22	GSP-SB-5-5-7	GSP-SB-6-0-2	GSP-SB-6-23-25	GSP-SB-7-0-2	GSP-SB-7-23-25
			GSP-SB-3-0-2	GSP-SB-3-22-24	GSP-SB-4-0-2	GSP-SB-4-22-24	GSP-SB-5-20-22	GSP-SB-5-5-7	GSP-SB-6-0-2	GSP-SB-6-23-25	GSP-SB-7-0-2	GSP-SB-7-23-25
			REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=02
SAMPLE DATE	Maryland	ATCs	20100505	20100505	20100506	20100506	20100505	20100505	20100518	20100518	20100506	20100506
TOP DEPTH	Residential		0	22	0	22	20	5	0	23	0	23
BOTTOM DEPTH	Soil Standard		2	24	2	24	22	7	2	25	2	25
SILVER	39	NA	0.013 B	0.01 B	0.041 B	0.045 B	0.022 B	0.021 B	0.02 J	0.026 J	0.013 B	0.012 B
THALLIUM	0.55	3.9	0.21	0.069 B	0.16 B	0.25 B	0.066 B	0.3 U	0.097 B	0.082 B	0.13 B	0.087 B
VANADIUM	7.8	30	17.3	6.3	44 J	10.1 J	8.9	16.1	25.1	9.2	50.9 J	8.4 J
ZINC	2300	NA	18.3	57.3	18.8 L	12.9 L	3.6	14.3	40.2 J	4.6 B	4.3 L	6.5 L
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	17	3.3 UJ	12 J	7.4 J	5 J	100	12	15	3.5 U	9.4 J
GASOLINE RANGE ORGANICS	230	NA	0.034 U	0.033 U	0.035 U	0.035 U	0.032 U	21 J	0.035 J	0.033 U	0.035 U	0.032 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-007		GSP-SB-008		GSP-SB-009		GSP-SB-010		GSP-SB-011	
SAMPLE ID			GSP-SB-7-23-25-AVG	GSP-SB-7-23-25-D	GSP-SB-8-0-2	GSP-SB-8-20-22	GSP-SB-9-0-2	GSP-SB-9-20-22	GSP-SB-10-0-2	GSP-SB-10-23-25	GSP-SB-11-0-2	GSP-SB-11-22-25
			GSP-SB-7-23-25-AVG	GSP-SB-7-23-25-D	GSP-SB-8-0-2	GSP-SB-8-20-22	GSP-SB-9-0-2	GSP-SB-9-20-22	GSP-SB-10-0-2	GSP-SB-10-23-25	GSP-SB-11-0-2	GSP-SB-11-22-25
			REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=03	REC=03
SAMPLE DATE	Maryland	ATCs	20100506	20100506	20100506	20100506	20100430	20100430	20100505	20100505	20100430	20100430
TOP DEPTH	Residential		23	23	0	20	0	20	0	23	0	22
BOTTOM DEPTH	Soil Standard		25	25	2	22	2	22	2	25	2	25
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.00105 U	0.001 U	0.0012 U	0.001 U	0.0012 U	0.0011 U	0.0011 U	0.001 U	0.0014 U	0.0012 U
1,1-DICHLOROETHENE	390	NA	0.000425 U	0.00042 U	0.00046 U	0.00041 U	0.00047 U	0.00043 U	0.00044 U	0.0004 U	0.00055 U	0.00046 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.000315 U	0.00031 U	0.00034 U	0.0003 U	0.00034 U	0.00031 U	0.00032 U	0.00029 U	0.0004 U	0.00034 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00014 U	0.00014 U	0.00015 U	0.00013 U	0.00015 U	0.00014 U	0.00014 U	0.00013 U	0.00018 U	0.00015 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00022 U	0.00022 U	0.00024 U	0.00021 U	0.00024 U	0.00022 U	0.00023 U	0.00021 U	0.00029 U	0.00024 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00053 U	0.00052 U	0.00058 U	0.00051 U	0.00059 U	0.00054 U	0.00055 U	0.0005 U	0.00069 U	0.00058 U
1,2-DICHLOROBENZENE	700	NA	0.000295 U	0.00029 U	0.00032 U	0.00028 U	0.00032 U	0.0003 U	0.0003 U	0.00028 U	0.00038 U	0.00032 U
1,2-DICHLOROETHANE	7	NA	0.000275 U	0.00027 U	0.0003 U	0.00027 U	0.00031 U	0.00028 U	0.00029 U	0.00026 U	0.00036 U	0.0003 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.000285 U	0.00028 U	0.00031 U	0.00028 U	0.00032 U	0.00029 U	0.00029 U	0.00027 U	0.00037 U	0.00031 U
1,4-DICHLOROBENZENE	27	NA	0.00054 U	0.00053 U	0.00059 U	0.00052 U	0.0006 U	0.00055 U	0.00055 U	0.00051 U	0.0007 U	0.00058 U
2-BUTANONE	4700	NA	0.00115 U	0.0011 U	0.0012 U	0.0011 U	0.0013 U	0.0012 U	0.0012 U	0.0011 U	0.0015 U	0.0012 U
2-HEXANONE	NA	NA	0.000515 U	0.00051 U	**0.00066 B**	0.0005 U	0.00057 U	0.00052 U	0.00053 U	0.00049 U	**0.0008 B**	0.00056 U
4-ISOPROPYLTOLUENE	NA	NA	0.00017 U	0.00017 U	0.00019 U	0.00017 U	0.00019 U	0.00017 U	0.00018 U	0.00016 U	0.00022 U	0.00019 U
4-METHYL-2-PENTANONE	NA	NA	0.00044 U	0.00043 U	**0.00072 B**	0.00043 U	0.00049 U	0.00045 U	0.00045 U	0.00042 U	0.00057 U	0.00048 U
ACETONE	7000	NA	0.0077 U	**0.0068 B**	**0.012 B**	**0.0094 B**	0.0057 U	0.0052 U	**0.012 B**	**0.0058 B**	0.0067 U	0.0056 U
BENZENE	12	NA	0.00019 U	0.00019 U	0.0002 U	0.00018 U	0.00021 U	0.00019 U	**0.00039 J**	0.00018 U	0.00024 U	0.0002 U
BROMOMETHANE	11	NA	0.00044 U	0.00043 U	0.00048 U	0.00043 U	0.00049 U	0.00045 U	0.00045 U	0.00042 U	0.00057 U	0.00048 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00036 U	0.00035 U	0.00039 U	0.00035 U	0.0004 U	0.00036 U	**0.0006 J**	0.00034 U	0.00047 U	0.00039 U
CARBON TETRACHLORIDE	4.9	NA	0.000305 U	0.0003 U	0.00033 U	0.00029 U	0.00033 U	0.00031 U	0.00031 U	0.00029 U	0.00039 U	0.00033 U
CHLOROBENZENE	160	NA	0.00027 U	0.00027 U	0.00029 U	0.00026 U	0.0003 U	0.00027 U	0.00028 U	0.00026 U	0.00035 U	0.00029 U
CHLOROETHANE	220	NA	0.0007 U	0.00069 U	0.00076 U	0.00068 U	0.00078 U	0.00071 U	0.00072 U	0.00067 U	0.00091 U	0.00076 U
CHLOROFORM	78	NA	0.000235 U	0.00023 U	0.00026 U	0.00023 U	0.00026 U	0.00024 U	0.00024 U	0.00022 U	0.00031 U	0.00026 U
CHLOROMETHANE	NA	NA	0.000335 U	0.00033 U	0.00036 U	0.00032 U	0.00037 U	0.00034 U	0.00034 U	0.00032 U	0.00044 U	0.00036 U
CIS-1,2-DICHLOROETHENE	78	NA	0.000295 U	0.00029 U	0.00032 U	0.00028 U	0.00032 U	0.0003 U	0.0003 U	0.00028 U	0.00038 U	0.00032 U
DIISOPROPYL ETHER	NA	NA	0.0012 U	0.0012 U	0.0013 U	0.0012 U	0.0014 U	0.0012 U	0.0013 U	0.0012 U	0.0016 U	0.0013 U
ETHYLBENZENE	780	NA	0.000215 U	0.00021 U	0.00023 U	0.00021 U	0.00023 U	0.00022 U	0.00022 U	0.0002 U	0.00028 U	0.00023 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00013 U	0.00013 U	0.00014 U	0.00013 U	0.00014 U	0.00013 U	0.00013 U	0.00012 U	0.00017 U	0.00014 U
M+P-XYLENES	NA	NA	0.000985 U	0.00097 U	0.0011 U	0.00095 U	0.0011 U	0.00099 U	0.001 U	0.00093 U	0.0013 U	0.0011 U
METHYL TERT-BUTYL ETHER	160	NA	0.000355 U	0.00035 U	0.00038 U	0.00034 U	0.00039 U	0.00036 U	0.00036 U	0.00033 U	0.00046 U	0.00038 U
METHYLENE CHLORIDE	85	NA	0.00055 U	0.00054 U	0.00059 U	0.00053 U	0.0006 U	0.00056 U	0.00056 U	0.00052 U	0.00071 U	0.00059 U
NAPHTHALENE	160	NA	0.000155 U	0.00015 U	**0.0003 B**	0.00015 U	0.00017 U	0.00016 U	0.00016 U	0.00015 U	0.0002 U	0.00017 U
N-BUTYLBENZENE	NA	NA	0.00019 U	0.00019 U	0.0002 U	0.00018 U	0.00021 U	0.00019 U	0.00019 U	0.00018 U	0.00024 U	0.0002 U
N-PROPYLBENZENE	NA	NA	0.000325 U	0.00032 U	0.00035 U	0.00032 U	0.00036 U	0.00033 U	0.00034 U	0.00031 U	0.00042 U	0.00035 U
O-XYLENE	NA	NA	0.000285 U	0.00028 U	0.00031 U	0.00028 U	0.00032 U	0.00029 U	0.00029 U	0.00027 U	0.00037 U	0.00031 U
SEC-BUTYLBENZENE	NA	NA	0.000145 U	0.00014 U	0.00016 U	0.00014 U	0.00016 U	0.00015 U	0.00015 U	0.00014 U	0.00019 U	0.00016 U
STYRENE	1600	NA	0.00012 U	0.00012 U	0.00013 U	0.00012 U	0.00014 U	0.00012 U	0.00013 U	0.00012 U	0.00016 U	0.00013 U
TERT-AMYL METHYL ETHER	NA	NA	0.000305 U	0.0003 U	0.00033 U	0.00029 U	0.00033 U	0.00031 U	0.00031 U	0.00029 U	0.00039 U	0.00033 U
TERT-BUTYLBENZENE	NA	NA	0.000235 U	0.00023 U	0.00026 U	0.00023 U	0.00026 U	0.00024 U	0.00024 U	0.00022 U	0.00031 U	0.00026 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0062 R	0.0061 UR	0.0067 UR	0.006 UR	0.0069 UR	0.0063 UR	0.0064 UR	0.0059 UR	0.0081 UR	0.0067 UR
TETRACHLOROETHENE	1.2	NA	0.000425 U	0.00042 U	0.00046 U	0.00041 U	0.00047 U	0.00043 U	0.00044 U	0.0004 U	0.00055 U	0.00046 U
TOLUENE	630	NA	0.00022 U	0.00022 U	0.00024 U	0.00021 U	0.00024 U	0.00022 U	0.00023 U	0.00021 U	0.00029 U	0.00024 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00055 U	0.00054 U	0.00059 U	0.00053 U	0.0006 U	0.00056 U	0.00056 U	0.00052 U	0.00071 U	0.00059 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.000335 U	0.00033 U	0.00036 U	0.00032 U	0.00037 U	0.00034 U	0.00034 U	0.00032 U	0.00044 U	0.00036 U
TRICHLOROETHENE	1.6	NA	0.000345 U	0.00034 U	0.00037 U	0.00033 U	0.00038 U	0.00035 U	0.00035 U	0.00033 U	0.00045 U	0.00037 U
TRICHLOROFLUOROMETHANE	NA	NA	0.000275 U	0.00027 U	0.0003 U	0.00027 U	0.00031 U	0.00028 U	0.00029 U	0.00026 U	0.00036 U	0.0003 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.000315 U	0.00031 U	0.00035 U	0.00031 U	0.00035 U	0.00032 U	0.00033 U	0.0003 U	0.00041 U	0.00035 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.031 U	0.031 U	0.032 U	0.031 U	0.032 U	0.032 U	0.031 U	0.032 U	0.031 U	0.032 U
2,4-DICHLOROPHENOL	23	NA	0.023 U	0.023 U	0.024 U	0.023 U	0.023 U	0.024 U	0.023 U	0.024 U	0.023 U	0.024 U
2-CHLOROPHENOL	39	NA	0.031 U	0.031 U	0.032 U	0.031 U	0.032 U	0.032 U	0.031 U	0.032 U	0.031 U	0.032 U
2-METHYLNAPHTHALENE	31	NA	0.00375 U	0.0037 U	0.004 U	0.0038 U	**0.01**	0.0039 U	0.0038 U	0.0039 U	0.0038 U	0.0039 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-007		GSP-SB-008		GSP-SB-009		GSP-SB-010		GSP-SB-011	
SAMPLE ID			GSP-SB-7-23-25-AVG	GSP-SB-7-23-25-D	GSP-SB-8-0-2	GSP-SB-8-20-22	GSP-SB-9-0-2	GSP-SB-9-20-22	GSP-SB-10-0-2	GSP-SB-10-23-25	GSP-SB-11-0-2	GSP-SB-11-22-25
			GSP-SB-7-23-25-AVG	GSP-SB-7-23-25-D	GSP-SB-8-0-2	GSP-SB-8-20-22	GSP-SB-9-0-2	GSP-SB-9-20-22	GSP-SB-10-0-2	GSP-SB-10-23-25	GSP-SB-11-0-2	GSP-SB-11-22-25
			REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=03	REC=03
SAMPLE DATE	Maryland	ATCs	20100506	20100506	20100506	20100506	20100430	20100430	20100505	20100505	20100430	20100430
TOP DEPTH	Residential		23	23	0	20	0	20	0	23	0	22
BOTTOM DEPTH	Soil Standard		25	25	2	22	2	22	2	25	2	25
ACENAPHTHENE	470	NA	0.00375 U	0.0037 U	0.004 U	0.0038 U	**0.034**	0.0039 U	0.0038 U	0.0039 U	0.0038 U	0.0039 U
ACENAPHTHYLENE	470	NA	0.00375 U	0.0037 U	0.004 U	0.0038 U	0.0039 U	0.0039 U	0.0038 U	0.0039 U	0.0038 U	0.0039 U
ANTHRACENE	2300	NA	0.00375 U	0.0037 U	0.004 U	0.0038 U	**0.059**	0.0039 U	0.0038 U	0.0039 U	0.0038 U	0.0039 U
BAP EQUIVALENT-HALFND	NA	NA	0.00375 U	0.0037 U	**0.005261**	0.0038 U	**0.34456**	0.0039 U	0.0038 U	0.0039 U	**0.026739**	0.0039 U
BAP EQUIVALENT-POS	NA	NA	0.00375 U	0.0037 U	**0.00084**	0.0038 U	**0.34456**	0.0039 U	0.0038 U	0.0039 U	**0.024839**	0.0039 U
BENZALDEHYDE	NA	NA	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	0.00375 U	0.0037 U	**0.0084**	0.0038 U	**0.24**	0.0039 U	0.0038 U	0.0039 U	**0.016**	0.0039 U
BENZO(A)PYRENE	0.022	NA	0.00375 U	0.0037 U	0.004 U	0.0038 U	**0.24**	0.0039 U	0.0038 U	0.0039 U	**0.02**	0.0039 U
BENZO(B)FLUORANTHENE	0.22	NA	0.00375 U	0.0037 U	0.004 U	0.0038 U	**0.34**	0.0039 U	0.0038 U	0.0039 U	**0.018**	0.0039 U
BENZO(G,H,I)PERYLENE	230	NA	0.00375 U	0.0037 U	0.004 U	0.0038 U	**0.15**	0.0039 U	0.0038 U	0.0039 U	**0.022**	0.0039 U
BENZO(K)FLUORANTHENE	2.2	NA	0.00375 U	0.0037 U	0.004 U	0.0038 U	**0.13**	0.0039 U	0.0038 U	0.0039 U	**0.012**	0.0039 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.0265**	0.022 U	**0.18**	0.022 U	**0.027 J**	0.022 U	0.022 U	0.022 U	0.022 U	0.023 U
BUTYL BENZYL PHTHALATE	NA	NA	0.0115 U	0.011 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.011 U	0.012 U
CAPROLACTAM	NA	NA	0.0425 U	0.042 U	0.044 U	0.043 U	0.043 U	0.044 U	0.043 U	0.043 U	0.042 U	0.044 U
CARBAZOLE	32	NA	0.031 U	0.031 U	0.032 U	0.031 U	**0.035 J**	0.032 U	0.031 U	0.032 U	0.031 U	0.032 U
CHRYSENE	22	NA	0.00125 U	0.0012 U	0.0013 U	0.0013 U	**0.26**	0.0013 U	0.0013 U	0.0013 U	**0.019**	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.00375 U	0.0037 U	0.004 U	0.0038 U	**0.032**	0.0039 U	0.0038 U	0.0039 U	0.0038 U	0.0039 U
DIBENZOFURAN	7.8	NA	0.023 U	0.023 U	0.024 U	0.023 U	0.023 U	0.024 U	0.023 U	0.024 U	0.023 U	0.024 U
DIETHYL PHTHALATE	6300	NA	0.018 U	0.018 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.018 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.0195 U	0.019 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.019 U	0.02 U
DI-N-BUTYL PHTHALATE	780	NA	0.017 U	0.017 U	0.018 U	0.017 U	0.018 U	**0.018 J**	0.017 U	0.018 U	0.017 U	0.018 U
FLUORANTHENE	310	NA	0.00375 U	0.0037 U	0.004 U	0.0038 U	**0.54**	0.0039 U	0.0038 U	0.0039 U	**0.046**	0.0039 U
FLUORENE	310	NA	0.00375 U	0.0037 U	0.004 U	0.0038 U	**0.023**	0.0039 U	0.0038 U	0.0039 U	0.0038 U	0.0039 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	**0.0084**	0 U	**1.952**	0 U	0 U	0 U	**0.188**	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.0175 U	0.01725 U	**0.02505**	0.01775 U	**2.492**	0.0182 U	0.01775 U	0.0182 U	**0.2359**	0.0182 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.015625**	**0.0154**	**0.02305**	**0.01585**	**1.952**	**0.01625**	**0.01585**	**0.01625**	**0.1899**	**0.01625**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.00375 U	0.0037 U	0.004 U	0.0038 U	**0.13**	0.0039 U	0.0038 U	0.0039 U	**0.013**	0.0039 U
ISOPHORONE	670	NA	0.015 U	0.015 U	0.016 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	**0.957**	0 U	0 U	0 U	**0.0544**	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.013125 U	0.01295 U	0.014 U	0.0133 U	**0.41895**	0.01365 U	0.0133 U	0.01365 U	**0.0198**	0.01365 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.015**	**0.0148**	**0.016**	**0.0152**	**0.95895**	**0.0156**	**0.0152**	**0.0156**	**0.0658**	**0.0156**
NAPHTHALENE	160	NA	0.00375 U	0.0037 U	0.004 U	0.0038 U	**0.011**	0.0039 U	0.0038 U	0.0039 U	0.0038 U	0.0039 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.031 U	0.031 U	0.032 U	0.031 U	0.032 U	0.032 U	0.031 U	0.032 U	0.031 U	0.032 U
PENTACHLOROPHENOL	5.3	NA	0.0915 U	0.091 U	0.096 U	0.093 U	0.094 U	0.095 U	0.093 U	0.094 U	0.091 U	0.096 U
PHENANTHRENE	2300	NA	0.00375 U	0.0037 U	0.004 U	0.0038 U	**0.28**	0.0039 U	0.0038 U	0.0039 U	**0.0084**	0.0039 U
PHENOL	2300	NA	0.031 U	0.031 U	0.032 U	0.031 U	0.032 U	0.032 U	0.031 U	0.032 U	0.031 U	0.032 U
PYRENE	230	NA	0.00375 U	0.0037 U	0.004 U	0.0038 U	**0.43**	0.0039 U	0.0038 U	0.0039 U	**0.068**	0.0039 U
TOTAL PAHS	NA	NA	0 U	0 U	**0.0084**	0 U	**2.909**	0 U	0 U	0 U	**0.2424**	0 U
TOTAL PAHS ECO HALFND	NA	NA	0.030625 U	0.0302 U	**0.03905**	0.03105 U	**2.91095**	0.03185 U	0.03105 U	0.03185 U	**0.2557**	0.03185 U
TOTAL PAHS HALFND	NA	NA	**0.030625**	0.0302 U	**0.03905**	0.03105 U	**2.91095**	0.03185 U	0.03105 U	0.03185 U	**0.2557**	0.03185 U
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.015 U	0.015 U	0.016 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U
AROCLOR-1260	0.32	NA	0.0195 U	0.019 U	0.02 U	0.02 U	**0.02 J**	0.02 U	0.02 U	0.02 U	0.019 U	0.02 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	**0.02**	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.06575**	**0.065**	**0.0685**	**0.067**	**0.0775**	**0.068**	**0.067**	**0.0675**	**0.065**	**0.0685**
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.052 U	**0.081 B**	**0.077 B**	**0.043 B**	**0.1 J**	**0.0083 B**	**0.029 J**	**0.053 J**	**0.11 J**	**0.53 K**
ARSENIC	0.43	3.6	7.8	14.8 J	**2.5 J**	**1.7 J**	4.4	**1.2 K**	**1.7 L**	5.7 L	6.5	382
BARIUM	1600	NA	**7.7**	**4.8 J**	**8 J**	**14.2 J**	**29.3**	**12.6**	**493 J**	**9.8**	**16**	**14.8**
BERYLLIUM	16	NA	**0.335**	**0.37**	**0.26**	**1.6**	**0.41**	**0.4**	**3.4**	**0.24 K**	**0.18 K**	**3.1**
CADMIUM	3.9	NA	0.00315 U	**0.0034 B**	**0.045 B**	**0.017 B**	**0.28**	**0.029 B**	**0.05 J**	**0.011 B**	**0.006 B**	**0.12 K**
CHROMIUM	23	28	**13.25**	**18 J**	**10 J**	**6.8 J**	**25.3**	**2.8**	**19.6**	**3.9**	30.4	**8.6**
COBALT	NA	NA	**2.9**	**2.5**	**2.4**	**16.5**	**8.4**	**9.6**	**6.1 J**	**9.6 J**	**0.75**	**114**
COPPER	310	NA	**7.4**	**10.6 J**	**19.4 J**	**22.8 J**	**14.6**	**21.7**	**6.7**	**12.7**	**26.6**	**35.3**
IRON	5500	15000	**7165**	**11300 J**	**2330 J**	**5710 J**	**8060**	**509**	**4640**	**744**	**4640**	31700
LEAD	400	NA	**4.5**	**5.2**	**3.5**	**6.3**	**12.4**	**1.7**	**1.5 J**	**2.7**	**6.5**	**11.6**
MANGANESE	160	480	**89.05**	**73.1 J**	**8.9 J**	**58.9 J**	**168**	**53.2**	6380 J	**20.2 J**	**8.4**	1270
MERCURY	2.3	NA	**0.05975**	0.019 U	0.02 U	0.019 U	**0.031 J**	0.02 UL	0.019 U	**0.03 J**	**0.022 J**	0.02 UL
MOLYBDENUM	NA	NA	0.076 U	**0.093 B**	**0.24**	**0.059 B**	**0.56**	**0.036 J**	**0.22 B**	**0.27**	**0.5**	**0.46**
NICKEL	160	NA	**4.35**	**3.6**	**2.4**	**47.9**	**5.8**	**10.3**	**1.9**	**10.9**	**1.1**	**276**
SELENIUM	39	NA	**0.695**	**0.44 J**	**1.2 J**	**1 J**	**1.4**	**1.7**	**2.2 L**	**0.42 J**	**1.8**	**4.2**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-007		GSP-SB-008		GSP-SB-009		GSP-SB-010		GSP-SB-011	
SAMPLE ID			GSP-SB-7-23-25-AVG	GSP-SB-7-23-25-D	GSP-SB-8-0-2	GSP-SB-8-20-22	GSP-SB-9-0-2	GSP-SB-9-20-22	GSP-SB-10-0-2	GSP-SB-10-23-25	GSP-SB-11-0-2	GSP-SB-11-22-25
			GSP-SB-7-23-25-AVG	GSP-SB-7-23-25-D	GSP-SB-8-0-2	GSP-SB-8-20-22	GSP-SB-9-0-2	GSP-SB-9-20-22	GSP-SB-10-0-2	GSP-SB-10-23-25	GSP-SB-11-0-2	GSP-SB-11-22-25
			REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=02	REC=03	REC=03
SAMPLE DATE	Maryland	ATCs	20100506	20100506	20100506	20100506	20100430	20100430	20100505	20100505	20100430	20100430
TOP DEPTH	Residential		23	23	0	20	0	20	0	23	0	22
BOTTOM DEPTH	Soil Standard		25	25	2	22	2	22	2	25	2	25
SILVER	39	NA	0.0205 U	0.029 B	0.014 B	0.038 B	0.036 J	0.022 B	0.02 B	0.021 B	0.029 J	0.15 J
THALLIUM	0.55	3.9	0.0775 U	0.068 B	0.079 B	0.11 B	0.11 B	0.077 B	0.015 UJ	0.096 B	0.063 B	0.26
VANADIUM	7.8	30	27.4	46.4 J	28 J	15.4 J	20.8	8	11.6	7.1	35.7	31.3
ZINC	2300	NA	6.45	6.4 L	9.5 L	103 L	23.1 J	9.8 J	3.4 B	4.9	4.9 J	48.1 J
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	6.45	3.5 J	8.3 J	11 J	180	4 J	9.5 J	3.3 UJ	3.9 J	3.3 U
GASOLINE RANGE ORGANICS	230	NA	0.032 U	0.032 U	0.034 U	0.032 U	0.033 U	0.033 U	0.033 U	0.033 U	0.032 U	0.033 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-012		GSP-SB-013		GSP-SB-014		GSP-SB-015		GSP-SB-016	
SAMPLE ID			GSP-SB-12-0-2	GSP-SB-12-20-22	GSP-SB-13-20-22	GSP-SB-13-4-6	GSP-SB-14-22-25	GSP-SB-14-6-8	GSP-SB-15-22-25	GSP-SB-15-6-8	GSP-SB-16-0-2	GSP-SB-16-20-22
			GSP-SB-12-0-2	GSP-SB-12-20-22	GSP-SB-13-20-22	GSP-SB-13-4-6	GSP-SB-14-22-25	GSP-SB-14-6-8	GSP-SB-15-22-25	GSP-SB-15-6-8	GSP-SB-16-0-2	GSP-SB-16-20-22
			REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=03
SAMPLE DATE	Maryland	ATCs	20100430	20100430	20100430	20100430	20100430	20100430	20100430	20100430	20100505	20100505
TOP DEPTH	Residential		0	20	20	4	22	6	22	6	0	20
BOTTOM DEPTH	Soil Standard		2	22	22	6	25	8	25	8	2	22
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0011 U	0.00096 U	0.0011 U	0.0011 U	0.0011 U	0.0015 U	0.001 U	0.0025 U	0.0012 U	0.0011 U
1,1-DICHLOROETHENE	390	NA	0.00044 U	0.00038 U	0.00044 U	0.00042 U	0.00046 U	0.0006 U	0.00041 U	0.001 U	0.00048 U	0.00042 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00032 U	0.00028 U	0.00032 U	0.00031 U	0.00034 U	0.00044 U	0.0003 U	0.00074 U	0.00035 U	0.00031 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00014 U	0.00013 U	0.00014 U	0.00014 U	0.00015 U	0.0002 U	0.00014 U	0.00033 U	0.00016 U	0.00014 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00023 U	0.0002 U	0.00023 U	0.00022 U	0.00024 U	0.00031 U	0.00021 U	0.00053 U	0.00025 U	0.00022 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00055 U	0.00048 U	0.00055 U	0.00053 U	0.00057 U	0.00075 U	0.00052 U	0.0013 U	0.0006 U	0.00053 U
1,2-DICHLOROBENZENE	700	NA	0.0003 U	0.00026 U	0.0003 U	0.00029 U	0.00032 U	0.00041 U	0.00029 U	0.0007 U	0.00033 U	0.00029 U
1,2-DICHLOROETHANE	7	NA	0.00029 U	0.00025 U	0.00029 U	0.00028 U	0.0003 U	0.00039 U	0.00027 U	0.00066 U	0.00031 U	0.00027 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00029 U	0.00026 U	0.00029 U	0.00029 U	0.00031 U	0.0004 U	0.00028 U	0.00068 U	0.00032 U	0.00028 U
1,4-DICHLOROBENZENE	27	NA	0.00055 U	0.00049 U	0.00055 U	0.00054 U	0.00058 U	0.00076 U	0.00053 U	0.0013 U	0.00061 U	0.00053 U
2-BUTANONE	4700	NA	0.0012 U	0.001 U	0.0012 U	**0.0084**	0.0012 U	**0.0028 J**	0.0011 U	**0.02**	0.0013 U	0.0011 U
2-HEXANONE	NA	NA	0.00053 U	0.00046 U	0.00053 U	0.00051 U	0.00056 U	0.00072 U	0.0005 U	0.0012 U	0.00058 U	0.00051 U
4-ISOPROPYLTOLUENE	NA	NA	0.00018 U	0.00015 U	0.00018 U	**0.00055 J**	0.00019 U	0.00024 U	0.00017 U	0.00041 U	0.00019 U	0.00017 U
4-METHYL-2-PENTANONE	NA	NA	0.00045 U	0.0004 U	0.00045 U	0.00044 U	0.00048 U	0.00062 U	0.00043 U	0.0011 U	0.0005 U	0.00044 U
ACETONE	7000	NA	0.0053 U	0.0046 U	0.0053 U	**0.061**	0.0056 U	**0.012**	0.005 U	**0.088**	0.0058 U	**0.0058 B**
BENZENE	12	NA	0.00019 U	0.00017 U	0.00019 U	**0.0015 J**	0.0002 U	0.00026 U	0.00018 U	0.00045 U	0.00021 U	0.00019 U
BROMOMETHANE	11	NA	0.00045 U	0.0004 U	0.00045 U	0.00044 U	0.00048 U	0.00062 U	0.00043 U	0.0011 U	0.0005 U	0.00044 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00037 U	0.00032 U	0.00037 U	0.00036 U	0.00039 U	**0.0019 J**	0.00035 U	**0.0021 J**	0.00041 U	0.00036 U
CARBON TETRACHLORIDE	4.9	NA	0.00031 U	0.00027 U	0.00031 U	0.0003 U	0.00033 U	0.00043 U	0.00029 U	0.00072 U	0.00034 U	0.0003 U
CHLOROBENZENE	160	NA	0.00028 U	0.00024 U	0.00028 U	0.00027 U	0.00029 U	0.00038 U	0.00026 U	0.00064 U	0.0003 U	0.00027 U
CHLOROETHANE	220	NA	0.00072 U	0.00063 U	0.00072 U	0.0007 U	0.00076 U	0.00099 U	0.00068 U	0.0017 U	0.00079 U	0.00069 U
CHLOROFORM	78	NA	0.00024 U	0.00021 U	0.00024 U	0.00024 U	0.00026 U	0.00033 U	0.00023 U	0.00057 U	0.00027 U	0.00023 U
CHLOROMETHANE	NA	NA	0.00034 U	0.0003 U	0.00034 U	0.00033 U	0.00036 U	0.00047 U	0.00033 U	0.0008 U	0.00038 U	0.00033 U
CIS-1,2-DICHLOROETHENE	78	NA	0.0003 U	0.00026 U	0.0003 U	0.00029 U	0.00032 U	0.00041 U	0.00029 U	0.0007 U	0.00033 U	0.00029 U
DIISOPROPYL ETHER	NA	NA	0.0013 U	0.0011 U	0.0013 U	0.0012 U	0.0013 U	0.0017 U	0.0012 U	0.0029 U	0.0014 U	0.0012 U
ETHYLBENZENE	780	NA	0.00022 U	0.00019 U	0.00022 U	0.00021 U	0.00023 U	0.0003 U	0.00021 U	0.00051 U	0.00024 U	0.00021 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00013 U	0.00012 U	0.00013 U	**0.00019 J**	0.00014 U	0.00018 U	0.00013 U	0.00031 U	0.00015 U	0.00013 U
M+P-XYLENES	NA	NA	0.001 U	0.00088 U	0.001 U	0.00098 U	0.0011 U	0.0014 U	0.00095 U	0.0023 U	0.0011 U	0.00097 U
METHYL TERT-BUTYL ETHER	160	NA	0.00036 U	0.00032 U	0.00036 U	0.00035 U	0.00038 U	0.00049 U	0.00034 U	0.00084 U	0.0004 U	0.00035 U
METHYLENE CHLORIDE	85	NA	**0.001 J**	0.00049 U	0.00056 U	0.00055 U	0.00059 U	0.00077 U	0.00053 U	**0.0017 J**	0.00062 U	0.00054 U
NAPHTHALENE	160	NA	0.00016 U	0.00014 U	0.00016 U	0.00015 U	0.00017 U	0.00022 U	0.00015 U	0.00037 U	0.00017 U	0.00015 U
N-BUTYLBENZENE	NA	NA	0.00019 U	0.00017 U	0.00019 U	0.00019 U	0.0002 U	0.00026 U	0.00018 U	0.00045 U	0.00021 U	0.00019 U
N-PROPYLBENZENE	NA	NA	0.00034 U	0.00029 U	0.00034 U	**0.00039 J**	0.00035 U	0.00046 U	0.00032 U	0.00078 U	0.00037 U	0.00032 U
O-XYLENE	NA	NA	0.00029 U	0.00026 U	0.00029 U	0.00029 U	0.00031 U	0.0004 U	0.00028 U	0.00068 U	0.00032 U	0.00028 U
SEC-BUTYLBENZENE	NA	NA	0.00015 U	0.00013 U	0.00015 U	**0.00023 J**	0.00016 U	0.00021 U	0.00014 U	0.00035 U	0.00017 U	0.00015 U
STYRENE	1600	NA	0.00013 U	0.00011 U	0.00013 U	0.00012 U	0.00013 U	0.00017 U	0.00012 U	0.00029 U	0.00014 U	0.00012 U
TERT-AMYL METHYL ETHER	NA	NA	0.00031 U	0.00027 U	0.00031 U	0.0003 U	0.00033 U	0.00043 U	0.00029 U	0.00072 U	0.00034 U	0.0003 U
TERT-BUTYLBENZENE	NA	NA	0.00024 U	0.00021 U	0.00024 U	0.00024 U	0.00026 U	0.00033 U	0.00023 U	0.00057 U	0.00027 U	0.00023 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0064 UR	0.0056 UR	0.0064 UR	0.0062 UR	0.0067 UR	0.0087 UR	0.006 UR	0.015 UR	0.007 UR	0.0061 UR
TETRACHLOROETHENE	1.2	NA	0.00044 U	0.00038 U	0.00044 U	0.00042 U	0.00046 U	0.0006 U	0.00041 U	0.001 U	0.00048 U	0.00042 U
TOLUENE	630	NA	0.00023 U	0.0002 U	0.00023 U	0.00022 U	0.00024 U	0.00031 U	0.00021 U	0.00053 U	0.00025 U	0.00022 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00056 U	0.00049 U	0.00056 U	0.00055 U	0.00059 U	0.00077 U	0.00053 U	0.0013 U	0.00062 U	0.00054 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00034 U	0.0003 U	0.00034 U	0.00033 U	0.00036 U	0.00047 U	0.00033 U	0.0008 U	0.00038 U	0.00033 U
TRICHLOROETHENE	1.6	NA	0.00035 U	0.00031 U	0.00035 U	0.00034 U	0.00037 U	0.00048 U	0.00033 U	0.00082 U	0.00039 U	0.00034 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00029 U	0.00025 U	0.00029 U	0.00028 U	0.0003 U	0.00039 U	0.00027 U	0.00066 U	0.00031 U	0.00027 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00033 U	0.00029 U	0.00033 U	0.00032 U	0.00034 U	0.00045 U	0.00031 U	0.00076 U	0.00036 U	0.00032 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.031 U	0.031 U	0.032 U	0.033 U	0.032 U	0.037 U	0.032 U	0.051 U	0.033 U	0.033 U
2,4-DICHLOROPHENOL	23	NA	0.023 U	0.023 U	0.024 U	0.024 U	0.024 U	0.027 U	0.023 U	0.038 U	0.025 U	0.024 U
2-CHLOROPHENOL	39	NA	0.031 U	0.031 U	0.032 U	0.033 U	0.032 U	0.037 U	0.032 U	0.051 U	0.033 U	0.033 U
2-METHYLNAPHTHALENE	31	NA	0.0038 U	0.0038 U	0.0039 U	0.004 U	0.0039 U	0.0045 U	0.0039 U	0.0062 U	0.0041 U	0.004 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-012		GSP-SB-013		GSP-SB-014		GSP-SB-015		GSP-SB-016	
SAMPLE ID			GSP-SB-12-0-2	GSP-SB-12-20-22	GSP-SB-13-20-22	GSP-SB-13-4-6	GSP-SB-14-22-25	GSP-SB-14-6-8	GSP-SB-15-22-25	GSP-SB-15-6-8	GSP-SB-16-0-2	GSP-SB-16-20-22
			GSP-SB-12-0-2	GSP-SB-12-20-22	GSP-SB-13-20-22	GSP-SB-13-4-6	GSP-SB-14-22-25	GSP-SB-14-6-8	GSP-SB-15-22-25	GSP-SB-15-6-8	GSP-SB-16-0-2	GSP-SB-16-20-22
			REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=03
SAMPLE DATE	Maryland	ATCs	20100430	20100430	20100430	20100430	20100430	20100430	20100430	20100430	20100505	20100505
TOP DEPTH	Residential		0	20	20	4	22	6	22	6	0	20
BOTTOM DEPTH	Soil Standard		2	22	22	6	25	8	25	8	2	22
ACENAPHTHENE	470	NA	0.0038 U	0.0038 U	0.0039 U	0.004 U	0.0039 U	0.0045 U	0.0039 U	0.0062 U	0.0041 U	0.004 U
ACENAPHTHYLENE	470	NA	0.0038 U	0.0038 U	0.0039 U	0.004 U	0.0039 U	0.0045 U	0.0039 U	0.0062 U	0.0041 U	0.004 U
ANTHRACENE	2300	NA	0.0038 U	0.0038 U	0.0039 U	0.004 U	0.0039 U	0.0045 U	0.0039 U	0.0062 U	0.0041 U	0.004 U
BAP EQUIVALENT-HALFND	NA	NA	0.0038 U	0.0038 U	0.0039 U	0.004 U	0.0039 U	0.0045 U	0.0039 U	0.0062 U	**0.032514**	0.004 U
BAP EQUIVALENT-POS	NA	NA	0.0038 U	0.0038 U	0.0039 U	0.004 U	0.0039 U	0.0045 U	0.0039 U	0.0062 U	**0.030464**	0.004 U
BENZALDEHYDE	NA	NA	0.014 U	0.014 U	0.014 U	0.015 U	0.014 U	0.016 U	0.014 U	0.023 U	0.015 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	0.0038 U	0.0038 U	0.0039 U	0.004 U	0.0039 U	0.0045 U	0.0039 U	0.0062 U	**0.026**	0.004 U
BENZO(A)PYRENE	0.022	NA	0.0038 U	0.0038 U	0.0039 U	0.004 U	0.0039 U	0.0045 U	0.0039 U	0.0062 U	**0.023**	0.004 U
BENZO(B)FLUORANTHENE	0.22	NA	0.0038 U	0.0038 U	0.0039 U	0.004 U	0.0039 U	0.0045 U	0.0039 U	0.0062 U	**0.03**	0.004 U
BENZO(G,H,I)PERYLENE	230	NA	0.0038 U	0.0038 U	0.0039 U	0.004 U	0.0039 U	0.0045 U	0.0039 U	0.0062 U	**0.015**	0.004 U
BENZO(K)FLUORANTHENE	2.2	NA	0.0038 U	0.0038 U	0.0039 U	0.004 U	0.0039 U	0.0045 U	0.0039 U	0.0062 U	**0.014**	0.004 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.022 U	0.022 U	0.022 U	0.023 U	0.023 U	0.026 U	0.022 U	0.036 U	0.023 U	0.023 U
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.011 U	0.012 U	**0.02 J**	0.012 U	0.014 U	0.012 U	0.019 U	0.012 U	0.012 U
CAPROLACTAM	NA	NA	0.043 U	0.043 U	0.044 U	0.045 U	0.044 U	0.051 U	0.043 U	0.069 U	0.045 U	0.045 U
CARBAZOLE	32	NA	0.031 U	0.031 U	0.032 U	0.033 U	0.032 U	0.037 U	0.032 U	0.051 U	0.033 U	0.033 U
CHRYSENE	22	NA	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0015 U	0.0013 U	0.0021 U	**0.024**	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0038 U	0.0038 U	0.0039 U	0.004 U	0.0039 U	0.0045 U	0.0039 U	0.0062 U	0.0041 U	0.004 U
DIBENZOFURAN	7.8	NA	0.023 U	0.023 U	0.024 U	0.024 U	0.024 U	0.027 U	0.023 U	0.038 U	0.025 U	0.024 U
DIETHYL PHTHALATE	6300	NA	0.019 U	0.018 U	0.019 U	0.019 U	0.019 U	0.022 U	0.019 U	0.03 U	0.02 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.02 U	0.02 U	0.02 U	0.021 U	0.02 U	0.023 U	0.02 U	0.032 U	0.021 U	0.02 U
DI-N-BUTYL PHTHALATE	780	NA	0.017 U	0.017 U	0.018 U	0.018 U	0.018 U	0.021 U	0.018 U	0.028 U	0.018 U	0.018 U
FLUORANTHENE	310	NA	0.0038 U	0.0038 U	0.0039 U	0.004 U	0.0039 U	0.0045 U	0.0039 U	0.0062 U	**0.05**	0.004 U
FLUORENE	310	NA	0.0038 U	0.0038 U	0.0039 U	0.004 U	0.0039 U	0.0045 U	0.0039 U	0.0062 U	0.0041 U	0.004 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	**0.191**	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.01775 U	0.01775 U	0.0182 U	0.01865 U	0.0182 U	0.021 U	0.0182 U	0.02895 U	**0.24305**	0.01865 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.01585**	**0.01585**	**0.01625**	**0.01665**	**0.01625**	**0.01875**	**0.01625**	**0.02585**	**0.19305**	**0.01665**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.0038 U	0.0038 U	0.0039 U	0.004 U	0.0039 U	0.0045 U	0.0039 U	0.0062 U	**0.017**	0.004 U
ISOPHORONE	670	NA	0.015 U	0.015 U	0.015 U	0.016 U	0.016 U	0.018 U	0.015 U	0.024 U	0.016 U	0.016 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	**0.031**	**0.075**	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.0133 U	0.0133 U	0.01365 U	0.014 U	0.01365 U	0.01575 U	0.01365 U	**0.0465**	**0.0373**	0.014 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0152**	**0.0152**	**0.0156**	**0.016**	**0.0156**	**0.018**	**0.0156**	**0.0496**	**0.0873**	**0.016**
NAPHTHALENE	160	NA	0.0038 U	0.0038 U	0.0039 U	0.004 U	0.0039 U	0.0045 U	0.0039 U	**0.018**	0.0041 U	0.004 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.031 U	0.031 U	0.032 U	0.033 U	0.032 U	0.037 U	0.032 U	0.051 U	0.033 U	0.033 U
PENTACHLOROPHENOL	5.3	NA	0.093 U	0.092 U	0.095 U	0.097 U	0.096 U	0.11 U	0.094 U	0.15 U	0.098 U	0.096 U
PHENANTHRENE	2300	NA	0.0038 U	0.0038 U	0.0039 U	0.004 U	0.0039 U	0.0045 U	0.0039 U	**0.013**	**0.025**	0.004 U
PHENOL	2300	NA	0.031 U	0.031 U	0.032 U	0.033 U	0.032 U	0.037 U	0.032 U	0.051 U	0.033 U	0.033 U
PYRENE	230	NA	0.0038 U	0.0038 U	0.0039 U	0.004 U	0.0039 U	0.0045 U	0.0039 U	0.0062 U	**0.042**	0.004 U
TOTAL PAHS	NA	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	**0.031**	**0.266**	0 U
TOTAL PAHS ECO HALFND	NA	NA	0.03105 U	0.03105 U	0.03185 U	0.03265 U	0.03185 U	0.03675 U	0.03185 U	**0.07545**	**0.28035**	0.03265 U
TOTAL PAHS HALFND	NA	NA	0.03105 U	0.03105 U	0.03185 U	0.03265 U	0.03185 U	0.03675 U	0.03185 U	**0.07545**	**0.28035**	0.03265 U
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.015 U	0.015 U	0.015 U	0.016 U	0.016 U	0.018 U	0.015 U	0.024 U	0.016 U	0.016 U
AROCLOR-1260	0.32	NA	0.02 U	0.02 U	0.02 U	0.021 U	0.02 U	0.023 U	0.02 U	0.032 U	0.021 U	0.02 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.067**	**0.0665**	**0.068**	**0.0705**	**0.0685**	**0.0785**	**0.0675**	**0.1075**	**0.071**	**0.0685**
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.056 B**	**0.023 B**	**0.012 B**	**0.061 J**	**0.33 K**	**0.073 J**	**0.086 J**	**0.086 B**	**0.1 J**	**0.033 J**
ARSENIC	0.43	3.6	**3.6**	**2.3**	**1 K**	**6.5**	**5.3**	**5.1**	**2.2**	**8.8**	**4.8 L**	**2.6 L**
BARIUM	1600	NA	**27.6**	**43.5**	**21**	**15.5**	**13.4**	**18.4**	**66.9**	**40.9**	**35.3**	**24.4**
BERYLLIUM	16	NA	**0.51**	**0.68**	**1.1**	**0.4**	**10**	**0.39**	**1.2**	**1.3**	**1.1**	**0.91**
CADMIUM	3.9	NA	**0.025 B**	**0.026 B**	**0.051 J**	**0.043 B**	**0.1 J**	**0.14 K**	**0.086 J**	**0.21 K**	**0.11 J**	**0.016 B**
CHROMIUM	23	28	**12.2**	**10.3 K**	**8.2**	**14.6**	**19.9**	**13.8**	**17.7**	**32.9**	**16.1**	**8.8**
COBALT	NA	NA	**6.4**	**20.5**	**28.9**	**5.2**	**27.9**	**4.8**	**23.4**	**16.3**	**27.5 J**	**182 J**
COPPER	310	NA	**8.2**	**26.6**	**25.2**	**8.2**	**41**	**15.1**	**12.4**	**16**	**12.5**	**34.6**
IRON	5500	15000	**11600**	**86800**	**873**	**11800**	**40400**	**10200**	**80200**	**36300**	**14900**	**3900**
LEAD	400	NA	**8.6**	**7.2**	**7.9**	**5.9**	**6.6**	**7.2**	**8**	**19.9**	**10.9**	**10.1**
MANGANESE	160	480	**120**	**4270**	**50**	**41**	**345**	**72.1**	**4200**	**1300**	**873 J**	**344 J**
MERCURY	2.3	NA	0.019 UL	0.019 UL	**0.022 J**	0.02 UL	0.02 UL	0.023 UL	0.02 UL	**0.035 J**	**0.029 J**	**0.12**
MOLYBDENUM	NA	NA	**0.45**	**0.066 J**	0.032 U	**0.39**	**0.43**	**0.66**	**0.13 J**	**2.1**	**0.65 B**	**0.056 B**
NICKEL	160	NA	**7.8**	**20.9**	**65**	**4.8**	**43.5**	**7.2**	**29.5**	**26.3**	**15**	**202**
SELENIUM	39	NA	**0.98 K**	**3.6**	**1.6**	**0.98 K**	**6.1**	**1.5**	**2.8**	**2.6**	**1.3 L**	**0.78 J**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-012		GSP-SB-013		GSP-SB-014		GSP-SB-015		GSP-SB-016	
SAMPLE ID			GSP-SB-12-0-2	GSP-SB-12-20-22	GSP-SB-13-20-22	GSP-SB-13-4-6	GSP-SB-14-22-25	GSP-SB-14-6-8	GSP-SB-15-22-25	GSP-SB-15-6-8	GSP-SB-16-0-2	GSP-SB-16-20-22
			GSP-SB-12-0-2	GSP-SB-12-20-22	GSP-SB-13-20-22	GSP-SB-13-4-6	GSP-SB-14-22-25	GSP-SB-14-6-8	GSP-SB-15-22-25	GSP-SB-15-6-8	GSP-SB-16-0-2	GSP-SB-16-20-22
			REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=03
SAMPLE DATE	Maryland	ATCs	20100430	20100430	20100430	20100430	20100430	20100430	20100430	20100430	20100505	20100505
TOP DEPTH	Residential		0	20	20	4	22	6	22	6	0	20
BOTTOM DEPTH	Soil Standard		2	22	22	6	25	8	25	8	2	22
SILVER	39	NA	0.025 J	0.02 B	0.022 B	0.011 B	0.02 B	0.016 B	0.026 J	0.056 J	0.044 J	0.038 J
THALLIUM	0.55	3.9	0.1 B	0.11 B	0.12 B	0.11 B	0.13 B	0.17 B	0.098 B	0.17 B	0.11 B	0.14 B
VANADIUM	7.8	30	21.2	29	16.3	25.1	31	23.8	36	40.4	25.5	8
ZINC	2300	NA	24.5 J	52 J	29.4 J	21.2 J	100 J	20 J	48.8 J	80.3 J	51.3	41
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	20	3.6 J	3.3 U	13	3.3 J	6.5 J	3.3 U	10 J	66	4.9 J
GASOLINE RANGE ORGANICS	230	NA	0.033 U	0.032 U	0.033 U	0.098 J	0.033 U	0.038 U	0.033 U	0.053 U	0.034 U	0.034 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-017		GSP-SB-018		GSP-SB-019		GSP-SB-020		GSP-SB-021	
SAMPLE ID			GSP-SB-17-0-2	GSP-SB-17-23-25	GSP-SB-18-0-2	GSP-SB-18-22-24	GSP-SB-19-0-2	GSP-SB-19-23-25	GSP-SB-20-0-2	GSP-SB-20-20-22	GSP-SB-21-0-2	GSP-SB-21-20-22
			GSP-SB-17-0-2	GSP-SB-17-23-25	GSP-SB-18-0-2	GSP-SB-18-22-24	GSP-SB-19-0-2	GSP-SB-19-23-25	GSP-SB-20-0-2	GSP-SB-20-20-22	GSP-SB-21-0-2	GSP-SB-21-20-22
			REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=04	REC=04
SAMPLE DATE	Maryland	ATCs	20100504	20100504	20100504	20100504	20100504	20100504	20100505	20100505	20100503	20100503
TOP DEPTH	Residential		0	23	0	22	0	23	0	20	0	20
BOTTOM DEPTH	Soil Standard		2	25	2	24	2	25	2	22	2	22
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.001 U	0.0011 U	0.0011 U	0.001 U	0.0014 U	0.00096 U	0.0011 U	0.001 U	0.0012 U	0.0014 U
1,1-DICHLOROETHENE	390	NA	0.00042 U	0.00045 U	0.00045 U	0.00041 U	0.00056 U	0.00038 U	0.00043 U	0.00041 U	0.00048 U	0.00057 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00031 U	0.00033 U	0.00033 U	0.0003 U	0.00041 U	0.00028 U	0.00031 U	0.0003 U	0.00035 U	0.00041 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00014 U	0.00015 U	0.00015 U	0.00014 U	0.00018 U	0.00013 U	0.00014 U	0.00013 U	0.00016 U	0.00018 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00022 U	0.00023 U	0.00023 U	0.00021 U	0.00029 U	0.0002 U	0.00022 U	0.00021 U	0.00025 U	0.00029 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00052 U	0.00056 U	0.00057 U	0.00052 U	0.00069 U	0.00048 U	0.00054 U	0.00051 U	0.0006 U	0.00071 U
1,2-DICHLOROBENZENE	700	NA	0.00029 U	0.00031 U	0.00031 U	0.00029 U	0.00038 U	0.00027 U	0.0003 U	0.00028 U	0.00033 U	0.00039 U
1,2-DICHLOROETHANE	7	NA	0.00027 U	0.00029 U	0.0003 U	0.00027 U	0.00036 U	0.00025 U	0.00028 U	0.00027 U	0.00031 U	0.00037 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00028 U	0.0003 U	0.0003 U	0.00028 U	0.00037 U	0.00026 U	0.00029 U	0.00028 U	0.00032 U	0.00038 U
1,4-DICHLOROBENZENE	27	NA	0.00053 U	0.00057 U	0.00057 U	0.00052 U	0.0007 U	0.00049 U	0.00055 U	0.00052 U	0.00061 U	0.00072 U
2-BUTANONE	4700	NA	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.0015 U	0.001 U	0.0012 U	0.0011 U	**0.027**	0.0015 U
2-HEXANONE	NA	NA	0.00051 U	0.00054 U	0.00055 U	0.0005 U	0.00067 U	0.00047 U	0.00052 U	0.0005 U	0.00058 U	0.00068 U
4-ISOPROPYLTOLUENE	NA	NA	0.00017 U	0.00018 U	0.00018 U	0.00017 U	0.00022 U	0.00016 U	0.00017 U	0.00017 U	0.00019 U	0.00023 U
4-METHYL-2-PENTANONE	NA	NA	0.00043 U	0.00047 U	0.00047 U	0.00043 U	0.00058 U	0.0004 U	0.00045 U	0.00043 U	0.0005 U	0.00059 U
ACETONE	7000	NA	0.0051 U	0.0054 U	0.0055 U	0.005 U	0.0067 U	0.0047 U	**0.0053 B**	0.005 U	**0.13**	**0.0083 J**
BENZENE	12	NA	0.00018 U	0.0002 U	0.0002 U	0.00018 U	0.00025 U	0.00017 U	**0.00032 J**	0.00018 U	0.00021 U	0.00025 U
BROMOMETHANE	11	NA	0.00043 U	0.00047 U	0.00047 U	0.00043 U	0.00058 U	0.0004 U	0.00045 U	0.00043 U	0.0005 U	0.00059 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00035 U	0.00038 U	0.00038 U	0.00035 U	0.00047 U	0.00033 U	0.00036 U	0.00035 U	0.00041 U	0.00048 U
CARBON TETRACHLORIDE	4.9	NA	0.0003 U	0.00032 U	0.00032 U	0.00029 U	0.0004 U	0.00027 U	0.00031 U	0.00029 U	0.00034 U	0.0004 U
CHLOROBENZENE	160	NA	0.00027 U	0.00028 U	0.00029 U	0.00026 U	0.00035 U	0.00024 U	0.00027 U	0.00026 U	0.0003 U	0.00036 U
CHLOROETHANE	220	NA	0.00069 U	0.00074 U	0.00075 U	0.00068 U	0.00092 U	0.00064 U	0.00071 U	0.00068 U	0.00079 U	0.00093 U
CHLOROFORM	78	NA	0.00023 U	0.00025 U	0.00025 U	0.00023 U	0.00031 U	0.00021 U	0.00024 U	0.00023 U	0.00027 U	0.00032 U
CHLOROMETHANE	NA	NA	0.00033 U	0.00035 U	0.00036 U	0.00033 U	0.00044 U	0.0003 U	0.00034 U	0.00032 U	0.00038 U	0.00045 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00029 U	0.00031 U	0.00031 U	0.00029 U	0.00038 U	0.00027 U	0.0003 U	0.00028 U	0.00033 U	0.00039 U
DIISOPROPYL ETHER	NA	NA	0.0012 U	0.0013 U	0.0013 U	0.0012 U	0.0016 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0016 U
ETHYLBENZENE	780	NA	0.00021 U	0.00022 U	0.00023 U	0.00021 U	0.00028 U	0.00019 U	0.00021 U	0.00021 U	0.00024 U	0.00028 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00013 U	0.00014 U	0.00014 U	0.00013 U	0.00017 U	0.00012 U	0.00013 U	0.00013 U	0.00015 U	0.00017 U
M+P-XYLENES	NA	NA	0.00097 U	0.001 U	0.001 U	0.00095 U	0.0013 U	0.00089 U	0.00099 U	0.00095 U	0.0011 U	0.0013 U
METHYL TERT-BUTYL ETHER	160	NA	0.00035 U	0.00037 U	0.00037 U	0.00034 U	0.00046 U	0.00032 U	0.00036 U	0.00034 U	0.0004 U	0.00047 U
METHYLENE CHLORIDE	85	NA	0.00054 U	0.00058 U	0.00058 U	0.00053 U	0.00072 U	0.0005 U	0.00055 U	0.00053 U	0.00062 U	0.00073 U
NAPHTHALENE	160	NA	0.00015 U	0.00016 U	0.00017 U	0.00015 U	0.0002 U	0.00014 U	0.00016 U	0.00015 U	0.00017 U	0.00021 U
N-BUTYLBENZENE	NA	NA	0.00018 U	0.0002 U	0.0002 U	0.00018 U	0.00025 U	0.00017 U	0.00019 U	0.00018 U	0.00021 U	0.00025 U
N-PROPYLBENZENE	NA	NA	0.00032 U	0.00034 U	0.00035 U	0.00032 U	0.00043 U	0.0003 U	0.00033 U	0.00032 U	0.00037 U	0.00043 U
O-XYLENE	NA	NA	0.00028 U	0.0003 U	0.0003 U	0.00028 U	0.00037 U	0.00026 U	0.00029 U	0.00028 U	0.00032 U	0.00038 U
SEC-BUTYLBENZENE	NA	NA	0.00014 U	0.00016 U	0.00016 U	0.00014 U	0.00019 U	0.00013 U	0.00015 U	0.00014 U	0.00017 U	0.0002 U
STYRENE	1600	NA	0.00012 U	0.00013 U	0.00013 U	0.00012 U	0.00016 U	0.00011 U	0.00012 U	0.00012 U	0.00014 U	0.00016 U
TERT-AMYL METHYL ETHER	NA	NA	0.0003 U	0.00032 U	0.00032 U	0.00029 U	0.0004 U	0.00027 U	0.00031 U	0.00029 U	0.00034 U	0.0004 U
TERT-BUTYLBENZENE	NA	NA	0.00023 U	0.00025 U	0.00025 U	0.00023 U	0.00031 U	0.00021 U	0.00024 U	0.00023 U	0.00027 U	0.00032 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0061 UR	0.0065 UR	0.0066 UR	0.006 UR	0.0081 UR	0.0056 UR	0.0063 UR	0.006 UR	0.007 UR	0.0083 UR
TETRACHLOROETHENE	1.2	NA	0.00042 U	0.00045 U	0.00045 U	0.00041 U	0.00056 U	0.00038 U	0.00043 U	0.00041 U	0.00048 U	0.00057 U
TOLUENE	630	NA	0.00022 U	0.00023 U	0.00023 U	0.00021 U	0.00029 U	0.0002 U	0.00022 U	0.00021 U	0.00025 U	0.00029 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00054 U	0.00058 U	0.00058 U	0.00053 U	0.00072 U	0.0005 U	0.00055 U	0.00053 U	0.00062 U	0.00073 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00033 U	0.00035 U	0.00036 U	0.00033 U	0.00044 U	0.0003 U	0.00034 U	0.00032 U	0.00038 U	0.00045 U
TRICHLOROETHENE	1.6	NA	0.00034 U	0.00036 U	0.00037 U	0.00033 U	0.00045 U	0.00031 U	0.00035 U	0.00033 U	0.00039 U	0.00046 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00027 U	0.00029 U	0.0003 U	0.00027 U	0.00036 U	0.00025 U	0.00028 U	0.00027 U	0.00031 U	0.00037 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00031 U	0.00034 U	0.00034 U	0.00031 U	0.00042 U	0.00029 U	0.00032 U	0.00031 U	0.00036 U	0.00042 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.03 U	0.033 U	0.033 U	0.032 U	0.037 U	0.03 U	0.031 U	0.031 U	0.033 U	0.033 U
2,4-DICHLOROPHENOL	23	NA	0.022 U	0.024 U	0.025 U	0.024 U	0.027 U	0.022 U	0.023 U	0.023 U	0.025 U	0.024 U
2-CHLOROPHENOL	39	NA	0.03 U	0.033 U	0.033 U	0.032 U	0.037 U	0.03 U	0.031 U	0.031 U	0.033 U	0.033 U
2-METHYLNAPHTHALENE	31	NA	0.0036 U	0.004 U	0.004 U	0.0039 U	0.0045 U	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.004 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-017		GSP-SB-018		GSP-SB-019		GSP-SB-020		GSP-SB-021	
SAMPLE ID			GSP-SB-17-0-2	GSP-SB-17-23-25	GSP-SB-18-0-2	GSP-SB-18-22-24	GSP-SB-19-0-2	GSP-SB-19-23-25	GSP-SB-20-0-2	GSP-SB-20-20-22	GSP-SB-21-0-2	GSP-SB-21-20-22
			GSP-SB-17-0-2	GSP-SB-17-23-25	GSP-SB-18-0-2	GSP-SB-18-22-24	GSP-SB-19-0-2	GSP-SB-19-23-25	GSP-SB-20-0-2	GSP-SB-20-20-22	GSP-SB-21-0-2	GSP-SB-21-20-22
			REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=04	REC=04
SAMPLE DATE	Maryland	ATCs	20100504	20100504	20100504	20100504	20100504	20100504	20100505	20100505	20100503	20100503
TOP DEPTH	Residential		0	23	0	22	0	23	0	20	0	20
BOTTOM DEPTH	Soil Standard		2	25	2	24	2	25	2	22	2	22
ACENAPHTHENE	470	NA	0.0036 U	0.004 U	0.004 U	0.0039 U	**0.0098**	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.004 U
ACENAPHTHYLENE	470	NA	0.0036 U	0.004 U	0.004 U	0.0039 U	0.0045 U	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.004 U
ANTHRACENE	2300	NA	0.0036 U	0.004 U	**0.013**	0.0039 U	**0.02**	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.004 U
BAP EQUIVALENT-HALFND	NA	NA	0.0036 U	0.004 U	**0.1369**	0.0039 U	**0.11925**	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.004 U
BAP EQUIVALENT-POS	NA	NA	0.0036 U	0.004 U	**0.1369**	0.0039 U	**0.117**	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.004 U
BENZALDEHYDE	NA	NA	0.013 U	0.015 U	0.015 U	0.014 U	0.016 U	0.013 U	0.014 U	0.014 U	0.015 U	0.015 U
BENZO(A)ANTHRACENE	0.22	NA	0.0036 U	0.004 U	**0.071**	0.0039 U	**0.086**	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.004 U
BENZO(A)PYRENE	0.022	NA	0.0036 U	0.004 U	**0.088**	0.0039 U	**0.089**	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.004 U
BENZO(B)FLUORANTHENE	0.22	NA	0.0036 U	0.004 U	**0.15**	0.0039 U	**0.13**	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.004 U
BENZO(G,H,I)PERYLENE	230	NA	0.0036 U	0.004 U	**0.11**	0.0039 U	**0.068**	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.004 U
BENZO(K)FLUORANTHENE	2.2	NA	0.0036 U	0.004 U	**0.061**	0.0039 U	**0.06**	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.004 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.021 U	0.023 U	**0.047 J**	**0.025 J**	**0.03 J**	0.021 U	0.022 U	0.022 U	**0.024 J**	0.023 U
BUTYL BENZYL PHTHALATE	NA	NA	0.011 U	0.012 U	0.012 U	0.012 U	0.014 U	0.011 U	0.012 U	0.011 U	0.012 U	0.012 U
CAPROLACTAM	NA	NA	0.041 U	0.045 U	0.045 U	0.044 U	0.051 U	0.041 U	0.043 U	0.042 U	0.045 U	0.045 U
CARBAZOLE	32	NA	0.03 U	0.033 U	0.033 U	0.032 U	0.037 U	0.03 U	0.031 U	0.031 U	0.033 U	0.033 U
CHRYSENE	22	NA	0.0012 U	0.0013 U	**0.09**	0.0013 U	**0.1**	0.0012 U	0.0013 U	0.0013 U	0.0014 U	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0036 U	0.004 U	**0.018**	0.0039 U	0.0045 U	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.004 U
DIBENZOFURAN	7.8	NA	0.022 U	0.024 U	0.025 U	0.024 U	0.027 U	0.022 U	0.023 U	0.023 U	0.025 U	0.024 U
DIETHYL PHTHALATE	6300	NA	0.018 U	0.019 U	0.02 U	0.019 U	0.022 U	0.018 U	0.019 U	0.018 U	0.02 U	0.02 U
DIMETHYL PHTHALATE	NA	NA	0.019 U	0.021 U	0.021 U	0.02 U	0.023 U	0.019 U	0.02 U	0.019 U	0.021 U	0.021 U
DI-N-BUTYL PHTHALATE	780	NA	0.017 U	0.018 U	0.018 U	0.018 U	0.021 U	0.017 U	0.017 U	0.017 U	**0.027 J**	0.018 U
FLUORANTHENE	310	NA	**0.014**	0.004 U	**0.14**	0.0039 U	**0.2**	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.004 U
FLUORENE	310	NA	0.0036 U	0.004 U	0.004 U	0.0039 U	0.0045 U	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.004 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	**0.011**	0 U	**0.779**	0 U	**0.74**	0 U	0 U	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**0.0382**	0.01865 U	**0.919**	0.0182 U	**0.94225**	0.01725 U	0.01775 U	0.01775 U	0.01915 U	0.01865 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0242**	**0.01665**	**0.779**	**0.01625**	**0.74225**	**0.0154**	**0.01585**	**0.01585**	**0.0171**	**0.01665**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.0036 U	0.004 U	**0.081**	0.0039 U	**0.057**	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.004 U
ISOPHORONE	670	NA	0.014 U	0.016 U	0.016 U	0.015 U	0.018 U	0.015 U	0.015 U	0.015 U	0.016 U	0.016 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	**0.0236**	0 U	**0.201**	0 U	**0.3228**	0 U	0 U	0 U	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**0.0204**	0.014 U	**0.071**	0.01365 U	**0.1318**	0.01295 U	0.0133 U	0.0133 U	0.01435 U	0.014 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0344**	**0.016**	**0.211**	**0.0156**	**0.3318**	**0.0148**	**0.0152**	**0.0152**	**0.0164**	**0.016**
NAPHTHALENE	160	NA	0.0036 U	0.004 U	0.004 U	0.0039 U	0.0045 U	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.004 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.03 U	0.033 U	0.033 U	0.032 U	0.037 U	0.03 U	0.031 U	0.031 U	0.033 U	0.033 U
PENTACHLOROPHENOL	5.3	NA	0.088 U	0.097 U	0.098 U	0.095 U	0.11 U	0.09 U	0.093 U	0.092 U	0.098 U	0.098 U
PHENANTHRENE	2300	NA	**0.0096**	0.004 U	**0.048**	0.0039 U	**0.093**	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.004 U
PHENOL	2300	NA	0.03 U	0.033 U	0.033 U	0.032 U	0.037 U	0.03 U	0.031 U	0.031 U	0.033 U	0.033 U
PYRENE	230	NA	**0.011**	0.004 U	**0.11**	0.0039 U	**0.15**	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.004 U
TOTAL PAHS	NA	NA	**0.0346**	0 U	**0.98**	0 U	**1.0628**	0 U	0 U	0 U	0 U	0 U
TOTAL PAHS ECO HALFND	NA	NA	**0.0586**	0.03265 U	**0.99**	0.03185 U	**1.07405**	0.0302 U	0.03105 U	0.03105 U	0.0335 U	0.03265 U
TOTAL PAHS HALFND	NA	NA	**0.0586**	0.03265 U	**0.99**	0.03185 U	**1.07405**	0.0302 U	0.03105 U	0.03105 U	0.0335 U	0.03265 U
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.014 U	0.016 U	0.016 U	0.015 U	0.018 U	0.015 U	0.015 U	0.015 U	0.016 U	0.016 U
AROCLOR-1260	0.32	NA	0.019 U	0.021 U	0.021 U	0.02 U	0.023 U	0.019 U	0.02 U	0.019 U	0.021 U	0.021 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.0635**	**0.07**	**0.071**	**0.068**	**0.0785**	**0.065**	**0.067**	**0.065**	**0.071**	**0.071**
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.045 B**	**0.22 J**	**0.2 J**	**0.043 B**	**1.6 L**	**0.055 B**	**0.065 J**	**0.082 J**	**0.065 B**	**0.035 B**
ARSENIC	0.43	3.6	**1.6**	**6.9**	**4.7 J**	**9.7**	**4.6**	**4.2**	**3.4 L**	**1.6 J**	**4.8**	**1.1**
BARIUM	1600	NA	**9.6**	**25**	**66.7**	**110**	**40.1**	**42.4**	**40.7**	**36.2**	**28.4**	**4.9**
BERYLLIUM	16	NA	**0.13 K**	**1.8**	**0.59**	**3.9**	**2.1**	**1.5**	**0.42**	**1.7**	**0.48**	**0.3**
CADMIUM	3.9	NA	**0.015 B**	**0.016 B**	**0.37 J**	**0.73 L**	**3.2**	**0.016 B**	0.0029 U	**0.013 B**	**0.1 J**	**0.19 J**
CHROMIUM	23	28	**3.7 J**	**27.8 J**	**22.6 J**	**11.1 J**	**38.7 J**	**9.1 J**	**11.4**	**19**	**14.7**	**5.2**
COBALT	NA	NA	**1.8 J**	**9 J**	**4.7 J**	**20.2 J**	**27.1 J**	**43.2 J**	**1.7 J**	**27.9 J**	**12.2**	**2.5**
COPPER	310	NA	**3.1**	**27**	**12.8 J**	**49**	**20.5**	**23.1**	**8.7**	**21.3**	**11.6**	**46.2**
IRON	5500	15000	**3280 J**	**32400 J**	**8180 J**	**47200 J**	**12800 J**	**28100 J**	**5860**	**91300**	**13700**	**619**
LEAD	400	NA	**2.8 J**	**8.9 J**	**16.5 J**	**9 J**	**181 J**	**9.8 J**	**4**	**14.8**	**9.7 J**	**4.8 J**
MANGANESE	160	480	**21.8 K**	**64.8 K**	**431 K**	**3120 K**	**246 K**	**1370 K**	**365 J**	**2080 J**	**51.8**	**19.3**
MERCURY	2.3	NA	0.018 U	**0.025 J**	**0.038 J**	0.02 U	**0.058 J**	**0.027 J**	0.019 U	**0.023 J**	**0.022 J**	0.02 UL
MOLYBDENUM	NA	NA	**0.22**	**0.3**	**0.67 J**	0.16 U	**0.92**	**0.032 J**	**0.25 B**	**0.086 B**	**0.71**	**0.078 B**
NICKEL	160	NA	**1.4 J**	**22.4 J**	**7.3 J**	**22.5 J**	**24.3 J**	**61.1 J**	**1.4**	**20.1**	**12.5**	**4**
SELENIUM	39	NA	**0.37 J**	**6.1**	**1.2 J**	**20**	**2.7**	**5.8**	**0.59 J**	**0.68 J**	**0.88 J**	**1.7 J**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-017		GSP-SB-018		GSP-SB-019		GSP-SB-020		GSP-SB-021	
SAMPLE ID			GSP-SB-17-0-2	GSP-SB-17-23-25	GSP-SB-18-0-2	GSP-SB-18-22-24	GSP-SB-19-0-2	GSP-SB-19-23-25	GSP-SB-20-0-2	GSP-SB-20-20-22	GSP-SB-21-0-2	GSP-SB-21-20-22
			GSP-SB-17-0-2	GSP-SB-17-23-25	GSP-SB-18-0-2	GSP-SB-18-22-24	GSP-SB-19-0-2	GSP-SB-19-23-25	GSP-SB-20-0-2	GSP-SB-20-20-22	GSP-SB-21-0-2	GSP-SB-21-20-22
			REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=03	REC=04	REC=04
SAMPLE DATE	Maryland	ATCs	20100504	20100504	20100504	20100504	20100504	20100504	20100505	20100505	20100503	20100503
TOP DEPTH	Residential		0	23	0	22	0	23	0	20	0	20
BOTTOM DEPTH	Soil Standard		2	25	2	24	2	25	2	22	2	22
SILVER	39	NA	0.022 B	0.023 B	0.037 B	0.02 B	0.093 J	0.019 B	0.017 B	0.018 B	0.026 B	0.04 B
THALLIUM	0.55	3.9	0.031 B	0.13 B	0.12 B	0.14 B	0.13 B	0.13 B	0.14 B	0.07 B	0.24 B	0.067 B
VANADIUM	7.8	30	7.6 J	47.7 J	26.1 J	14.2 J	38 J	17.1 J	17.4	76.2	27.5	15.8
ZINC	2300	NA	7.6 J	31.5 J	28.1 J	101 J	99.1 J	38.9 J	4.3	57.4	33.1 J	86.3 J
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	15 J	6.6 J	77 J	7.2 J	120 J	9.3 J	20	3.3 J	16	5.7 J
GASOLINE RANGE ORGANICS	230	NA	0.031 U	0.034 U	0.034 U	0.033 U	0.038 U	0.031 U	0.033 U	0.032 U	0.034 U	0.034 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-022		GSP-SB-023		GSP-SB-024		GSP-SB-025		GSP-SB-026	
SAMPLE ID			GSP-SB-22-23-25	GSP-SB-22-7-9	GSP-SB-23-0-2	GSP-SB-23-20-22	GSP-SB-24-0-2	GSP-SB-24-20-22	GSP-SB-25-0-2	GSP-SB-25-20-22	GSP-SB-26-20-22	GSP-SB-26-2-4
			GSP-SB-22-23-25	GSP-SB-22-7-9	GSP-SB-23-0-2	GSP-SB-23-20-22	GSP-SB-24-0-2	GSP-SB-24-20-22	GSP-SB-25-0-2	GSP-SB-25-20-22	GSP-SB-26-20-22	GSP-SB-26-2-4
			REC=04	REC=04	REC=04	REC=04	REC=04	REC=04	REC=04	REC=04	REC=04	REC=04
SAMPLE DATE	Maryland	ATCs	20100517	20100517	20100503	20100503	20100503	20100503	20100503	20100503	20100503	20100503
TOP DEPTH	Residential		23	7	0	20	0	20	0	20	20	2
BOTTOM DEPTH	Soil Standard		25	9	2	22	2	22	2	22	22	4
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.001 U	0.001 U	0.0011 U	0.00098 U	0.0013 U	0.0015 U	0.0011 U	0.0011 U	0.0012 U	0.0024 U
1,1-DICHLOROETHENE	390	NA	0.00041 U	0.00042 U	0.00043 U	0.00039 U	0.00051 U	0.0006 U	0.00046 U	0.00044 U	0.00046 U	0.00097 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.0003 U	0.00031 U	0.00031 U	0.00029 U	0.00037 U	0.00044 U	0.00034 U	0.00033 U	0.00034 U	0.00071 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00014 U	0.00014 U	0.00014 U	0.00013 U	**0.00025 J**	**0.00058 J**	0.00015 U	0.00015 U	0.00015 U	0.00032 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00021 U	0.00022 U	0.00022 U	0.0002 U	0.00026 U	0.00031 U	0.00024 U	0.00023 U	0.00024 U	0.0005 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00052 U	0.00052 U	0.00054 U	0.00049 U	0.00064 U	0.00076 U	0.00057 U	0.00056 U	0.00058 U	0.0012 U
1,2-DICHLOROBENZENE	700	NA	0.00029 U	0.00029 U	0.0003 U	0.00027 U	0.00035 U	0.00042 U	0.00032 U	0.00031 U	0.00032 U	0.00067 U
1,2-DICHLOROETHANE	7	NA	0.00027 U	0.00027 U	0.00028 U	0.00026 U	0.00033 U	0.0004 U	0.0003 U	0.00029 U	0.0003 U	0.00064 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00028 U	0.00028 U	0.00029 U	0.00026 U	0.00034 U	0.00041 U	0.00031 U	0.0003 U	0.00031 U	0.00065 U
1,4-DICHLOROBENZENE	27	NA	0.00052 U	0.00053 U	0.00055 U	0.0005 U	0.00065 U	0.00077 U	0.00058 U	0.00056 U	0.00059 U	0.0012 U
2-BUTANONE	4700	NA	0.0011 U	**0.0035 J**	**0.0041 J**	0.0011 U	0.0014 U	0.0016 U	**0.0066 J**	0.0012 U	0.0012 U	**0.067**
2-HEXANONE	NA	NA	0.0005 U	0.00051 U	0.00052 U	0.00047 U	0.00062 U	0.00073 U	0.00056 U	0.00054 U	0.00056 U	0.0012 U
4-ISOPROPYLTOLUENE	NA	NA	0.00017 U	0.00017 U	0.00017 U	0.00016 U	0.00021 U	**0.00036 J**	0.00019 U	0.00018 U	0.00019 U	0.00039 U
4-METHYL-2-PENTANONE	NA	NA	0.00043 U	0.00044 U	0.00045 U	0.00041 U	0.00053 U	0.00063 U	0.00048 U	0.00046 U	0.00048 U	0.001 U
ACETONE	7000	NA	**0.0084 B**	**0.024 B**	**0.05**	0.0047 U	**0.016**	**0.052**	**0.085**	**0.0071 J**	**0.01**	**0.35**
BENZENE	12	NA	0.00018 U	0.00019 U	0.00019 U	0.00017 U	0.00023 U	0.00027 U	0.0002 U	0.0002 U	0.00021 U	0.00043 U
BROMOMETHANE	11	NA	0.00043 U	0.00044 U	0.00045 U	0.00041 U	0.00053 U	0.00063 U	0.00048 U	0.00046 U	0.00048 U	0.001 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00035 U	0.00036 U	0.00036 U	0.00033 U	0.00043 U	**0.0023 J**	**0.001 J**	0.00038 U	0.00039 U	0.00082 U
CARBON TETRACHLORIDE	4.9	NA	0.00029 U	0.0003 U	0.00031 U	0.00028 U	0.00036 U	0.00043 U	0.00033 U	0.00032 U	0.00033 U	0.00069 U
CHLOROBENZENE	160	NA	0.00026 U	0.00027 U	0.00027 U	0.00025 U	0.00032 U	0.00038 U	0.00029 U	0.00028 U	0.00029 U	0.00062 U
CHLOROETHANE	220	NA	0.00068 U	0.00069 U	0.00071 U	0.00065 U	0.00084 U	0.001 U	0.00076 U	0.00074 U	0.00077 U	0.0016 U
CHLOROFORM	78	NA	0.00023 U	0.00023 U	0.00024 U	0.00022 U	0.00028 U	0.00034 U	0.00026 U	0.00025 U	0.00026 U	0.00054 U
CHLOROMETHANE	NA	NA	0.00033 U	0.00033 U	0.00034 U	0.00031 U	0.0004 U	0.00048 U	0.00036 U	0.00035 U	0.00037 U	0.00077 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00029 U	0.00029 U	0.0003 U	0.00027 U	0.00035 U	0.00042 U	0.00032 U	0.00031 U	0.00032 U	0.00067 U
DIISOPROPYL ETHER	NA	NA	0.0012 U	0.0012 U	0.0012 U	0.0011 U	0.0015 U	0.0017 U	0.0013 U	0.0013 U	0.0013 U	0.0028 U
ETHYLBENZENE	780	NA	0.00021 U	0.00021 U	0.00022 U	0.0002 U	0.00025 U	0.0003 U	0.00023 U	0.00022 U	0.00023 U	0.00049 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00013 U	0.00013 U	0.00013 U	0.00012 U	0.00016 U	0.00019 U	0.00014 U	0.00014 U	0.00014 U	0.0003 U
M+P-XYLENES	NA	NA	0.00095 U	0.00097 U	0.00099 U	0.0009 U	0.0012 U	0.0014 U	0.0011 U	0.001 U	0.0011 U	0.0022 U
METHYL TERT-BUTYL ETHER	160	NA	0.00034 UJ	0.00035 UJ	0.00036 U	0.00032 U	0.00042 U	0.0005 U	0.00038 U	0.00037 U	0.00038 U	0.0008 U
METHYLENE CHLORIDE	85	NA	0.00053 U	0.00054 U	0.00055 U	**0.00072 J**	0.00066 U	**0.00089 B**	0.00059 U	**0.00073 J**	0.0006 U	0.0013 U
NAPHTHALENE	160	NA	0.00015 U	0.00015 U	0.00016 U	0.00014 U	0.00019 U	0.00022 U	0.00017 U	0.00016 U	0.00017 U	0.00036 U
N-BUTYLBENZENE	NA	NA	0.00018 U	0.00019 U	0.00019 U	0.00017 U	0.00023 U	0.00027 U	0.0002 U	0.0002 U	0.00021 U	0.00043 U
N-PROPYLBENZENE	NA	NA	0.00032 U	0.00032 U	0.00033 U	0.0003 U	0.00039 U	0.00046 U	0.00035 U	0.00034 U	0.00036 U	0.00075 U
O-XYLENE	NA	NA	0.00028 U	0.00028 U	0.00029 U	0.00026 U	0.00034 U	0.00041 U	0.00031 U	0.0003 U	0.00031 U	0.00065 U
SEC-BUTYLBENZENE	NA	NA	0.00014 U	0.00015 U	0.00015 U	0.00014 U	0.00018 U	0.00021 U	0.00016 U	0.00015 U	0.00016 U	0.00034 U
STYRENE	1600	NA	0.00012 U	0.00012 U	0.00012 U	0.00011 U	0.00015 U	0.00017 U	0.00013 U	0.00013 U	0.00013 U	0.00028 U
TERT-AMYL METHYL ETHER	NA	NA	0.00029 UJ	0.0003 UJ	0.00031 U	0.00028 U	0.00036 U	0.00043 U	0.00033 U	0.00032 U	0.00033 U	0.00069 U
TERT-BUTYLBENZENE	NA	NA	0.00023 U	0.00023 U	0.00024 U	0.00022 U	0.00028 U	0.00034 U	0.00026 U	0.00025 U	0.00026 U	0.00054 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.006 UR	0.0061 UR	0.0063 UR	0.0057 UR	0.0074 UR	0.0088 UR	0.0067 UR	0.0065 UR	0.0068 UR	0.014 UR
TETRACHLOROETHENE	1.2	NA	0.00041 U	0.00042 U	0.00043 U	0.00039 U	0.00051 U	0.0006 U	0.00046 U	0.00044 U	0.00046 U	0.00097 U
TOLUENE	630	NA	0.00021 U	0.00022 U	0.00022 U	0.0002 U	0.00026 U	0.00031 U	0.00024 U	0.00023 U	0.00024 U	0.0005 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00053 U	0.00054 U	0.00055 U	0.0005 U	0.00066 U	0.00078 U	0.00059 U	0.00057 U	0.0006 U	0.0013 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00033 U	0.00033 U	0.00034 U	0.00031 U	0.0004 U	0.00048 U	0.00036 U	0.00035 U	0.00037 U	0.00077 U
TRICHLOROETHENE	1.6	NA	0.00033 U	0.00034 U	0.00035 U	0.00032 U	0.00041 U	**0.0015 J**	0.00037 U	0.00036 U	0.00037 U	0.00079 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00027 U	0.00027 U	0.00028 U	0.00026 U	0.00033 U	0.0004 U	0.0003 U	0.00029 U	0.0003 U	0.00064 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00031 U	0.00031 U	0.00032 U	0.00029 U	0.00038 U	0.00045 U	0.00034 U	0.00033 U	0.00035 U	0.00073 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.031 U	0.032 U	0.032 U	0.031 U	0.033 U	0.032 U	0.033 U	0.032 U	0.032 U	0.05 U
2,4-DICHLOROPHENOL	23	NA	0.023 U	0.024 U	0.024 U	0.023 U	0.025 U	0.024 U	0.024 U	0.024 U	0.024 U	0.037 U
2-CHLOROPHENOL	39	NA	0.031 U	0.032 U	0.032 U	0.031 U	0.033 U	0.032 U	0.033 U	0.032 U	0.032 U	0.05 U
2-METHYLNAPHTHALENE	31	NA	0.0038 U	0.0039 U	0.0039 U	0.0038 U	0.0041 U	0.004 U	0.004 U	0.0039 U	0.0039 U	0.0062 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-022		GSP-SB-023		GSP-SB-024		GSP-SB-025		GSP-SB-026	
SAMPLE ID			GSP-SB-22-23-25	GSP-SB-22-7-9	GSP-SB-23-0-2	GSP-SB-23-20-22	GSP-SB-24-0-2	GSP-SB-24-20-22	GSP-SB-25-0-2	GSP-SB-25-20-22	GSP-SB-26-20-22	GSP-SB-26-2-4
			GSP-SB-22-23-25	GSP-SB-22-7-9	GSP-SB-23-0-2	GSP-SB-23-20-22	GSP-SB-24-0-2	GSP-SB-24-20-22	GSP-SB-25-0-2	GSP-SB-25-20-22	GSP-SB-26-20-22	GSP-SB-26-2-4
			REC=04	REC=04	REC=04	REC=04	REC=04	REC=04	REC=04	REC=04	REC=04	REC=04
SAMPLE DATE	Maryland	ATCs	20100517	20100517	20100503	20100503	20100503	20100503	20100503	20100503	20100503	20100503
TOP DEPTH	Residential		23	7	0	20	0	20	0	20	20	2
BOTTOM DEPTH	Soil Standard		25	9	2	22	2	22	2	22	22	4
ACENAPHTHENE	470	NA	0.0038 U	0.0039 U	0.0039 U	0.0038 U	0.0041 U	0.004 U	0.004 U	0.0039 U	0.0039 U	0.0062 U
ACENAPHTHYLENE	470	NA	0.0038 U	0.0039 U	0.0039 U	0.0038 U	0.0041 U	0.004 U	0.004 U	0.0039 U	0.0039 U	0.0062 U
ANTHRACENE	2300	NA	0.0038 U	0.0039 U	0.0039 U	0.0038 U	0.0041 U	0.004 U	0.004 U	0.0039 U	0.0039 U	0.0062 U
BAP EQUIVALENT-HALFND	NA	NA	0.0038 U	0.0039 U	0.0039 U	0.0038 U	0.0041 U	0.004 U	**0.014913**	0.0039 U	**0.006515**	0.0062 U
BAP EQUIVALENT-POS	NA	NA	0.0038 U	0.0039 U	0.0039 U	0.0038 U	0.0041 U	0.004 U	**0.012713**	0.0039 U	**0.0024**	0.0062 U
BENZALDEHYDE	NA	NA	0.014 U	0.014 U	0.014 U	0.014 U	0.015 U	0.014 U	0.015 U	0.014 U	0.014 U	0.022 U
BENZO(A)ANTHRACENE	0.22	NA	0.0038 U	0.0039 U	0.0039 U	0.0038 U	0.0041 U	0.004 U	**0.012**	0.0039 U	0.0039 U	0.0062 U
BENZO(A)PYRENE	0.022	NA	0.0038 U	0.0039 U	0.0039 U	0.0038 U	0.0041 U	0.004 U	**0.01**	0.0039 U	0.0039 U	0.0062 U
BENZO(B)FLUORANTHENE	0.22	NA	0.0038 U	0.0039 U	0.0039 U	0.0038 U	0.0041 U	0.004 U	**0.014**	0.0039 U	**0.012**	0.0062 U
BENZO(G,H,I)PERYLENE	230	NA	0.0038 U	0.0039 U	0.0039 U	0.0038 U	0.0041 U	0.004 U	**0.0089**	0.0039 U	**0.009**	0.0062 U
BENZO(K)FLUORANTHENE	2.2	NA	0.0038 U	0.0039 U	0.0039 U	0.0038 U	0.0041 U	0.004 U	**0.0099**	0.0039 U	0.0039 U	0.0062 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.047 B**	0.023 U	0.022 U	0.022 U	0.024 U	**0.027 J**	0.023 U	0.023 U	0.023 U	**0.066 J**
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.012 U	0.012 U	0.011 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.019 U
CAPROLACTAM	NA	NA	0.043 U	0.044 U	0.044 U	0.042 U	0.046 U	0.044 U	0.045 U	0.044 U	0.044 U	0.069 U
CARBAZOLE	32	NA	0.031 U	0.032 U	0.032 U	0.031 U	0.033 U	0.032 U	0.033 U	0.032 U	0.032 U	0.05 U
CHRYSENE	22	NA	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0014 U	0.0013 U	**0.014**	0.0013 U	0.0013 U	0.0021 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0038 U	0.0039 U	0.0039 U	0.0038 U	0.0041 U	0.004 U	0.004 U	0.0039 U	0.0039 U	0.0062 U
DIBENZOFURAN	7.8	NA	0.023 U	0.024 U	0.024 U	0.023 U	0.025 U	0.024 U	0.024 U	0.024 U	0.024 U	0.037 U
DIETHYL PHTHALATE	6300	NA	0.018 U	0.019 U	0.019 U	0.018 U	0.02 U	0.019 U	0.019 U	0.019 U	0.019 U	0.03 U
DIMETHYL PHTHALATE	NA	NA	0.02 U	0.02 U	0.02 U	0.019 U	0.021 U	0.02 U	0.021 U	0.02 U	0.02 U	0.032 U
DI-N-BUTYL PHTHALATE	780	NA	0.017 U	0.018 U	0.018 U	0.017 U	0.019 U	**0.021 J**	0.018 U	0.018 U	0.018 U	0.028 U
FLUORANTHENE	310	NA	0.0038 U	0.0039 U	0.0039 U	0.0038 U	0.0041 U	0.004 U	**0.019**	0.0039 U	0.0039 U	0.0062 U
FLUORENE	310	NA	0.0038 U	0.0039 U	0.0039 U	0.0038 U	0.0041 U	0.004 U	0.004 U	0.0039 U	0.0039 U	0.0062 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	0 U	0 U	**0.0868**	0 U	**0.033**	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.01775 U	0.0182 U	0.0182 U	0.01775 U	0.01915 U	0.01865 U	**0.1098**	0.0182 U	**0.04535**	0.02895 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.01585**	**0.01625**	**0.01625**	**0.01585**	**0.0171**	**0.01665**	**0.0908**	**0.01625**	**0.0434**	**0.02585**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.0038 U	0.0039 U	0.0039 U	0.0038 U	0.0041 U	0.004 U	0.004 U	0.0039 U	**0.012**	0.0062 U
ISOPHORONE	670	NA	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U	0.016 U	0.016 U	0.015 U	0.015 U	0.024 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	0 U	0 U	**0.019**	0 U	0 U	**0.037**
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.0133 U	0.01365 U	0.01365 U	0.0133 U	0.01435 U	0.014 U	0.014 U	0.01365 U	0.01365 U	**0.0525**
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0152**	**0.0156**	**0.0156**	**0.0152**	**0.0164**	**0.016**	**0.033**	**0.0156**	**0.0156**	**0.0556**
NAPHTHALENE	160	NA	0.0038 U	0.0039 U	0.0039 U	0.0038 U	0.0041 U	0.004 U	0.004 U	0.0039 U	0.0039 U	**0.02**
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.031 U	0.032 U	0.032 U	0.031 U	0.033 U	0.032 U	0.033 U	0.032 U	0.032 U	0.05 U
PENTACHLOROPHENOL	5.3	NA	0.092 U	0.095 U	0.095 U	0.091 U	0.099 U	0.096 U	0.097 U	0.095 U	0.095 U	0.15 U
PHENANTHRENE	2300	NA	0.0038 U	0.0039 U	0.0039 U	0.0038 U	0.0041 U	0.004 U	0.004 U	0.0039 U	0.0039 U	**0.017**
PHENOL	2300	NA	0.031 U	0.032 U	0.032 U	0.031 U	0.033 U	0.032 U	0.033 U	0.032 U	0.032 U	0.05 U
PYRENE	230	NA	0.0038 U	0.0039 U	0.0039 U	0.0038 U	0.0041 U	0.004 U	**0.018**	0.0039 U	0.0039 U	0.0062 U
TOTAL PAHS	NA	NA	0 U	0 U	0 U	0 U	0 U	0 U	**0.1058**	0 U	**0.033**	**0.037**
TOTAL PAHS ECO HALFND	NA	NA	0.03105 U	0.03185 U	0.03185 U	0.03105 U	0.0335 U	0.03265 U	**0.1238**	0.03185 U	**0.059**	**0.08145**
TOTAL PAHS HALFND	NA	NA	0.03105 U	0.03185 U	0.03185 U	0.03105 U	0.0335 U	0.03265 U	**0.1238**	0.03185 U	**0.059**	**0.08145**
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U	0.016 U	0.016 U	0.015 U	0.015 U	0.024 U
AROCLOR-1260	0.32	NA	0.02 U	0.02 U	0.02 U	0.019 U	0.021 U	0.02 U	0.021 U	0.02 U	0.02 U	0.032 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.0665**	**0.068**	**0.068**	**0.065**	**0.071**	**0.0685**	**0.07**	**0.068**	**0.068**	**0.1075**
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.079 B**	**0.074 B**	**0.11 J**	**0.061 B**	**0.12 J**	**0.041 B**	**0.12 J**	**0.12 J**	**0.067 J**	**0.1 B**
ARSENIC	0.43	3.6	**2.6**	**4.2**	**5.2**	**1.3**	**2.5**	**0.73**	**2.3**	**5.1**	**3.4**	**8.8**
BARIUM	1600	NA	**16.5 J**	**27.4 J**	**46**	**24.2**	**40.7**	**14.8**	**119**	**25.4**	**14.3**	**37**
BERYLLIUM	16	NA	**1.6 J**	**0.4 J**	**0.73**	**2.7 L**	**0.92**	**0.19**	**0.91 L**	**6**	**2.2**	**1.6**
CADMIUM	3.9	NA	**0.037 B**	**0.0076 B**	**0.031 B**	**0.056 J**	**0.18 J**	0.003 U	**0.045 B**	**0.15 J**	**0.019 B**	**0.23 J**
CHROMIUM	23	28	**14.8**	**15.6**	**16.4**	**16.9**	**19.8**	**5.2**	**34.8**	**14**	**16.7**	**29.3**
COBALT	NA	NA	**29.1**	**3.3**	**15.6**	**27**	**5.2**	**0.63**	**2.6**	**119**	**52.9**	**19.8**
COPPER	310	NA	**27.9 K**	**16.9 K**	**10**	**10.4 K**	**28.9**	**2.3**	**29.1**	**23.8**	**23.2**	**16.7**
IRON	5500	15000	**41100**	**7390**	**13400**	**88500**	**2190**	**808**	**8250**	**4810**	**785**	**32300**
LEAD	400	NA	**20.4**	**5.5**	**6.9 J**	**9.1 J**	**4.1 J**	**1.6 J**	**4.9 J**	**13 J**	**12.5 J**	**17.5 J**
MANGANESE	160	480	**1320**	**49.3**	**236**	**3090**	**229**	**178**	**1510**	**83.6**	**14.8**	**962**
MERCURY	2.3	NA	0.019 U	0.02 U	0.02 UL	0.019 UL	0.021 UL	0.02 UL	0.02 UL	0.02 UL	0.02 UL	**0.048 J**
MOLYBDENUM	NA	NA	**0.1 B**	**0.24**	**0.8**	**0.085 B**	**0.84**	**0.52**	**0.38 K**	**0.48 K**	**0.081 B**	**2**
NICKEL	160	NA	**31.4 K**	**5.3 K**	**11.3**	**25.9**	**12.6**	**0.99**	**11**	**229**	**74.2**	**31.3**
SELENIUM	39	NA	**0.97**	**1 K**	**0.83 J**	**0.41 J**	**1.5 J**	**0.3 J**	**1.3 J**	**1.2 J**	**2.4 J**	**2.2 J**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-022		GSP-SB-023		GSP-SB-024		GSP-SB-025		GSP-SB-026	
SAMPLE ID			GSP-SB-22-23-25	GSP-SB-22-7-9	GSP-SB-23-0-2	GSP-SB-23-20-22	GSP-SB-24-0-2	GSP-SB-24-20-22	GSP-SB-25-0-2	GSP-SB-25-20-22	GSP-SB-26-20-22	GSP-SB-26-2-4
			GSP-SB-22-23-25	GSP-SB-22-7-9	GSP-SB-23-0-2	GSP-SB-23-20-22	GSP-SB-24-0-2	GSP-SB-24-20-22	GSP-SB-25-0-2	GSP-SB-25-20-22	GSP-SB-26-20-22	GSP-SB-26-2-4
			REC=04	REC=04	REC=04	REC=04	REC=04	REC=04	REC=04	REC=04	REC=04	REC=04
SAMPLE DATE	Maryland	ATCs	20100517	20100517	20100503	20100503	20100503	20100503	20100503	20100503	20100503	20100503
TOP DEPTH	Residential		23	7	0	20	0	20	0	20	20	2
BOTTOM DEPTH	Soil Standard		25	9	2	22	2	22	2	22	22	4
SILVER	39	NA	0.024 B	0.012 B	0.025 B	0.022 B	0.02 B	0.004 B	0.024 B	0.039 B	0.041 B	0.066 B
THALLIUM	0.55	3.9	0.073 B	0.11 B	0.16 B	0.093 B	0.19 B	0.024 B	0.12 B	0.33	0.22 J	0.14 B
VANADIUM	7.8	30	51.8	35.4	31.3	71.8	43	6.4	28.1	22	16.2	41.3
ZINC	2300	NA	95.6	32.4	54.8 J	63.5 J	51.5 J	1.9 J	12.5 J	374 J	14.9 J	91.8 J
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	3.2 U	7.3 J	10 J	3.2 UJ	33	4.1 J	9.4 J	12 J	16	18 J
GASOLINE RANGE ORGANICS	230	NA	0.032 U	0.033 U	0.033 UJ	0.032 UJ	0.081 J	0.61	0.034 UJ	0.033 UJ	0.033 U	0.052 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-027				GSP-SB-028				GSP-SB-029	
SAMPLE ID			GSP-SB-27-0-2 GSP-SB-27-0-2 REC=04	GSP-SB-27-23-25 GSP-SB-27-23-25 REC=04	GSP-SB-27-23-25- GSP-SB-27-23-25- REC=04	GSP-SB-27-23-25-D GSP-SB-27-23-25-D REC=04	GSP-SB-28-0-2 GSP-SB-28-0-2 REC=04	GSP-SB-28-22-24 GSP-SB-28-22-24 REC=04	GSP-SB-29-0-2 GSP-SB-29-0-2 REC=06	GSP-SB-29-1-3 GSP-SB-29-1-3 REC=06	GSP-SB-29-13-15 GSP-SB-29-13-15 REC=06	GSP-SB-29-21-23 GSP-SB-29-21-23 REC=06
SAMPLE DATE	Maryland	ATCs	20100507	20100507	20100507	20100507	20100503	20100503	20100514	20100507	20100507	20100514
TOP DEPTH	Residential		0	23	23	23	0	22	0	1	13	21
BOTTOM DEPTH	Soil Standard		2	25	25	25	2	24	2	3	15	23
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0011 U	0.00097 U	0.000985 U	0.001 U	0.0013 U	0.0011 U	0.0012 U	0.0012 U	0.0012 U	0.001 U
1,1-DICHLOROETHENE	390	NA	0.00043 U	0.00039 U	0.0004 U	0.00041 U	**0.00077 J**	0.00043 U	0.00049 U	0.00048 U	0.00047 U	0.0004 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00032 U	0.00028 U	0.00029 U	0.0003 U	0.00038 U	0.00032 U	0.00036 U	0.00035 U	0.00034 U	0.00029 U
1,2,3-TRIMETHYLBENZENE	NA	NA	**0.00021 J**	0.00013 U	0.00013 U	0.00013 U	0.00017 U	0.00014 U	0.00016 U	0.00016 U	0.00015 U	0.00013 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00023 U	0.0002 U	0.000205 U	0.00021 U	0.00027 U	0.00023 U	0.00025 U	0.00025 U	0.00024 U	0.00021 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00054 U	0.00049 U	0.0005 U	0.00051 U	0.00065 U	0.00054 U	0.00061 U	0.0006 U	0.00059 U	0.0005 U
1,2-DICHLOROBENZENE	700	NA	0.0003 U	0.00027 U	0.000275 U	0.00028 U	0.00036 U	0.0003 U	0.00034 U	0.00033 U	0.00033 U	0.00028 U
1,2-DICHLOROETHANE	7	NA	0.00028 U	0.00025 U	0.00026 U	0.00027 U	0.00034 U	0.00028 U	0.00032 U	0.00031 U	0.00031 U	0.00026 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00029 U	0.00026 U	0.00027 U	0.00028 U	0.00035 U	0.00029 U	0.00033 U	0.00032 U	0.00032 U	0.00027 U
1,4-DICHLOROBENZENE	27	NA	0.00055 U	0.00049 U	0.000505 U	0.00052 U	0.00066 U	0.00055 U	0.00062 U	0.00061 U	0.0006 U	0.00051 U
2-BUTANONE	4700	NA	**0.004 J**	0.001 U	0.00105 U	0.0011 U	0.0014 U	0.0012 U	**0.003 J**	0.0013 U	0.0013 U	0.0011 U
2-HEXANONE	NA	NA	0.00053 U	0.00047 U	0.000485 U	0.0005 U	0.00063 U	0.00053 U	0.00059 U	0.00058 U	0.00057 U	0.00049 U
4-ISOPROPYLTOLUENE	NA	NA	**0.00071 J**	0.00016 U	0.000165 U	0.00017 U	0.00021 U	0.00018 U	0.0002 U	0.00019 U	0.00019 U	0.00016 U
4-METHYL-2-PENTANONE	NA	NA	0.00045 U	0.0004 U	0.000415 U	0.00043 U	0.00054 U	0.00045 U	0.00051 U	0.0005 U	0.00049 U	0.00042 U
ACETONE	7000	NA	**0.048 B**	**0.0057 B**	0.0061 U	**0.0065 B**	**0.015**	0.0053 U	**0.041**	**0.015 B**	**0.012 B**	**0.0081 B**
BENZENE	12	NA	0.00019 U	0.00017 U	0.000175 U	0.00018 U	0.00023 U	0.00019 U	0.00022 U	0.00021 U	0.00021 U	0.00018 U
BROMOMETHANE	11	NA	0.00045 U	0.0004 U	0.000415 U	0.00043 U	0.00054 U	0.00045 U	0.00051 U	0.0005 U	0.00049 U	0.00042 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00037 U	0.00033 U	0.00034 U	0.00035 U	**0.0037 J**	0.00037 U	0.00041 U	0.00041 U	**0.0004 J**	0.00034 U
CARBON TETRACHLORIDE	4.9	NA	0.00031 U	0.00028 U	0.000285 U	0.00029 U	0.00037 U	0.00031 U	0.00035 U	0.00034 U	0.00034 U	0.00029 U
CHLOROBENZENE	160	NA	0.00028 U	0.00025 U	0.000255 U	0.00026 U	0.00033 U	0.00028 U	0.00031 U	0.0003 U	0.0003 U	0.00026 U
CHLOROETHANE	220	NA	0.00072 U	0.00064 U	0.00066 U	0.00068 U	0.00085 U	0.00072 U	0.00081 U	0.00079 U	0.00078 U	0.00067 U
CHLOROFORM	78	NA	0.00024 U	0.00022 U	0.000225 U	0.00023 U	0.00029 U	0.00024 U	0.00027 U	0.00027 U	0.00026 U	0.00022 U
CHLOROMETHANE	NA	NA	0.00034 U	0.00031 U	0.000315 U	0.00032 U	0.00041 U	0.00034 U	0.00038 U	0.00038 U	0.00037 U	0.00032 U
CIS-1,2-DICHLOROETHENE	78	NA	0.0003 U	**0.00035 J**	**0.000375**	**0.0004 J**	**0.032**	0.0003 U	0.00034 U	0.00033 U	0.00033 U	0.00028 U
DIISOPROPYL ETHER	NA	NA	0.0013 U	0.0011 U	0.00115 U	0.0012 U	0.0015 U	0.0013 U	0.0014 U	0.0014 U	0.0014 U	0.0012 U
ETHYLBENZENE	780	NA	0.00022 U	0.00019 U	0.0002 U	0.00021 U	0.00026 U	0.00022 U	0.00024 U	0.00024 U	0.00024 U	0.0002 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	**0.00014 J**	0.00012 U	0.000125 U	0.00013 U	0.00016 U	0.00013 U	0.00015 U	0.00015 U	0.00015 U	0.00012 U
M+P-XYLENES	NA	NA	0.001 U	0.0009 U	0.000925 U	0.00095 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00093 U
METHYL TERT-BUTYL ETHER	160	NA	0.00036 U	0.00032 U	0.00033 U	0.00034 U	0.00043 U	0.00036 U	0.0004 U	0.0004 U	0.00039 U	0.00033 UJ
METHYLENE CHLORIDE	85	NA	0.00056 U	0.0005 U	0.000515 U	0.00053 U	0.00067 U	0.00056 U	**0.0033 B**	0.00062 U	0.00061 U	0.00052 U
NAPHTHALENE	160	NA	0.00016 U	0.00014 U	0.000145 U	0.00015 U	0.00019 U	0.00016 U	0.00018 U	0.00018 U	0.00017 U	0.00015 U
N-BUTYLBENZENE	NA	NA	0.00019 U	0.00017 U	0.000175 U	0.00018 U	0.00023 U	0.00019 U	0.00022 U	0.00021 U	0.00021 U	0.00018 U
N-PROPYLBENZENE	NA	NA	0.00033 U	0.0003 U	0.00031 U	0.00032 U	0.0004 U	0.00033 U	0.00037 U	0.00037 U	0.00036 U	0.00031 U
O-XYLENE	NA	NA	0.00029 U	0.00026 U	0.00027 U	0.00028 U	0.00035 U	0.00029 U	0.00033 U	0.00032 U	0.00032 U	0.00027 U
SEC-BUTYLBENZENE	NA	NA	0.00015 U	0.00013 U	0.000135 U	0.00014 U	0.00018 U	0.00015 U	0.00017 U	0.00017 U	0.00016 U	0.00014 U
STYRENE	1600	NA	0.00013 U	0.00011 U	0.000115 U	0.00012 U	0.00015 U	0.00013 U	0.00014 U	0.00014 U	0.00014 U	0.00012 U
TERT-AMYL METHYL ETHER	NA	NA	0.00031 U	0.00028 U	0.000285 U	0.00029 U	0.00037 U	0.00031 U	0.00035 U	0.00034 U	0.00034 U	0.00029 UJ
TERT-BUTYLBENZENE	NA	NA	0.00024 U	0.00022 U	0.000225 U	0.00023 U	0.00029 U	0.00024 U	0.00027 U	0.00027 U	0.00026 U	0.00022 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0064 UR	0.0057 UR	0.00585 R	0.006 UR	0.0076 UR	0.0063 UR	0.0071 UR	0.007 UR	0.0069 UR	0.0059 UR
TETRACHLOROETHENE	1.2	NA	0.00043 U	0.00039 U	0.0004 U	0.00041 U	0.00052 U	0.00043 U	0.00049 U	0.00048 U	0.00047 U	0.0004 U
TOLUENE	630	NA	0.00023 U	0.0002 U	0.000205 U	0.00021 U	0.00027 U	0.00023 U	0.00025 U	0.00025 U	0.00024 U	0.00021 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00056 U	0.0005 U	0.000515 U	0.00053 U	0.00067 U	0.00056 U	0.00063 U	0.00062 U	0.00061 U	0.00052 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00034 U	0.00031 U	0.000315 U	0.00032 U	**0.0012 J**	0.00034 U	0.00038 U	0.00038 U	0.00037 U	0.00032 U
TRICHLOROETHENE	1.6	NA	0.00035 U	**0.0015 J**	**0.00195**	**0.0024 J**	**0.05**	0.00035 U	0.00039 U	0.00039 U	0.00038 U	0.00033 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00028 U	0.00025 U	0.00026 U	0.00027 U	0.00034 U	0.00028 U	0.00032 U	0.00031 U	0.00031 U	0.00026 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00033 U	0.00029 U	0.0003 U	0.00031 U	0.00039 U	0.00033 U	0.00037 U	0.00036 U	0.00035 U	0.0003 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.031 U	0.03 U	0.03 U	0.03 U	0.032 U	0.032 U	0.035 U	0.032 U	0.033 U	0.032 U
2,4-DICHLOROPHENOL	23	NA	0.023 U	0.022 U	0.0225 U	0.023 U	0.024 U	0.024 U	0.026 U	0.024 U	0.025 U	0.024 U
2-CHLOROPHENOL	39	NA	0.031 U	0.03 U	0.03 U	0.03 U	0.032 U	0.032 U	0.035 U	0.032 U	0.033 U	0.032 U
2-METHYLNAPHTHALENE	31	NA	0.0038 U	0.0037 U	0.0037 U	0.0037 U	**0.021**	0.0039 U	0.0042 U	0.0039 U	0.004 U	0.0039 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-027				GSP-SB-028		GSP-SB-029			
SAMPLE ID			GSP-SB-27-0-2 GSP-SB-27-0-2 REC=04	GSP-SB-27-23-25 GSP-SB-27-23-25 REC=04	GSP-SB-27-23-25- GSP-SB-27-23-25- REC=04	GSP-SB-27-23-25-D GSP-SB-27-23-25-D REC=04	GSP-SB-28-0-2 GSP-SB-28-0-2 REC=04	GSP-SB-28-22-24 GSP-SB-28-22-24 REC=04	GSP-SB-29-0-2 GSP-SB-29-0-2 REC=06	GSP-SB-29-1-3 GSP-SB-29-1-3 REC=06	GSP-SB-29-13-15 GSP-SB-29-13-15 REC=06	GSP-SB-29-21-23 GSP-SB-29-21-23 REC=06
SAMPLE DATE	Maryland	ATCs	20100507	20100507	20100507	20100507	20100503	20100503	20100514	20100507	20100507	20100514
TOP DEPTH	Residential		0	23	23	23	0	22	0	1	13	21
BOTTOM DEPTH	Soil Standard		2	25	25	25	2	24	2	3	15	23
ACENAPHTHENE	470	NA	0.0038 U	0.0037 U	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0042 U	0.0039 U	0.004 U	0.0039 U
ACENAPHTHYLENE	470	NA	0.0038 U	0.0037 U	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0042 U	0.0039 U	0.004 U	0.0039 U
ANTHRACENE	2300	NA	0.0038 U	0.0037 U	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0042 U	0.0039 U	0.004 U	0.0039 U
BAP EQUIVALENT-HALFND	NA	NA	0.0038 U	0.0037 U	0.0037 U	0.0037 U	**0.034384**	0.0039 U	0.0042 U	0.0039 U	0.004 U	0.0039 U
BAP EQUIVALENT-POS	NA	NA	0.0038 U	0.0037 U	0.0037 U	0.0037 U	**0.032384**	0.0039 U	0.0042 U	0.0039 U	0.004 U	0.0039 U
BENZALDEHYDE	NA	NA	0.014 U	0.013 U	0.0135 U	0.014 U	0.014 U	0.014 U	0.015 U	0.014 U	0.015 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	0.0038 U	0.0037 U	0.0037 U	0.0037 U	**0.028**	0.0039 U	0.0042 U	0.0039 U	0.004 U	0.0039 U
BENZO(A)PYRENE	0.022	NA	0.0038 U	0.0037 U	0.0037 U	0.0037 U	**0.024**	0.0039 U	0.0042 U	0.0039 U	0.004 U	0.0039 U
BENZO(B)FLUORANTHENE	0.22	NA	0.0038 U	0.0037 U	0.0037 U	0.0037 U	**0.039**	0.0039 U	0.0042 U	0.0039 U	0.004 U	0.0039 U
BENZO(G,H,I)PERYLENE	230	NA	0.0038 U	0.0037 U	0.0037 U	0.0037 U	**0.018**	0.0039 U	0.0042 U	0.0039 U	0.004 U	0.0039 U
BENZO(K)FLUORANTHENE	2.2	NA	0.0038 U	0.0037 U	0.0037 U	0.0037 U	**0.015**	0.0039 U	0.0042 U	0.0039 U	0.004 U	0.0039 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.42**	0.021 U	**0.05275**	**0.095**	**0.026 J**	0.023 U	**0.17**	0.022 U	**0.17**	0.023 U
BUTYL BENZYL PHTHALATE	NA	NA	0.011 U	0.011 U	0.011 U	0.011 U	**0.03 J**	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U
CAPROLACTAM	NA	NA	0.042 U	0.041 U	0.0415 U	0.042 U	0.044 U	0.044 U	0.047 U	0.044 U	0.045 U	0.044 U
CARBAZOLE	32	NA	0.031 U	0.03 U	0.03 U	0.03 U	0.032 U	0.032 U	0.035 U	0.032 U	0.033 U	0.032 U
CHRYSENE	22	NA	0.0013 U	0.0012 U	0.0012 U	0.0012 U	**0.034**	0.0013 U	0.0014 U	0.0013 U	0.0013 U	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0038 U	0.0037 U	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0042 U	0.0039 U	0.004 U	0.0039 U
DIBENZOFURAN	7.8	NA	0.023 U	0.022 U	0.0225 U	0.023 U	0.024 U	0.024 U	0.026 U	0.024 U	0.025 U	0.024 U
DIETHYL PHTHALATE	6300	NA	0.018 U	0.018 U	0.018 U	0.018 U	0.019 U	0.019 U	0.021 U	0.019 U	0.02 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.019 U	0.019 U	0.019 U	0.019 U	0.02 U	0.02 U	0.022 U	0.02 U	0.021 U	0.02 U
DI-N-BUTYL PHTHALATE	780	NA	0.017 U	0.017 U	0.017 U	0.017 U	0.018 U	0.018 U	0.019 U	0.018 U	0.018 U	0.018 U
FLUORANTHENE	310	NA	0.0038 U	0.0037 U	0.0037 U	0.0037 U	**0.05**	0.0039 U	0.0042 U	0.0039 U	0.004 U	0.0039 U
FLUORENE	310	NA	0.0038 U	0.0037 U	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0042 U	0.0039 U	0.004 U	0.0039 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	**0.214**	0 U	0 U	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.01775 U	0.01725 U	0.01725 U	0.01725 U	**0.266**	0.0182 U	0.0196 U	0.0182 U	0.01865 U	0.0182 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.01585**	**0.0154**	**0.0154**	**0.0154**	**0.216**	**0.01625**	**0.0175**	**0.01625**	**0.01665**	**0.01625**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.0038 U	0.0037 U	0.0037 U	0.0037 U	**0.015**	0.0039 U	0.0042 U	0.0039 U	0.004 U	0.0039 U
ISOPHORONE	670	NA	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U	0.016 U	0.017 U	0.015 U	0.016 U	0.015 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	**0.134**	0 U	0 U	0 U	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.0133 U	0.01295 U	0.01295 U	0.01295 U	**0.092**	0.01365 U	0.0147 U	0.01365 U	0.014 U	0.01365 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0152**	**0.0148**	**0.0148**	**0.0148**	**0.142**	**0.0156**	**0.0168**	**0.0156**	**0.016**	**0.0156**
NAPHTHALENE	160	NA	0.0038 U	0.0037 U	0.0037 U	0.0037 U	**0.029**	0.0039 U	0.0042 U	0.0039 U	0.004 U	0.0039 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.031 U	0.03 U	0.03 U	0.03 U	0.032 U	0.032 U	0.035 U	0.032 U	0.033 U	0.032 U
PENTACHLOROPHENOL	5.3	NA	0.092 U	0.089 U	0.0895 U	0.09 U	0.096 U	0.095 U	0.1 U	0.095 U	0.098 U	0.095 U
PHENANTHRENE	2300	NA	0.0038 U	0.0037 U	0.0037 U	0.0037 U	**0.034**	0.0039 U	0.0042 U	0.0039 U	0.004 U	0.0039 U
PHENOL	2300	NA	0.031 U	0.03 U	0.03 U	0.03 U	0.032 U	0.032 U	0.035 U	0.032 U	0.033 U	0.032 U
PYRENE	230	NA	0.0038 U	0.0037 U	0.0037 U	0.0037 U	**0.041**	0.0039 U	0.0042 U	0.0039 U	0.004 U	0.0039 U
TOTAL PAHS	NA	NA	0 U	0 U	0 U	0 U	**0.348**	0 U	0 U	0 U	0 U	0 U
TOTAL PAHS ECO HALFND	NA	NA	0.03105 U	0.0302 U	0.0302 U	0.0302 U	**0.358**	0.03185 U	0.0343 U	0.03185 U	0.03265 U	0.03185 U
TOTAL PAHS HALFND	NA	NA	0.03105 U	0.0302 U	**0.0302**	0.0302 U	**0.358**	0.03185 U	0.0343 U	0.03185 U	0.03265 U	0.03185 U
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U	0.016 U	0.017 U	0.015 U	0.016 U	0.015 U
AROCLOR-1260	0.32	NA	0.019 U	0.019 U	0.019 U	0.019 U	0.02 U	0.02 U	0.022 U	0.02 U	0.021 U	0.02 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.065**	**0.0645**	**0.06475**	**0.065**	**0.0685**	**0.0685**	**0.0745**	**0.068**	**0.071**	**0.068**
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.057 B**	**0.011 B**	0.00955 U	**0.0081 B**	**0.22 J**	**0.078 J**	**0.15 J**	**0.097 J**	**0.079 B**	**0.06 B**
ARSENIC	0.43	3.6	**1.6 J**	**0.8 J**	**1.25**	**1.7 J**	**1.9**	**1.5**	**8.5 J**	**5.6 J**	**3.8 J**	**2.4 J**
BARIUM	1600	NA	**520 K**	**6.2 K**	**6.05**	**5.9 K**	**708**	**21.6**	**50.1 J**	**12.7 K**	**8.6 K**	**23.6 J**
BERYLLIUM	16	NA	**3.4 J**	**0.13**	**0.16**	**0.19**	**2.1 L**	**0.51**	**0.64 L**	**0.24**	**0.048 J**	**0.89**
CADMIUM	3.9	NA	**0.037 B**	**0.0083 B**	0.00655 U	**0.0048 B**	**0.2 J**	0.003 UL	**0.016 B**	**0.0051 B**	**0.005 B**	**0.093 J**
CHROMIUM	23	28	**93.9 J**	**3.4**	**3.6**	**3.8**	**206**	**11.9**	**19.2**	**9.7**	**3.9**	**8.5**
COBALT	NA	NA	**4.3 J**	**15.3**	**13.95**	**12.6**	**2.7**	**10.6**	**5.4**	**1.9**	**2.5**	**26.5 J**
COPPER	310	NA	**13.8 J**	**36 L**	**35.1**	**34.2 L**	**42.2**	**15.2**	**15.9 K**	**9.7 L**	**2.8 L**	**7.4 K**
IRON	5500	15000	**13300 J**	**185 J**	**307.5**	**430 J**	**8060**	**3380**	**15300**	**5620 J**	**697 J**	**2370 J**
LEAD	400	NA	**4.3 J**	**2.5**	**2.65**	**2.8**	**19.5 J**	**7.8 J**	**8.9**	**6.2**	**3.1**	**7.1**
MANGANESE	160	480	**8030 J**	**8.9 J**	**10.8**	**12.7 J**	**4210**	**51.9**	**154**	**3.8 J**	**21.2 J**	**43**
MERCURY	2.3	NA	0.019 U	**0.03 B**	0.0245 U	0.019 U	0.02 UL	0.02 UL	0.021 U	0.02 U	**0.032 B**	0.02 U
MOLYBDENUM	NA	NA	**0.53 J**	**0.03 B**	0.04 U	**0.05 B**	**0.44**	**0.035 B**	**0.75 J**	**0.41**	**0.25**	**0.32 J**
NICKEL	160	NA	**18.8 J**	**19.6 J**	**14.25**	**8.9 J**	**12.9**	**12.4**	**7.5 K**	**2.6 J**	**0.81 J**	**35.6 J**
SELENIUM	39	NA	**2.7 J**	**0.79 J**	**1.145**	**1.5 J**	**4.7 J**	**2.6 J**	**1.8**	**0.97 J**	**0.27 J**	**1.8**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-027				GSP-SB-028		GSP-SB-029			
SAMPLE ID			GSP-SB-27-0-2 GSP-SB-27-0-2 REC=04	GSP-SB-27-23-25 GSP-SB-27-23-25 REC=04	GSP-SB-27-23-25- GSP-SB-27-23-25- REC=04	GSP-SB-27-23-25-D GSP-SB-27-23-25-D REC=04	GSP-SB-28-0-2 GSP-SB-28-0-2 REC=04	GSP-SB-28-22-24 GSP-SB-28-22-24 REC=04	GSP-SB-29-0-2 GSP-SB-29-0-2 REC=06	GSP-SB-29-1-3 GSP-SB-29-1-3 REC=06	GSP-SB-29-13-15 GSP-SB-29-13-15 REC=06	GSP-SB-29-21-23 GSP-SB-29-21-23 REC=06
SAMPLE DATE	Maryland	ATCs	20100507	20100507	20100507	20100507	20100503	20100503	20100514	20100507	20100507	20100514
TOP DEPTH	Residential		0	23	23	23	0	22	0	1	13	21
BOTTOM DEPTH	Soil Standard		2	25	25	25	2	24	2	3	15	23
SILVER	39	NA	**0.04 B**	**0.028 B**	0.0325 U	**0.037 B**	**0.1 J**	**0.025 B**	**0.016 B**	**0.017 B**	**0.016 B**	**0.018 B**
THALLIUM	0.55	3.9	0.015 U	**0.05 B**	0.05 U	**0.05 B**	**0.051 B**	**0.12 B**	**0.18 B**	**0.24 B**	**0.092 B**	**0.085 B**
VANADIUM	7.8	30	**339 J**	**3.1 K**	**3.9**	**4.7 K**	**34.6**	**22.7**	**57.1**	**30.8 K**	**7.2 K**	**14.9**
ZINC	2300	NA	**7.2 J**	**3.7 L**	**4.15**	**4.6 L**	**43.7 J**	**15.2 J**	**27.2**	**5.8 L**	**2.4 L**	**60.6 J**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	**27**	3.1 U	3.15 U	3.2 U	**27 J**	**5.4 J**	**6.8 J**	3.3 U	3.4 U	3.3 U
GASOLINE RANGE ORGANICS	230	NA	**0.062 J**	**0.045 J**	**0.0305**	0.032 U	**0.087 J**	0.033 U	0.036 U	0.033 U	0.034 U	0.033 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-030				GSP-SB-031				GSP-SB-032	
SAMPLE ID			GSP-SB-29-21-23-GSP-SB-29-21-23-REC=06	GSP-SB-29-21-23-D GSP-SB-29-21-23-D REC=06	GSP-SB-30-0-2 GSP-SB-30-0-2 REC=06	GSP-SB-30-22-24 GSP-SB-30-22-24 REC=06	GSP-SB-31-0-2 GSP-SB-31-0-2 REC=06	GSP-SB-31-21-23 GSP-SB-31-21-23 REC=06	GSP-SB-31-21-23-GSP-SB-31-21-23-REC=06	GSP-SB-31-21-23-D GSP-SB-31-21-23-D REC=06	GSP-SB-32-0-2 GSP-SB-32-0-2 REC=05	GSP-SB-32-20-21 GSP-SB-32-20-21 REC=05
SAMPLE DATE	Maryland	ATCs	20100514	20100514	20100513	20100513	20100513	20100513	20100513	20100513	20100507	20100507
TOP DEPTH	Residential		21	21	0	22	0	21	21	21	0	20
BOTTOM DEPTH	Soil Standard		23	23	2	24	2	23	23	23	2	21
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,1-DICHLOROETHENE	390	NA	0.000435 U	0.00047 U	0.00047 U	0.00042 U	0.00045 U	0.00044 U	0.00043 U	0.00042 U	0.00046 U	0.00043 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.000315 U	0.00034 U	0.00034 U	0.00031 U	0.00033 U	0.00032 U	0.000315 U	0.00031 U	0.00033 U	0.00031 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00014 U	0.00015 U	0.00015 U	0.00014 U	0.00015 U	0.00014 U	0.00014 U	0.00014 U	0.00015 U	0.00014 U
1,2,4-TRICHLOROBENZENE	78	NA	0.000225 U	0.00024 U	**0.00026 B**	0.00022 U	0.00024 U	0.00023 U	0.000225 U	0.00022 U	0.00024 U	**0.00023 B**
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00054 U	0.00058 U	0.00059 U	0.00053 U	0.00057 U	0.00055 U	0.00054 U	0.00053 U	0.00057 U	0.00053 U
1,2-DICHLOROBENZENE	700	NA	0.0003 U	0.00032 U	**0.015**	0.00029 U	0.00031 U	0.0003 U	0.000295 U	0.00029 U	0.00032 U	0.0003 U
1,2-DICHLOROETHANE	7	NA	0.000285 U	0.00031 U	0.00031 U	0.00028 U	0.0003 U	0.00029 U	0.000285 U	0.00028 U	0.0003 U	0.00028 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00029 U	0.00031 U	0.00032 U	0.00028 U	0.0003 U	0.00029 U	0.000285 U	0.00028 U	0.00031 U	0.00029 U
1,4-DICHLOROBENZENE	27	NA	0.00055 U	0.00059 U	0.0006 U	0.00054 U	0.00058 U	0.00056 U	0.000545 U	0.00053 U	0.00058 U	0.00054 U
2-BUTANONE	4700	NA	0.0012 U	0.0013 U	0.0013 U	0.0011 U	0.0012 U	0.0012 U	0.00115 U	0.0011 U	**0.0024 J**	0.0012 U
2-HEXANONE	NA	NA	0.00053 U	0.00057 U	0.00057 U	0.00051 U	0.00055 U	0.00053 U	0.00052 U	0.00051 U	0.00055 U	**0.00057 B**
4-ISOPROPYLTOLUENE	NA	NA	0.000175 U	0.00019 U	0.00019 U	0.00017 U	0.00018 U	0.00018 U	0.000175 U	0.00017 U	0.00018 U	0.00017 U
4-METHYL-2-PENTANONE	NA	NA	0.00045 U	0.00048 U	0.00049 U	0.00044 U	0.00047 U	0.00046 U	0.00045 U	0.00044 U	0.00047 U	**0.00059 B**
ACETONE	7000	NA	0.01005 U	**0.012 B**	0.0057 U	0.0051 U	0.0055 U	**0.0062 J**	**0.004375**	0.0051 U	**0.027 B**	**0.015 B**
BENZENE	12	NA	0.000195 U	0.00021 U	0.00021 U	0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.00019 U	0.0002 U	0.00019 U
BROMOMETHANE	11	NA	0.00045 U	0.00048 U	0.00049 U	0.00044 U	0.00047 U	0.00046 U	0.00045 U	0.00044 U	0.00047 U	0.00044 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	**0.000305**	**0.00044 J**	0.0004 U	0.00036 U	0.00038 U	0.00037 U	0.000365 U	0.00036 U	0.00039 U	0.00036 U
CARBON TETRACHLORIDE	4.9	NA	0.00031 U	0.00033 U	0.00033 U	0.0003 U	0.00032 U	0.00031 U	0.000305 U	0.0003 U	0.00032 U	0.0003 U
CHLOROBENZENE	160	NA	0.00028 U	0.0003 U	0.0003 U	0.00027 U	0.00029 U	0.00028 U	0.000275 U	0.00027 U	0.00029 U	0.00027 U
CHLOROETHANE	220	NA	0.00072 U	0.00077 U	0.00078 U	0.0007 U	0.00075 U	0.00072 U	0.00071 U	0.0007 U	0.00075 U	0.00071 U
CHLOROFORM	78	NA	0.00024 U	0.00026 U	0.00026 U	0.00024 U	0.00025 U	0.00024 U	0.000235 U	0.00023 U	0.00025 U	0.00024 U
CHLOROMETHANE	NA	NA	0.000345 U	0.00037 U	0.00037 U	0.00033 U	0.00036 U	0.00035 U	0.00034 U	0.00033 U	0.00036 U	0.00034 U
CIS-1,2-DICHLOROETHENE	78	NA	0.0003 U	0.00032 U	0.00033 U	0.00029 U	0.00031 U	0.0003 U	0.000295 U	0.00029 U	0.00032 U	0.0003 U
DIISOPROPYL ETHER	NA	NA	0.00125 U	0.0013 U	0.0014 U	0.0012 U	0.0013 U	0.0013 U	0.00125 U	0.0012 U	0.0013 U	0.0012 U
ETHYLBENZENE	780	NA	0.000215 U	0.00023 U	0.00023 U	0.00021 U	0.00023 U	0.00022 U	0.000215 U	0.00021 U	0.00023 U	0.00021 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00013 U	0.00014 U	0.00014 U	0.00013 U	0.00014 U	0.00013 U	0.00013 U	0.00013 U	0.00014 U	0.00013 U
M+P-XYLENES	NA	NA	0.001015 U	0.0011 U	0.0011 U	0.00097 U	0.001 U	0.001 U	0.000985 U	0.00097 U	0.0011 U	0.00099 U
METHYL TERT-BUTYL ETHER	160	NA	0.00036 U	0.00039 UJ	0.00039 U	0.00035 U	0.00037 U	0.00036 U	0.000355 U	0.00035 U	0.00038 U	0.00035 U
METHYLENE CHLORIDE	85	NA	0.00056 U	0.0006 U	0.00061 U	0.00054 U	0.00058 U	0.00056 U	0.00055 U	0.00054 U	0.00059 U	0.00055 U
NAPHTHALENE	160	NA	0.00016 U	0.00017 U	**0.00026 B**	0.00015 U	0.00017 U	0.00016 U	0.000155 U	0.00015 U	0.00017 U	**0.00045 B**
N-BUTYLBENZENE	NA	NA	0.000195 U	0.00021 U	0.00021 U	0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.00019 U	0.0002 U	0.00019 U
N-PROPYLBENZENE	NA	NA	0.000335 U	0.00036 U	0.00036 U	0.00032 U	0.00035 U	0.00034 U	0.00033 U	0.00032 U	0.00035 U	0.00033 U
O-XYLENE	NA	NA	0.00029 U	0.00031 U	0.00032 U	0.00028 U	0.0003 U	0.00029 U	0.000285 U	0.00028 U	0.00031 U	0.00029 U
SEC-BUTYLBENZENE	NA	NA	0.00015 U	0.00016 U	0.00016 U	0.00015 U	0.00016 U	0.00015 U	0.00015 U	0.00015 U	0.00016 U	0.00015 U
STYRENE	1600	NA	0.000125 U	0.00013 U	0.00014 U	0.00012 U	0.00013 U	0.00013 U	0.000125 U	0.00012 U	0.00013 U	0.00012 U
TERT-AMYL METHYL ETHER	NA	NA	0.00031 U	0.00033 UJ	0.00033 U	0.0003 U	0.00032 U	0.00031 U	0.000305 U	0.0003 U	0.00032 U	0.0003 U
TERT-BUTYLBENZENE	NA	NA	0.00024 U	0.00026 U	0.00026 U	0.00024 U	0.00025 U	0.00024 U	0.000235 U	0.00023 U	0.00025 U	0.00024 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.00635 R	0.0068 UR	0.0069 UR	0.0062 UR	0.0066 UR	0.0064 UR	0.00625 R	0.0061 UR	0.0067 UR	0.0062 UR
TETRACHLOROETHENE	1.2	NA	0.000435 U	0.00047 U	0.00047 U	0.00042 U	0.00045 U	0.00044 U	0.00043 U	0.00042 U	0.00046 U	0.00043 U
TOLUENE	630	NA	0.000225 U	0.00024 U	**0.00027 B**	0.00022 U	0.00024 U	0.00023 U	0.000225 U	0.00022 U	0.00024 U	0.00022 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00056 U	0.0006 U	0.00061 U	0.00054 U	0.00058 U	0.00056 U	0.00055 U	0.00054 U	0.00059 U	0.00055 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.000345 U	0.00037 U	0.00037 U	0.00033 U	0.00036 U	0.00035 U	0.00034 U	0.00033 U	0.00036 U	0.00034 U
TRICHLOROETHENE	1.6	NA	0.000355 U	0.00038 U	0.00038 U	0.00034 U	0.00037 U	0.00035 U	0.000345 U	0.00034 U	0.00037 U	0.00035 U
TRICHLOROFLUOROMETHANE	NA	NA	0.000285 U	0.00031 U	0.00031 U	0.00028 U	0.0003 U	0.00029 U	0.000285 U	0.00028 U	0.0003 U	0.00028 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.000325 U	0.00035 U	0.00035 U	0.00032 U	0.00034 U	0.00033 U	0.000325 U	0.00032 U	0.00034 U	0.00032 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.0325 U	0.033 U	0.032 U	0.031 U	0.033 U	0.031 U	0.031 U	0.031 U	0.032 U	0.033 U
2,4-DICHLOROPHENOL	23	NA	0.0245 U	0.025 U	0.024 U	0.023 U	0.025 U	0.023 U	0.023 U	0.023 U	0.023 U	0.025 U
2-CHLOROPHENOL	39	NA	0.0325 U	0.033 U	0.032 U	0.031 U	0.033 U	0.031 U	0.031 U	0.031 U	0.032 U	0.033 U
2-METHYLNAPHTHALENE	31	NA	0.004 U	0.0041 U	**0.062**	0.0038 U	0.0041 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.004 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-030				GSP-SB-031				GSP-SB-032	
SAMPLE ID			GSP-SB-29-21-23-GSP-SB-29-21-23-REC=06	GSP-SB-29-21-23-D GSP-SB-29-21-23-D REC=06	GSP-SB-30-0-2 GSP-SB-30-0-2 REC=06	GSP-SB-30-22-24 GSP-SB-30-22-24 REC=06	GSP-SB-31-0-2 GSP-SB-31-0-2 REC=06	GSP-SB-31-21-23 GSP-SB-31-21-23 REC=06	GSP-SB-31-21-23-GSP-SB-31-21-23-REC=06	GSP-SB-31-21-23-D GSP-SB-31-21-23-D REC=06	GSP-SB-32-0-2 GSP-SB-32-0-2 REC=05	GSP-SB-32-20-21 GSP-SB-32-20-21 REC=05
SAMPLE DATE	Maryland	ATCs	20100514	20100514	20100513	20100513	20100513	20100513	20100513	20100513	20100507	20100507
TOP DEPTH	Residential		21	21	0	22	0	21	21	21	0	20
BOTTOM DEPTH	Soil Standard		23	23	2	24	2	23	23	23	2	21
ACENAPHTHENE	470	NA	0.004 U	0.0041 U	0.0039 U	0.0038 U	0.0041 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.004 U
ACENAPHTHYLENE	470	NA	0.004 U	0.0041 U	0.0039 U	0.0038 U	0.0041 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.004 U
ANTHRACENE	2300	NA	0.004 U	0.0041 U	0.0039 U	0.0038 U	0.0041 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.004 U
BAP EQUIVALENT-HALFND	NA	NA	0.004 U	0.0041 U	**0.00532**	0.0038 U	**0.016589**	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.004 U
BAP EQUIVALENT-POS	NA	NA	0.004 U	0.0041 U	**0.00101**	0.0038 U	**0.014313**	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.004 U
BENZALDEHYDE	NA	NA	0.0145 U	0.015 U	0.014 U	0.014 U	0.015 U	0.014 U	0.014 U	0.014 U	0.014 U	0.015 U
BENZO(A)ANTHRACENE	0.22	NA	0.004 U	0.0041 U	0.0039 U	0.0038 U	**0.011**	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.004 U
BENZO(A)PYRENE	0.022	NA	0.004 U	0.0041 U	0.0039 U	0.0038 U	**0.011**	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.004 U
BENZO(B)FLUORANTHENE	0.22	NA	0.004 U	0.0041 U	**0.01**	0.0038 U	**0.022**	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.004 U
BENZO(G,H,I)PERYLENE	230	NA	0.004 U	0.0041 U	0.0039 U	0.0038 U	0.0041 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.004 U
BENZO(K)FLUORANTHENE	2.2	NA	0.004 U	0.0041 U	0.0039 U	0.0038 U	0.0041 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.004 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.023 U	0.023 U	**0.042 B**	**0.06 B**	**0.079 B**	**0.039 B**	0.0415 U	**0.044 B**	0.022 U	0.023 U
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.011 U	0.011 U	0.011 U	0.012 U	0.012 U
CAPROLACTAM	NA	NA	0.0445 U	0.045 U	0.044 U	0.043 U	0.045 U	0.042 U	0.042 U	0.042 U	0.043 U	0.045 U
CARBAZOLE	32	NA	0.0325 U	0.033 U	0.032 U	0.031 U	0.033 U	0.031 U	0.031 U	0.031 U	0.032 U	0.033 U
CHRYSENE	22	NA	0.00135 U	0.0014 U	**0.01**	0.0013 U	**0.013**	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.004 U	0.0041 U	0.0039 U	0.0038 U	0.0041 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.004 U
DIBENZOFURAN	7.8	NA	0.0245 U	0.025 U	0.024 U	0.023 U	0.025 U	0.023 U	0.023 U	0.023 U	0.023 U	0.025 U
DIETHYL PHTHALATE	6300	NA	0.0195 U	0.02 U	0.019 U	0.019 U	0.02 U	0.018 U	0.018 U	0.018 U	0.019 U	0.02 U
DIMETHYL PHTHALATE	NA	NA	0.0205 U	0.021 U	0.02 U	0.02 U	0.021 U	0.019 U	0.019 U	0.019 U	0.02 U	0.021 U
DI-N-BUTYL PHTHALATE	780	NA	0.018 U	0.018 U	0.018 U	0.017 U	**0.021 B**	0.017 U	0.017 U	0.017 U	0.018 U	0.018 U
FLUORANTHENE	310	NA	0.004 U	0.0041 U	**0.021**	0.0038 U	**0.027**	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.004 U
FLUORENE	310	NA	0.004 U	0.0041 U	0.0039 U	0.0038 U	0.0041 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.004 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	**0.02**	0 U	**0.078**	0 U	0 U	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.018675 U	0.01915 U	**0.05465**	0.01775 U	**0.1132**	0.01775 U	0.01775 U	0.01775 U	0.0182 U	0.01865 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.016675**	**0.0171**	**0.03365**	**0.01585**	**0.0862**	**0.01585**	**0.01585**	**0.01585**	**0.01625**	**0.01665**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.004 U	0.0041 U	0.0039 U	0.0038 U	0.0041 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.004 U
ISOPHORONE	670	NA	0.0155 U	0.016 U	0.015 U	0.015 U	0.016 U	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	**0.131**	0 U	**0.043**	0 U	0 U	0 U	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.014 U	0.01435 U	**0.1178**	0.0133 U	**0.0283**	0.0133 U	0.0133 U	0.0133 U	0.01365 U	0.014 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.016**	**0.0164**	**0.1388**	**0.0152**	**0.0553**	**0.0152**	**0.0152**	**0.0152**	**0.0156**	**0.016**
NAPHTHALENE	160	NA	0.004 U	0.0041 U	**0.02**	0.0038 U	0.0041 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.004 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.0325 U	0.033 U	0.032 U	0.031 U	0.033 U	0.031 U	0.031 U	0.031 U	0.032 U	0.033 U
PENTACHLOROPHENOL	5.3	NA	0.0965 U	0.098 U	0.095 U	0.093 U	0.098 U	0.091 U	0.091 U	0.091 U	0.093 U	0.098 U
PHENANTHRENE	2300	NA	0.004 U	0.0041 U	**0.028**	0.0038 U	**0.016**	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.004 U
PHENOL	2300	NA	0.0325 U	0.033 U	0.032 U	0.031 U	0.033 U	0.031 U	0.031 U	0.031 U	0.032 U	0.033 U
PYRENE	230	NA	0.004 U	0.0041 U	0.0039 U	0.0038 U	**0.021**	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.004 U
TOTAL PAHS	NA	NA	0 U	0 U	**0.151**	0 U	**0.121**	0 U	0 U	0 U	0 U	0 U
TOTAL PAHS ECO HALFND	NA	NA	0.032675 U	0.0335 U	**0.17245**	0.03105 U	**0.1415**	0.03105 U	0.03105 U	0.03105 U	0.03185 U	0.03265 U
TOTAL PAHS HALFND	NA	NA	**0.032675**	0.0335 U	**0.17245**	0.03105 U	**0.1415**	0.03105 U	**0.03105**	0.03105 U	0.03185 U	0.03265 U
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.0155 U	0.016 U	0.015 U	0.015 U	0.016 U	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U
AROCLOR-1260	0.32	NA	0.0205 U	0.021 U	0.02 U	0.02 U	0.021 U	0.019 U	0.019 U	0.019 U	0.02 U	0.021 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.0695**	**0.071**	**0.068**	**0.067**	**0.071**	**0.065**	**0.065**	**0.065**	**0.0675**	**0.071**
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.085**	**0.14 J**	**0.094 J**	**0.028 B**	**0.073 B**	**0.077 B**	0.051 U	**0.025 B**	**0.049 B**	**0.3 J**
ARSENIC	0.43	3.6	**3.15**	**3.9 J**	**3 L**	**0.77 L**	**2 L**	**0.82 L**	**0.855**	**0.89 L**	**4.3 J**	**5.2 J**
BARIUM	1600	NA	**18.2**	**12.8 J**	**444**	**23.5**	**36**	**24.9**	**22.8**	**20.7**	**49.9 K**	**21.2 K**
BERYLLIUM	16	NA	**0.495**	**0.1 J**	**2.5 J**	**3.5 L**	**0.49 L**	**3.5 L**	**3.1**	**2.7 L**	**0.46**	**1.9**
CADMIUM	3.9	NA	**0.047275**	0.0031 UJ	**0.029 B**	**0.011 B**	**0.019 B**	**0.011 B**	0.1555 U	**0.3 B**	**0.16 L**	**0.018 B**
CHROMIUM	23	28	**8.2**	**7.9**	**39.8 L**	**10.7 L**	**15.8 L**	**11.7 L**	**9.7**	**7.7 L**	**16.8**	**34.3**
COBALT	NA	NA	**14.4**	**2.3 J**	**10.8 L**	**22.3 L**	**1.4 L**	**19.3 L**	**16.25**	**13.2 L**	**7.8**	**24.2**
COPPER	310	NA	**6.55**	**5.7 K**	**14.2 L**	**22.8 L**	**22.8 L**	**18.3 L**	**16.45**	**14.6 L**	**11 L**	**38.2 L**
IRON	5500	15000	**1820**	**1270 J**	**9650**	**39600**	**1260**	**81100**	**67800**	**54500**	**9730 J**	**39500 J**
LEAD	400	NA	**5.95**	**4.8**	**7.9**	**7.1**	**5.4**	**6.9**	**6.05**	**5.2**	**7.2**	**8.1**
MANGANESE	160	480	**35.2**	**27.4**	**4000 J**	**768 J**	**16.1 J**	**2300 J**	**1840**	**1380 J**	**39.2 J**	**115 J**
MERCURY	2.3	NA	0.02 U	0.02 U	0.02 U	0.019 U	0.02 U	0.019 U	0.019 U	0.019 U	**0.036 B**	0.02 U
MOLYBDENUM	NA	NA	**0.53**	**0.74 J**	**0.32**	0.031 U	**0.48**	**0.046 B**	0.0385 U	0.031 U	**0.4**	**0.59**
NICKEL	160	NA	**19.75**	**3.9 J**	**24.7 J**	**28.7 J**	**3.3 J**	**23.7 J**	**20.2**	**16.7 J**	**10.2 J**	**45.4 J**
SELENIUM	39	NA	**1.12**	**0.44 J**	**3 J**	**1.2 J**	**1.8 J**	**1.4 J**	**1.65**	**1.9 J**	**1.2 J**	**1.1 J**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-030				GSP-SB-031				GSP-SB-032	
SAMPLE ID			GSP-SB-29-21-23-GSP-SB-29-21-23-REC=06	GSP-SB-29-21-23-D GSP-SB-29-21-23-D REC=06	GSP-SB-30-0-2 GSP-SB-30-0-2 REC=06	GSP-SB-30-22-24 GSP-SB-30-22-24 REC=06	GSP-SB-31-0-2 GSP-SB-31-0-2 REC=06	GSP-SB-31-21-23 GSP-SB-31-21-23 REC=06	GSP-SB-31-21-23- GSP-SB-31-21-23- REC=06	GSP-SB-31-21-23-D GSP-SB-31-21-23-D REC=06	GSP-SB-32-0-2 GSP-SB-32-0-2 REC=05	GSP-SB-32-20-21 GSP-SB-32-20-21 REC=05
SAMPLE DATE	Maryland	ATCs	20100514	20100514	20100513	20100513	20100513	20100513	20100513	20100513	20100507	20100507
TOP DEPTH	Residential		21	21	0	22	0	21	21	21	0	20
BOTTOM DEPTH	Soil Standard		23	23	2	24	2	23	23	23	2	21
SILVER	39	NA	0.0155 U	**0.013 B**	**0.027 B**	**0.042 B**	**0.021 B**	**0.026 B**	0.025 U	**0.024 B**	**0.014 B**	**0.037 B**
THALLIUM	0.55	3.9	0.0835 U	**0.082 B**	**0.11 B**	**0.088 B**	**0.32**	**0.071 B**	0.064 U	**0.057 B**	**0.14 B**	**0.074 B**
VANADIUM	7.8	30	**12.35**	**9.8**	75.3	**23.6**	**13.2**	**22.4**	**22.8**	**23.2**	**18.8 K**	87 K
ZINC	2300	NA	**32.5**	**4.4 J**	**38.7 J**	**51.4 J**	**8.2 J**	**58.4 J**	**58.5**	**58.6 J**	**96.7 L**	**38.5 L**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	3.35 U	3.4 U	**58**	3.2 U	**5.2 J**	3.2 U	3.2 U	3.2 U	3.3 U	3.4 U
GASOLINE RANGE ORGANICS	230	NA	0.0335 U	0.034 U	0.033 U	0.032 U	0.034 U	0.032 U	0.032 U	0.032 U	**0.046 J**	**0.036 J**
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-033		GSP-SB-034		GSP-SB-035		GSP-SB-036		GSP-SB-037	
SAMPLE ID			GSP-SB-33-0-2	GSP-SB-33-20-22	GSP-SB-34-20-22	GSP-SB-34-6-8	GSP-SB-35-0-2	GSP-SB-35-23-25	GSP-SB-36-1-3	GSP-SB-36-23-25	GSP-SB-37-0-2	GSP-SB-37-12-14
			GSP-SB-33-0-2	GSP-SB-33-20-22	GSP-SB-34-20-22	GSP-SB-34-6-8	GSP-SB-35-0-2	GSP-SB-35-23-25	GSP-SB-36-1-3	GSP-SB-36-23-25	GSP-SB-37-0-2	GSP-SB-37-12-14
			REC=06	REC=06	REC=06	REC=06	REC=05	REC=05	REC=05	REC=05	REC=06	REC=06
SAMPLE DATE	Maryland	ATCs	20100513	20100513	20100513	20100513	20100518	20100518	20100507	20100507	20100517	20100517
TOP DEPTH	Residential		0	20	20	6	0	23	1	23	0	12
BOTTOM DEPTH	Soil Standard		2	22	22	8	2	25	3	25	2	14
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0012 U	0.0015 U	0.001 U	0.0011 U	0.001 U	0.0011 U	0.0013 U	0.0011 U	0.0011 U	0.0012 U
1,1-DICHLOROETHENE	390	NA	0.00047 U	0.00059 U	0.00042 U	0.00044 U	0.00042 U	0.00042 U	0.00053 U	0.00042 U	0.00043 U	0.00048 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00034 U	0.00043 U	0.00031 U	0.00032 U	0.00031 U	0.00031 U	0.00039 U	0.00031 U	0.00031 U	0.00035 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00015 U	0.00019 U	0.00014 U	0.00015 U	0.00014 U	0.00014 U	0.00017 U	0.00014 U	0.00014 U	0.00016 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00024 U	0.0003 U	0.00022 U	0.00023 U	0.00022 U	0.00022 U	0.00027 U	0.00022 U	0.00022 U	0.00025 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00059 U	0.00073 U	0.00052 U	0.00056 U	0.00052 U	0.00053 U	0.00066 U	0.00053 U	0.00054 U	0.0006 U
1,2-DICHLOROBENZENE	700	NA	0.00032 U	0.00041 U	0.00029 U	0.00031 U	0.00029 U	0.00029 U	0.00037 U	0.00029 U	**0.0012 J**	**0.0013 J**
1,2-DICHLOROETHANE	7	NA	0.00031 U	0.00038 U	0.00027 U	0.00029 U	0.00027 U	0.00027 U	0.00035 U	0.00028 U	0.00028 U	0.00031 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00032 U	0.00039 U	0.00028 U	0.0003 U	0.00028 U	0.00028 U	0.00036 U	0.00029 U	0.00029 U	0.00032 U
1,4-DICHLOROBENZENE	27	NA	0.00059 U	0.00074 U	0.00053 U	0.00056 U	0.00053 U	0.00053 U	0.00067 U	0.00054 U	0.00055 U	0.00061 U
2-BUTANONE	4700	NA	0.0013 U	0.0016 U	0.0011 U	0.0012 U	0.0011 U	0.0011 U	0.0014 U	0.0011 U	0.0012 U	0.0013 U
2-HEXANONE	NA	NA	0.00057 U	0.00071 U	0.00051 U	0.00054 U	0.00051 U	0.00051 U	0.00064 U	0.00051 U	0.00052 U	0.00058 U
4-ISOPROPYLTOLUENE	NA	NA	0.00019 U	0.00024 U	0.00017 U	0.00018 U	0.00017 U	0.00017 U	0.00021 U	0.00017 U	0.00017 U	0.00019 U
4-METHYL-2-PENTANONE	NA	NA	0.00049 U	0.00061 U	0.00043 U	0.00046 U	0.00044 U	0.00044 U	0.00055 U	0.00044 U	0.00045 U	0.0005 U
ACETONE	7000	NA	**0.026 J**	**0.032 J**	0.0051 U	0.0054 U	**0.009 B**	0.0051 U	**0.014 B**	**0.012 B**	**0.0078 B**	**0.013 B**
BENZENE	12	NA	0.00021 U	0.00026 U	0.00018 U	0.0002 U	0.00019 U	0.00019 U	0.00023 U	0.00019 U	0.00019 U	0.00021 U
BROMOMETHANE	11	NA	0.00049 U	0.00061 U	0.00043 U	0.00046 U	0.00044 U	0.00044 U	0.00055 U	0.00044 U	0.00045 U	0.0005 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	**0.0028 J**	**0.0067 J**	**0.00059 J**	**0.0021 J**	0.00036 U	0.00036 U	0.00045 U	0.00036 U	0.00036 U	0.00041 U
CARBON TETRACHLORIDE	4.9	NA	0.00033 U	0.00042 U	0.0003 U	0.00032 U	0.0003 U	0.0003 U	0.00038 U	0.0003 U	0.00031 U	0.00034 U
CHLOROBENZENE	160	NA	0.0003 U	0.00037 U	0.00027 U	0.00028 U	0.00027 U	0.00027 U	0.00034 U	0.00027 U	0.00027 U	**0.00049 J**
CHLOROETHANE	220	NA	0.00077 U	0.00097 U	0.00069 U	0.00073 U	0.00069 U	0.0007 U	0.00087 U	0.0007 U	0.00071 U	0.0008 U
CHLOROFORM	78	NA	**0.00058 J**	0.00033 U	0.00023 U	0.00025 U	0.00023 U	0.00023 U	0.00029 U	0.00024 U	0.00024 U	0.00027 U
CHLOROMETHANE	NA	NA	0.00037 U	0.00046 U	0.00033 U	0.00035 U	0.00033 U	0.00033 U	0.00042 U	0.00034 U	0.00034 U	0.00038 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00032 U	0.00041 U	0.00029 U	0.00031 U	0.00029 U	0.00029 U	0.00037 U	0.00029 U	0.0003 U	0.00033 U
DIISOPROPYL ETHER	NA	NA	0.0014 U	0.0017 U	0.0012 U	0.0013 U	0.0012 U	0.0012 U	0.0015 U	0.0012 U	0.0012 U	0.0014 U
ETHYLBENZENE	780	NA	0.00023 U	0.00029 U	0.00021 U	0.00022 U	0.00021 U	0.00021 U	0.00026 U	0.00021 U	0.00021 U	0.00024 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00014 U	0.00018 U	0.00013 U	0.00014 U	0.00013 U	0.00013 U	0.00016 U	0.00013 U	0.00013 U	0.00015 U
M+P-XYLENES	NA	NA	0.0011 U	0.0014 U	0.00096 U	0.001 U	0.00097 U	0.00097 U	0.0012 U	0.00098 U	0.00099 U	0.0011 U
METHYL TERT-BUTYL ETHER	160	NA	0.00039 U	0.00048 U	0.00035 U	0.00037 U	0.00035 U	0.00035 U	**0.0008 J**	0.00035 U	0.00036 U	0.0004 UJ
METHYLENE CHLORIDE	85	NA	0.0006 U	0.00075 U	0.00054 U	0.00057 U	**0.00058 B**	0.00054 U	0.00068 U	0.00055 U	0.00055 U	0.00062 U
NAPHTHALENE	160	NA	0.00017 U	0.00021 U	0.00015 U	0.00016 U	0.00015 U	0.00015 U	0.00019 U	0.00016 U	**0.0002 B**	0.00018 U
N-BUTYLBENZENE	NA	NA	0.00021 U	0.00026 U	0.00018 U	0.0002 U	0.00019 U	0.00019 U	0.00023 U	0.00019 U	0.00019 U	0.00021 U
N-PROPYLBENZENE	NA	NA	0.00036 U	0.00045 U	0.00032 U	0.00034 U	0.00032 U	0.00032 U	0.00041 U	0.00033 U	0.00033 U	0.00037 U
O-XYLENE	NA	NA	0.00032 U	0.00039 U	0.00028 U	0.0003 U	0.00028 U	0.00028 U	0.00036 U	0.00029 U	0.00029 U	0.00032 U
SEC-BUTYLBENZENE	NA	NA	0.00016 U	0.0002 U	0.00014 U	0.00015 U	0.00015 U	0.00015 U	0.00018 U	0.00015 U	0.00015 U	0.00017 U
STYRENE	1600	NA	0.00014 U	0.00017 U	0.00012 U	0.00013 U	0.00012 U	0.00012 U	0.00015 U	0.00012 U	0.00012 U	0.00014 U
TERT-AMYL METHYL ETHER	NA	NA	0.00033 U	0.00042 U	0.0003 U	0.00032 U	0.0003 U	0.0003 U	0.00038 U	0.0003 U	0.00031 U	0.00034 UJ
TERT-BUTYLBENZENE	NA	NA	0.00026 U	0.00033 U	0.00023 U	0.00025 U	0.00023 U	0.00023 U	0.00029 U	0.00024 U	0.00024 U	0.00027 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0068 UR	0.0086 UR	0.0061 UR	0.0065 UR	0.0061 UR	0.0061 UR	0.0077 UR	0.0062 UR	0.0063 UR	0.007 UR
TETRACHLOROETHENE	1.2	NA	0.00047 U	0.00059 U	0.00042 U	0.00044 U	0.00042 U	0.00042 U	0.00053 U	0.00042 U	0.00043 U	0.00048 U
TOLUENE	630	NA	0.00024 U	0.0003 U	0.00022 U	0.00023 U	0.00022 U	0.00022 U	0.00027 U	0.00022 U	0.00022 U	0.00025 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.0006 U	0.00075 U	0.00054 U	0.00057 U	0.00054 U	0.00054 U	0.00068 U	0.00055 U	0.00055 U	0.00062 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00037 U	0.00046 U	0.00033 U	0.00035 U	0.00033 U	0.00033 U	0.00042 U	0.00034 U	0.00034 U	0.00038 U
TRICHLOROETHENE	1.6	NA	0.00038 U	0.00047 U	0.00034 U	0.00036 U	0.00034 U	0.00034 U	0.00043 U	0.00034 U	0.00035 U	0.00039 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00031 U	0.00038 U	0.00027 U	0.00029 U	0.00027 U	0.00027 U	0.00035 U	0.00028 U	0.00028 U	0.00031 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00035 U	0.00044 U	0.00031 U	0.00033 U	0.00031 U	0.00032 U	0.0004 U	0.00032 U	0.00032 U	0.00036 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.032 U	0.036 U	0.032 U	0.03 U	0.031 U	0.031 U	0.031 U	0.032 U	0.031 U	0.034 U
2,4-DICHLOROPHENOL	23	NA	0.024 U	0.027 U	0.024 U	0.022 U	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U	0.025 U
2-CHLOROPHENOL	39	NA	0.032 U	0.036 U	0.032 U	0.03 U	0.031 U	0.031 U	0.031 U	0.032 U	0.031 U	0.034 U
2-METHYLNAPHTHALENE	31	NA	**0.0088**	0.0044 U	0.0039 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.0038 U	0.0042 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-033		GSP-SB-034		GSP-SB-035		GSP-SB-036		GSP-SB-037	
SAMPLE ID			GSP-SB-33-0-2	GSP-SB-33-20-22	GSP-SB-34-20-22	GSP-SB-34-6-8	GSP-SB-35-0-2	GSP-SB-35-23-25	GSP-SB-36-1-3	GSP-SB-36-23-25	GSP-SB-37-0-2	GSP-SB-37-12-14
			GSP-SB-33-0-2	GSP-SB-33-20-22	GSP-SB-34-20-22	GSP-SB-34-6-8	GSP-SB-35-0-2	GSP-SB-35-23-25	GSP-SB-36-1-3	GSP-SB-36-23-25	GSP-SB-37-0-2	GSP-SB-37-12-14
			REC=06	REC=06	REC=06	REC=06	REC=05	REC=05	REC=05	REC=05	REC=06	REC=06
SAMPLE DATE	Maryland	ATCs	20100513	20100513	20100513	20100513	20100518	20100518	20100507	20100507	20100517	20100517
TOP DEPTH	Residential		0	20	20	6	0	23	1	23	0	12
BOTTOM DEPTH	Soil Standard		2	22	22	8	2	25	3	25	2	14
ACENAPHTHENE	470	NA	0.0039 U	0.0044 U	0.0039 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.0038 U	0.0042 U
ACENAPHTHYLENE	470	NA	0.0039 U	0.0044 U	0.0039 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.0038 U	0.0042 U
ANTHRACENE	2300	NA	0.0039 U	0.0044 U	0.0039 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.0038 U	0.0042 U
BAP EQUIVALENT-HALFND	NA	NA	0.0039 U	0.0044 U	0.0039 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.0038 U	0.0042 U
BAP EQUIVALENT-POS	NA	NA	0.0039 U	0.0044 U	0.0039 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.0038 U	0.0042 U
BENZALDEHYDE	NA	NA	0.014 U	0.016 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.015 U
BENZO(A)ANTHRACENE	0.22	NA	0.0039 U	0.0044 U	0.0039 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.0038 U	0.0042 U
BENZO(A)PYRENE	0.022	NA	0.0039 U	0.0044 U	0.0039 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.0038 U	0.0042 U
BENZO(B)FLUORANTHENE	0.22	NA	0.0039 U	0.0044 U	0.0039 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.0038 U	0.0042 U
BENZO(G,H,I)PERYLENE	230	NA	0.0039 U	0.0044 U	0.0039 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.0038 U	0.0042 U
BENZO(K)FLUORANTHENE	2.2	NA	0.0039 U	0.0044 U	0.0039 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.0038 U	0.0042 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.07 B**	**0.085 B**	**0.047 B**	**0.046 B**	0.022 U	0.022 U	0.022 U	0.022 U	0.022 U	**0.026 B**
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	**0.02 J**	0.012 U	0.011 U	0.012 U	0.011 U	0.012 U	**0.017 J**	0.012 U	0.013 U
CAPROLACTAM	NA	NA	0.044 U	0.05 U	0.044 U	0.041 U	0.043 U	0.042 U	0.043 U	0.043 U	0.043 U	0.047 U
CARBAZOLE	32	NA	0.032 U	0.036 U	0.032 U	0.03 U	0.031 U	0.031 U	0.031 U	0.032 U	0.031 U	0.034 U
CHRYSENE	22	NA	0.0013 U	0.0015 U	0.0013 U	0.0012 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0014 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0039 U	0.0044 U	0.0039 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.0038 U	0.0042 U
DIBENZOFURAN	7.8	NA	0.024 U	0.027 U	0.024 U	0.022 U	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U	0.025 U
DIETHYL PHTHALATE	6300	NA	0.019 U	0.021 U	0.019 U	0.018 U	0.018 U	0.018 U	0.018 U	0.019 U	0.019 U	0.02 U
DIMETHYL PHTHALATE	NA	NA	0.02 U	0.023 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.022 U
DI-N-BUTYL PHTHALATE	780	NA	0.018 U	**0.024 B**	0.018 U	**0.018 B**	0.017 U	0.017 U	0.017 U	0.018 U	0.017 U	0.019 U
FLUORANTHENE	310	NA	0.0039 U	0.0044 U	0.0039 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.0038 U	0.0042 U
FLUORENE	310	NA	0.0039 U	0.0044 U	0.0039 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.0038 U	0.0042 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	**0.025**
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.0182 U	0.02055 U	0.0182 U	0.01725 U	0.01775 U	0.01775 U	0.01775 U	0.0182 U	0.01775 U	**0.0425**
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.01625**	**0.01835**	**0.01625**	**0.0154**	**0.01585**	**0.01585**	**0.01585**	**0.01625**	**0.01585**	**0.0404**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.0039 U	0.0044 U	0.0039 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.0038 U	0.0042 U
ISOPHORONE	670	NA	0.015 U	0.017 U	0.015 U	0.014 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	**0.0268**	0 U	0 U	**0.036**	0 U	0 U	0 U	0 U	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**0.0346**	0.0154 U	0.01365 U	**0.0471**	0.0133 U	0.0133 U	0.0133 U	0.01365 U	0.0133 U	0.0147 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.03655**	**0.0176**	**0.0156**	**0.04895**	**0.0152**	**0.0152**	**0.0152**	**0.0156**	**0.0152**	**0.0168**
NAPHTHALENE	160	NA	**0.0092**	0.0044 U	0.0039 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.0038 U	0.0042 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.032 U	0.036 U	0.032 U	0.03 U	0.031 U	0.031 U	0.031 U	0.032 U	0.031 U	0.034 U
PENTACHLOROPHENOL	5.3	NA	0.095 U	0.11 U	0.095 U	0.089 U	0.092 U	0.091 U	0.092 U	0.093 U	0.093 U	0.1 U
PHENANTHRENE	2300	NA	**0.0088**	0.0044 U	0.0039 U	**0.036**	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.0038 U	0.0042 U
PHENOL	2300	NA	0.032 U	0.036 U	0.032 U	0.03 U	0.031 U	0.031 U	0.031 U	0.032 U	0.031 U	0.034 U
PYRENE	230	NA	0.0039 U	0.0044 U	0.0039 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0039 U	0.0038 U	**0.025**
TOTAL PAHS	NA	NA	**0.0268**	0 U	0 U	**0.036**	0 U	0 U	0 U	0 U	0 U	**0.025**
TOTAL PAHS ECO HALFND	NA	NA	**0.0528**	0.03595 U	0.03185 U	**0.06435**	0.03105 U	0.03105 U	0.03105 U	0.03185 U	0.03105 U	**0.0572**
TOTAL PAHS HALFND	NA	NA	**0.0528**	0.03595 U	0.03185 U	**0.06435**	0.03105 U	0.03105 U	0.03105 U	0.03185 U	0.03105 U	**0.0572**
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.015 U	0.017 U	0.015 U	0.014 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U
AROCLOR-1260	0.32	NA	0.02 U	0.023 U	0.02 U	0.019 U	0.02 UJ	0.019 UJ	0.02 U	0.02 U	0.02 U	0.022 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.068**	**0.077**	**0.068**	**0.064**	**0.0665**	**0.065**	**0.0665**	**0.0675**	**0.067**	**0.0735**
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.073 B**	**0.091 B**	**0.032 B**	**0.02 B**	**0.052 B**	**0.11 J**	**0.073 B**	**0.028 B**	**0.052 B**	**0.22 J**
ARSENIC	0.43	3.6	**2.6 L**	**4.7 L**	**2.1 L**	**0.63 L**	**1.7 J**	**0.76 J**	**5.7 J**	**1.6 J**	**1**	**3.4**
BARIUM	1600	NA	**309**	**15.7**	**25**	**34**	**9.8 J**	**14.3 J**	**15.2 K**	**29.8 K**	**19.1 J**	**28.7 J**
BERYLLIUM	16	NA	**1.5 J**	**0.16 L**	**0.93 L**	**0.42 L**	**0.13 J**	**0.35 J**	**0.21**	**1.3**	**0.12 J**	**1 J**
CADMIUM	3.9	NA	**0.0098 B**	0.0033 UL	**1.4**	0.0028 UL	**0.0042 B**	**0.0054 B**	**0.0036 B**	**0.0039 B**	0.0029 U	**0.051 J**
CHROMIUM	23	28	**69.4 L**	**9.2 L**	**3.2 L**	**7 L**	**6.7 J**	**20.9 J**	**12.2**	**15**	**5.9**	**20**
COBALT	NA	NA	**5.7 L**	**1.5 L**	**7.1 L**	**1 L**	**1.3 J**	**5.9 J**	**0.69**	**10**	**0.89**	**4.8**
COPPER	310	NA	**7.8 L**	**7 L**	**13.9 L**	**2 L**	**5.8 J**	**27.7 J**	**7.9 L**	**14.6 L**	**6.8 K**	**28 K**
IRON	5500	15000	**5570**	**2160**	**941**	**3190 J**	**4880 J**	**8490 J**	**3710 J**	**2380 J**	**948**	**923**
LEAD	400	NA	**4.6**	**3.7**	**3.7**	**0.7**	**2.7**	**3.4**	**4.1**	**3.7**	**6.2**	**11.3**
MANGANESE	160	480	**2500 J**	**51.8 J**	**33.6 J**	**428 J**	**21.7 J**	**41.4 J**	**85.9 J**	**40.7 J**	**35.8**	**18.6**
MERCURY	2.3	NA	0.02 U	0.022 U	0.02 U	0.019 U	0.019 UL	0.019 UL	**0.023 B**	**0.021 B**	0.019 U	0.021 U
MOLYBDENUM	NA	NA	**0.31**	**0.76**	0.032 U	**0.14 B**	**0.27 B**	**0.09 B**	**0.4**	**0.091 B**	**0.23**	**0.61**
NICKEL	160	NA	**32.7 J**	**2.3 J**	**13 J**	**1.2 J**	**1.6 J**	**9.1 J**	**1.2 J**	**12.9 J**	**0.62 K**	**14.5 K**
SELENIUM	39	NA	**2 J**	**0.67 J**	**3.9 J**	**0.35 J**	**0.24 J**	**0.31 J**	**2.1 J**	**2.7 J**	**0.54 J**	**2.5**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-033		GSP-SB-034		GSP-SB-035		GSP-SB-036		GSP-SB-037	
SAMPLE ID			GSP-SB-33-0-2	GSP-SB-33-20-22	GSP-SB-34-20-22	GSP-SB-34-6-8	GSP-SB-35-0-2	GSP-SB-35-23-25	GSP-SB-36-1-3	GSP-SB-36-23-25	GSP-SB-37-0-2	GSP-SB-37-12-14
			GSP-SB-33-0-2	GSP-SB-33-20-22	GSP-SB-34-20-22	GSP-SB-34-6-8	GSP-SB-35-0-2	GSP-SB-35-23-25	GSP-SB-36-1-3	GSP-SB-36-23-25	GSP-SB-37-0-2	GSP-SB-37-12-14
			REC=06	REC=06	REC=06	REC=06	REC=05	REC=05	REC=05	REC=05	REC=06	REC=06
SAMPLE DATE	Maryland	ATCs	20100513	20100513	20100513	20100513	20100518	20100518	20100507	20100507	20100517	20100517
TOP DEPTH	Residential		0	20	20	6	0	23	1	23	0	12
BOTTOM DEPTH	Soil Standard		2	22	22	8	2	25	3	25	2	14
SILVER	39	NA	0.015 B	0.0096 B	0.027 B	0.0022 B	0.0063 B	0.029 J	0.014 B	0.025 B	0.019 B	0.019 B
THALLIUM	0.55	3.9	0.096 B	0.11 B	0.079 B	0.014 U	0.043 B	0.063 B	0.093 B	0.075 B	0.27	0.62
VANADIUM	7.8	30	24	16.3	20	4.6	15.8	69.3	16.8 K	25.7 K	17.2	30.6
ZINC	2300	NA	12 J	5.7 J	36.9 J	3 B	5.5 B	11.2 J	6.4 L	34 L	3.1	23.2
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	15	3.8 U	3.3 U	12	3.2 UJ	3.3 J	3.2 U	3.3 U	5.4 J	31
GASOLINE RANGE ORGANICS	230	NA	0.038 J	0.038 U	0.033 U	0.041 J	0.032 U	0.032 U	0.032 U	0.033 U	0.033 U	0.036 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-038				GSP-SB-039					GSP-S
SAMPLE ID			GSP-SB-38-0-2 GSP-SB-38-0-2 REC=06	GSP-SB-38-20-22 GSP-SB-38-20-22 REC=06	GSP-SB-38-20-22- GSP-SB-38-20-22- REC=06	GSP-SB-38-20-22-D GSP-SB-38-20-22-D REC=06	GSP-SB-39-20-22 GSP-SB-39-20-22 REC=06	GSP-SB-39-20-22- GSP-SB-39-20-22- REC=06	GSP-SB-39-20-22-D GSP-SB-39-20-22-D REC=06	GSP-SB-39-7-9 GSP-SB-39-7-9 REC=06	GSP-SB-40-0-2 GSP-SB-40-0-2 REC=06	GSP-SB-40-18-20 GSP-SB-40-18-20 REC=06
SAMPLE DATE	Maryland	ATCs	20100512	20100512	20100512	20100512	20100517	20100517	20100517	20100514	20100518	20100518
TOP DEPTH	Residential		0	20	20	20	20	20	20	7	0	18
BOTTOM DEPTH	Soil Standard		2	22	22	22	22	22	22	9	2	20
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0011 U	0.00086 U	0.00103 U	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.001 U	0.0011 U	0.001 U
1,1-DICHLOROETHENE	390	NA	0.00043 U	0.00035 U	0.00042 U	0.00049 U	0.00043 U	0.000445 U	0.00046 U	0.00041 U	0.00045 U	0.00042 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00031 U	0.00025 U	0.000305 U	0.00036 U	0.00031 U	0.00032 U	0.00033 U	0.0003 U	**0.00038 B**	0.0003 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00014 U	0.00011 U	0.000135 U	0.00016 U	0.00014 U	0.000145 U	0.00015 U	0.00014 U	0.00015 U	0.00014 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00022 U	0.00018 U	0.00022 U	0.00026 U	0.00022 U	0.00023 U	0.00024 U	0.00021 U	**0.00037 B**	0.00022 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00054 U	0.00043 U	0.000525 U	0.00062 U	0.00053 U	0.00055 U	0.00057 U	0.00052 U	0.00056 U	0.00052 U
1,2-DICHLOROBENZENE	700	NA	0.0003 U	0.00024 U	0.00029 U	0.00034 U	0.0003 U	0.00031 U	0.00032 U	0.00029 U	0.00031 U	0.00029 U
1,2-DICHLOROETHANE	7	NA	0.00028 U	0.00023 U	0.000275 U	0.00032 U	0.00028 U	0.00029 U	0.0003 U	0.00027 U	0.00029 U	0.00027 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00029 U	0.00023 U	0.00028 U	0.00033 U	0.00029 U	0.0003 U	0.00031 U	0.00028 U	0.0003 U	0.00028 U
1,4-DICHLOROBENZENE	27	NA	0.00055 U	0.00044 U	0.000535 U	0.00063 U	0.00054 U	0.00056 U	0.00058 U	0.00052 U	0.00057 U	0.00053 U
2-BUTANONE	4700	NA	0.0012 U	0.00093 U	0.001115 U	0.0013 U	0.0012 U	0.0012 U	0.0012 U	0.0011 U	0.0012 U	0.0011 U
2-HEXANONE	NA	NA	0.00052 U	0.00042 U	0.00051 U	0.0006 U	0.00052 U	0.000535 U	0.00055 U	0.0005 U	0.00054 U	0.0005 U
4-ISOPROPYLTOLUENE	NA	NA	0.00017 U	0.00014 U	0.00017 U	0.0002 U	0.00017 U	0.000175 U	0.00018 U	0.00017 U	0.00018 U	0.00017 U
4-METHYL-2-PENTANONE	NA	NA	0.00045 U	0.00036 U	0.000435 U	0.00051 U	0.00044 U	0.00046 U	0.00048 U	0.00043 U	**0.00048 B**	0.00043 U
ACETONE	7000	NA	0.0052 U	0.0042 U	**0.0058**	**0.0095 J**	**0.0067 B**	0.00835 U	**0.01 B**	0.005 U	0.0054 U	**0.015**
BENZENE	12	NA	0.00019 U	0.00015 U	0.000185 U	0.00022 U	0.00019 U	0.000195 U	0.0002 U	0.00018 U	0.0002 U	0.00018 U
BROMOMETHANE	11	NA	0.00045 U	0.00036 U	0.000435 U	0.00051 U	0.00044 U	0.00046 U	0.00048 U	0.00043 U	0.00046 U	0.00043 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00036 U	0.00029 U	0.000355 U	0.00042 U	0.00036 U	0.000375 U	0.00039 U	0.00035 U	0.00038 U	0.00035 U
CARBON TETRACHLORIDE	4.9	NA	0.00031 U	0.00025 U	0.0003 U	0.00035 U	0.0003 U	0.000315 U	0.00033 U	0.00029 U	0.00032 U	0.0003 U
CHLOROBENZENE	160	NA	0.00027 U	0.00022 U	0.000265 U	0.00031 U	0.00027 U	0.00028 U	0.00029 U	0.00026 U	0.00028 U	0.00026 U
CHLOROETHANE	220	NA	0.00071 U	0.00057 U	0.00069 U	0.00081 U	0.00071 U	0.000735 U	0.00076 U	0.00068 U	0.00074 U	0.00069 U
CHLOROFORM	78	NA	0.00024 U	0.00019 U	0.00023 U	0.00027 U	0.00024 U	0.00025 U	0.00026 U	0.00023 U	0.00025 U	0.00023 U
CHLOROMETHANE	NA	NA	0.00034 U	0.00027 U	0.00033 U	0.00039 U	0.00034 U	0.00035 U	0.00036 U	0.00033 U	0.00035 U	0.00033 U
CIS-1,2-DICHLOROETHENE	78	NA	0.0003 U	0.00024 U	0.00029 U	0.00034 U	0.0003 U	0.00031 U	0.00032 U	0.00029 U	0.00031 U	0.00029 U
DIISOPROPYL ETHER	NA	NA	0.0012 U	0.001 U	0.0012 U	0.0014 U	0.0012 U	0.00125 U	0.0013 U	0.0012 U	0.0013 U	0.0012 U
ETHYLBENZENE	780	NA	0.00022 U	0.00017 U	0.00021 U	0.00025 U	0.00021 U	0.00022 U	0.00023 U	0.00021 U	0.00022 U	0.00021 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00013 U	0.00011 U	0.00013 U	0.00015 U	0.00013 U	0.000135 U	0.00014 U	0.00013 U	0.00014 U	0.00013 U
M+P-XYLENES	NA	NA	0.00099 U	0.0008 U	0.00095 U	0.0011 U	0.00099 U	0.001045 U	0.0011 U	0.00095 U	0.001 U	0.00096 U
METHYL TERT-BUTYL ETHER	160	NA	0.00036 U	0.00029 U	0.00035 U	0.00041 U	0.00035 UJ	0.000365 U	0.00038 UJ	0.00034 UJ	0.00037 U	0.00034 U
METHYLENE CHLORIDE	85	NA	0.00055 U	0.00045 U	0.00054 U	0.00063 U	0.00055 U	0.00057 U	0.00059 U	0.00053 U	**0.00085 B**	0.00054 U
NAPHTHALENE	160	NA	0.00016 U	0.00013 U	0.000155 U	0.00018 U	0.00016 U	0.000165 U	0.00017 U	0.00015 U	**0.00052 B**	0.00015 U
N-BUTYLBENZENE	NA	NA	0.00019 U	0.00015 U	0.000185 U	0.00022 U	0.00019 U	0.000195 U	0.0002 U	0.00018 U	0.0002 U	0.00018 U
N-PROPYLBENZENE	NA	NA	0.00033 U	0.00027 U	0.000325 U	0.00038 U	0.00033 U	0.00034 U	0.00035 U	0.00032 U	0.00034 U	0.00032 U
O-XYLENE	NA	NA	0.00029 U	0.00023 U	0.00028 U	0.00033 U	0.00029 U	0.0003 U	0.00031 U	0.00028 U	0.0003 U	0.00028 U
SEC-BUTYLBENZENE	NA	NA	0.00015 U	0.00012 U	0.000145 U	0.00017 U	0.00015 U	0.000155 U	0.00016 U	0.00014 U	0.00015 U	0.00014 U
STYRENE	1600	NA	0.00012 U	0.0001 U	0.00012 U	0.00014 U	0.00012 U	0.000125 U	0.00013 U	0.00012 U	0.00013 U	0.00012 U
TERT-AMYL METHYL ETHER	NA	NA	0.00031 U	0.00025 U	0.0003 U	0.00035 U	0.0003 UJ	0.000315 U	0.00033 UJ	0.00029 UJ	0.00032 U	0.0003 U
TERT-BUTYLBENZENE	NA	NA	0.00024 U	0.00019 U	0.00023 U	0.00027 U	0.00024 U	0.00025 U	0.00026 U	0.00023 U	0.00025 U	0.00023 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0063 UR	0.0051 UR	0.00615 R	0.0072 UR	0.0062 UR	0.00645 R	0.0067 UR	0.006 UR	0.0065 UR	0.0061 UR
TETRACHLOROETHENE	1.2	NA	0.00043 U	0.00035 U	0.00042 U	0.00049 U	0.00043 U	0.000445 U	0.00046 U	0.00041 U	0.00045 U	0.00042 U
TOLUENE	630	NA	0.00022 U	0.00018 U	0.00022 U	0.00026 U	0.00022 U	0.00023 U	0.00024 U	0.00021 U	0.00023 U	0.00022 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00055 U	0.00045 U	0.00054 U	0.00063 U	0.00055 U	0.00057 U	0.00059 U	0.00053 U	0.00057 U	0.00054 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00034 U	0.00027 U	0.00033 U	0.00039 U	0.00034 U	0.00035 U	0.00036 U	0.00033 U	0.00035 U	0.00033 U
TRICHLOROETHENE	1.6	NA	0.00035 U	0.00028 U	0.00034 U	0.0004 U	0.00035 U	0.00036 U	0.00037 U	0.00033 U	0.00036 U	0.00034 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00028 U	0.00023 U	0.000275 U	0.00032 U	0.00028 U	0.00029 U	0.0003 U	0.00027 U	0.00029 U	0.00027 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00032 U	0.00026 U	0.000315 U	0.00037 U	0.00032 U	0.00033 U	0.00034 U	0.00031 U	0.00033 U	0.00031 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.066 U	0.03 U	0.03 U	0.03 U	0.031 U	0.031 U	0.031 U	0.031 U	0.033 U	0.031 U
2,4-DICHLOROPHENOL	23	NA	0.049 U	0.022 U	0.022 U	0.022 U	0.023 U	0.023 U	0.023 U	0.023 U	0.024 U	0.023 U
2-CHLOROPHENOL	39	NA	0.066 U	0.03 U	0.03 U	0.03 U	0.031 U	0.031 U	0.031 U	0.031 U	0.033 U	0.031 U
2-METHYLNAPHTHALENE	31	NA	0.008 U	0.0037 U	0.0037 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0038 U	0.004 U	0.0038 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-038				GSP-SB-039					GSP-S
SAMPLE ID			GSP-SB-38-0-2 GSP-SB-38-0-2 REC=06	GSP-SB-38-20-22 GSP-SB-38-20-22 REC=06	GSP-SB-38-20-22- GSP-SB-38-20-22- REC=06	GSP-SB-38-20-22-D GSP-SB-38-20-22-D REC=06	GSP-SB-39-20-22 GSP-SB-39-20-22 REC=06	GSP-SB-39-20-22- GSP-SB-39-20-22- REC=06	GSP-SB-39-20-22-D GSP-SB-39-20-22-D REC=06	GSP-SB-39-7-9 GSP-SB-39-7-9 REC=06	GSP-SB-40-0-2 GSP-SB-40-0-2 REC=06	GSP-SB-40-18-20 GSP-SB-40-18-20 REC=06
SAMPLE DATE	Maryland	ATCs	20100512	20100512	20100512	20100512	20100517	20100517	20100517	20100514	20100518	20100518
TOP DEPTH	Residential		0	20	20	20	20	20	20	7	0	18
BOTTOM DEPTH	Soil Standard		2	22	22	22	22	22	22	9	2	20
ACENAPHTHENE	470	NA	0.008 U	0.0037 U	0.0037 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0038 U	0.004 U	0.0038 U
ACENAPHTHYLENE	470	NA	0.008 U	0.0037 U	0.0037 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0038 U	0.004 U	0.0038 U
ANTHRACENE	2300	NA	0.008 U	0.0037 U	0.0037 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0038 U	0.004 U	0.0038 U
BAP EQUIVALENT-HALFND	NA	NA	0.008 U	0.0037 U	0.0037 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	**0.019023**	**0.005949**	0.0038 U
BAP EQUIVALENT-POS	NA	NA	0.008 U	0.0037 U	0.0037 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	**0.016914**	**0.001729**	0.0038 U
BENZALDEHYDE	NA	NA	0.029 U	0.013 U	0.013 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	0.008 U	0.0037 U	0.0037 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	**0.018**	**0.0091**	0.0038 U
BENZO(A)PYRENE	0.022	NA	0.008 U	0.0037 U	0.0037 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	**0.013**	0.004 U	0.0038 U
BENZO(B)FLUORANTHENE	0.22	NA	0.008 U	0.0037 U	0.0037 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	**0.021**	**0.0081**	0.0038 U
BENZO(G,H,I)PERYLENE	230	NA	0.008 U	0.0037 U	0.0037 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	**0.0091**	0.004 U	0.0038 U
BENZO(K)FLUORANTHENE	2.2	NA	0.008 U	0.0037 U	0.0037 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0038 U	0.004 U	0.0038 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**2.3**	**0.056 B**	0.0385 U	0.021 U	**0.053 B**	0.0375 U	0.022 U	0.022 U	0.023 U	**0.023 J**
BUTYL BENZYL PHTHALATE	NA	NA	0.024 U	0.011 U	0.011 U	0.011 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U
CAPROLACTAM	NA	NA	0.09 U	0.041 U	0.041 U	0.041 U	0.043 U	0.043 U	0.043 U	0.043 U	0.045 U	0.043 U
CARBAZOLE	32	NA	0.066 U	0.03 U	0.03 U	0.03 U	0.031 U	0.031 U	0.031 U	0.031 U	0.033 U	0.031 U
CHRYSENE	22	NA	0.0027 U	0.0012 U	0.0012 U	0.0012 U	0.0013 U	0.0013 U	0.0013 U	**0.014**	**0.0091**	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.008 U	0.0037 U	0.0037 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0038 U	0.004 U	0.0038 U
DIBENZOFURAN	7.8	NA	0.049 U	0.022 U	0.022 U	0.022 U	0.023 U	0.023 U	0.023 U	0.023 U	0.024 U	0.023 U
DIETHYL PHTHALATE	6300	NA	0.039 U	0.018 U	0.018 U	0.018 U	0.019 U	0.019 U	0.019 U	0.018 U	0.019 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.041 U	0.019 U	0.019 U	0.019 U	0.02 U	0.02 U	0.02 U	0.02 U	0.021 U	0.02 U
DI-N-BUTYL PHTHALATE	780	NA	0.037 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.018 U	0.017 U
FLUORANTHENE	310	NA	0.008 U	0.0037 U	0.0037 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	**0.024**	**0.018**	0.0038 U
FLUORENE	310	NA	0.008 U	0.0037 U	0.0037 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0038 U	0.004 U	0.0038 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	**0.1021**	**0.0403**	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.03735 U	0.01725 U	0.01725 U	0.01725 U	0.01775 U	0.01775 U	0.01775 U	**0.1318**	**0.0683**	0.01775 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.03335**	**0.0154**	**0.0154**	**0.0154**	**0.01585**	**0.01585**	**0.01585**	**0.1078**	**0.0503**	**0.01585**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.008 U	0.0037 U	0.0037 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0038 U	0.004 U	0.0038 U
ISOPHORONE	670	NA	0.032 U	0.014 U	0.014 U	0.014 U	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U	0.015 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	**0.034**	**0.036**	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.028 U	0.01295 U	0.01295 U	0.01295 U	0.0133 U	0.0133 U	0.0133 U	**0.0214**	**0.03**	0.0133 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.032**	**0.0148**	**0.0148**	**0.0148**	**0.0152**	**0.0152**	**0.0152**	**0.0454**	**0.048**	**0.0152**
NAPHTHALENE	160	NA	0.008 U	0.0037 U	0.0037 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	0.0038 U	0.004 U	0.0038 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.066 U	0.03 U	0.03 U	0.03 U	0.031 U	0.031 U	0.031 U	0.031 U	0.033 U	0.031 U
PENTACHLOROPHENOL	5.3	NA	0.19 U	0.089 U	0.089 U	0.089 U	0.093 U	0.093 U	0.093 U	0.092 U	0.097 U	0.093 U
PHENANTHRENE	2300	NA	0.008 U	0.0037 U	0.0037 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	**0.01**	**0.018**	0.0038 U
PHENOL	2300	NA	0.066 U	0.03 U	0.03 U	0.03 U	0.031 U	0.031 U	0.031 U	0.031 U	0.033 U	0.031 U
PYRENE	230	NA	0.008 U	0.0037 U	0.0037 U	0.0037 U	0.0038 U	0.0038 U	0.0038 U	**0.027**	**0.014**	0.0038 U
TOTAL PAHS	NA	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	**0.1361**	**0.0763**	0 U
TOTAL PAHS ECO HALFND	NA	NA	0.06535 U	0.0302 U	0.0302 U	0.0302 U	0.03105 U	0.03105 U	0.03105 U	**0.1532**	**0.0983**	0.03105 U
TOTAL PAHS HALFND	NA	NA	0.06535 U	0.0302 U	**0.0302**	0.0302 U	0.03105 U	**0.03105**	0.03105 U	**0.1532**	**0.0983**	0.03105 U
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.016 U	0.014 U	0.014 U	0.014 U	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U	0.015 U
AROCLOR-1260	0.32	NA	0.021 U	0.019 U	0.019 U	0.019 U	0.02 U	0.02 U	0.02 U	0.02 U	0.021 UJ	0.02 UJ
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.0705**	**0.064**	**0.064**	**0.064**	**0.067**	**0.067**	**0.067**	**0.0665**	**0.07**	**0.067**
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.099 J**	**0.052 B**	0.036 U	**0.02 B**	**0.073 B**	**0.09825**	**0.16 J**	**0.037 B**	**0.044 B**	**0.17 J**
ARSENIC	0.43	3.6	**1.6 L**	**0.9 L**	**0.72**	**0.54 J**	**0.8**	**1.15**	**1.5**	**0.86 J**	**1.3 J**	**16.7 J**
BARIUM	1600	NA	**90.8**	**298 J**	**222.5**	**147 J**	**42.7 J**	**35.45**	**28.2 J**	**19.5 J**	**36.7 J**	**6.2 J**
BERYLLIUM	16	NA	**0.56 L**	**4 L**	**3.8**	**3.6 L**	**6 L**	**6.55**	**7.1 L**	**0.49**	**0.4 J**	**0.34 J**
CADMIUM	3.9	NA	**0.034 B**	**0.015 B**	0.0108 U	**0.0066 B**	**0.015 B**	0.014 U	**0.013 B**	**0.024 B**	**0.013 B**	**1.7 J**
CHROMIUM	23	28	**17.6 L**	**12.3 J**	**11.15**	**10 J**	**15.8 J**	**21.15**	**26.5 J**	**14.3**	**8.3 J**	**5.4 J**
COBALT	NA	NA	**3.8 L**	**22.9 L**	**20**	**17.1 L**	**24.9**	**26.55**	**28.2**	**4.2**	**1.6 J**	**59.5 J**
COPPER	310	NA	**22.3 L**	**5.5 L**	**5.65**	**5.8 L**	**28.1 K**	**28.65**	**29.2 K**	**18.5 K**	**13.6 J**	**32.8 J**
IRON	5500	15000	**5530**	**104000**	**94600**	**85200**	**78600 J**	**50700**	**22800 J**	**1490**	**1470 J**	**3060 J**
LEAD	400	NA	**6.9**	**7**	**5.9**	**4.8**	**9.6 J**	**8.8**	**8 J**	**5**	**5.1**	**15**
MANGANESE	160	480	**283 J**	**2770 J**	**2485**	**2200 J**	**1690**	**1017**	**344**	**6.6**	**81.3 J**	**12.1 J**
MERCURY	2.3	NA	0.02 U	0.018 U	0.0185 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.02 UL	0.019 UL
MOLYBDENUM	NA	NA	**0.35**	**0.14 B**	0.105 U	**0.07 B**	**0.078 B**	0.089 U	**0.1 B**	**0.081 B**	**0.12 B**	**1.5**
NICKEL	160	NA	**8.4 J**	**35 J**	**29.8**	**24.6 J**	**37.3 K**	**42.55**	**47.8 K**	**8.3 K**	**2.2 J**	**62.3 J**
SELENIUM	39	NA	**1.8 J**	**0.92 J**	**0.825**	**0.73 J**	**1.6**	**1.95**	**2.3**	**1.2**	**0.87 J**	**0.56 J**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-038				GSP-SB-039					GSP-S
SAMPLE ID			GSP-SB-38-0-2 GSP-SB-38-0-2 REC=06	GSP-SB-38-20-22 GSP-SB-38-20-22 REC=06	GSP-SB-38-20-22- GSP-SB-38-20-22- REC=06	GSP-SB-38-20-22-D GSP-SB-38-20-22-D REC=06	GSP-SB-39-20-22 GSP-SB-39-20-22 REC=06	GSP-SB-39-20-22- GSP-SB-39-20-22- REC=06	GSP-SB-39-20-22-D GSP-SB-39-20-22-D REC=06	GSP-SB-39-7-9 GSP-SB-39-7-9 REC=06	GSP-SB-40-0-2 GSP-SB-40-0-2 REC=06	GSP-SB-40-18-20 GSP-SB-40-18-20 REC=06
SAMPLE DATE	Maryland	ATCs	20100512	20100512	20100512	20100512	20100517	20100517	20100517	20100514	20100518	20100518
TOP DEPTH	Residential		0	20	20	20	20	20	20	7	0	18
BOTTOM DEPTH	Soil Standard		2	22	22	22	22	22	22	9	2	20
SILVER	39	NA	**0.031 B**	**0.039 B**	0.033 U	**0.027 B**	**0.039 B**	0.041 U	**0.043 B**	**0.0071 B**	**0.021 J**	**0.038 J**
THALLIUM	0.55	3.9	**0.2**	**0.098 B**	0.082 U	**0.066 B**	**0.098 B**	0.104 U	**0.11 B**	**0.18**	**0.17**	**0.31**
VANADIUM	7.8	30	**23.7**	**16.2**	**15.45**	**14.7**	**27.2**	**36.25**	**45.3**	**7.3**	**8.5**	**15**
ZINC	2300	NA	**30.6 J**	**49.5 J**	**47.75**	**46 J**	**80.7**	**81.8**	**82.9**	**14.1**	**8.7 J**	**579 J**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	**5.2 J**	3.1 U	3.1 U	3.1 U	3.2 U	3.2 U	3.2 U	**6.1 J**	3.4 UJ	**11 J**
GASOLINE RANGE ORGANICS	230	NA	0.034 U	0.031 U	0.031 U	0.031 U	0.032 U	0.032 U	0.032 U	0.032 U	0.034 U	0.032 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-040		GSP-SB-042		GSP-SB-043		GSP-SB-044		GSP-SB-045	
SAMPLE ID			GSP-SB-40-18-20- GSP-SB-40-18-20- REC=06	GSP-SB-40-18-20-D GSP-SB-40-18-20-D REC=06	GSP-SB-42-0-2 GSP-SB-42-0-2 REC=06	GSP-SB-42-21-23 GSP-SB-42-21-23 REC=06	GSP-SB-43-0-2 GSP-SB-43-0-2 REC=07	GSP-SB-43-23-25 GSP-SB-43-23-25 REC=07	GSP-SB-44-0-2 GSP-SB-44-0-2 REC=07	GSP-SB-44-21-23 GSP-SB-44-21-23 REC=07	GSP-SB-45-0-2 GSP-SB-45-0-2 REC=07	GSP-SB-45-20-22 GSP-SB-45-20-22 REC=07
SAMPLE DATE	Maryland	ATCs	20100518	20100518	20100517	20100517	20100428	20100428	20100428	20100428	20100427	20100427
TOP DEPTH	Residential		18	18	0	21	0	23	0	21	0	20
BOTTOM DEPTH	Soil Standard		20	20	2	23	2	25	2	23	2	22
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.00105 U	0.0011 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0013 U	0.0011 U	0.0011 U	0.0012 U
1,1-DICHLOROETHENE	390	NA	**0.000545**	**0.00088 J**	0.00049 U	0.0004 U	0.00045 U	0.00044 U	0.00051 U	0.00044 U	0.00044 U	0.0005 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.000315 U	0.00033 U	0.00036 U	0.00029 U	0.00033 U	0.00032 U	0.00037 U	0.00032 U	0.00032 U	0.00036 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.000145 U	0.00015 U	0.00016 U	0.00013 U	0.00015 U	0.00014 U	0.00017 U	0.00014 U	0.00014 U	0.00016 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00023 U	0.00024 U	0.00025 U	0.00021 U	0.00023 U	0.00023 U	0.00026 U	0.00023 U	0.00023 U	0.00026 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.000545 U	0.00057 U	0.00061 U	0.0005 U	0.00056 U	0.00055 U	0.00063 U	0.00055 U	0.00055 U	0.00062 U
1,2-DICHLOROBENZENE	700	NA	0.000305 U	0.00032 U	0.00034 U	0.00028 U	0.00031 U	0.00031 U	0.00035 U	0.0003 U	0.0003 U	0.00035 U
1,2-DICHLOROETHANE	7	NA	0.000285 U	0.0003 U	0.00032 U	0.00026 U	0.00029 U	0.00029 U	0.00033 U	0.00029 U	0.00029 U	0.00033 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.000295 U	0.00031 U	0.00033 U	0.00027 U	0.0003 U	0.0003 U	0.00034 U	0.00029 U	0.00029 U	0.00034 U
1,4-DICHLOROBENZENE	27	NA	0.000555 U	0.00058 U	0.00062 U	0.00051 U	0.00057 U	0.00056 U	0.00064 U	0.00055 U	0.00055 U	0.00063 U
2-BUTANONE	4700	NA	0.00115 U	0.0012 U	0.0013 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0012 U	0.0012 U	0.0013 U
2-HEXANONE	NA	NA	0.000525 U	0.00055 U	0.00059 U	0.00049 U	0.00054 U	0.00054 U	0.00061 U	0.00053 U	0.00053 U	0.0006 U
4-ISOPROPYLTOLUENE	NA	NA	0.000175 U	0.00018 U	0.0002 U	0.00016 U	0.00018 U	0.00018 U	0.0002 U	0.00018 U	0.00018 U	0.0002 U
4-METHYL-2-PENTANONE	NA	NA	0.00045 U	0.00047 U	0.00051 U	0.00042 U	0.00047 U	0.00046 U	0.00052 U	**0.00076 B**	0.00045 U	0.00052 U
ACETONE	7000	NA	**0.01075**	**0.013 B**	**0.0059 B**	**0.0072 B**	0.0054 U	0.0054 U	0.0061 U	**0.0065 J**	0.0053 U	**0.0074 B**
BENZENE	12	NA	0.00019 U	0.0002 U	0.00022 U	0.00018 U	0.0002 U	0.0002 U	0.00022 U	0.00019 U	0.00019 U	0.00022 U
BROMOMETHANE	11	NA	0.00045 U	0.00047 U	0.00051 U	0.00042 U	0.00047 U	0.00046 U	0.00052 U	0.00045 U	0.00045 U	0.00052 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00037 U	0.00039 U	0.00041 U	0.00034 U	0.00038 U	0.00037 U	**0.00091 J**	0.00037 U	0.00037 U	0.00042 U
CARBON TETRACHLORIDE	4.9	NA	0.00031 U	0.00032 U	0.00035 U	0.00029 U	0.00032 U	0.00032 U	0.00036 U	0.00031 U	0.00031 U	0.00035 U
CHLOROBENZENE	160	NA	0.000275 U	0.00029 U	0.00031 U	0.00026 U	0.00028 U	0.00028 U	0.00032 U	0.00028 U	0.00028 U	0.00032 U
CHLOROETHANE	220	NA	0.00072 U	0.00075 U	0.00081 U	0.00067 U	0.00074 U	0.00073 U	0.00084 U	0.00072 U	0.00072 U	0.00082 U
CHLOROFORM	78	NA	0.00024 U	0.00025 U	0.00027 U	0.00023 U	0.00025 U	0.00025 U	0.00028 U	0.00024 U	0.00024 U	0.00028 U
CHLOROMETHANE	NA	NA	0.000345 U	0.00036 U	0.00038 U	0.00032 U	0.00035 U	0.00035 U	0.0004 U	0.00034 U	0.00034 U	0.00039 U
CIS-1,2-DICHLOROETHENE	78	NA	0.000305 U	0.00032 U	0.00034 U	0.00028 U	0.00031 U	0.00031 U	0.00035 U	0.0003 U	0.0003 U	0.00035 U
DIISOPROPYL ETHER	NA	NA	0.00125 U	0.0013 U	0.0014 U	0.0012 U	0.0013 U	0.0013 U	0.0015 U	0.0013 U	0.0013 U	0.0014 U
ETHYLBENZENE	780	NA	0.00022 U	0.00023 U	0.00024 U	0.0002 U	0.00022 U	0.00022 U	0.00025 U	0.00022 U	0.00022 U	0.00025 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.000135 U	0.00014 U	0.00015 U	0.00012 U	0.00014 U	0.00014 U	0.00016 U	0.00013 U	0.00013 U	0.00015 U
M+P-XYLENES	NA	NA	0.00103 U	0.0011 U	0.0011 U	0.00093 U	0.001 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.0012 U
METHYL TERT-BUTYL ETHER	160	NA	0.00036 U	0.00038 U	0.0004 UJ	0.00033 UJ	0.00037 U	0.00037 U	**0.0044 J**	0.00036 U	0.00036 U	0.00041 U
METHYLENE CHLORIDE	85	NA	0.00107 U	**0.0016 B**	0.00063 U	0.00052 U	0.00058 U	0.00057 U	0.00065 U	0.00056 U	0.00056 U	0.00064 U
NAPHTHALENE	160	NA	0.00016 U	0.00017 U	0.00018 U	0.00015 U	0.00016 U	0.00016 U	0.00018 U	0.00016 U	**0.00036 B**	**0.00025 B**
N-BUTYLBENZENE	NA	NA	0.00019 U	0.0002 U	0.00022 U	0.00018 U	0.0002 U	0.0002 U	0.00022 U	0.00019 U	0.00019 U	0.00022 U
N-PROPYLBENZENE	NA	NA	0.000335 U	0.00035 U	0.00038 U	0.00031 U	0.00034 U	0.00034 U	0.00039 U	0.00034 U	0.00034 U	0.00038 U
O-XYLENE	NA	NA	0.000295 U	0.00031 U	0.00033 U	0.00027 U	0.0003 U	0.0003 U	0.00034 U	0.00029 U	0.00029 U	0.00034 U
SEC-BUTYLBENZENE	NA	NA	0.00015 U	0.00016 U	0.00017 U	0.00014 U	0.00016 U	0.00015 U	0.00017 U	0.00015 U	0.00015 U	0.00017 U
STYRENE	1600	NA	0.000125 U	0.00013 U	0.00014 U	0.00012 U	0.00013 U	0.00013 U	0.00015 U	0.00013 U	0.00013 U	0.00014 U
TERT-AMYL METHYL ETHER	NA	NA	0.00031 U	0.00032 U	0.00035 UJ	0.00029 UJ	0.00032 U	0.00032 U	**0.00095 J**	0.00031 U	0.00031 U	0.00035 U
TERT-BUTYLBENZENE	NA	NA	0.00024 U	0.00025 U	0.00027 U	0.00023 U	0.00025 U	0.00025 U	0.00028 U	0.00024 U	0.00024 U	0.00028 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0064 R	0.0067 UR	0.0071 UR	0.0059 UR	0.0066 UR	0.0065 UR	0.0074 UR	0.0064 UR	0.0064 UR	0.0073 UR
TETRACHLOROETHENE	1.2	NA	0.00044 U	0.00046 U	0.00049 U	0.0004 U	0.00045 U	0.00044 U	0.00051 U	0.00044 U	0.00044 U	0.0005 U
TOLUENE	630	NA	0.00023 U	0.00024 U	0.00025 U	0.00021 U	0.00023 U	0.00023 U	0.00026 U	0.00023 U	0.00023 U	0.00026 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.000565 U	0.00059 U	0.00063 U	0.00052 U	0.00058 U	0.00057 U	0.00065 U	0.00056 U	0.00056 U	0.00064 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.000345 U	0.00036 U	0.00038 U	0.00032 U	0.00035 U	0.00035 U	0.0004 U	0.00034 U	0.00034 U	0.00039 U
TRICHLOROETHENE	1.6	NA	0.000355 U	0.00037 U	0.00039 U	0.00033 U	0.00036 U	0.00036 U	0.00041 U	0.00035 U	0.00035 U	0.0004 U
TRICHLOROFLUOROMETHANE	NA	NA	0.000285 U	0.0003 U	0.00032 U	0.00026 U	0.00029 U	0.00029 U	0.00033 U	0.00029 U	0.00029 U	0.00033 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.000325 U	0.00034 U	0.00037 U	0.0003 U	0.00034 U	0.00033 U	0.00038 U	0.00033 U	0.00033 U	0.00037 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.0315 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.031 U	0.032 U	0.031 U	0.034 UJ
2,4-DICHLOROPHENOL	23	NA	0.023 U	0.023 U	0.024 U	0.024 U	0.024 U	0.024 U	0.023 U	0.024 U	0.023 U	0.025 UJ
2-CHLOROPHENOL	39	NA	0.0315 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.031 U	0.032 U	0.031 U	0.034 UJ
2-METHYLNAPHTHALENE	31	NA	0.00385 U	0.0039 U	0.0039 U	0.0039 U	0.004 U	0.0039 U	0.0037 U	0.0039 U	0.0037 U	0.0042 UJ
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-040		GSP-SB-042		GSP-SB-043		GSP-SB-044		GSP-SB-045	
SAMPLE ID			GSP-SB-40-18-20- GSP-SB-40-18-20- REC=06	GSP-SB-40-18-20-D GSP-SB-40-18-20-D REC=06	GSP-SB-42-0-2 GSP-SB-42-0-2 REC=06	GSP-SB-42-21-23 GSP-SB-42-21-23 REC=06	GSP-SB-43-0-2 GSP-SB-43-0-2 REC=07	GSP-SB-43-23-25 GSP-SB-43-23-25 REC=07	GSP-SB-44-0-2 GSP-SB-44-0-2 REC=07	GSP-SB-44-21-23 GSP-SB-44-21-23 REC=07	GSP-SB-45-0-2 GSP-SB-45-0-2 REC=07	GSP-SB-45-20-22 GSP-SB-45-20-22 REC=07
SAMPLE DATE	Maryland	ATCs	20100518	20100518	20100517	20100517	20100428	20100428	20100428	20100428	20100427	20100427
TOP DEPTH	Residential		18	18	0	21	0	23	0	21	0	20
BOTTOM DEPTH	Soil Standard		20	20	2	23	2	25	2	23	2	22
ACENAPHTHENE	470	NA	0.00385 U	0.0039 U	0.0039 U	0.0039 U	0.004 U	0.0039 U	0.0037 U	0.0039 U	0.0037 U	0.0042 UJ
ACENAPHTHYLENE	470	NA	0.00385 U	0.0039 U	0.0039 U	0.0039 U	0.004 U	0.0039 U	0.0037 U	0.0039 U	0.0037 U	0.0042 UJ
ANTHRACENE	2300	NA	0.00385 U	0.0039 U	0.0039 U	0.0039 U	0.004 U	0.0039 U	0.0037 U	0.0039 U	0.0037 U	0.0042 UJ
BAP EQUIVALENT-HALFND	NA	NA	0.00385 U	0.0039 U	0.0039 U	0.0039 U	0.004 U	0.0039 U	0.0037 U	0.0039 U	0.0037 U	0.0042 U
BAP EQUIVALENT-POS	NA	NA	0.00385 U	0.0039 U	0.0039 U	0.0039 U	0.004 U	0.0039 U	0.0037 U	0.0039 U	0.0037 U	0.0042 U
BENZALDEHYDE	NA	NA	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.015 UJ
BENZO(A)ANTHRACENE	0.22	NA	0.00385 U	0.0039 U	0.0039 U	0.0039 U	0.004 U	0.0039 U	0.0037 U	0.0039 U	0.0037 U	0.0042 UJ
BENZO(A)PYRENE	0.022	NA	0.00385 U	0.0039 U	0.0039 U	0.0039 U	0.004 U	0.0039 U	0.0037 U	0.0039 U	0.0037 U	0.0042 UJ
BENZO(B)FLUORANTHENE	0.22	NA	0.00385 U	0.0039 U	0.0039 U	0.0039 U	0.004 U	0.0039 U	0.0037 U	0.0039 U	0.0037 U	0.0042 UJ
BENZO(G,H,I)PERYLENE	230	NA	0.00385 U	0.0039 U	0.0039 U	0.0039 U	0.004 U	0.0039 U	0.0037 U	0.0039 U	0.0037 U	0.0042 UJ
BENZO(K)FLUORANTHENE	2.2	NA	0.00385 U	0.0039 U	0.0039 U	0.0039 U	0.004 U	0.0039 U	0.0037 U	0.0039 U	0.0037 U	0.0042 UJ
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.0365**	**0.05 J**	0.023 U	0.022 U	**0.058 B**	0.022 U	**0.026 B**	**0.032 B**	0.022 U	0.024 UJ
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.011 U	0.012 U	0.011 U	0.013 UJ
CAPROLACTAM	NA	NA	0.043 U	0.043 U	0.044 U	0.044 U	0.044 U	0.044 U	0.042 U	0.044 U	0.042 U	0.047 UJ
CARBAZOLE	32	NA	0.0315 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.031 U	0.032 U	0.031 U	0.034 UJ
CHRYSENE	22	NA	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0012 U	0.0013 U	0.0012 U	0.0014 UJ
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.00385 U	0.0039 U	0.0039 U	0.0039 U	0.004 U	0.0039 U	0.0037 U	0.0039 U	0.0037 U	0.0042 UJ
DIBENZOFURAN	7.8	NA	0.023 U	0.023 U	0.024 U	0.024 U	0.024 U	0.024 U	0.023 U	0.024 U	0.023 U	0.025 UJ
DIETHYL PHTHALATE	6300	NA	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.018 U	0.019 U	0.018 U	0.02 UJ
DIMETHYL PHTHALATE	NA	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.019 U	0.02 U	0.019 U	0.021 UJ
DI-N-BUTYL PHTHALATE	780	NA	0.0175 U	0.018 U	0.018 U	0.018 U	**0.023 J**	**0.02 J**	**0.017 J**	**0.023 J**	0.017 U	0.019 UJ
FLUORANTHENE	310	NA	0.00385 U	0.0039 U	0.0039 U	0.0039 U	0.004 U	0.0039 U	0.0037 U	0.0039 U	0.0037 U	0.0042 UJ
FLUORENE	310	NA	0.00385 U	0.0039 U	0.0039 U	0.0039 U	0.004 U	0.0039 U	0.0037 U	0.0039 U	0.0037 U	0.0042 UJ
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.017975 U	0.0182 U	0.0182 U	0.0182 U	0.01865 U	0.0182 U	0.01725 U	0.0182 U	0.01725 U	0.0196 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.01605**	**0.01625**	**0.01625**	**0.01625**	**0.01665**	**0.01625**	**0.0154**	**0.01625**	**0.0154**	**0.0175**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.00385 U	0.0039 U	0.0039 U	0.0039 U	0.004 U	0.0039 U	0.0037 U	0.0039 U	0.0037 U	0.0042 UJ
ISOPHORONE	670	NA	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U	0.015 U	0.015 U	0.015 U	0.015 U	0.016 UJ
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.013475 U	0.01365 U	0.01365 U	0.01365 U	0.014 U	0.01365 U	0.01295 U	0.01365 U	0.01295 U	0.0147 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0154**	**0.0156**	**0.0156**	**0.0156**	**0.016**	**0.0156**	**0.0148**	**0.0156**	**0.0148**	**0.0168**
NAPHTHALENE	160	NA	0.00385 U	0.0039 U	0.0039 U	0.0039 U	0.004 U	0.0039 U	0.0037 U	0.0039 U	0.0037 U	0.0042 UJ
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.0315 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.031 U	0.032 U	0.031 U	0.034 UJ
PENTACHLOROPHENOL	5.3	NA	0.0935 U	0.094 U	0.095 U	0.094 U	0.096 U	0.095 U	0.09 U	0.095 U	0.091 U	0.1 UJ
PHENANTHRENE	2300	NA	0.00385 U	0.0039 U	0.0039 U	0.0039 U	0.004 U	0.0039 U	0.0037 U	0.0039 U	0.0037 U	0.0042 UJ
PHENOL	2300	NA	0.0315 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.031 U	0.032 U	0.031 U	0.034 UJ
PYRENE	230	NA	0.00385 U	0.0039 U	0.0039 U	0.0039 U	0.004 U	0.0039 U	0.0037 U	0.0039 U	0.0037 U	0.0042 UJ
TOTAL PAHS	NA	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TOTAL PAHS ECO HALFND	NA	NA	0.03145 U	0.03185 U	0.03185 U	0.03185 U	0.03265 U	0.03185 U	0.0302 U	0.03185 U	0.0302 U	0.0343 U
TOTAL PAHS HALFND	NA	NA	**0.03145**	0.03185 U	0.03185 U	0.03185 U	0.03265 U	0.03185 U	0.0302 U	0.03185 U	0.0302 U	0.0343 U
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U
AROCLOR-1260	0.32	NA	0.02 U	0.02 UJ	0.02 U	0.02 U	0.02 U	0.02 U	0.019 U	0.02 U	0.019 U	0.021 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.06725**	**0.0675**	**0.068**	**0.0675**	**0.0685**	**0.068**	**0.065**	**0.068**	**0.065**	**0.072**
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.14**	**0.11 J**	**0.12 B**	**0.056 B**	**0.086 J**	**0.073 J**	**0.058 J**	**0.026 B**	**0.041 B**	**0.26 K**
ARSENIC	0.43	3.6	**13.3**	**9.9 J**	**2.7**	**1.8**	**4.4**	**1.9**	**1.5**	**2.7**	**2.2**	**6.3**
BARIUM	1600	NA	**11.4**	**16.6 J**	**40.8 J**	**22.1 J**	**31.6**	**12.1**	**9.9**	**13.4**	**15.3**	**25.6**
BERYLLIUM	16	NA	**0.67**	**1 J**	**0.38 J**	**4 L**	**0.32**	**0.52**	**0.091 J**	**0.37**	**0.13**	**2.2**
CADMIUM	3.9	NA	**1.12**	**0.54 J**	**0.0088 B**	**0.078 J**	**0.029 B**	**0.018 B**	**0.0031 B**	**0.21**	**0.008 B**	**0.004 B**
CHROMIUM	23	28	**9.3**	**13.2 J**	**26.3**	**8.7**	**17.2**	**10.2**	**6.2**	**10.8**	**9.7**	**32.3**
COBALT	NA	NA	**40.85**	**22.2 J**	**1.4**	**29.6**	**3.2**	**66.1**	**0.66**	**3.4**	**1.2**	**3.8**
COPPER	310	NA	**46.9**	**61 J**	**19.4 K**	**22.9 K**	**10.6 L**	**17 L**	**6.6 L**	**16.7 L**	**6.4**	**21.4**
IRON	5500	15000	**2115**	**1170 J**	**2620**	**64400**	**20400**	**527**	**3040**	**509**	**6530**	**40300**
LEAD	400	NA	**13.8**	**12.6**	**8.2**	**8.6**	**7.3**	**4.1**	**2.1**	**2.6**	**3.8**	**9.3**
MANGANESE	160	480	**13.7**	**15.3 J**	**126**	**1360**	**45.9**	**13.2**	**7.9**	**13.7**	**17.3 K**	**50.6 K**
MERCURY	2.3	NA	0.019 U	0.019 UL	0.02 U	**0.025 J**	0.02 UL	0.02 UL	**0.022 J**	0.02 UL	0.019 UL	0.021 UL
MOLYBDENUM	NA	NA	**1.235**	**0.97**	**0.29**	0.032 U	**0.68**	**0.3**	**0.28**	**0.14 J**	**0.43 B**	**0.81 K**
NICKEL	160	NA	**45.95**	**29.6 J**	**2.9 K**	**48 K**	**6.2**	**76.5**	**1.7**	**6.7**	**2.9**	**16.7**
SELENIUM	39	NA	**7.73**	**14.9 J**	**2.1**	**3.5**	**0.92 L**	**2 L**	**0.35 J**	**4.7 L**	**0.46 J**	**4.5**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-040		GSP-SB-042		GSP-SB-043		GSP-SB-044		GSP-SB-045	
SAMPLE ID			GSP-SB-40-18-20-REC=06	GSP-SB-40-18-20-D REC=06	GSP-SB-42-0-2 REC=06	GSP-SB-42-21-23 REC=06	GSP-SB-43-0-2 REC=07	GSP-SB-43-23-25 REC=07	GSP-SB-44-0-2 REC=07	GSP-SB-44-21-23 REC=07	GSP-SB-45-0-2 REC=07	GSP-SB-45-20-22 REC=07
SAMPLE DATE	Maryland	ATCs	20100518	20100518	20100517	20100517	20100428	20100428	20100428	20100428	20100427	20100427
TOP DEPTH	Residential		18	18	0	21	0	23	0	21	0	20
BOTTOM DEPTH	Soil Standard		20	20	2	23	2	25	2	23	2	22
SILVER	39	NA	0.0495	0.061 J	0.031 B	0.047 B	0.0093 B	0.027 B	0.0058 B	0.025 B	0.0052 B	0.038 B
THALLIUM	0.55	3.9	0.425	0.54	0.18	0.11 B	0.079 B	0.086 B	0.035 B	0.059 B	0.063 B	0.067 B
VANADIUM	7.8	30	17.45	19.9	34.8	29.8	34.9	11.7	12.5	18.4	14.7	58.9
ZINC	2300	NA	346	113 J	7.1	104	21.7 L	12.6 L	4.7 L	30.6 L	9.5 J	33.7 J
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	10.1	9.2 J	5.1 J	4.4 J	6.1 J	11 J	4.2 J	12 J	9.3 J	3.5 U
GASOLINE RANGE ORGANICS	230	NA	0.0325 U	0.033 U	0.033 U	0.033 U	0.034 U	0.033 U	0.032 U	0.033 U	0.032 U	0.035 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-046		GSP-SB-047		GSP-SB-048		GSP-SB-049		GSP-SB-050	
SAMPLE ID			GSP-SB-46-0-2	GSP-SB-46-20-22	GSP-SB-47-0-2	GSP-SB-47-20-22	GSP-SB-48-20-22	GSP-SB-48-6-8	GSP-SB-49-0-2	GSP-SB-49-20-22	GSP-SB-50-0-2	GSP-SB-50-22-24
			GSP-SB-46-0-2	GSP-SB-46-20-22	GSP-SB-47-0-2	GSP-SB-47-20-22	GSP-SB-48-20-22	GSP-SB-48-6-8	GSP-SB-49-0-2	GSP-SB-49-20-22	GSP-SB-50-0-2	GSP-SB-50-22-24
			REC=07	REC=07	REC=07	REC=07	REC=07	REC=07	REC=07	REC=07	REC=08	REC=08
SAMPLE DATE	Maryland	ATCs	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100429	20100429
TOP DEPTH	Residential		0	20	0	20	20	6	0	20	0	22
BOTTOM DEPTH	Soil Standard		2	22	2	22	22	8	2	22	2	24
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.00094 U	0.0011 U	0.0012 U	0.0012 U	0.0012 U	0.034 U	0.0012 U	0.0011 U	0.0012 U	0.0011 U
1,1-DICHLOROETHENE	390	NA	0.00038 U	0.00043 U	0.0005 U	0.0005 U	0.00048 U	0.016 U	0.00046 U	0.00042 U	0.00047 U	0.00043 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00028 U	0.00031 U	0.00036 U	0.00036 UJ	0.00035 U	0.0088 U	0.00034 U	0.00031 UJ	**0.00048 B**	0.00031 UJ
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00012 U	0.00014 U	0.00016 U	**0.0002 J**	0.00016 U	**0.0015 B**	0.00015 U	0.00014 UJ	0.00015 U	0.00014 U
1,2,4-TRICHLOROBENZENE	78	NA	0.0002 U	0.00022 U	0.00026 U	**0.00026 B**	0.00025 U	0.0064 U	0.00024 U	0.00022 UJ	0.00024 U	0.00022 UJ
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00047 U	0.00054 U	0.00062 U	0.00062 UJ	0.0006 U	0.0044 U	0.00058 U	0.00053 UJ	0.00058 U	0.00054 UJ
1,2-DICHLOROBENZENE	700	NA	0.00026 U	0.0003 U	0.00034 U	0.00034 UJ	0.00033 U	0.0076 U	0.00032 U	0.00029 UJ	0.00032 U	0.0003 UJ
1,2-DICHLOROETHANE	7	NA	0.00025 U	0.00028 U	0.00032 U	0.00033 U	0.00032 U	0.0088 U	0.0003 U	0.00028 U	0.0003 U	0.00028 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00025 U	0.00029 U	0.00033 U	0.00033 UJ	0.00033 U	0.0042 U	0.00031 U	0.00029 UJ	0.00031 U	0.00029 UJ
1,4-DICHLOROBENZENE	27	NA	0.00048 U	0.00054 U	0.00063 U	0.00063 UJ	0.00061 U	0.007 U	0.00059 U	0.00054 UJ	0.00059 U	0.00055 UJ
2-BUTANONE	4700	NA	0.001 U	0.0012 U	0.0013 U	0.0013 U	0.0013 U	0.038 U	**0.0047 J**	0.0011 U	0.0013 U	0.0012 U
2-HEXANONE	NA	NA	0.00046 U	0.00052 U	0.0006 U	0.0006 UJ	0.00059 U	0.018 U	0.00056 U	0.00051 U	**0.0013 B**	0.00052 U
4-ISOPROPYLTOLUENE	NA	NA	0.00015 U	0.00017 U	0.0002 U	0.0002 UJ	0.0002 U	**0.014 J**	0.00019 U	0.00017 UJ	0.00019 U	0.00017 UJ
4-METHYL-2-PENTANONE	NA	NA	0.00039 U	0.00045 U	0.00052 U	0.00052 UJ	0.0005 U	0.042 U	0.00048 U	0.00044 U	**0.0011 B**	0.00045 U
ACETONE	7000	NA	**0.0072 B**	0.0052 U	**0.03**	**0.031 B**	**0.014**	**0.36 B**	**0.034**	**0.029**	0.0056 U	**0.013**
BENZENE	12	NA	0.00017 U	0.00019 U	0.00022 U	0.00022 U	0.00021 U	0.011 U	0.00021 U	0.00019 U	0.00021 U	0.00019 U
BROMOMETHANE	11	NA	0.00039 U	0.00045 U	0.00052 U	0.00052 U	0.0005 U	0.025 U	0.00048 U	0.00044 U	0.00048 U	0.00045 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00032 U	0.00036 U	0.00042 U	0.00042 U	0.00041 U	0.011 U	0.00039 U	0.00036 U	0.00039 U	0.00036 U
CARBON TETRACHLORIDE	4.9	NA	0.00027 U	0.00031 U	0.00035 U	0.00035 U	0.00034 U	0.0056 U	0.00033 U	0.0003 U	0.00033 U	0.00031 U
CHLOROBENZENE	160	NA	0.00024 U	0.00027 U	0.00031 U	0.00032 UJ	0.00031 U	0.0056 U	0.00029 U	0.00027 U	0.0003 U	0.00027 U
CHLOROETHANE	220	NA	0.00062 U	0.00071 U	0.00082 U	0.00082 U	0.0008 U	0.054 U	0.00077 U	0.0007 U	0.00077 U	0.00071 U
CHLOROFORM	78	NA	0.00021 U	0.00024 U	0.00028 U	0.00028 U	0.00027 U	0.0077 U	0.00026 U	0.00024 U	0.00026 U	0.00024 U
CHLOROMETHANE	NA	NA	0.0003 U	0.00034 U	0.00039 U	0.00039 U	0.00038 U	0.012 U	0.00037 U	0.00033 U	0.00037 U	0.00034 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00026 U	0.0003 U	0.00034 U	0.00034 U	0.00033 U	0.0061 U	0.00032 U	0.00029 U	0.00032 U	0.0003 UJ
DIISOPROPYL ETHER	NA	NA	0.0011 U	0.0012 U	0.0014 U	0.0014 U	0.0014 U	0.044 U	0.0013 U	0.0012 U	0.0013 U	0.0012 U
ETHYLBENZENE	780	NA	0.00019 U	0.00021 U	0.00025 U	0.00025 UJ	0.00024 U	0.0047 U	0.00023 U	0.00021 U	0.00023 U	0.00022 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00012 U	0.00013 U	0.00015 U	0.00015 UJ	0.00015 U	0.0057 U	0.00014 U	0.00013 U	0.00014 U	0.00013 UJ
M+P-XYLENES	NA	NA	0.00087 U	0.00099 U	0.0011 U	0.0011 UJ	0.0011 U	0.054 U	0.0011 U	0.00098 U	0.0011 U	0.00099 U
METHYL TERT-BUTYL ETHER	160	NA	0.00031 U	0.00035 U	0.00041 U	0.00041 U	0.0004 U	0.0062 U	0.00038 U	0.00035 U	0.00039 U	0.00036 U
METHYLENE CHLORIDE	85	NA	0.00049 U	0.00055 U	0.00064 U	0.00064 U	0.00062 U	0.068 U	0.0006 U	0.00055 U	0.0006 U	0.00055 U
NAPHTHALENE	160	NA	**0.0004 B**	0.00016 U	0.00018 U	**0.00071 B**	0.00018 U	0.0059 U	**0.00049 B**	0.00015 UJ	**0.00051 B**	0.00016 U
N-BUTYLBENZENE	NA	NA	0.00017 U	0.00019 U	0.00022 U	0.00022 UJ	0.00021 U	0.007 U	0.00021 U	0.00019 UJ	0.00021 U	0.00019 UJ
N-PROPYLBENZENE	NA	NA	0.00029 U	0.00033 U	0.00038 U	0.00038 UJ	0.00037 U	0.012 U	0.00036 U	0.00033 UJ	0.00036 U	0.00033 UJ
O-XYLENE	NA	NA	0.00025 U	0.00029 U	0.00033 U	0.00033 UJ	0.00033 U	0.0075 U	0.00031 U	0.00029 U	0.00031 U	0.00029 U
SEC-BUTYLBENZENE	NA	NA	0.00013 U	0.00015 U	0.00017 U	0.00017 UJ	0.00017 U	0.0041 U	0.00016 U	0.00015 UJ	0.00016 U	0.00015 UJ
STYRENE	1600	NA	0.00011 U	0.00012 U	0.00014 U	0.00014 UJ	0.00014 U	0.0049 U	0.00013 U	0.00012 U	0.00013 U	0.00012 U
TERT-AMYL METHYL ETHER	NA	NA	0.00027 U	0.00031 UJ	0.00035 UJ	0.00035 U	0.00034 UJ	0.00032 U	0.00033 UJ	0.0003 UJ	0.00033 UJ	0.00031 UJ
TERT-BUTYLBENZENE	NA	NA	0.00021 U	0.00024 U	0.00028 U	0.00028 UJ	0.00027 U	0.0057 U	0.00026 U	0.00024 UJ	0.00026 U	0.00024 UJ
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0055 UR	0.0063 UR	0.0073 UR	0.0073 UR	0.0071 UR	0.21 UR	0.0068 UR	0.0062 UR	0.0068 UR	0.0063 UR
TETRACHLOROETHENE	1.2	NA	0.00038 U	0.00043 U	0.0005 U	0.0005 U	0.00048 U	0.011 U	0.00046 U	0.00042 U	0.00047 U	0.00043 U
TOLUENE	630	NA	0.0002 U	0.00022 U	0.00026 U	0.00026 UJ	0.00025 U	0.015 U	0.00024 U	0.00022 U	0.00024 U	0.00022 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00049 U	0.00055 U	0.00064 U	0.00064 UJ	0.00062 U	0.0071 U	0.0006 U	0.00055 U	0.0006 U	0.00055 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.0003 U	0.00034 U	0.00039 U	0.00039 U	0.00038 U	0.0081 U	0.00037 U	0.00033 U	0.00037 U	0.00034 U
TRICHLOROETHENE	1.6	NA	0.0003 U	**0.0017 J**	0.0004 U	0.0004 UJ	0.00039 U	0.0085 U	0.00038 U	0.00034 U	0.00038 U	0.00035 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00025 U	0.00028 U	0.00032 U	0.00033 U	0.00032 U	0.014 U	0.0003 U	0.00028 U	0.0003 U	0.00028 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00028 U	0.00032 U	0.00037 U	0.00037 U	0.00036 U	0.016 U	0.00035 U	0.00032 U	0.00035 U	0.00032 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.03 UJ	0.031 U	0.03 U	0.034 U	0.033 U	0.031 U	0.031 U	0.034 U	0.03 U	0.031 U
2,4-DICHLOROPHENOL	23	NA	0.022 UJ	0.023 U	0.022 U	0.026 U	0.024 U	0.023 U	0.023 U	0.025 U	0.022 U	0.023 U
2-CHLOROPHENOL	39	NA	0.03 UJ	0.031 U	0.03 U	0.034 U	0.033 U	0.031 U	0.031 U	0.034 U	0.03 U	0.031 U
2-METHYLNAPHTHALENE	31	NA	0.0037 UJ	0.0038 U	0.0037 U	0.0042 U	0.004 U	0.0038 U	0.0038 U	0.0041 U	0.0036 U	0.0038 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-046		GSP-SB-047		GSP-SB-048		GSP-SB-049		GSP-SB-050	
SAMPLE ID			GSP-SB-46-0-2	GSP-SB-46-20-22	GSP-SB-47-0-2	GSP-SB-47-20-22	GSP-SB-48-20-22	GSP-SB-48-6-8	GSP-SB-49-0-2	GSP-SB-49-20-22	GSP-SB-50-0-2	GSP-SB-50-22-24
			GSP-SB-46-0-2	GSP-SB-46-20-22	GSP-SB-47-0-2	GSP-SB-47-20-22	GSP-SB-48-20-22	GSP-SB-48-6-8	GSP-SB-49-0-2	GSP-SB-49-20-22	GSP-SB-50-0-2	GSP-SB-50-22-24
			REC=07	REC=07	REC=07	REC=07	REC=07	REC=07	REC=07	REC=07	REC=08	REC=08
SAMPLE DATE	Maryland	ATCs	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100429	20100429
TOP DEPTH	Residential		0	20	0	20	20	6	0	20	0	22
BOTTOM DEPTH	Soil Standard		2	22	2	22	22	8	2	22	2	24
ACENAPHTHENE	470	NA	0.0037 UJ	0.0038 U	0.0037 U	0.0042 U	0.004 U	0.0038 U	**0.02**	0.0041 U	0.0036 U	0.0038 U
ACENAPHTHYLENE	470	NA	0.0037 UJ	0.0038 U	0.0037 U	0.0042 U	0.004 U	0.0038 U	0.0038 U	0.0041 U	**0.0087**	0.0038 U
ANTHRACENE	2300	NA	0.0037 UJ	0.0038 U	0.0037 U	0.0042 U	0.004 U	0.0038 U	**0.066**	0.0041 U	**0.022**	0.0038 U
BAP EQUIVALENT-HALFND	NA	NA	0.0037 U	0.0038 U	0.0037 U	0.0042 U	0.004 U	0.0038 U	**0.21377**	0.0041 U	**0.20012**	0.0038 U
BAP EQUIVALENT-POS	NA	NA	0.0037 U	0.0038 U	0.0037 U	0.0042 U	0.004 U	0.0038 U	**0.21187**	0.0041 U	**0.20012**	0.0038 U
BENZALDEHYDE	NA	NA	0.013 UJ	0.014 U	0.013 U	0.015 U	0.015 U	0.014 U	0.014 U	0.015 U	0.013 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	0.0037 UJ	0.0038 U	0.0037 U	0.0042 U	0.004 U	0.0038 U	**0.26**	0.0041 U	**0.14**	0.0038 U
BENZO(A)PYRENE	0.022	NA	0.0037 UJ	0.0038 U	0.0037 U	0.0042 U	0.004 U	0.0038 U	**0.15**	0.0041 U	**0.14**	0.0038 U
BENZO(B)FLUORANTHENE	0.22	NA	0.0037 UJ	0.0038 U	0.0037 U	0.0042 U	0.004 U	0.0038 U	**0.27**	0.0041 U	**0.18**	0.0038 U
BENZO(G,H,I)PERYLENE	230	NA	0.0037 UJ	0.0038 U	0.0037 U	0.0042 U	0.004 U	0.0038 U	**0.089**	0.0041 U	**0.089**	0.0038 U
BENZO(K)FLUORANTHENE	2.2	NA	0.0037 UJ	0.0038 U	0.0037 U	0.0042 U	0.004 U	0.0038 U	**0.07**	0.0041 U	**0.087**	0.0038 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.021 UJ	0.022 U	**0.026 J**	0.024 U	**0.029 J**	0.022 U	0.022 U	0.024 U	**0.025 J**	0.022 U
BUTYL BENZYL PHTHALATE	NA	NA	0.011 UJ	0.011 U	0.011 U	0.013 U	0.012 U	0.012 U	0.011 U	0.013 U	0.011 U	0.012 U
CAPROLACTAM	NA	NA	0.041 UJ	0.042 U	0.042 U	0.047 U	0.045 U	0.043 U	0.042 U	0.046 U	0.041 U	0.043 U
CARBAZOLE	32	NA	0.03 UJ	0.031 U	0.03 U	0.034 U	0.033 U	0.031 U	**0.031 J**	0.034 U	0.03 U	0.031 U
CHRYSENE	22	NA	0.0012 UJ	0.0013 U	0.0012 U	0.0014 U	0.0013 U	0.0013 U	**0.17**	0.0014 U	**0.15**	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0037 UJ	0.0038 U	0.0037 U	0.0042 U	0.004 U	0.0038 U	0.0038 U	0.0041 U	**0.02**	0.0038 U
DIBENZOFURAN	7.8	NA	0.022 UJ	0.023 U	0.022 U	0.026 U	0.024 U	0.023 U	0.023 U	0.025 U	0.022 U	0.023 U
DIETHYL PHTHALATE	6300	NA	0.018 UJ	0.018 U	0.018 U	0.02 U	0.019 U	0.018 U	0.018 U	0.02 U	0.018 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.019 UJ	0.019 U	0.019 U	0.022 U	0.021 U	0.02 U	0.019 U	0.021 U	0.019 U	0.02 U
DI-N-BUTYL PHTHALATE	780	NA	0.017 UJ	0.017 U	0.017 U	0.019 U	0.018 U	0.017 U	0.017 U	0.019 U	**0.017 J**	0.017 U
FLUORANTHENE	310	NA	0.0037 UJ	0.0038 U	0.0037 U	0.0042 U	0.004 U	0.0038 U	**0.57**	0.0041 U	**0.22**	0.0038 U
FLUORENE	310	NA	0.0037 UJ	0.0038 U	0.0037 U	0.0042 U	0.004 U	0.0038 U	**0.03**	0.0041 U	0.0036 U	0.0038 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	0 U	0 U	**1.479**	**0.019**	**1.127**	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.01725 U	0.01775 U	0.01725 U	0.0196 U	0.01865 U	0.01775 U	**2.0509**	**0.0361**	**1.347**	0.01775 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0154**	**0.01585**	**0.0154**	**0.0175**	**0.01665**	**0.01585**	**1.4809**	**0.03405**	**1.127**	**0.01585**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.0037 UJ	0.0038 U	0.0037 U	0.0042 U	0.004 U	0.0038 U	**0.08**	0.0041 U	**0.071**	0.0038 U
ISOPHORONE	670	NA	0.015 UJ	0.015 U	0.015 U	0.017 U	0.016 U	0.015 U	0.015 U	0.016 U	0.014 U	0.015 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	0 U	0 U	**0.956**	**0.017**	**0.3307**	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.01295 U	0.0133 U	0.01295 U	0.0147 U	0.014 U	0.0133 U	**0.3917**	**0.0293**	**0.1179**	0.0133 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0148**	**0.0152**	**0.0148**	**0.0168**	**0.016**	**0.0152**	**0.9617**	**0.03135**	**0.3379**	**0.0152**
NAPHTHALENE	160	NA	0.0037 UJ	0.0038 U	0.0037 U	0.0042 U	0.004 U	0.0038 U	0.0038 U	0.0041 U	0.0036 U	0.0038 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.03 UJ	0.031 U	0.03 U	0.034 U	0.033 U	0.031 U	0.031 U	0.034 U	0.03 U	0.031 U
PENTACHLOROPHENOL	5.3	NA	0.089 UJ	0.092 U	0.09 U	0.1 U	0.097 U	0.092 U	0.092 U	0.1 U	0.088 U	0.093 U
PHENANTHRENE	2300	NA	0.0037 UJ	0.0038 U	0.0037 U	0.0042 U	0.004 U	0.0038 U	**0.27**	**0.017**	**0.08**	0.0038 U
PHENOL	2300	NA	0.03 UJ	0.031 U	0.03 U	0.034 U	0.033 U	0.031 U	0.031 U	0.034 U	0.03 U	0.031 U
PYRENE	230	NA	0.0037 UJ	0.0038 U	0.0037 U	0.0042 U	0.004 U	0.0038 U	**0.39**	**0.019**	**0.25**	0.0038 U
TOTAL PAHS	NA	NA	0 U	0 U	0 U	0 U	0 U	0 U	**2.435**	**0.036**	**1.4577**	0 U
TOTAL PAHS ECO HALFND	NA	NA	0.0302 U	0.03105 U	0.0302 U	0.0343 U	0.03265 U	0.03105 U	**2.4426**	**0.0654**	**1.4649**	0.03105 U
TOTAL PAHS HALFND	NA	NA	0.0302 U	0.03105 U	0.0302 U	0.0343 U	0.03265 U	0.03105 U	**2.4426**	**0.0654**	**1.4649**	0.03105 U
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.015 U	0.015 U	0.015 U	0.017 U	0.016 U	0.015 U	0.015 U	0.016 U	0.014 U	0.015 U
AROCLOR-1260	0.32	NA	0.019 U	0.019 U	0.019 U	0.022 U	0.021 U	0.02 U	0.019 U	0.021 U	0.019 U	0.02 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.0645**	**0.065**	**0.065**	**0.074**	**0.07**	**0.0665**	**0.065**	**0.0715**	**0.0635**	**0.067**
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.033 B**	**0.024 B**	**0.033 B**	**0.041 B**	**0.057 B**	**0.035 B**	**0.038 B**	**0.092 K**	**0.05 J**	**0.062 J**
ARSENIC	0.43	3.6	**1.9**	**0.92 K**	**1.5**	**2.2**	**2**	**1.5**	**1.4**	**1.8**	**2.2**	**6.7**
BARIUM	1600	NA	**20.3**	**2.5**	**3.8**	**43.4**	**27.7**	**6.1**	**19.9**	**18.4**	**7.2**	**10.6**
BERYLLIUM	16	NA	**0.23**	**0.035 J**	**0.032 J**	**0.42**	**0.53**	**0.068 J**	**0.15**	**0.41**	**0.099 J**	**0.27**
CADMIUM	3.9	NA	0.0028 UL	0.0029 U	0.0028 U	**0.0038 B**	**0.49**	0.0029 U	**0.024 B**	**0.013 B**	**0.0073 B**	**1.2**
CHROMIUM	23	28	**8.2**	**2.5**	**3.3**	**20.7**	**16.8**	**4.2**	**5.3**	**14.7**	**4.3**	**7.3**
COBALT	NA	NA	**3.6**	**0.18 K**	**0.32**	**24.1**	**17.7**	**0.51**	**1.4**	**1.6**	**0.72**	**11.1**
COPPER	310	NA	**3.1**	**3.8**	**2**	**25.9**	**23.1**	**3.2**	**3.3**	**34.4**	**3.4 L**	**10.6 L**
IRON	5500	15000	**6920**	**1370**	**2510**	**783**	**818**	**3000**	**4270**	**5690**	**3200**	**1740**
LEAD	400	NA	**3.7**	**0.64**	**0.94**	**4.5**	**4**	**1.4**	**3.8**	**3.5**	**1.2**	**4.8**
MANGANESE	160	480	**28.3 K**	**3.4**	**6**	**26.7**	**22.7**	**8.4**	**39.7**	**16**	**12.4**	**8.5**
MERCURY	2.3	NA	0.019 UL	0.019 UL	0.019 UL	**0.021 J**	0.02 UL	0.019 UL	0.019 UL	0.021 UL	0.018 UL	0.019 UL
MOLYBDENUM	NA	NA	**0.36 B**	**0.14 B**	**0.25 B**	**0.34 B**	**0.52 B**	**0.23 B**	**0.35 B**	**0.33 B**	**0.25**	**0.79**
NICKEL	160	NA	**4.6**	**0.52**	**0.79**	**33.4**	**16.4**	**1.5**	**2.7**	**2.7 K**	**1.2**	**14**
SELENIUM	39	NA	**0.41 J**	**0.077 J**	**0.041 J**	**1.1**	**1.8**	**0.14 J**	**0.28 J**	**0.9**	**0.28 J**	**2.6 L**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-046		GSP-SB-047		GSP-SB-048		GSP-SB-049		GSP-SB-050	
SAMPLE ID			GSP-SB-46-0-2	GSP-SB-46-20-22	GSP-SB-47-0-2	GSP-SB-47-20-22	GSP-SB-48-20-22	GSP-SB-48-6-8	GSP-SB-49-0-2	GSP-SB-49-20-22	GSP-SB-50-0-2	GSP-SB-50-22-24
			GSP-SB-46-0-2	GSP-SB-46-20-22	GSP-SB-47-0-2	GSP-SB-47-20-22	GSP-SB-48-20-22	GSP-SB-48-6-8	GSP-SB-49-0-2	GSP-SB-49-20-22	GSP-SB-50-0-2	GSP-SB-50-22-24
			REC=07	REC=07	REC=07	REC=07	REC=07	REC=07	REC=07	REC=07	REC=08	REC=08
SAMPLE DATE	Maryland	ATCs	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100427	20100429	20100429
TOP DEPTH	Residential		0	20	0	20	20	6	0	20	0	22
BOTTOM DEPTH	Soil Standard		2	22	2	22	22	8	2	22	2	24
SILVER	39	NA	**0.0026 B**	0.0017 U	0.0017 U	**0.041 B**	**0.04 B**	0.0017 U	**0.024 B**	**0.027 B**	0.0017 U	**0.029 J**
THALLIUM	0.55	3.9	**0.063 B**	0.015 U	**0.015 B**	**0.087 B**	**0.095 B**	**0.024 B**	**0.045 B**	**0.061 B**	**0.049 B**	**0.18**
VANADIUM	7.8	30	**12.9**	**5.8**	**4.7**	**16**	**38.8**	**7**	**9.1**	**20.3**	**10.1**	**20.4**
ZINC	2300	NA	**12.1 J**	**3.7 J**	**2.9 B**	**4.6 J**	**103 J**	**4.7 J**	**12.5 J**	**13.2 J**	**3.8 L**	**56.3 L**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	**7 J**	**8.9 J**	**5.2 J**	**24**	**28**	**53**	**27**	**8.1 J**	3.1 U	**17**
GASOLINE RANGE ORGANICS	230	NA	0.031 U	0.032 U	0.031 U	0.036 U	0.034 U	**28**	0.032 U	0.035 U	0.031 U	0.033 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-051		GSP-SB-052		GSP-SB-053		GSP-SB-054		GSP-SB-055	
SAMPLE ID			GSP-SB-51-14-16	GSP-SB-51-4-6	GSP-SB-52-0-2	GSP-SB-52-22-24	GSP-SB-53-0-2	GSP-SB-53-20-22	GSP-SB-54-0-2	GSP-SB-54-20-22	GSP-SB-55-0-2	GSP-SB-55-20-22
			GSP-SB-51-14-16	GSP-SB-51-4-6	GSP-SB-52-0-2	GSP-SB-52-22-24	GSP-SB-53-0-2	GSP-SB-53-20-22	GSP-SB-54-0-2	GSP-SB-54-20-22	GSP-SB-55-0-2	GSP-SB-55-20-22
			REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08
SAMPLE DATE	Maryland	ATCs	20100429	20100429	20100429	20100429	20100428	20100428	20100428	20100428	20100428	20100428
TOP DEPTH	Residential		14	4	0	22	0	20	0	20	0	20
BOTTOM DEPTH	Soil Standard		16	6	2	24	2	22	2	22	2	22
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0011 U	0.0011 U	0.0014 U	0.001 U	0.0012 U	0.0012 U	0.0013 U	0.0011 U	0.0012 U	0.0011 U
1,1-DICHLOROETHENE	390	NA	0.00045 U	0.00046 U	0.00055 U	0.00041 U	0.00048 U	0.0005 U	0.00052 U	0.00045 U	0.00048 U	0.00044 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00033 U	0.00034 U	0.0004 U	0.0003 U	0.00035 U	0.00036 U	0.00038 U	0.00033 U	0.00035 U	0.00032 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00015 U	0.00015 U	0.00018 U	0.00013 U	0.00016 U	0.00016 U	0.00017 U	0.00015 U	0.00016 U	0.00014 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00023 U	0.00024 U	0.00029 U	0.00021 U	0.00025 U	0.00026 U	0.00027 U	0.00023 U	0.00025 U	0.00023 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00056 U	0.00057 U	0.00069 U	0.00052 U	0.0006 U	0.00062 U	0.00065 U	0.00056 U	0.0006 U	0.00055 U
1,2-DICHLOROBENZENE	700	NA	0.00031 U	0.00032 U	0.00038 U	0.00029 U	0.00033 U	0.00034 U	0.00036 U	0.00031 U	0.00033 U	0.00031 U
1,2-DICHLOROETHANE	7	NA	0.0003 U	0.0003 U	0.00036 U	0.00027 U	0.00031 U	0.00032 U	0.00034 U	0.00029 U	0.00031 U	0.00029 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.0003 U	0.00031 U	0.00037 U	0.00028 U	0.00032 U	0.00033 U	0.00035 U	0.0003 U	0.00032 U	0.0003 U
1,4-DICHLOROBENZENE	27	NA	0.00057 U	0.00058 U	0.0007 U	0.00052 U	0.00061 U	0.00063 U	0.00066 U	0.00057 U	0.00061 U	0.00056 U
2-BUTANONE	4700	NA	0.0012 U	0.0012 U	0.0015 U	0.0011 U	0.0013 U	0.0013 U	0.0014 U	0.0012 U	0.0013 U	0.0012 U
2-HEXANONE	NA	NA	0.00055 U	0.00056 U	0.00067 U	0.0005 U	0.00058 U	0.0006 U	0.00063 U	0.00054 U	0.00058 U	0.00054 U
4-ISOPROPYLTOLUENE	NA	NA	0.00018 U	0.00019 U	0.00022 U	0.00017 U	0.00019 U	0.0002 U	0.00021 U	0.00018 U	0.00019 U	0.00018 U
4-METHYL-2-PENTANONE	NA	NA	0.00047 U	0.00048 U	0.00057 U	0.00043 U	0.0005 U	0.00051 U	0.00054 U	0.00047 U	0.0005 U	0.00046 U
ACETONE	7000	NA	0.0055 U	0.0056 U	0.0067 U	0.005 U	0.0058 U	0.006 U	0.0063 U	0.0054 U	0.0058 U	0.0054 U
BENZENE	12	NA	0.0002 U	0.0002 U	0.00024 U	**0.0024 J**	0.00021 U	0.00022 U	0.00023 U	0.0002 U	0.00021 U	0.0002 U
BROMOMETHANE	11	NA	0.00047 U	0.00048 U	0.00057 U	0.00043 U	0.0005 U	0.00051 U	0.00054 U	0.00047 U	0.0005 U	0.00046 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00038 U	0.00039 U	0.00047 U	0.00035 U	0.00041 U	0.00042 U	0.00044 U	0.00038 U	0.00041 U	0.00037 U
CARBON TETRACHLORIDE	4.9	NA	0.00032 U	0.00033 U	0.00039 U	0.00029 U	0.00034 U	0.00035 U	0.00037 U	0.00032 U	0.00034 U	0.00031 U
CHLOROBENZENE	160	NA	0.00029 U	0.00029 U	0.00035 U	0.00026 U	0.00031 U	0.00031 U	0.00033 U	0.00029 U	0.0003 U	0.00028 U
CHLOROETHANE	220	NA	0.00075 U	0.00076 U	0.00091 U	0.00068 U	0.0008 U	0.00082 U	0.00086 U	0.00074 U	0.00079 U	0.00073 U
CHLOROFORM	78	NA	0.00025 U	0.00026 U	0.00031 U	0.00023 U	0.00027 U	0.00028 U	0.00029 U	0.00025 U	0.00027 U	0.00025 U
CHLOROMETHANE	NA	NA	0.00036 U	0.00036 U	0.00043 U	0.00033 U	0.00038 U	0.00039 U	0.00041 U	0.00035 U	0.00038 U	0.00035 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00031 U	0.00032 U	0.00038 U	**0.00051 J**	0.00033 U	0.00034 U	0.00036 U	0.00031 U	0.00033 U	0.00031 U
DIISOPROPYL ETHER	NA	NA	0.0013 U	0.0013 U	0.0016 U	0.0012 U	0.0014 U	0.0014 U	0.0015 U	0.0013 U	0.0014 U	0.0013 U
ETHYLBENZENE	780	NA	0.00023 U	0.00023 U	0.00027 U	0.00021 U	0.00024 U	0.00025 U	0.00026 U	0.00022 U	0.00024 U	0.00022 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00014 U	0.00014 U	0.00017 U	0.00013 U	0.00015 U	0.00015 U	0.00016 U	0.00014 U	0.00015 U	0.00014 U
M+P-XYLENES	NA	NA	0.001 U	0.0011 U	0.0013 U	0.00095 U	0.0011 U	0.0011 U	0.0012 U	0.001 U	0.0011 U	0.001 U
METHYL TERT-BUTYL ETHER	160	NA	0.00037 U	0.00038 U	0.00045 U	0.00034 U	0.0004 U	0.00041 U	0.00043 U	0.00037 U	0.0004 U	0.00037 U
METHYLENE CHLORIDE	85	NA	0.00058 U	0.00059 U	0.00071 U	0.00053 U	0.00062 U	0.00064 U	0.00067 U	0.00058 U	0.00062 U	**0.00067 B**
NAPHTHALENE	160	NA	0.00016 U	0.00017 U	0.0002 U	0.00015 U	0.00018 U	0.00018 U	0.00019 U	0.00016 U	0.00018 U	0.00016 U
N-BUTYLBENZENE	NA	NA	0.0002 U	0.0002 U	0.00024 U	0.00018 U	0.00021 U	0.00022 U	0.00023 U	0.0002 U	0.00021 U	0.0002 U
N-PROPYLBENZENE	NA	NA	0.00035 U	0.00035 U	0.00042 U	0.00032 U	0.00037 U	0.00038 U	0.0004 U	0.00035 U	0.00037 U	0.00034 U
O-XYLENE	NA	NA	0.0003 U	0.00031 U	0.00037 U	0.00028 U	0.00032 U	0.00033 U	0.00035 U	0.0003 U	0.00032 U	0.0003 U
SEC-BUTYLBENZENE	NA	NA	0.00016 U	0.00016 U	0.00019 U	0.00014 U	0.00017 U	0.00017 U	0.00018 U	0.00016 U	0.00017 U	0.00015 U
STYRENE	1600	NA	0.00013 U	0.00013 U	0.00016 U	0.00012 U	0.00014 U	0.00014 U	0.00015 U	0.00013 U	0.00014 U	0.00013 U
TERT-AMYL METHYL ETHER	NA	NA	0.00032 UJ	0.00033 UJ	0.00039 UJ	0.00029 UJ	0.00034 U	0.00035 U	0.00037 U	0.00032 U	0.00034 U	0.00031 U
TERT-BUTYLBENZENE	NA	NA	0.00025 U	0.00026 U	0.00031 U	0.00023 U	0.00027 U	0.00028 U	0.00029 U	0.00025 U	0.00027 U	0.00025 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0066 UR	0.0067 UR	0.008 UR	0.006 UR	0.007 UR	0.0072 UR	0.0076 UR	0.0066 UR	0.007 UR	0.0065 UR
TETRACHLOROETHENE	1.2	NA	0.00045 U	0.00046 U	0.00055 U	0.00041 U	0.00048 U	0.0005 U	0.00052 U	0.00045 U	0.00048 U	0.00044 U
TOLUENE	630	NA	0.00023 U	0.00024 U	0.00029 U	0.00021 U	0.00025 U	0.00026 U	0.00027 U	0.00023 U	0.00025 U	0.00023 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00058 U	0.00059 U	0.00071 U	0.00053 U	0.00062 U	0.00064 U	0.00067 U	0.00058 U	0.00062 U	0.00057 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00036 U	0.00036 U	0.00043 U	0.00033 U	0.00038 U	0.00039 U	0.00041 U	0.00035 U	0.00038 U	0.00035 U
TRICHLOROETHENE	1.6	NA	0.00036 U	0.00037 U	0.00044 U	0.00033 U	0.00039 U	0.0004 U	0.00042 U	0.00036 U	0.00039 U	0.00036 U
TRICHLOROFLUOROMETHANE	NA	NA	0.0003 U	0.0003 U	0.00036 U	0.00027 U	0.00031 U	0.00032 U	0.00034 U	0.00029 U	0.00031 U	0.00029 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00034 U	0.00034 U	0.00041 U	0.00031 U	0.00036 U	0.00037 U	0.00039 U	0.00034 U	0.00036 U	0.00033 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.032 U	0.031 U	0.03 U	0.031 U	0.03 U	0.032 U	0.03 U	0.032 U	0.029 U	0.032 U
2,4-DICHLOROPHENOL	23	NA	0.024 U	0.023 U	0.022 U	0.023 U	0.022 U	0.024 U	0.022 U	0.024 U	0.022 U	0.024 U
2-CHLOROPHENOL	39	NA	0.032 U	0.031 U	0.03 U	0.031 U	0.03 U	0.032 U	0.03 U	0.032 U	0.029 U	0.032 U
2-METHYLNAPHTHALENE	31	NA	0.0039 U	0.0038 U	0.0037 U	0.0038 U	0.0036 U	0.0039 U	**0.017**	0.004 U	0.0036 U	0.0039 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-051		GSP-SB-052		GSP-SB-053		GSP-SB-054		GSP-SB-055	
SAMPLE ID			GSP-SB-51-14-16	GSP-SB-51-4-6	GSP-SB-52-0-2	GSP-SB-52-22-24	GSP-SB-53-0-2	GSP-SB-53-20-22	GSP-SB-54-0-2	GSP-SB-54-20-22	GSP-SB-55-0-2	GSP-SB-55-20-22
			GSP-SB-51-14-16	GSP-SB-51-4-6	GSP-SB-52-0-2	GSP-SB-52-22-24	GSP-SB-53-0-2	GSP-SB-53-20-22	GSP-SB-54-0-2	GSP-SB-54-20-22	GSP-SB-55-0-2	GSP-SB-55-20-22
			REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08
SAMPLE DATE	Maryland	ATCs	20100429	20100429	20100429	20100429	20100428	20100428	20100428	20100428	20100428	20100428
TOP DEPTH	Residential		14	4	0	22	0	20	0	20	0	20
BOTTOM DEPTH	Soil Standard		16	6	2	24	2	22	2	22	2	22
ACENAPHTHENE	470	NA	0.0039 U	0.0038 U	0.0037 U	0.0038 U	0.0036 U	0.0039 U	**0.075**	0.004 U	0.0036 U	0.0039 U
ACENAPHTHYLENE	470	NA	0.0039 U	0.0038 U	0.0037 U	0.0038 U	0.0036 U	0.0039 U	**0.01**	0.004 U	0.0036 U	0.0039 U
ANTHRACENE	2300	NA	0.0039 U	0.0038 U	**0.018**	0.0038 U	0.0036 U	0.0039 U	**0.19**	0.004 U	0.0036 U	0.0039 U
BAP EQUIVALENT-HALFND	NA	NA	0.0039 U	0.0038 U	**0.14601**	0.0038 U	**0.045097**	0.0039 U	**0.54938**	0.004 U	0.0036 U	0.0039 U
BAP EQUIVALENT-POS	NA	NA	0.0039 U	0.0038 U	**0.14601**	0.0038 U	**0.043297**	0.0039 U	**0.54938**	0.004 U	0.0036 U	0.0039 U
BENZALDEHYDE	NA	NA	0.014 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	0.0039 U	0.0038 U	**0.1**	0.0038 U	**0.031**	0.0039 U	**0.49**	0.004 U	0.0036 U	0.0039 U
BENZO(A)PYRENE	0.022	NA	0.0039 U	0.0038 U	**0.1**	0.0038 U	**0.033**	0.0039 U	**0.36**	0.004 U	0.0036 U	0.0039 U
BENZO(B)FLUORANTHENE	0.22	NA	0.0039 U	0.0038 U	**0.14**	0.0038 U	**0.049**	0.0039 U	**0.54**	0.004 U	0.0036 U	0.0039 U
BENZO(G,H,I)PERYLENE	230	NA	0.0039 U	0.0038 U	**0.083**	0.0038 U	**0.025**	0.0039 U	**0.23**	0.004 U	0.0036 U	0.0039 U
BENZO(K)FLUORANTHENE	2.2	NA	0.0039 U	0.0038 U	**0.049**	0.0038 U	**0.016**	0.0039 U	**0.19**	0.004 U	0.0036 U	0.0039 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.023 U	0.022 U	**0.032 J**	0.022 U	**0.04 B**	**0.023 B**	**0.061 B**	**0.035 B**	**0.026 B**	0.022 U
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.012 U	0.011 U	0.011 U	0.011 U	0.012 U	0.011 U	0.012 U	0.011 U	0.012 U
CAPROLACTAM	NA	NA	0.044 U	0.043 U	0.041 U	0.043 U	0.041 U	0.044 U	0.041 U	0.044 U	0.04 U	0.044 U
CARBAZOLE	32	NA	0.032 U	0.031 U	0.03 U	0.031 U	0.03 U	0.032 U	**0.075**	0.032 U	0.029 U	0.032 U
CHRYSENE	22	NA	0.0013 U	0.0013 U	**0.12**	0.0013 U	**0.037**	0.0013 U	**0.48**	0.0013 U	0.0012 U	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0039 U	0.0038 U	**0.015**	0.0038 U	0.0036 U	0.0039 U	**0.064**	0.004 U	0.0036 U	0.0039 U
DIBENZOFURAN	7.8	NA	0.024 U	0.023 U	0.022 U	0.023 U	0.022 U	0.024 U	**0.048 J**	0.024 U	0.022 U	0.024 U
DIETHYL PHTHALATE	6300	NA	0.019 U	0.019 U	0.018 U	0.018 U	0.018 U	0.019 U	0.018 U	0.019 U	0.017 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.02 U	0.02 U	**0.019 J**	0.02 U	0.019 U	0.02 U	**0.046 J**	0.02 U	0.018 U	0.02 U
DI-N-BUTYL PHTHALATE	780	NA	0.018 U	**0.018 J**	0.017 U	0.017 U	**0.023 J**	0.018 U	0.017 U	**0.026 J**	0.016 U	**0.025 J**
FLUORANTHENE	310	NA	0.0039 U	0.0038 U	**0.16**	0.0038 U	**0.063**	0.0039 U	**1.2**	0.004 U	0.0036 U	0.0039 U
FLUORENE	310	NA	0.0039 U	0.0038 U	0.0037 U	0.0038 U	0.0036 U	0.0039 U	**0.12**	0.004 U	0.0036 U	0.0039 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	**0.841**	0 U	**0.26**	0 U	**3.374**	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.0182 U	0.01775 U	**1.001**	0.01775 U	**0.3248**	0.0182 U	**4.574**	0.01865 U	0.0168 U	0.0182 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.01625**	**0.01585**	**0.841**	**0.01585**	**0.2618**	**0.01625**	**3.374**	**0.01665**	**0.015**	**0.01625**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.0039 U	0.0038 U	**0.064**	0.0038 U	**0.021**	0.0039 U	**0.2**	0.004 U	0.0036 U	0.0039 U
ISOPHORONE	670	NA	0.015 U	0.015 U	0.014 U	0.015 U	0.014 U	0.015 U	0.014 U	0.016 U	0.014 U	0.015 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	**0.235**	0 U	**0.082**	0 U	**2.461**	0 U	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.01365 U	0.0133 U	**0.08425**	0.0133 U	**0.0298**	0.01365 U	**1.261**	0.014 U	0.0126 U	0.01365 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0156**	**0.0152**	**0.24425**	**0.0152**	**0.0928**	**0.0156**	**2.461**	**0.016**	**0.0144**	**0.0156**
NAPHTHALENE	160	NA	0.0039 U	0.0038 U	0.0037 U	0.0038 U	0.0036 U	0.0039 U	**0.019**	0.004 U	0.0036 U	0.0039 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.032 U	0.031 U	0.03 U	0.031 U	0.03 U	0.032 U	0.03 U	0.032 U	0.029 U	0.032 U
PENTACHLOROPHENOL	5.3	NA	0.095 U	0.093 U	0.089 U	0.092 U	0.088 U	0.095 U	0.089 U	0.096 U	0.087 U	0.095 U
PHENANTHRENE	2300	NA	0.0039 U	0.0038 U	**0.057**	0.0038 U	**0.019**	0.0039 U	**0.83**	0.004 U	0.0036 U	0.0039 U
PHENOL	2300	NA	0.032 U	0.031 U	0.03 U	0.031 U	0.03 U	0.032 U	0.03 U	0.032 U	0.029 U	0.032 U
PYRENE	230	NA	0.0039 U	0.0038 U	**0.17**	0.0038 U	**0.048**	0.0039 U	**0.82**	0.004 U	0.0036 U	0.0039 U
TOTAL PAHS	NA	NA	0 U	0 U	**1.076**	0 U	**0.342**	0 U	**5.835**	0 U	0 U	0 U
TOTAL PAHS ECO HALFND	NA	NA	0.03185 U	0.03105 U	**1.08525**	0.03105 U	**0.3546**	0.03185 U	**5.835**	0.03265 U	0.0294 U	0.03185 U
TOTAL PAHS HALFND	NA	NA	0.03185 U	0.03105 U	**1.08525**	0.03105 U	**0.3546**	0.03185 U	**5.835**	0.03265 U	0.0294 U	0.03185 U
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.015 U	0.015 U	0.014 U	0.015 U	0.014 U	0.015 U	0.014 U	0.016 U	0.014 U	0.015 U
AROCLOR-1260	0.32	NA	0.02 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U	0.018 U	0.02 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.068**	**0.067**	**0.064**	**0.0665**	**0.0635**	**0.068**	**0.064**	**0.0685**	**0.0615**	**0.068**
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.27 J**	**0.078 J**	**0.056 J**	**0.052 J**	**0.17 J**	**0.099 J**	**0.84 L**	**0.16 J**	**0.026 B**	**0.065 J**
ARSENIC	0.43	3.6	**1.3**	**3.7**	**2 J**	**3.7**	**1.9**	**1.6**	**1.1**	**2.2**	**1.1**	**0.8**
BARIUM	1600	NA	**8.1**	**5**	**10**	**1.9**	**18**	**3.4**	**11.6**	**3.2**	**13.6**	**2.2**
BERYLLIUM	16	NA	**0.18 K**	**0.057 J**	**0.11 K**	**0.048 J**	**0.11 J**	**0.034 B**	**0.072 J**	**0.033 B**	**0.11**	**0.013 B**
CADMIUM	3.9	NA	0.003 UL	0.0029 UL	**0.016 B**	0.0029 UL	**0.063 J**	0.003 UL	**0.61 L**	0.003 UL	**0.012 B**	0.003 U
CHROMIUM	23	28	**26.4**	**6.1**	**4.8 J**	**3.4**	**11.1**	**4.1**	**6.2**	**5.1**	**4.1**	**3.5**
COBALT	NA	NA	**0.58**	**0.32**	**1.1 J**	**0.27**	**0.92**	**0.084 J**	**1**	**0.22**	**1.3**	**0.17**
COPPER	310	NA	**3 L**	**3 L**	**3 J**	**2.7 L**	**6.5 L**	**3.2 L**	**8.5 L**	**7.3 L**	**1.9 B**	**1.5 B**
IRON	5500	15000	**34000**	**2170**	**3900 J**	**4750**	**5550**	**1230**	**3930**	**3090**	**3410**	**776**
LEAD	400	NA	**2.3**	**1.3**	**2.2**	**1.4**	**7.1**	**0.38**	**48.9**	**0.69**	**2.2**	**0.64**
MANGANESE	160	480	**13.1**	**5.1**	**36.9 J**	**4.2**	**23.8**	**0.75**	**45.9**	**3.2**	**15.8**	**4.3**
MERCURY	2.3	NA	0.02 UL	0.019 UL	0.019 UL	0.019 UL	**0.12 L**	0.02 UL	0.019 UL	0.02 UL	0.018 UL	0.02 UL
MOLYBDENUM	NA	NA	**0.33**	**0.52**	**0.25**	**0.11 J**	**0.75**	**0.33**	**0.38**	**0.37**	**0.31**	**0.11 J**
NICKEL	160	NA	**1.6 K**	**0.73**	**1.7 J**	**0.25 K**	**2.2**	**0.31 B**	**2.8**	**0.74**	**2.1**	**0.16 B**
SELENIUM	39	NA	**0.27 J**	**0.21 J**	**0.22 J**	**0.099 J**	**0.33 J**	**0.15 J**	**0.43 J**	**0.22 J**	**0.33 J**	**0.21 J**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-051		GSP-SB-052		GSP-SB-053		GSP-SB-054		GSP-SB-055	
SAMPLE ID			GSP-SB-51-14-16	GSP-SB-51-4-6	GSP-SB-52-0-2	GSP-SB-52-22-24	GSP-SB-53-0-2	GSP-SB-53-20-22	GSP-SB-54-0-2	GSP-SB-54-20-22	GSP-SB-55-0-2	GSP-SB-55-20-22
			GSP-SB-51-14-16	GSP-SB-51-4-6	GSP-SB-52-0-2	GSP-SB-52-22-24	GSP-SB-53-0-2	GSP-SB-53-20-22	GSP-SB-54-0-2	GSP-SB-54-20-22	GSP-SB-55-0-2	GSP-SB-55-20-22
			REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08
SAMPLE DATE	Maryland	ATCs	20100429	20100429	20100429	20100429	20100428	20100428	20100428	20100428	20100428	20100428
TOP DEPTH	Residential		14	4	0	22	0	20	0	20	0	20
BOTTOM DEPTH	Soil Standard		16	6	2	24	2	22	2	22	2	22
SILVER	39	NA	0.0018 U	0.0017 U	**0.0031 B**	0.0017 U	**0.026 B**	**0.005 B**	**0.027 B**	**0.0068 B**	**0.0051 B**	0.0018 U
THALLIUM	0.55	3.9	**0.046 B**	**0.027 B**	**0.043 B**	**0.02 B**	**0.055 B**	0.015 U	**0.021 B**	**0.021 B**	**0.029 B**	0.015 U
VANADIUM	7.8	30	106	**15.3**	**9.6 J**	**11.1**	**13.3**	**8.8**	**7.8**	**12.5**	**7.1**	**10.4**
ZINC	2300	NA	**4.3 L**	**2.8 B**	**6.7 J**	**2.4 B**	**12 L**	**1.1 B**	**36 L**	**2.3 B**	**6.8 L**	**1.1 B**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	3.3 U	3.2 U	**10 J**	**4.6 J**	**310**	**4.2 J**	**15**	**4.9 J**	**5.2 J**	**5 J**
GASOLINE RANGE ORGANICS	230	NA	0.033 U	0.032 U	0.031 U	0.032 U	0.031 U	0.033 U	0.031 U	0.034 U	0.03 U	0.033 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-056		GSP-SB-057		GSP-SB-058		GSP-SB-059			GSP-S
SAMPLE ID			GSP-SB-56-10-12	GSP-SB-56-20-22	GSP-SB-57-0-2	GSP-SB-57-23-25	GSP-SB-58-0-2	GSP-SB-58-23-25	GSP-SB-59-0-2	GSP-SB-59-23-25	GSP-SB-60-0-2	GSP-SB-60-22-24
			GSP-SB-56-10-12	GSP-SB-56-20-22	GSP-SB-57-0-2	GSP-SB-57-23-25	GSP-SB-58-0-2	GSP-SB-58-23-25	GSP-SB-59-0-2	GSP-SB-59-23-25	GSP-SB-60-0-2	GSP-SB-60-22-24
			REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09
SAMPLE DATE	Maryland	ATCs	20100429	20100429	20100510	20100510	20100510	20100510	20100510	20100510	20100511	20100511
TOP DEPTH	Residential		10	20	0	23	0	23	0	23	0	22
BOTTOM DEPTH	Soil Standard		12	22	2	25	2	25	2	25	2	24
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0016 U	0.036 U	0.00097 U	0.001 U	0.0011 U	0.0009 U	0.001 U	0.0011 U	0.0011 U	0.0012 U
1,1-DICHLOROETHENE	390	NA	0.00062 U	0.017 U	0.00039 U	0.0004 U	0.00043 U	0.00036 U	0.00042 U	0.00044 U	0.00043 U	0.00048 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00045 U	0.0092 U	0.00028 U	0.00029 U	0.00031 U	0.00026 U	0.0003 U	0.00032 U	0.00031 U	0.00035 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.0002 U	0.00016 U	0.00013 U	0.00013 U	0.00014 U	0.00012 U	0.00014 U	0.00014 U	0.00014 U	0.00016 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00032 U	0.0067 U	0.0002 U	0.00021 U	0.00022 U	0.00019 U	0.00022 U	0.00023 U	0.00022 U	0.00025 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00078 U	0.0046 U	0.00048 U	0.0005 U	0.00053 U	0.00045 U	0.00052 U	0.00055 U	0.00053 U	0.00059 U
1,2-DICHLOROBENZENE	700	NA	0.00043 U	0.0079 U	0.00027 U	0.00028 U	0.0003 U	0.00025 U	0.00029 U	0.0003 U	0.0003 U	0.00033 U
1,2-DICHLOROETHANE	7	NA	0.00041 U	0.0092 U	0.00025 U	0.00026 U	0.00028 U	0.00024 U	0.00027 U	0.00029 U	0.00028 U	0.00031 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00042 U	0.0044 U	0.00026 U	0.00027 U	0.00029 U	0.00024 U	0.00028 U	0.00029 U	0.00029 U	0.00032 U
1,4-DICHLOROBENZENE	27	NA	0.00079 U	0.0074 U	0.00049 U	0.00051 U	0.00054 U	0.00046 U	0.00053 U	0.00055 U	0.00054 U	0.0006 U
2-BUTANONE	4700	NA	0.0017 U	**0.084 J**	0.001 U	0.0011 U	0.0011 U	0.00097 U	0.0011 U	0.0012 U	0.0011 U	0.0013 U
2-HEXANONE	NA	NA	0.00075 U	0.018 U	0.00047 U	0.00049 U	0.00052 U	0.00044 U	0.0005 U	0.00053 U	0.00052 U	0.00058 U
4-ISOPROPYLTOLUENE	NA	NA	0.00025 U	0.0044 U	0.00016 U	0.00016 U	0.00017 U	0.00015 U	0.00017 U	0.00018 U	0.00017 U	0.00019 U
4-METHYL-2-PENTANONE	NA	NA	0.00064 U	0.044 U	0.0004 U	0.00042 U	0.00044 U	0.00038 U	0.00043 U	0.00045 U	0.00044 U	0.00049 U
ACETONE	7000	NA	0.0075 U	0.16 U	0.0047 U	0.0049 U	0.0052 U	0.0044 U	**0.023 B**	0.0053 U	**0.019 B**	**0.011 B**
BENZENE	12	NA	0.00027 U	0.011 U	0.00017 U	0.00018 U	0.00019 U	0.00016 U	0.00018 U	0.00019 U	0.00019 U	0.00021 U
BROMOMETHANE	11	NA	0.00064 U	0.027 U	0.0004 U	0.00042 U	0.00044 U	0.00038 U	0.00043 U	0.00045 U	0.00044 U	0.00049 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00052 U	0.011 U	0.00033 U	0.00034 U	0.00036 U	0.00031 U	0.00035 U	0.00037 U	0.00036 U	0.0004 UJ
CARBON TETRACHLORIDE	4.9	NA	0.00044 U	0.0059 U	0.00028 U	0.00029 U	0.0003 U	0.00026 U	0.0003 U	0.00031 U	0.0003 U	0.00034 U
CHLOROBENZENE	160	NA	0.00039 U	0.0059 U	0.00025 U	**0.00026 J**	0.00027 U	0.00023 U	0.00026 U	0.00028 U	0.00027 U	0.0003 U
CHLOROETHANE	220	NA	0.001 U	0.056 U	0.00064 U	0.00066 U	0.00071 U	0.0006 U	0.00069 U	0.00072 U	0.0007 U	0.00079 U
CHLOROFORM	78	NA	0.00035 U	0.0081 U	0.00022 U	0.00022 U	0.00024 U	0.0002 U	0.00023 U	0.00024 U	0.00024 U	0.00027 U
CHLOROMETHANE	NA	NA	0.00049 U	0.013 U	0.00031 U	0.00032 U	0.00034 U	0.00029 U	0.00033 U	0.00034 U	0.00034 U	0.00037 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00043 U	0.0064 U	0.00027 U	0.00028 U	0.0003 U	0.00025 U	0.00029 U	0.0003 U	0.0003 U	0.00033 U
DIISOPROPYL ETHER	NA	NA	0.0018 U	0.046 U	0.0011 U	0.0012 U	0.0012 U	0.001 U	0.0012 U	0.0013 U	0.0012 U	0.0014 U
ETHYLBENZENE	780	NA	0.00031 U	0.005 U	0.00019 U	0.0002 U	0.00021 U	0.00018 U	0.00021 U	0.00022 U	0.00021 U	0.00024 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00019 U	0.006 U	0.00012 U	0.00012 U	0.00013 U	0.00011 U	0.00013 U	0.00013 U	0.00013 U	0.00015 U
M+P-XYLENES	NA	NA	0.0014 U	0.057 U	0.00089 U	0.00093 U	0.00098 U	0.00083 U	0.00096 U	0.001 U	0.00098 U	0.0011 U
METHYL TERT-BUTYL ETHER	160	NA	0.00051 U	0.0065 U	0.00032 U	0.00033 U	0.00035 U	0.0003 U	0.00034 U	0.00036 U	0.00035 UJ	0.00039 UJ
METHYLENE CHLORIDE	85	NA	**0.0013 J**	**0.072 B**	0.0005 U	**0.0007 B**	0.00055 U	0.00047 U	0.00054 U	0.00056 U	0.00055 U	0.00061 U
NAPHTHALENE	160	NA	0.00023 U	0.0062 U	0.00014 U	0.00015 U	0.00016 U	0.00013 U	0.00015 U	0.00016 U	0.00016 U	0.00017 U
N-BUTYLBENZENE	NA	NA	0.00027 U	0.0074 U	0.00017 U	0.00018 U	0.00019 U	0.00016 U	0.00018 U	0.00019 U	0.00019 U	0.00021 U
N-PROPYLBENZENE	NA	NA	0.00048 U	0.013 U	0.0003 U	0.00031 U	0.00033 U	0.00028 U	0.00032 U	0.00034 U	0.00033 U	0.00037 U
O-XYLENE	NA	NA	0.00042 U	0.0078 U	0.00026 U	0.00027 U	0.00029 U	0.00024 U	0.00028 U	0.00029 U	0.00029 U	0.00032 U
SEC-BUTYLBENZENE	NA	NA	0.00021 U	0.0043 U	0.00013 U	0.00014 U	0.00015 U	0.00013 U	0.00014 U	0.00015 U	0.00015 U	0.00016 U
STYRENE	1600	NA	0.00018 U	0.0052 U	0.00011 U	0.00012 U	0.00012 U	0.0001 U	0.00012 U	0.00013 U	0.00012 U	0.00014 U
TERT-AMYL METHYL ETHER	NA	NA	0.00044 U	0.00034 UJ	0.00028 U	0.00029 U	0.0003 U	0.00026 U	0.0003 U	0.00031 U	0.0003 UJ	0.00034 UJ
TERT-BUTYLBENZENE	NA	NA	0.00035 U	0.006 U	0.00022 U	0.00022 U	0.00024 U	0.0002 U	0.00023 U	0.00024 U	0.00024 U	0.00027 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0091 UR	0.22 UR	0.0057 UR	0.0059 UR	0.0062 UR	0.0053 UR	0.0061 UR	0.0064 UR	0.0062 UR	0.007 UR
TETRACHLOROETHENE	1.2	NA	0.00062 U	0.011 U	0.00039 U	0.0004 U	0.00043 U	0.00036 U	0.00042 U	0.00044 U	0.00043 U	0.00048 U
TOLUENE	630	NA	0.00032 U	0.016 U	0.0002 U	0.00021 U	0.00022 U	0.00019 U	0.00022 U	0.00023 U	0.00022 U	0.00025 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.0008 U	0.0075 U	0.0005 U	0.00052 U	0.00055 U	0.00047 U	0.00054 U	0.00056 U	0.00055 U	0.00061 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00049 U	0.0085 U	0.00031 U	0.00032 U	0.00034 U	0.00029 U	0.00033 U	0.00034 U	0.00034 U	0.00037 U
TRICHLOROETHENE	1.6	NA	**0.019**	**1.1**	0.00031 U	**0.059**	0.00034 U	**0.005**	0.00034 U	0.00035 U	0.00034 U	0.00038 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00041 U	0.015 U	0.00025 U	0.00026 U	0.00028 U	0.00024 U	0.00027 U	0.00029 U	0.00028 U	0.00031 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00047 U	0.017 U	0.00029 U	0.0003 U	0.00032 U	0.00027 U	0.00031 U	0.00033 U	0.00032 U	0.00036 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.032 U	0.033 U	0.031 U	0.032 U	0.029 U	0.031 U	0.03 U	0.031 U	0.03 U	0.032 U
2,4-DICHLOROPHENOL	23	NA	0.024 U	0.025 U	0.023 U	0.024 U	0.022 U	0.023 U	0.022 U	0.023 U	0.022 U	0.024 U
2-CHLOROPHENOL	39	NA	0.032 U	0.033 U	0.031 U	0.032 U	0.029 U	0.031 U	0.03 U	0.031 U	0.03 U	0.032 U
2-METHYLNAPHTHALENE	31	NA	0.0039 U	0.0041 U	0.0038 U	0.0039 U	0.0036 U	0.0038 U	0.0036 U	0.0038 U	0.0037 U	0.004 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-056		GSP-SB-057		GSP-SB-058		GSP-SB-059			GSP-S
SAMPLE ID			GSP-SB-56-10-12	GSP-SB-56-20-22	GSP-SB-57-0-2	GSP-SB-57-23-25	GSP-SB-58-0-2	GSP-SB-58-23-25	GSP-SB-59-0-2	GSP-SB-59-23-25	GSP-SB-60-0-2	GSP-SB-60-22-24
			GSP-SB-56-10-12	GSP-SB-56-20-22	GSP-SB-57-0-2	GSP-SB-57-23-25	GSP-SB-58-0-2	GSP-SB-58-23-25	GSP-SB-59-0-2	GSP-SB-59-23-25	GSP-SB-60-0-2	GSP-SB-60-22-24
			REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09
SAMPLE DATE	Maryland	ATCs	20100429	20100429	20100510	20100510	20100510	20100510	20100510	20100510	20100511	20100511
TOP DEPTH	Residential		10	20	0	23	0	23	0	23	0	22
BOTTOM DEPTH	Soil Standard		12	22	2	25	2	25	2	25	2	24
ACENAPHTHENE	470	NA	0.0039 U	0.0041 U	0.0038 U	0.0039 U	0.0036 U	0.0038 U	0.0036 U	0.0038 U	0.0037 U	0.004 U
ACENAPHTHYLENE	470	NA	0.0039 U	0.0041 U	**0.008**	0.0039 U	0.0036 U	0.0038 U	0.0036 U	0.0038 U	0.0037 U	0.004 U
ANTHRACENE	2300	NA	0.0039 U	0.0041 U	**0.017**	0.0039 U	0.0036 U	0.0038 U	0.0036 U	0.0038 U	0.0037 U	0.004 U
BAP EQUIVALENT-HALFND	NA	NA	0.0039 U	0.0041 U	**0.13342**	0.0039 U	0.0036 U	0.0038 U	0.0036 U	0.0038 U	**0.018654**	0.004 U
BAP EQUIVALENT-POS	NA	NA	0.0039 U	0.0041 U	**0.13152**	0.0039 U	0.0036 U	0.0038 U	0.0036 U	0.0038 U	**0.016785**	0.004 U
BENZALDEHYDE	NA	NA	0.014 U	0.015 U	0.014 UJ	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	0.0039 U	0.0041 U	**0.1**	0.0039 U	0.0036 U	0.0038 U	0.0036 U	0.0038 U	**0.011**	0.004 U
BENZO(A)PYRENE	0.022	NA	0.0039 U	0.0041 U	**0.1**	0.0039 U	0.0036 U	0.0038 U	0.0036 U	0.0038 U	**0.013**	0.004 U
BENZO(B)FLUORANTHENE	0.22	NA	0.0039 U	0.0041 U	**0.15**	0.0039 U	0.0036 U	0.0038 U	0.0036 U	0.0038 U	**0.018**	0.004 U
BENZO(G,H,I)PERYLENE	230	NA	0.0039 U	0.0041 U	**0.076**	0.0039 U	0.0036 U	0.0038 U	0.0036 U	0.0038 U	**0.011**	0.004 U
BENZO(K)FLUORANTHENE	2.2	NA	0.0039 U	0.0041 U	**0.051**	0.0039 U	0.0036 U	0.0038 U	0.0036 U	0.0038 U	0.0037 U	0.004 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.023 U	0.023 U	0.022 U	0.023 U	0.021 U	0.022 U	0.021 U	**0.049 B**	**0.054 B**	**0.045 B**
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.012 U	0.011 U	0.012 U	0.011 U	0.012 U	0.011 U	0.012 U	0.011 U	0.012 U
CAPROLACTAM	NA	NA	0.044 U	0.046 U	0.042 U	0.044 U	0.04 U	0.043 U	0.041 U	0.043 U	0.041 U	0.045 U
CARBAZOLE	32	NA	0.032 U	0.033 U	0.031 U	0.032 U	0.029 U	0.031 U	0.03 U	0.031 U	0.03 U	0.032 U
CHRYSENE	22	NA	0.0013 U	0.0014 U	**0.11**	0.0013 U	0.0012 U	0.0013 U	0.0012 U	0.0013 U	**0.015**	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0039 U	0.0041 U	0.0038 U	0.0039 U	0.0036 U	0.0038 U	0.0036 U	0.0038 U	0.0037 U	0.004 U
DIBENZOFURAN	7.8	NA	0.024 U	0.025 U	0.023 U	0.024 U	0.022 U	0.023 U	0.022 U	0.023 U	0.022 U	0.024 U
DIETHYL PHTHALATE	6300	NA	0.019 U	0.02 U	0.018 U	0.019 U	0.017 U	0.019 U	0.018 U	0.018 U	0.018 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.02 U	0.021 U	0.019 U	0.02 U	0.018 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U
DI-N-BUTYL PHTHALATE	780	NA	0.018 U	0.018 U	0.017 U	0.018 U	0.016 U	0.017 U	0.016 U	0.017 U	0.017 U	0.018 U
FLUORANTHENE	310	NA	0.0039 U	0.0041 U	**0.19**	0.0039 U	0.0036 U	0.0038 U	0.0036 U	0.0038 U	**0.017**	0.004 U
FLUORENE	310	NA	0.0039 U	0.0041 U	0.0038 U	0.0039 U	0.0036 U	0.0038 U	0.0036 U	0.0038 U	0.0037 U	0.004 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	**0.836**	0 U	0 U	0 U	0 U	0 U	**0.0997**	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.0182 U	0.01915 U	**1.0279**	0.0182 U	0.0168 U	0.01775 U	0.0168 U	0.01775 U	**0.1204**	0.01865 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.01625**	**0.0171**	**0.8379**	**0.01625**	**0.015**	**0.01585**	**0.015**	**0.01585**	**0.1034**	**0.01665**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.0039 U	0.0041 U	**0.059**	0.0039 U	0.0036 U	0.0038 U	0.0036 U	0.0038 U	**0.0087**	0.004 U
ISOPHORONE	670	NA	0.016 U	0.016 U	0.015 U	0.015 U	0.014 U	0.015 U	0.014 U	0.015 U	0.014 U	0.016 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	**0.276**	0 U	0 U	0 U	0 U	0 U	**0.0246**	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.01365 U	0.01435 U	**0.0936**	0.01365 U	0.0126 U	0.0133 U	0.0126 U	0.0133 U	**0.0187**	0.014 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0156**	**0.0164**	**0.2836**	**0.0156**	**0.0144**	**0.0152**	**0.0144**	**0.0152**	**0.0357**	**0.016**
NAPHTHALENE	160	NA	0.0039 U	0.0041 U	0.0038 U	0.0039 U	0.0036 U	0.0038 U	0.0036 U	0.0038 U	0.0037 U	0.004 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.032 U	0.033 U	0.031 U	0.032 U	0.029 U	0.031 U	0.03 U	0.031 U	0.03 U	0.032 U
PENTACHLOROPHENOL	5.3	NA	0.095 U	0.098 U	0.092 U	0.095 U	0.086 U	0.093 U	0.088 U	0.092 U	0.089 U	0.096 U
PHENANTHRENE	2300	NA	0.0039 U	0.0041 U	**0.061**	0.0039 U	0.0036 U	0.0038 U	0.0036 U	0.0038 U	**0.0076**	0.004 U
PHENOL	2300	NA	0.032 U	0.033 U	0.031 U	0.032 U	0.029 U	0.031 U	0.03 U	0.031 U	0.03 U	0.032 U
PYRENE	230	NA	0.0039 U	0.0041 U	**0.19**	0.0039 U	0.0036 U	0.0038 U	0.0036 U	0.0038 U	**0.023**	0.004 U
TOTAL PAHS	NA	NA	0 U	0 U	**1.112**	0 U	0 U	0 U	0 U	0 U	**0.1243**	0 U
TOTAL PAHS ECO HALFND	NA	NA	0.03185 U	0.0335 U	**1.1215**	0.03185 U	0.0294 U	0.03105 U	0.0294 U	0.03105 U	**0.1391**	0.03265 U
TOTAL PAHS HALFND	NA	NA	0.03185 U	0.0335 U	**1.1215**	0.03185 U	0.0294 U	0.03105 U	0.0294 U	0.03105 U	**0.1391**	0.03265 U
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.016 U	0.016 U	0.015 U	0.015 U	0.014 U	0.015 U	0.014 U	0.015 U	0.014 U	0.016 U
AROCLOR-1260	0.32	NA	0.02 U	0.021 U	0.019 U	0.02 U	0.018 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.0685**	**0.071**	**0.065**	**0.068**	**0.0615**	**0.067**	**0.0635**	**0.0665**	**0.064**	**0.0685**
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.075 J**	**0.84 L**	**0.049 B**	**0.15 J**	**0.033 B**	**0.031 B**	**0.037 B**	**0.078 J**	**0.042 B**	**0.013 B**
ARSENIC	0.43	3.6	**1.1 K**	5.4	**1.2**	**1.5**	**0.71**	**0.45 J**	**1.6**	**0.87**	**2.3**	**0.9**
BARIUM	1600	NA	**2**	**8**	**7.6 J**	**3.2 J**	**2.9 J**	**6.4 J**	**12.7 J**	**13.6 J**	**27.9 J**	**7.4 J**
BERYLLIUM	16	NA	**0.021 B**	**0.064 J**	**0.086 J**	**0.031 B**	**0.03 B**	**0.036 B**	**0.13 K**	**0.056 J**	**0.23 J**	**0.045 J**
CADMIUM	3.9	NA	0.003 UL	**0.0043 B**	**0.0036 B**	0.003 UL	0.0027 UL	**0.0031 B**	0.0027 UL	0.0029 U	**0.035 J**	0.003 U
CHROMIUM	23	28	**4.9**	28.4	**3.6 J**	**8.9 J**	**2.1 J**	**5.1 J**	**5.7 J**	**6.1 J**	**8.5 J**	**4.2 J**
COBALT	NA	NA	**0.11 J**	**0.77**	**0.69 J**	**0.35 J**	**0.26 J**	**0.11 J**	**1.2 J**	**0.18 J**	**2.3 J**	**0.23 J**
COPPER	310	NA	**2.2 L**	**5.5 L**	**2.1 J**	**63 J**	**1.1 J**	**1.1 J**	**2.6 J**	**3.6 J**	**3.7 J**	**2.6 J**
IRON	5500	15000	**1020**	**5070**	**3660 J**	**2610 J**	**1860 J**	**204 J**	**4540 J**	**424 J**	**7570 J**	**171 J**
LEAD	400	NA	**0.83**	**3.5**	**2.2 J**	**0.71 J**	**0.86 J**	**1.6 J**	**2.7 J**	**2 J**	**5 J**	**1.4 J**
MANGANESE	160	480	**2**	**15.1**	**17.2 J**	**1.2 J**	**4.6 J**	**1 J**	**15.1 J**	**4.3 J**	**29.3 J**	**1.7 J**
MERCURY	2.3	NA	0.02 UL	0.021 UL	0.019 U	0.02 U	0.018 U	0.019 U	0.018 U	0.019 U	**0.019 J**	0.02 U
MOLYBDENUM	NA	NA	**0.19 J**	**0.28**	**0.23**	**0.62**	**0.13 J**	**0.072 J**	**0.25**	0.031 U	**0.61**	0.032 U
NICKEL	160	NA	**0.31**	**0.7**	**1.3**	**0.2 B**	**0.56**	**0.15 B**	**2.3**	**0.43**	**5.4**	**0.2 B**
SELENIUM	39	NA	**0.11 J**	**0.71 J**	**0.13 J**	**0.11 B**	**0.08 B**	**0.35 J**	**0.28 J**	**0.9**	**0.53 J**	**0.67**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-056		GSP-SB-057		GSP-SB-058		GSP-SB-059			GSP-S
SAMPLE ID			GSP-SB-56-10-12 REC=09	GSP-SB-56-20-22 REC=09	GSP-SB-57-0-2 REC=09	GSP-SB-57-23-25 REC=09	GSP-SB-58-0-2 REC=09	GSP-SB-58-23-25 REC=09	GSP-SB-59-0-2 REC=09	GSP-SB-59-23-25 REC=09	GSP-SB-60-0-2 REC=09	GSP-SB-60-22-24 REC=09
SAMPLE DATE	Maryland	ATCs	20100429	20100429	20100510	20100510	20100510	20100510	20100510	20100510	20100511	20100511
TOP DEPTH	Residential		10	20	0	23	0	23	0	23	0	22
BOTTOM DEPTH	Soil Standard		12	22	2	25	2	25	2	25	2	24
SILVER	39	NA	0.0018 U	**0.013 B**	**0.01 B**	**0.0072 B**	**0.0028 B**	**0.03 B**	**0.013 B**	**0.019 B**	**0.018 B**	0.0018 U
THALLIUM	0.55	3.9	0.016 U	**0.058 B**	**0.036 B**	**0.026 B**	0.014 U	0.015 U	**0.027 B**	**0.029 B**	**0.079 B**	**0.028 B**
VANADIUM	7.8	30	**6.1**	**43.5**	**6.1 J**	**11.4 J**	**3.5 J**	**6.9 J**	**9 J**	**7.2 J**	**13.6 J**	**5.1 J**
ZINC	2300	NA	**1.7 B**	**2.4 B**	**5.2**	**1.3 B**	**2.8 B**	**1 B**	**7.2**	**1.7 B**	**20.8**	**1.3 B**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	3.3 U	3.4 U	**46**	3.3 U	3 U	3.2 U	**3.6 J**	3.2 U	**11 J**	3.4 UJ
GASOLINE RANGE ORGANICS	230	NA	0.033 U	**0.062 J**	0.032 U	0.033 U	0.03 U	0.032 U	0.031 U	0.032 U	0.031 U	0.034 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-060		GSP-SB-061		GSP-SB-062		GSP-SB-063		GSP-SB-064	
SAMPLE ID			GSP-SB-60-22-24- GSP-SB-60-22-24- REC=09	GSP-SB-60-22-24-D GSP-SB-60-22-24-D REC=09	GSP-SB-61-0-2 GSP-SB-61-0-2 REC=09	GSP-SB-61-20-22 GSP-SB-61-20-22 REC=09	GSP-SB-62-0-2 GSP-SB-62-0-2 REC=09	GSP-SB-62-20-22 GSP-SB-62-20-22 REC=09	GSP-SB-63-0-2 GSP-SB-63-0-2 REC=10	GSP-SB-63-20-22 GSP-SB-63-20-22 REC=10	GSP-SB-64-0-2 GSP-SB-64-0-2 REC=10	GSP-SB-64-22-25 GSP-SB-64-22-25 REC=10
SAMPLE DATE	Maryland	ATCs	20100511	20100511	20100426	20100426	20100426	20100426	20100426	20100426	20100416	20100416
TOP DEPTH	Residential		22	22	0	20	0	20	0	20	0	22
BOTTOM DEPTH	Soil Standard		24	24	2	22	2	22	2	22	2	25
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0013 U	0.0014 UJ	0.0011 U	0.0012 U	0.0013 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0012 U
1,1-DICHLOROETHENE	390	NA	0.00051 U	0.00054 UJ	0.00042 U	0.00046 U	0.00052 U	0.00048 U	0.00046 U	0.00048 U	0.00049 U	0.00048 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.000375 U	0.0004 UJ	0.00031 U	0.00034 U	0.00038 U	0.00035 U	0.00033 U	0.00035 U	0.00036 U	0.00035 UJ
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00017 U	0.00018 UJ	0.00014 U	0.00015 U	0.00017 U	0.00016 U	0.00015 U	0.00016 U	0.00016 U	0.00016 U
1,2,4-TRICHLOROBENZENE	78	NA	0.000265 U	0.00028 UJ	0.00022 U	0.00024 U	0.00027 U	0.00025 U	0.00024 U	0.00025 U	0.00026 U	0.00025 UJ
1,2,4-TRIMETHYLBENZENE	NA	NA	0.000635 U	0.00068 UJ	0.00053 U	0.00058 U	0.00065 U	0.0006 U	0.00057 U	0.0006 U	0.00061 U	0.0006 UJ
1,2-DICHLOROBENZENE	700	NA	0.000355 U	0.00038 UJ	0.00029 U	0.00032 U	0.00036 U	0.00033 U	0.00032 U	0.00033 U	0.00034 U	0.00033 UJ
1,2-DICHLOROETHANE	7	NA	0.000335 U	0.00036 UJ	0.00028 U	0.0003 U	0.00034 U	0.00032 U	0.0003 U	0.00031 U	0.00032 U	0.00032 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.000345 U	0.00037 UJ	0.00028 U	0.00031 U	0.00035 U	0.00033 U	0.00031 U	0.00032 U	0.00033 U	0.00033 UJ
1,4-DICHLOROBENZENE	27	NA	0.000645 U	0.00069 UJ	0.00053 U	0.00058 U	0.00066 U	0.00061 U	0.00058 U	0.00061 U	0.00062 U	0.00061 UJ
2-BUTANONE	4700	NA	0.0014 U	0.0015 UJ	0.0011 U	0.0012 U	0.0014 U	0.0013 U	**0.0042 J**	0.0013 U	0.0013 U	0.0013 U
2-HEXANONE	NA	NA	0.00062 U	0.00066 UJ	0.00051 U	0.00056 U	0.00063 U	0.00059 U	0.00055 U	0.00058 U	0.0006 U	0.00059 U
4-ISOPROPYLTOLUENE	NA	NA	0.000205 U	0.00022 UJ	0.00017 U	0.00019 U	0.00021 U	0.0002 U	0.00018 U	0.00019 U	0.0002 U	0.0002 UJ
4-METHYL-2-PENTANONE	NA	NA	0.000525 U	0.00056 UJ	0.00044 U	0.00048 U	0.00054 U	0.0005 U	0.00047 U	0.0005 U	0.00051 U	0.0005 U
ACETONE	7000	NA	0.01025 U	**0.0095 B**	**0.063**	**0.088**	0.0063 U	**0.51 J**	**0.018**	0.0058 U	**2.2 J**	**0.21**
BENZENE	12	NA	0.000225 U	0.00024 UJ	0.00019 U	0.0002 U	0.00023 U	0.00021 U	0.0002 U	0.00021 U	0.00022 U	0.00021 U
BROMOMETHANE	11	NA	0.000525 U	0.00056 UJ	0.00044 U	0.00048 U	0.00054 U	0.0005 U	0.00047 U	0.0005 U	0.00051 U	0.0005 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00043 U	0.00046 UJ	0.00036 U	0.00039 U	0.00044 U	0.00041 U	0.00039 U	0.0004 U	0.00042 U	0.00041 U
CARBON TETRACHLORIDE	4.9	NA	0.000365 U	0.00039 UJ	0.0003 U	0.00033 U	0.00037 U	0.00034 U	0.00033 U	0.00034 U	0.00035 U	0.00034 U
CHLOROBENZENE	160	NA	0.000325 U	0.00035 UJ	0.00027 U	0.00029 U	0.00033 U	0.00031 U	0.00029 U	0.0003 U	0.00031 U	0.00031 U
CHLOROETHANE	220	NA	0.000845 U	0.0009 UJ	0.0007 U	0.00076 U	0.00086 U	0.0008 U	0.00076 U	0.00079 U	0.00081 U	0.0008 U
CHLOROFORM	78	NA	0.000285 U	0.0003 UJ	0.00023 U	0.00026 U	0.00029 U	0.00027 U	0.00026 U	0.00027 U	0.00027 U	0.00027 U
CHLOROMETHANE	NA	NA	0.0004 U	0.00043 UJ	0.00033 U	0.00036 U	0.00041 U	0.00038 U	0.00036 U	0.00038 U	0.00039 U	0.00038 U
CIS-1,2-DICHLOROETHENE	78	NA	0.000355 U	0.00038 UJ	0.00029 U	0.00032 U	0.00036 U	0.00033 U	0.00032 U	0.00033 U	0.00034 U	0.00033 U
DIISOPROPYL ETHER	NA	NA	0.0015 U	0.0016 UJ	0.0012 U	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.0014 U	0.0014 U	0.0014 U
ETHYLBENZENE	780	NA	0.000255 U	0.00027 UJ	0.00021 U	0.00023 U	0.00026 U	0.00024 U	0.00023 U	0.00024 U	0.00025 U	0.00024 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00016 U	0.00017 UJ	0.00013 U	0.00014 U	0.00016 U	0.00015 U	0.00014 U	0.00015 U	0.00015 U	0.00015 U
M+P-XYLENES	NA	NA	0.0012 U	0.0013 UJ	0.00097 U	0.0011 U	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
METHYL TERT-BUTYL ETHER	160	NA	0.00042 U	0.00045 UJ	0.00035 UJ	0.00038 UJ	0.00043 UJ	0.0004 UJ	0.00038 UJ	0.00039 UJ	0.00041 U	0.0004 U
METHYLENE CHLORIDE	85	NA	0.000655 U	0.0007 UJ	**0.0012 B**	**0.0014 B**	0.00067 U	**0.0014 B**	0.00059 U	0.00062 U	0.00063 U	0.00062 U
NAPHTHALENE	160	NA	0.000185 U	0.0002 UJ	0.00015 U	0.00017 U	0.00019 U	0.00018 U	0.00017 U	0.00017 U	0.00018 U	0.00018 UJ
N-BUTYLBENZENE	NA	NA	0.000225 U	0.00024 UJ	0.00019 U	0.0002 U	0.00023 U	0.00021 U	0.0002 U	0.00021 U	0.00022 U	0.00021 UJ
N-PROPYLBENZENE	NA	NA	0.000395 U	0.00042 UJ	0.00032 U	0.00035 U	0.0004 U	0.00037 U	0.00035 U	0.00037 U	0.00038 U	0.00037 UJ
O-XYLENE	NA	NA	0.000345 U	0.00037 UJ	0.00028 U	0.00031 U	0.00035 U	0.00033 U	0.00031 U	0.00032 U	0.00033 U	0.00033 U
SEC-BUTYLBENZENE	NA	NA	0.000175 U	0.00019 UJ	0.00015 U	0.00016 U	0.00018 U	0.00017 U	0.00016 U	0.00017 U	0.00017 U	0.00017 UJ
STYRENE	1600	NA	0.00015 U	0.00016 UJ	0.00012 U	0.00013 U	0.00015 U	0.00014 U	0.00013 U	0.00014 U	0.00014 U	0.00014 U
TERT-AMYL METHYL ETHER	NA	NA	0.000365 U	0.00039 UJ	0.0003 U	0.00033 U	0.00037 U	0.00034 U	0.00033 U	0.00034 U	0.00035 U	0.00034 U
TERT-BUTYLBENZENE	NA	NA	0.000285 U	0.0003 UJ	0.00023 U	0.00026 U	0.00029 U	0.00027 U	0.00026 U	0.00027 U	0.00027 U	0.00027 UJ
TERTIARY-BUTYL ALCOHOL	NA	NA	0.00745 R	0.0079 UR	0.0061 UR	0.0067 UR	0.0076 UR	**0.014 J**	0.0067 UR	0.007 UR	0.0072 UR	0.0071 UR
TETRACHLOROETHENE	1.2	NA	0.00051 U	0.00054 UJ	0.00042 U	0.00046 U	0.00052 U	0.00048 U	0.00046 U	0.00048 U	0.00049 U	0.00048 U
TOLUENE	630	NA	0.000265 U	0.00028 UJ	0.00022 U	**0.00037 J**	0.00027 U	0.00025 U	0.00024 U	0.00025 U	**0.0005 J**	**0.00029 J**
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.000655 U	0.0007 UJ	0.00054 U	0.00059 U	0.00067 U	0.00062 U	0.00059 U	0.00062 U	0.00063 U	0.00062 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.0004 U	0.00043 UJ	0.00033 U	0.00036 U	0.00041 U	0.00038 U	0.00036 U	0.00038 U	0.00039 U	0.00038 U
TRICHLOROETHENE	1.6	NA	0.00041 U	0.00044 UJ	0.00034 U	0.00037 U	0.00042 U	0.00039 U	0.00037 U	0.00039 U	0.0004 U	0.00039 U
TRICHLOROFLUOROMETHANE	NA	NA	0.000335 U	0.00036 UJ	0.00028 U	0.0003 U	0.00034 U	0.00032 U	0.0003 U	0.00031 U	0.00032 U	0.00032 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.000385 U	0.00041 UJ	0.00032 U	0.00035 U	0.00039 U	0.00036 U	0.00034 U	0.00036 U	0.00037 U	0.00036 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.032 U	0.032 U	0.032 U	0.032 U	0.32 U	0.031 U	0.16 U	0.033 U	0.035 U	0.033 U
2,4-DICHLOROPHENOL	23	NA	0.024 U	0.024 U	0.023 U	0.024 U	0.23 U	0.023 U	0.12 U	0.024 U	0.026 U	0.024 U
2-CHLOROPHENOL	39	NA	0.032 U	0.032 U	0.032 UJ	0.032 U	0.32 UJ	0.031 U	0.16 U	0.033 U	0.035 U	0.033 U
2-METHYLNAPHTHALENE	31	NA	0.004 U	0.004 U	0.0039 U	0.0039 U	0.039 U	0.0038 U	0.019 U	0.004 U	**0.037**	**0.033**
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-060		GSP-SB-061		GSP-SB-062		GSP-SB-063		GSP-SB-064	
SAMPLE ID			GSP-SB-60-22-24- GSP-SB-60-22-24- REC=09	GSP-SB-60-22-24-D GSP-SB-60-22-24-D REC=09	GSP-SB-61-0-2 GSP-SB-61-0-2 REC=09	GSP-SB-61-20-22 GSP-SB-61-20-22 REC=09	GSP-SB-62-0-2 GSP-SB-62-0-2 REC=09	GSP-SB-62-20-22 GSP-SB-62-20-22 REC=09	GSP-SB-63-0-2 GSP-SB-63-0-2 REC=10	GSP-SB-63-20-22 GSP-SB-63-20-22 REC=10	GSP-SB-64-0-2 GSP-SB-64-0-2 REC=10	GSP-SB-64-22-25 GSP-SB-64-22-25 REC=10
SAMPLE DATE	Maryland	ATCs	20100511	20100511	20100426	20100426	20100426	20100426	20100426	20100426	20100416	20100416
TOP DEPTH	Residential		22	22	0	20	0	20	0	20	0	22
BOTTOM DEPTH	Soil Standard		24	24	2	22	2	22	2	22	2	25
ACENAPHTHENE	470	NA	0.004 U	0.004 U	0.0039 U	0.0039 U	**0.13**	0.0038 U	0.019 U	0.004 U	**0.026**	**0.017**
ACENAPHTHYLENE	470	NA	0.004 U	0.004 U	0.0039 U	0.0039 U	**0.35**	0.0038 U	0.019 U	0.004 U	**0.016**	0.004 U
ANTHRACENE	2300	NA	0.004 U	0.004 U	0.0039 U	0.0039 U	**0.65**	0.0038 U	0.019 U	0.004 U	**0.016**	0.004 U
BAP EQUIVALENT-HALFND	NA	NA	0.004 U	0.004 U	**0.033987**	0.0039 U	**3.7183**	0.0038 U	**0.028998**	**0.006821**	**0.089463**	0.004 U
BAP EQUIVALENT-POS	NA	NA	0.004 U	0.004 U	**0.031822**	0.0039 U	**3.6988**	0.0038 U	**0.008**	**0.0024**	**0.087313**	0.004 U
BENZALDEHYDE	NA	NA	0.014 U	0.014 U	0.014 UJ	0.014 U	0.14 UJ	0.014 U	0.07 U	0.015 U	0.016 U	0.015 U
BENZO(A)ANTHRACENE	0.22	NA	0.004 U	0.004 U	**0.02**	0.0039 U	**2.4**	0.0038 U	0.019 U	0.004 U	**0.059**	0.004 U
BENZO(A)PYRENE	0.022	NA	0.004 U	0.004 U	**0.027**	0.0039 U	**3**	0.0038 U	0.019 U	0.004 U	**0.069**	0.004 U
BENZO(B)FLUORANTHENE	0.22	NA	0.004 U	0.004 U	**0.028**	0.0039 U	**2.8**	0.0038 U	**0.08**	**0.024**	**0.076**	0.004 U
BENZO(G,H,I)PERYLENE	230	NA	0.004 U	0.004 U	**0.023**	0.0039 U	**2.2**	0.0038 U	0.019 U	0.004 U	**0.061**	0.004 U
BENZO(K)FLUORANTHENE	2.2	NA	0.004 U	0.004 U	0.0039 U	0.0039 U	**1.6**	0.0038 U	0.019 U	0.004 U	**0.034**	0.004 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.046 U	**0.047 B**	0.022 U	**5.5**	0.22 U	0.022 U	0.11 U	0.023 U	**0.056 J**	0.023 U
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.012 U	0.012 U	**0.016 J**	0.12 U	0.011 U	0.059 U	0.012 U	0.013 U	0.012 U
CAPROLACTAM	NA	NA	0.0445 U	0.044 U	0.043 U	0.044 U	0.43 U	0.042 U	0.22 U	0.045 U	0.048 U	0.045 U
CARBAZOLE	32	NA	0.032 U	0.032 U	0.032 U	0.032 U	0.32 U	0.031 U	0.16 U	0.033 U	0.035 U	0.033 U
CHRYSENE	22	NA	0.0013 U	0.0013 U	**0.022**	0.0013 U	**2.8**	0.0013 U	0.0064 U	0.0013 U	**0.073**	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.004 U	0.004 U	0.0039 U	0.0039 U	0.039 U	0.0038 U	0.019 U	0.004 U	0.0043 U	0.004 U
DIBENZOFURAN	7.8	NA	0.024 U	0.024 U	0.023 U	0.024 U	0.23 U	0.023 U	0.12 U	0.024 U	0.026 U	0.024 U
DIETHYL PHTHALATE	6300	NA	0.019 U	0.019 U	0.019 U	0.019 U	0.19 U	0.018 U	0.094 U	0.02 U	0.021 U	0.02 U
DIMETHYL PHTHALATE	NA	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U	0.1 U	0.021 U	0.022 U	0.021 U
DI-N-BUTYL PHTHALATE	780	NA	0.018 U	0.018 U	0.018 U	0.018 U	0.18 U	0.017 U	0.088 U	0.018 U	0.019 U	0.018 U
FLUORANTHENE	310	NA	0.004 U	0.004 U	**0.03**	0.0039 U	**3.7**	0.0038 U	**0.058**	**0.013**	**0.086**	0.004 U
FLUORENE	310	NA	0.004 U	0.004 U	0.0039 U	0.0039 U	**0.18**	0.0038 U	0.019 U	0.004 U	0.0043 U	0.004 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	**0.168**	0 U	**20.9**	0 U	**0.162**	**0.035**	**0.526**	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.01865 U	0.01865 U	**0.20385**	0.0182 U	**24.6195**	0.01775 U	**0.2802**	**0.06065**	**0.61415**	0.01865 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.01665**	**0.01665**	**0.17385**	**0.01625**	**20.9195**	**0.01585**	**0.2222**	**0.04765**	**0.52815**	**0.01665**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.004 U	0.004 U	0.0039 U	0.0039 U	**1.6**	0.0038 U	0.019 U	0.004 U	**0.044**	0.004 U
ISOPHORONE	670	NA	0.016 U	0.016 U	0.015 U	0.015 U	0.15 U	0.015 U	0.076 U	0.016 U	0.017 U	0.016 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	**0.049**	0 U	**6.69**	0 U	**0.058**	**0.013**	**0.235**	**0.069**
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.014 U	0.014 U	**0.0307**	0.01365 U	**3.0095**	0.0133 U	0.0665 U	0.014 U	**0.15115**	**0.077**
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.016**	**0.016**	**0.0607**	**0.0156**	**6.7095**	**0.0152**	**0.1245**	**0.027**	**0.23715**	**0.079**
NAPHTHALENE	160	NA	0.004 U	0.004 U	0.0039 U	0.0039 U	**0.18**	0.0038 U	0.019 U	0.004 U	**0.024**	**0.019**
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.032 U	0.032 U	0.032 UJ	0.032 U	0.32 UJ	0.031 U	0.16 U	0.033 U	0.035 U	0.033 U
PENTACHLOROPHENOL	5.3	NA	0.096 U	0.096 U	0.094 U	0.094 U	0.94 U	0.092 U	0.47 U	0.098 U	0.1 U	0.098 U
PHENANTHRENE	2300	NA	0.004 U	0.004 U	**0.019**	0.0039 U	**1.5**	0.0038 U	0.019 U	0.004 U	**0.03**	0.004 U
PHENOL	2300	NA	0.032 U	0.032 U	0.032 UJ	0.032 U	0.32 UJ	0.031 U	0.16 U	0.033 U	0.035 U	0.033 U
PYRENE	230	NA	0.004 U	0.004 U	**0.048**	0.0039 U	**4.5**	0.0038 U	**0.082**	**0.011**	**0.11**	0.004 U
TOTAL PAHS	NA	NA	0 U	0 U	**0.217**	0 U	**27.59**	0 U	**0.22**	**0.048**	**0.761**	**0.069**
TOTAL PAHS ECO HALFND	NA	NA	0.03265 U	0.03265 U	**0.23455**	0.03185 U	**27.629**	0.03105 U	**0.3467**	**0.07465**	**0.7653**	**0.09565**
TOTAL PAHS HALFND	NA	NA	**0.03265**	0.03265 U	**0.23455**	0.03185 U	**27.629**	0.03105 U	**0.3467**	**0.07465**	**0.7653**	**0.09565**
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.016 U	0.016 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U	0.017 U	0.016 U
AROCLOR-1260	0.32	NA	0.02 U	0.02 U	0.02 U	0.02 U	**0.022 J**	0.02 U	0.02 U	0.021 U	0.022 U	0.021 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	**0.022**	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.0685**	**0.0685**	**0.0675**	**0.068**	**0.0795**	**0.0665**	**0.0675**	**0.071**	**0.0745**	**0.071**
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.0205 U	**0.028 B**	**0.083 J**	**0.059 L**	**0.24 L**	**0.074 L**	**0.11 J**	**0.066 L**	**0.1 J**	**0.038 B**
ARSENIC	0.43	3.6	**1.3**	**1.7**	**2**	**0.37 J**	**2.5**	**0.77**	**3.1**	**3.9**	**3.8**	**1.8**
BARIUM	1600	NA	**5.4**	**3.4 J**	**27 K**	**1.3 K**	**192 K**	**2.3 K**	**78.6 K**	**17 K**	**30.5 K**	**20.1 K**
BERYLLIUM	16	NA	**0.0285**	**0.024 B**	**0.3**	**0.065 B**	**0.87**	**0.057 B**	**0.88**	**0.7**	**0.28**	**0.49**
CADMIUM	3.9	NA	0.003 U	0.003 U	**0.052 J**	0.0029 U	**0.33 L**	0.0029 U	**0.073 J**	**0.051 J**	**0.093 J**	**0.038 J**
CHROMIUM	23	28	**3.2**	**2.2 J**	**7.2**	**2.1**	**13.7**	**3.9**	**15.7**	NA	**13.6 K**	**21.2 K**
COBALT	NA	NA	**0.165**	**0.1 J**	**1.6**	**0.1 J**	**4**	**0.16**	**3.3**	**36.3**	**3.6**	**2.3**
COPPER	310	NA	**1.95**	**1.3 J**	**3.4**	**1.6**	**8.7**	**0.59 B**	**5.4**	**33.1**	**6.6 L**	**122 L**
IRON	5500	15000	**263.5**	**356 J**	**5740**	**306**	**7670**	**627**	**12900**	**277**	**11400**	**230**
LEAD	400	NA	**1.015**	**0.63 J**	**8.8**	**0.7**	**25.1**	**0.67**	**7.6**	**4.9**	**8.7**	**4.8**
MANGANESE	160	480	**1.285**	**0.87 J**	**74.3**	**1.8**	**864**	**1.4**	**1590**	**4.6**	**77**	**6.8**
MERCURY	2.3	NA	0.02 U	0.02 U	**0.043 J**	0.02 U	**0.16**	0.019 U	0.02 U	**0.029 J**	**0.022 J**	0.02 U
MOLYBDENUM	NA	NA	0.032 U	0.032 U	**0.36**	**0.061 B**	**0.4**	**0.17 B**	**1**	**0.28**	**0.69**	**0.22 J**
NICKEL	160	NA	**0.215**	**0.33**	**3.7**	**0.19 B**	**8.1**	**0.28 B**	**8**	**56**	**6.5**	**4.2**
SELENIUM	39	NA	**0.475**	**0.28 J**	**0.5 J**	**0.065 J**	**0.89**	**0.12 J**	**0.69**	**3.6**	**0.63 J**	**2.8 L**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-060		GSP-SB-061		GSP-SB-062		GSP-SB-063		GSP-SB-064	
SAMPLE ID			GSP-SB-60-22-24-REC=09	GSP-SB-60-22-24-D REC=09	GSP-SB-61-0-2 REC=09	GSP-SB-61-20-22 REC=09	GSP-SB-62-0-2 REC=09	GSP-SB-62-20-22 REC=09	GSP-SB-63-0-2 REC=10	GSP-SB-63-20-22 REC=10	GSP-SB-64-0-2 REC=10	GSP-SB-64-22-25 REC=10
SAMPLE DATE	Maryland	ATCs	20100511	20100511	20100426	20100426	20100426	20100426	20100426	20100426	20100416	20100416
TOP DEPTH	Residential		22	22	0	20	0	20	0	20	0	22
BOTTOM DEPTH	Soil Standard		24	24	2	22	2	22	2	22	2	25
SILVER	39	NA	0.0018 U	0.0018 U	**0.053 J**	0.0018 U	**0.21 K**	0.0017 U	**0.038 J**	**0.052 J**	**0.033 B**	**0.037 B**
THALLIUM	0.55	3.9	0.022 U	0.016 U	**0.06 B**	0.015 U	**0.06 B**	0.015 U	**0.092 B**	**0.12 B**	**0.1 B**	**0.087 B**
VANADIUM	7.8	30	**6.4**	**7.7 J**	**12.8**	**3.7**	32.3	**10.4**	**24.2**	**29.8**	**22.2**	**26.4**
ZINC	2300	NA	1.25 U	**1.2 B**	**13.5 J**	**1.3 B**	**40.6 J**	**3.3 B**	**21.1 J**	**10.1 J**	**21.9**	**4.2**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	3.4 U	3.4 UJ	**39**	3.3 U	**310**	3.2 U	**43**	**31**	**37 J**	**9.8 J**
GASOLINE RANGE ORGANICS	230	NA	0.034 U	0.034 U	0.033 UJ	0.033 UJ	0.033 UJ	0.032 UJ	0.033 UJ	0.034 UJ	0.036 UJ	0.034 UJ
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-065		GSP-SB-066		GSP-SB-067		GSP-SB-068		GSP-SB-069	
SAMPLE ID			GSP-SB-65-0-2	GSP-SB-65-20-22	GSP-SB-66-0-2	GSP-SB-66-23-25	GSP-SB-67-0-2	GSP-SB-67-23-25	GSP-SB-68-0-2	GSP-SB-68-23-25	GSP-SB-69-0-2	GSP-SB-69-23-25
			GSP-SB-65-0-2	GSP-SB-65-20-22	GSP-SB-66-0-2	GSP-SB-66-23-25	GSP-SB-67-0-2	GSP-SB-67-23-25	GSP-SB-68-0-2	GSP-SB-68-23-25	GSP-SB-69-0-2	GSP-SB-69-23-25
			REC=10	REC=10	REC=10	REC=10	REC=09	REC=09	REC=10	REC=10	REC=10	REC=10
SAMPLE DATE	Maryland	ATCs	20100426	20100426	20100415	20100415	20100416	20100416	20100416	20100416	20100416	20100416
TOP DEPTH	Residential		0	20	0	23	0	23	0	23	0	23
BOTTOM DEPTH	Soil Standard		2	22	2	25	2	25	2	25	2	25
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0011 U	0.0012 U	0.0011 U	0.0012 U	0.001 U	0.0011 U	0.0012 U	0.0011 U	0.0012 U	0.0011 U
1,1-DICHLOROETHENE	390	NA	0.00044 U	0.00049 U	0.00044 U	0.00047 U	0.0004 U	0.00044 U	0.00048 U	0.00045 U	0.00048 U	0.00044 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00032 U	0.00036 UJ	0.00032 UJ	0.00034 U	0.00029 U	0.00032 U	0.00035 U	0.00033 U	0.00035 U	0.00032 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00014 U	0.00016 UJ	0.00014 U	0.00015 U	0.00013 U	0.00014 U	0.00016 U	0.00015 U	0.00016 U	0.00014 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00023 U	0.00025 UJ	0.00023 UJ	0.00024 U	0.00021 U	0.00023 U	0.00025 U	0.00024 U	0.00025 U	0.00023 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00055 U	0.00061 UJ	0.00055 UJ	0.00058 U	0.0005 U	0.00055 U	0.0006 U	0.00057 U	0.0006 U	0.00055 U
1,2-DICHLOROBENZENE	700	NA	0.00031 U	0.00034 UJ	0.0003 UJ	0.00032 U	0.00028 U	0.0003 U	0.00033 U	0.00031 U	0.00033 U	0.00031 U
1,2-DICHLOROETHANE	7	NA	0.00029 U	0.00032 U	0.00029 U	0.00031 U	0.00026 U	0.00029 U	0.00031 U	0.0003 U	0.00031 U	0.00029 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.0003 U	0.00033 UJ	0.00029 UJ	0.00031 U	0.00027 U	0.00029 U	0.00032 U	0.00031 U	0.00032 U	0.0003 U
1,4-DICHLOROBENZENE	27	NA	0.00056 U	0.00062 UJ	0.00055 UJ	0.00059 U	0.00051 U	0.00056 U	0.00061 U	0.00058 U	0.00061 U	0.00056 U
2-BUTANONE	4700	NA	0.0012 U	0.0013 U	**0.0047 J**	0.0013 U	0.0011 U	0.0012 U	0.0013 U	**0.0018 J**	**0.0039 J**	**0.0031 J**
2-HEXANONE	NA	NA	0.00054 U	0.00059 U	0.00053 U	0.00057 U	0.00048 U	0.00053 U	0.00058 U	0.00055 U	0.00058 U	0.00053 U
4-ISOPROPYLTOLUENE	NA	NA	0.00018 U	0.0002 UJ	0.00018 UJ	0.00019 U	0.00016 U	0.00018 U	0.00019 U	0.00018 U	0.00019 U	0.00018 U
4-METHYL-2-PENTANONE	NA	NA	0.00046 U	0.00051 U	0.00045 U	0.00049 U	0.00041 U	0.00045 U	0.0005 U	0.00047 U	0.0005 U	0.00046 U
ACETONE	7000	NA	0.0054 U	**0.0076 J**	**0.35 J**	**0.55 J**	0.0048 U	0.0053 U	**0.32**	**0.65 J**	**0.42 J**	**0.64 J**
BENZENE	12	NA	0.0002 U	0.00022 U	0.00019 U	0.00021 U	0.00018 U	0.00019 U	0.00021 U	0.0002 U	0.00021 U	0.0002 U
BROMOMETHANE	11	NA	0.00046 U	0.00051 U	0.00045 U	0.00049 U	0.00041 U	0.00045 U	0.0005 U	0.00047 U	0.0005 U	0.00046 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00037 U	0.00041 U	0.00037 U	0.0004 U	0.00034 U	0.00037 U	0.00041 U	0.00038 U	0.00041 U	0.00037 U
CARBON TETRACHLORIDE	4.9	NA	0.00031 U	0.00035 U	0.00031 U	0.00033 U	0.00028 U	0.00031 U	0.00034 U	0.00032 U	0.00034 U	0.00031 U
CHLOROBENZENE	160	NA	0.00028 U	0.00031 U	0.00028 U	0.0003 U	0.00025 U	0.00028 U	0.0003 U	0.00029 U	0.0003 U	0.00028 U
CHLOROETHANE	220	NA	0.00073 U	0.00081 U	0.00072 U	0.00077 U	0.00066 U	0.00072 U	0.00079 U	0.00075 U	0.00079 U	0.00073 U
CHLOROFORM	78	NA	0.00025 U	0.00027 U	0.00024 U	0.00026 U	0.00022 U	0.00024 U	0.00027 U	0.00025 U	0.00027 U	0.00025 U
CHLOROMETHANE	NA	NA	0.00035 U	0.00039 U	0.00034 U	0.00037 U	0.00031 U	0.00035 U	0.00038 U	0.00036 U	0.00038 U	0.00035 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00031 U	0.00034 U	0.0003 U	0.00032 U	0.00028 U	0.0003 U	0.00033 U	0.00031 U	0.00033 U	0.00031 U
DIISOPROPYL ETHER	NA	NA	0.0013 U	0.0014 U	0.0013 U	0.0013 U	0.0012 U	0.0013 U	0.0014 U	0.0013 U	0.0014 U	0.0013 U
ETHYLBENZENE	780	NA	0.00022 U	0.00024 U	0.00022 U	0.00023 U	0.0002 U	0.00022 U	0.00024 U	0.00023 U	0.00024 U	0.00022 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00014 U	0.00015 U	0.00013 U	0.00014 U	0.00012 U	0.00013 U	0.00015 U	0.00014 U	0.00015 U	0.00014 U
M+P-XYLENES	NA	NA	0.001 U	0.0011 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U	0.001 U	0.0011 U	0.001 U
METHYL TERT-BUTYL ETHER	160	NA	0.00037 UJ	0.0004 UJ	0.00036 U	0.00039 U	0.00033 U	0.00036 U	0.0004 U	0.00038 U	0.0004 U	0.00036 U
METHYLENE CHLORIDE	85	NA	0.00057 U	0.00063 U	0.00056 U	**0.0008 B**	0.00051 U	0.00056 U	0.00062 U	0.00059 U	0.00062 U	0.00057 U
NAPHTHALENE	160	NA	0.00016 U	0.00018 UJ	0.00016 UJ	0.00017 U	**0.00059 B**	0.00016 U	**0.00083 B**	0.00017 U	0.00018 U	0.00016 U
N-BUTYLBENZENE	NA	NA	0.0002 U	0.00022 UJ	0.00019 UJ	0.00021 U	0.00018 U	0.00019 U	0.00021 U	0.0002 U	0.00021 U	0.0002 U
N-PROPYLBENZENE	NA	NA	0.00034 U	0.00038 UJ	0.00034 UJ	0.00036 U	0.00031 U	0.00034 U	0.00037 U	0.00035 U	0.00037 U	0.00034 U
O-XYLENE	NA	NA	0.0003 U	0.00033 U	0.00029 U	0.00031 U	0.00027 U	0.00029 U	0.00032 U	0.00031 U	0.00032 U	0.0003 U
SEC-BUTYLBENZENE	NA	NA	0.00015 U	0.00017 UJ	0.00015 UJ	0.00016 U	0.00014 U	0.00015 U	0.00017 U	0.00016 U	0.00017 U	0.00015 U
STYRENE	1600	NA	0.00013 U	0.00014 U	0.00013 U	0.00013 U	0.00012 U	0.00013 U	0.00014 U	0.00013 U	0.00014 U	0.00013 U
TERT-AMYL METHYL ETHER	NA	NA	0.00031 U	0.00035 U	0.00031 U	0.00033 U	0.00028 U	0.00031 U	0.00034 U	0.00032 U	0.00034 U	0.00031 U
TERT-BUTYLBENZENE	NA	NA	0.00025 U	0.00027 UJ	0.00024 UJ	0.00026 U	0.00022 U	0.00024 U	0.00027 U	0.00025 U	0.00027 U	0.00025 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0065 UR	0.0071 UR	0.0064 UR	0.0068 UR	0.0058 UR	0.0064 UR	0.007 UR	0.0066 UR	0.007 UR	0.0064 UR
TETRACHLOROETHENE	1.2	NA	0.00044 U	0.00049 U	0.00044 U	0.00047 U	0.0004 U	0.00044 U	0.00048 U	0.00045 U	0.00048 U	0.00044 U
TOLUENE	630	NA	0.00023 U	0.00025 U	0.00023 U	0.00024 U	0.00021 U	0.00023 U	**0.00054 J**	0.00024 U	0.00025 U	0.00023 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00057 U	0.00063 U	0.00056 U	0.0006 U	0.00051 U	0.00056 U	0.00062 U	0.00059 U	0.00062 U	0.00057 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00035 U	0.00039 U	0.00034 U	0.00037 U	0.00031 U	0.00035 U	0.00038 U	0.00036 U	0.00038 U	0.00035 U
TRICHLOROETHENE	1.6	NA	0.00036 U	0.00039 U	0.00035 U	0.00038 U	0.00032 U	0.00035 U	0.00039 U	0.00037 U	0.00039 U	0.00036 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00029 U	0.00032 U	0.00029 U	0.00031 U	0.00026 U	0.00029 U	0.00031 U	0.0003 U	0.00031 U	0.00029 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00033 U	0.00037 U	0.00033 U	0.00035 U	0.0003 U	0.00033 U	0.00036 U	0.00034 U	0.00036 U	0.00033 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.031 U	0.033 U	0.032 U	0.033 U	0.29 U	0.031 U	0.82 U	0.032 U	0.064 U	0.032 U
2,4-DICHLOROPHENOL	23	NA	0.023 U	0.025 U	0.024 U	0.024 U	0.21 U	0.023 U	0.61 U	0.024 U	0.047 U	0.024 U
2-CHLOROPHENOL	39	NA	0.031 UJ	0.033 U	0.032 U	0.033 U	0.29 U	0.031 U	0.82 U	0.032 U	0.064 U	0.032 U
2-METHYLNAPHTHALENE	31	NA	0.0038 U	0.0041 U	0.004 U	0.004 U	**0.18**	0.0038 U	**1.7**	0.0039 U	**0.14**	**0.013**
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-065		GSP-SB-066		GSP-SB-067		GSP-SB-068		GSP-SB-069	
SAMPLE ID			GSP-SB-65-0-2	GSP-SB-65-20-22	GSP-SB-66-0-2	GSP-SB-66-23-25	GSP-SB-67-0-2	GSP-SB-67-23-25	GSP-SB-68-0-2	GSP-SB-68-23-25	GSP-SB-69-0-2	GSP-SB-69-23-25
			GSP-SB-65-0-2	GSP-SB-65-20-22	GSP-SB-66-0-2	GSP-SB-66-23-25	GSP-SB-67-0-2	GSP-SB-67-23-25	GSP-SB-68-0-2	GSP-SB-68-23-25	GSP-SB-69-0-2	GSP-SB-69-23-25
			REC=10	REC=10	REC=10	REC=10	REC=09	REC=09	REC=10	REC=10	REC=10	REC=10
SAMPLE DATE	Maryland	ATCs	20100426	20100426	20100415	20100415	20100416	20100416	20100416	20100416	20100416	20100416
TOP DEPTH	Residential		0	20	0	23	0	23	0	23	0	23
BOTTOM DEPTH	Soil Standard		2	22	2	25	2	25	2	25	2	25
ACENAPHTHENE	470	NA	0.0038 U	0.0041 U	**0.031**	0.004 U	**0.11**	0.0038 U	**3.3**	0.0039 U	**0.14**	**0.019**
ACENAPHTHYLENE	470	NA	0.0038 U	0.0041 U	0.004 U	0.004 U	**0.34**	0.0038 U	**3.1**	0.0039 U	**0.21**	0.0039 U
ANTHRACENE	2300	NA	0.0038 U	0.0041 U	**0.053**	0.004 U	**0.65**	0.0038 U	**7.6**	0.0039 U	**0.35**	0.0039 U
BAP EQUIVALENT-HALFND	NA	NA	**0.037152**	**0.007831**	**0.39481**	0.004 U	**2.2807**	0.0038 U	**19.285**	0.0039 U	**1.4992**	0.0039 U
BAP EQUIVALENT-POS	NA	NA	**0.035233**	**0.0033**	**0.39481**	0.004 U	**2.2632**	0.0038 U	**19.235**	0.0039 U	**1.4953**	0.0039 U
BENZALDEHYDE	NA	NA	0.014 UJ	0.015 U	0.014 U	0.015 U	0.13 U	0.014 U	0.36 U	0.014 U	0.028 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	**0.028**	0.0041 U	**0.28**	0.004 U	**1.6**	0.0038 U	**17**	0.0039 U	**1**	0.0039 U
BENZO(A)PYRENE	0.022	NA	**0.027**	0.0041 U	**0.27**	0.004 U	**1.8**	0.0038 U	**15**	0.0039 U	**1.2**	0.0039 U
BENZO(B)FLUORANTHENE	0.22	NA	**0.038**	**0.033**	**0.32**	0.004 U	**2**	0.0038 U	**17**	0.0039 U	**1.2**	0.0039 U
BENZO(G,H,I)PERYLENE	230	NA	**0.02**	0.0041 U	**0.18**	0.004 U	**1.3**	0.0038 U	**9.4**	0.0039 U	**0.96**	0.0039 U
BENZO(K)FLUORANTHENE	2.2	NA	0.0038 U	0.0041 U	**0.15**	0.004 U	**0.83**	0.0038 U	**6.8**	0.0039 U	**0.62**	0.0039 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.029 J**	**0.041 J**	0.023 U	0.023 U	0.2 U	0.022 U	0.58 U	0.022 U	0.045 U	0.023 U
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U	0.012 U	0.3 U	0.012 U	0.024 U	0.012 U
CAPROLACTAM	NA	NA	0.043 U	0.046 U	0.044 U	0.045 U	0.39 U	0.043 U	1.1 U	0.044 U	0.088 U	0.044 U
CARBAZOLE	32	NA	0.031 U	0.033 U	0.032 U	0.033 U	0.29 U	0.031 U	**2**	0.032 U	0.064 U	0.032 U
CHRYSENE	22	NA	**0.033**	0.0014 U	**0.31**	0.0013 U	**1.9**	0.0013 U	**17**	0.0013 U	**1.1**	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0038 U	0.0041 U	**0.047**	0.004 U	0.035 U	0.0038 U	0.1 U	0.0039 U	0.0078 U	0.0039 U
DIBENZOFURAN	7.8	NA	0.023 U	0.025 U	0.024 U	0.024 U	0.21 U	0.023 U	**1.2 J**	0.024 U	0.047 U	0.024 U
DIETHYL PHTHALATE	6300	NA	0.019 U	0.02 U	0.019 U	0.019 U	0.17 U	0.018 U	0.49 U	0.019 U	0.038 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.02 U	0.021 U	0.02 U	0.021 U	0.18 U	0.02 U	0.52 U	0.02 U	0.04 U	0.02 U
DI-N-BUTYL PHTHALATE	780	NA	0.017 U	0.019 U	0.018 U	0.018 U	0.16 U	0.017 U	0.46 U	0.018 U	0.035 U	0.018 U
FLUORANTHENE	310	NA	**0.054**	**0.017**	**0.51**	0.004 U	**2.3**	0.0038 U	**33**	0.0039 U	**1.6**	0.0039 U
FLUORENE	310	NA	0.0038 U	0.0041 U	**0.024**	0.004 U	**0.21**	0.0038 U	**3.6**	0.0039 U	**0.11**	0.0039 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	**0.21**	**0.048**	**2.227**	0 U	**13.76**	0 U	**123.7**	0 U	**8.96**	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**0.2678**	**0.078**	**2.737**	0.01865 U	**16.0775**	0.01775 U	**156.75**	0.0182 U	**10.5639**	0.0182 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.2138**	**0.061**	**2.227**	**0.01665**	**13.7775**	**0.01585**	**123.75**	**0.01625**	**8.9639**	**0.01625**
INDENO(1,2,3-CD)PYRENE	0.22	NA	**0.016**	0.0041 U	**0.16**	0.004 U	**0.93**	0.0038 U	**7.5**	0.0039 U	**0.68**	0.0039 U
ISOPHORONE	670	NA	0.015 U	0.016 U	0.016 U	0.016 U	0.14 U	0.015 U	0.39 U	0.015 U	0.031 U	0.016 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	**0.071**	**0.017**	**0.898**	0 U	**5.47**	0 U	**81.2**	0 U	**3.59**	**0.044**
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**0.0284**	0.01435 U	**0.392**	0.014 U	**3.17**	0.0133 U	**48.2**	0.01365 U	**1.99**	**0.0518**
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0824**	**0.03135**	**0.902**	**0.016**	**5.47**	**0.0152**	**81.2**	**0.0156**	**3.59**	**0.05375**
NAPHTHALENE	160	NA	0.0038 U	0.0041 U	**0.01**	0.004 U	**0.18**	0.0038 U	**1.9**	0.0039 U	**0.15**	**0.012**
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.031 UJ	0.033 U	0.032 U	0.033 U	0.29 U	0.031 U	0.82 U	0.032 U	0.064 U	0.032 U
PENTACHLOROPHENOL	5.3	NA	0.093 U	0.099 U	0.096 U	0.097 U	0.85 U	0.092 U	2.4 U	0.095 U	0.19 U	0.096 U
PHENANTHRENE	2300	NA	**0.017**	0.0041 U	**0.27**	0.004 U	**1.5**	0.0038 U	**27**	0.0039 U	**0.89**	0.0039 U
PHENOL	2300	NA	0.031 UJ	0.033 U	0.032 U	0.033 U	0.29 U	0.031 U	0.82 U	0.032 U	0.064 U	0.032 U
PYRENE	230	NA	**0.048**	**0.015**	**0.51**	0.004 U	**3.4**	0.0038 U	**34**	0.0039 U	**2.2**	0.0039 U
TOTAL PAHS	NA	NA	**0.281**	**0.065**	**3.125**	0 U	**19.23**	0 U	**204.9**	0 U	**12.55**	**0.044**
TOTAL PAHS ECO HALFND	NA	NA	**0.2962**	**0.09235**	**3.129**	0.03265 U	**19.2475**	0.03105 U	**204.95**	0.03185 U	**12.5539**	**0.07**
TOTAL PAHS HALFND	NA	NA	**0.2962**	**0.09235**	**3.129**	0.03265 U	**19.2475**	0.03105 U	**204.95**	0.03185 U	**12.5539**	**0.07**
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.015 U	0.016 U	0.016 U	0.016 U	0.014 U	0.015 U	0.016 U	0.015 U	0.015 U	0.016 U
AROCLOR-1260	0.32	NA	0.02 U	0.021 U	0.02 U	0.021 U	0.018 U	0.02 U	0.021 U	0.02 U	0.02 U	0.02 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.067**	**0.071**	**0.0685**	**0.0705**	**0.061**	**0.0665**	**0.0705**	**0.068**	**0.068**	**0.0685**
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.11 J**	**0.11 L**	**0.1 J**	**0.048 B**	**0.088 J**	**0.061 B**	**0.18 J**	**0.092 J**	**0.066 J**	**0.086 J**
ARSENIC	0.43	3.6	**3.6**	**2.7**	**2.2**	**1.9**	**1.5**	**2.1**	**3.4**	**2.3**	**1.7**	**2.2**
BARIUM	1600	NA	**27 K**	**16.4 K**	**26.1 K**	**12.7 K**	**53.2 K**	**14.4 K**	**36.7 K**	**6.3 K**	**25.4 K**	**12.7 K**
BERYLLIUM	16	NA	**0.44**	**0.8**	**0.17**	**0.12**	**0.4**	**0.14**	**0.26**	**0.05 J**	**0.21**	**0.11 J**
CADMIUM	3.9	NA	**0.019 B**	**0.49**	**0.079 J**	**0.0046 B**	**0.26**	**0.0082 B**	**0.68**	**0.003 B**	**0.06 J**	**0.0044 B**
CHROMIUM	23	28	**14.2**	**22.9**	**11 K**	**17.3 K**	**9 K**	**27.7 K**	**11.7 K**	**9.7 K**	**7.1 K**	**15.3 K**
COBALT	NA	NA	**3.1**	**25.8**	**2**	**0.99**	**1.5**	**0.27**	**1.9**	**0.76**	**2.4**	**1.6**
COPPER	310	NA	**6**	**26.9**	**6.5 L**	**14.7 L**	**5.7 L**	**38 L**	**9.7 L**	**3.3 L**	**4.5 L**	**12.9 L**
IRON	5500	15000	**12700**	**279**	**5750**	**331**	**3870**	**473**	**7000**	**1360**	**5470**	**366**
LEAD	400	NA	**6.5**	**5.6**	**13.6**	**3.9**	**11.2**	**3.5**	**18.2**	**1.5**	**6.2**	**3.3**
MANGANESE	160	480	**116**	**4.4**	**34**	**2.7**	**417**	**2.3**	**202**	**2.5**	**93.6**	**2.6**
MERCURY	2.3	NA	**0.025 J**	**0.025 J**	**0.032 J**	0.02 U	**0.052 J**	**0.034 J**	**0.033 J**	0.02 U	**0.026 J**	0.02 U
MOLYBDENUM	NA	NA	**0.74**	**0.31**	**0.61**	**0.25**	**1**	**0.12 J**	**0.53**	**0.2 J**	**0.35**	**0.11 J**
NICKEL	160	NA	**5.6**	**33.3**	**3.6**	**1.2**	**8**	**0.72**	**5.2**	**0.8**	**4.6**	**1.7**
SELENIUM	39	NA	**0.66**	**2.9**	**0.51 J**	**2.2 L**	**0.41 J**	**2.4 L**	**0.55 J**	**0.31 J**	**0.58 J**	**2.7 L**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-065		GSP-SB-066		GSP-SB-067		GSP-SB-068		GSP-SB-069	
SAMPLE ID			GSP-SB-65-0-2	GSP-SB-65-20-22	GSP-SB-66-0-2	GSP-SB-66-23-25	GSP-SB-67-0-2	GSP-SB-67-23-25	GSP-SB-68-0-2	GSP-SB-68-23-25	GSP-SB-69-0-2	GSP-SB-69-23-25
			GSP-SB-65-0-2	GSP-SB-65-20-22	GSP-SB-66-0-2	GSP-SB-66-23-25	GSP-SB-67-0-2	GSP-SB-67-23-25	GSP-SB-68-0-2	GSP-SB-68-23-25	GSP-SB-69-0-2	GSP-SB-69-23-25
			REC=10	REC=10	REC=10	REC=10	REC=09	REC=09	REC=10	REC=10	REC=10	REC=10
SAMPLE DATE	Maryland	ATCs	20100426	20100426	20100415	20100415	20100416	20100416	20100416	20100416	20100416	20100416
TOP DEPTH	Residential		0	20	0	23	0	23	0	23	0	23
BOTTOM DEPTH	Soil Standard		2	22	2	25	2	25	2	25	2	25
SILVER	39	NA	0.025 B	0.046 J	0.097 J	0.021 B	0.085 J	0.015 B	0.063 J	0.011 B	0.027 B	0.012 B
THALLIUM	0.55	3.9	0.12 B	0.12 B	0.11 B	0.062 B	0.033 B	0.06 B	0.076 B	0.036 B	0.074 B	0.061 B
VANADIUM	7.8	30	22.1	33.7	19.6	19.3	19.3	10.7	15.1	25.6	13	25.8
ZINC	2300	NA	20.2 J	39 J	13.7	2.4 B	17.8	1.4 B	63.4	1.2 B	15.3	1.5 B
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	45	35	57 J	4.1 J	650 J	5.4 J	1200 J	3.3 UJ	220 J	3.3 UJ
GASOLINE RANGE ORGANICS	230	NA	0.033 UJ	0.035 UJ	0.034 UJ	0.034 UJ	0.03 UJ	0.032 UJ	0.034 UJ	0.033 UJ	0.033 UJ	0.033 UJ
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-070		GSP-SB-071		GSP-SB-072		GSP-SB-073			
SAMPLE ID			GSP-SB-70-0-2	GSP-SB-70-22-25	GSP-SB-71-0-2	GSP-SB-71-23-25	GSP-SB-72-0-2	GSP-SB-72-20-22	GSP-SB-73-12-14	GSP-SB-73-12-14-R	GSP-SB-73-16-18	GSP-SB-73-16-18-R
			GSP-SB-70-0-2	GSP-SB-70-22-25	GSP-SB-71-0-2	GSP-SB-71-23-25	GSP-SB-72-0-2	GSP-SB-72-20-22	GSP-SB-73-12-14	GSP-SB-73-12-14-R	GSP-SB-73-16-18	GSP-SB-73-16-18-R
			REC=10	REC=10	REC=10	REC=10	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20100416	20100416	20100511	20100511	20100511	20100511	20100412	20100512	20100412	20100512
TOP DEPTH	Residential		0	22	0	23	0	20	12	12	16	16
BOTTOM DEPTH	Soil Standard		2	25	2	25	2	22	14	14	18	18
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0011 U	0.0012 U	0.0011 U	0.0011 U	0.0012 U	0.001 U	NA	0.00088 U	NA	0.00087 U
1,1-DICHLOROETHENE	390	NA	0.00042 U	0.00048 U	0.00043 U	0.00046 U	0.00047 U	0.0004 U	NA	0.00035 U	NA	0.00035 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00031 U	0.00035 U	0.00032 U	0.00033 U	0.00034 U	0.00029 U	NA	0.00026 U	NA	0.00025 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00014 U	0.00016 U	0.00014 U	0.00015 U	0.00015 U	0.00013 U	NA	0.00012 U	NA	0.00011 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00022 U	0.00025 U	0.00022 U	0.00024 U	0.00024 U	0.00021 U	NA	0.00018 U	NA	0.00018 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00053 U	0.00061 U	0.00054 U	0.00057 U	0.00059 U	0.0005 U	NA	0.00044 U	NA	0.00044 U
1,2-DICHLOROBENZENE	700	NA	0.00029 U	0.00034 U	0.0003 U	0.00032 U	0.00032 U	0.00028 U	NA	0.00024 U	NA	0.00024 U
1,2-DICHLOROETHANE	7	NA	0.00028 U	0.00032 U	0.00028 U	0.0003 U	0.00031 U	**0.00031 B**	NA	0.00023 U	NA	0.00023 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00028 U	0.00033 U	0.00029 U	0.00031 U	0.00032 U	0.00027 U	NA	0.00024 U	NA	0.00023 U
1,4-DICHLOROBENZENE	27	NA	0.00053 U	0.00062 U	0.00055 U	0.00058 U	0.00059 U	0.00051 U	NA	0.00045 U	NA	0.00044 U
2-BUTANONE	4700	NA	0.0011 U	0.0013 U	0.0012 U	0.0012 U	0.0013 U	0.0011 U	NA	0.00095 U	NA	0.00094 U
2-HEXANONE	NA	NA	0.00051 U	0.00059 U	0.00052 U	0.00055 U	0.00057 U	0.00049 U	NA	0.00043 U	NA	0.00042 U
4-ISOPROPYLTOLUENE	NA	NA	0.00017 U	0.0002 U	0.00017 U	0.00018 U	0.00019 U	0.00016 U	NA	0.00014 U	NA	0.00014 U
4-METHYL-2-PENTANONE	NA	NA	0.00044 U	0.0005 U	0.00045 U	0.00048 U	0.00049 U	0.00042 U	NA	0.00037 U	NA	0.00036 U
ACETONE	7000	NA	**0.0059 J**	**0.59 J**	**0.018 B**	**0.016 B**	**0.012 B**	**0.013 B**	NA	0.0043 U	NA	0.0042 U
BENZENE	12	NA	0.00019 U	0.00021 U	0.00019 U	0.0002 U	0.00021 U	0.00018 U	NA	0.00016 U	NA	0.00015 U
BROMOMETHANE	11	NA	0.00044 U	0.0005 U	0.00045 U	0.00048 U	0.00049 U	0.00042 U	NA	0.00037 U	NA	0.00036 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00036 U	0.00041 U	0.00037 U	0.00039 U	0.0004 U	0.00034 U	NA	0.0003 U	NA	0.00029 U
CARBON TETRACHLORIDE	4.9	NA	0.0003 U	0.00034 U	0.00031 U	0.00033 U	0.00033 U	0.00029 U	NA	0.00025 U	NA	0.00025 U
CHLOROBENZENE	160	NA	0.00027 U	0.00031 U	0.00027 U	0.00029 U	0.0003 U	0.00026 U	NA	0.00022 U	NA	0.00022 U
CHLOROETHANE	220	NA	0.0007 U	0.0008 U	0.00071 U	0.00076 U	0.00077 U	0.00066 U	NA	0.00058 U	NA	0.00058 U
CHLOROFORM	78	NA	0.00023 U	0.00027 U	0.00024 U	0.00026 U	0.00026 U	0.00022 U	NA	0.0002 U	NA	0.00019 U
CHLOROMETHANE	NA	NA	0.00033 U	0.00038 U	0.00034 U	0.00036 U	0.00037 U	0.00032 U	NA	0.00028 U	NA	0.00027 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00029 U	0.00034 U	0.0003 U	0.00032 U	0.00032 U	**0.00031 J**	NA	**0.0017 J**	NA	**0.0026 J**
DIISOPROPYL ETHER	NA	NA	0.0012 U	0.0014 U	0.0012 U	0.0013 U	0.0014 U	0.0012 U	NA	0.001 U	NA	0.001 U
ETHYLBENZENE	780	NA	0.00021 U	0.00024 U	0.00022 U	0.00023 U	0.00023 U	0.0002 U	NA	0.00018 U	NA	0.00017 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00013 U	0.00015 U	0.00013 U	0.00014 U	0.00014 U	0.00012 U	NA	0.00011 U	NA	0.00011 U
M+P-XYLENES	NA	NA	0.00097 U	0.0011 U	0.001 U	0.0011 U	0.0011 U	0.00093 U	NA	0.00082 U	NA	0.0008 U
METHYL TERT-BUTYL ETHER	160	NA	0.00035 U	0.0004 U	0.00036 UJ	0.00038 UJ	0.00039 UJ	0.00033 UJ	NA	0.00029 U	NA	0.00029 U
METHYLENE CHLORIDE	85	NA	0.00054 U	0.00062 U	0.00056 U	0.00059 U	0.0006 U	0.00052 U	NA	0.00046 U	NA	0.00045 U
NAPHTHALENE	160	NA	0.00015 U	0.00018 U	**0.0013 B**	0.00017 U	0.00017 U	0.00015 U	NA	**0.00025 B**	NA	**0.00072 B**
N-BUTYLBENZENE	NA	NA	0.00019 U	0.00021 U	0.00019 U	0.0002 U	0.00021 U	0.00018 U	NA	0.00016 U	NA	0.00015 U
N-PROPYLBENZENE	NA	NA	0.00032 U	0.00037 U	0.00033 U	0.00035 U	0.00036 U	0.00031 U	NA	0.00027 U	NA	0.00027 U
O-XYLENE	NA	NA	0.00028 U	0.00033 U	0.00029 U	0.00031 U	0.00032 U	0.00027 U	NA	0.00024 U	NA	0.00023 U
SEC-BUTYLBENZENE	NA	NA	0.00015 U	0.00017 U	0.00015 U	0.00016 U	0.00016 U	0.00014 U	NA	0.00012 U	NA	0.00012 U
STYRENE	1600	NA	0.00012 U	0.00014 U	0.00012 U	0.00013 U	0.00014 U	0.00012 U	NA	0.0001 U	NA	0.0001 U
TERT-AMYL METHYL ETHER	NA	NA	0.0003 U	0.00034 U	0.00031 UJ	0.00033 UJ	0.00033 UJ	0.00029 UJ	NA	0.00025 U	NA	0.00025 U
TERT-BUTYLBENZENE	NA	NA	0.00023 U	0.00027 U	0.00024 U	0.00026 U	0.00026 U	0.00022 U	NA	0.0002 U	NA	0.00019 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0061 UR	0.0071 UR	0.0063 UR	0.0067 UR	0.0068 UR	0.0059 UR	NA	0.0052 UR	NA	0.0051 UR
TETRACHLOROETHENE	1.2	NA	0.00042 U	0.00048 U	0.00043 U	0.00046 U	0.00047 U	0.0004 U	NA	0.00035 U	NA	0.00035 U
TOLUENE	630	NA	0.00022 U	0.00025 U	0.00022 U	0.00024 U	0.00024 U	0.00021 U	NA	0.00018 U	NA	0.00018 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00054 U	0.00062 U	0.00056 U	0.00059 U	0.0006 U	0.00052 U	NA	0.00046 U	NA	0.00045 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00033 U	0.00038 U	0.00034 U	0.00036 U	0.00037 U	0.00032 U	NA	0.00028 U	NA	0.00027 U
TRICHLOROETHENE	1.6	NA	0.00034 U	0.00039 U	0.00035 U	0.00037 U	0.00038 U	**0.0022 J**	NA	**0.0086**	NA	**0.015**
TRICHLOROFLUOROMETHANE	NA	NA	0.00028 U	0.00032 U	0.00028 U	0.0003 U	0.00031 U	0.00026 U	NA	0.00023 U	NA	0.00023 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00032 U	0.00036 U	0.00032 U	0.00034 U	0.00035 U	0.0003 U	NA	**0.00036 J**	NA	**0.00047 J**
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.2 U	0.033 U	0.29 U	0.032 U	0.033 U	0.032 U	0.032 U	NA	0.032 U	NA
2,4-DICHLOROPHENOL	23	NA	0.15 U	0.024 U	0.22 U	0.023 U	0.024 U	0.023 U	0.023 U	NA	0.024 U	NA
2-CHLOROPHENOL	39	NA	0.2 U	0.033 U	0.29 U	0.032 U	0.033 U	0.032 U	0.032 U	NA	0.032 U	NA
2-METHYLNAPHTHALENE	31	NA	**0.11**	0.004 U	**0.5**	0.0039 U	0.004 U	0.0039 U	0.0039 U	NA	0.0039 U	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-070		GSP-SB-071		GSP-SB-072		GSP-SB-073			
SAMPLE ID			GSP-SB-70-0-2	GSP-SB-70-22-25	GSP-SB-71-0-2	GSP-SB-71-23-25	GSP-SB-72-0-2	GSP-SB-72-20-22	GSP-SB-73-12-14	GSP-SB-73-12-14-R	GSP-SB-73-16-18	GSP-SB-73-16-18-R
			GSP-SB-70-0-2	GSP-SB-70-22-25	GSP-SB-71-0-2	GSP-SB-71-23-25	GSP-SB-72-0-2	GSP-SB-72-20-22	GSP-SB-73-12-14	GSP-SB-73-12-14-R	GSP-SB-73-16-18	GSP-SB-73-16-18-R
			REC=10	REC=10	REC=10	REC=10	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20100416	20100416	20100511	20100511	20100511	20100511	20100412	20100512	20100412	20100512
TOP DEPTH	Residential		0	22	0	23	0	20	12	12	16	16
BOTTOM DEPTH	Soil Standard		2	25	2	25	2	22	14	14	18	18
ACENAPHTHENE	470	NA	**0.92**	0.004 U	**0.33**	0.0039 U	**0.013**	0.0039 U	0.0039 U	NA	0.0039 U	NA
ACENAPHTHYLENE	470	NA	**0.066**	0.004 U	**0.7**	0.0039 U	0.004 U	0.0039 U	0.0039 U	NA	0.0039 U	NA
ANTHRACENE	2300	NA	**1.3**	0.004 U	**1.5**	0.0039 U	**0.038**	0.0039 U	0.0039 U	NA	0.0039 U	NA
BAP EQUIVALENT-HALFND	NA	NA	**4.2171**	0.004 U	**9.4315**	0.0039 U	**0.30222**	0.0039 U	0.0039 U	NA	0.0039 U	NA
BAP EQUIVALENT-POS	NA	NA	**4.2171**	0.004 U	**9.4315**	0.0039 U	**0.30222**	0.0039 U	0.0039 U	NA	0.0039 U	NA
BENZALDEHYDE	NA	NA	0.091 U	0.015 U	0.13 U	0.014 U	0.015 U	0.014 U	0.014 U	NA	0.014 U	NA
BENZO(A)ANTHRACENE	0.22	NA	**3.3**	0.004 U	**5.2**	0.0039 U	**0.19**	0.0039 U	0.0039 U	NA	0.0039 U	NA
BENZO(A)PYRENE	0.022	NA	**2.8**	0.004 U	**6.4**	0.0039 U	**0.21**	0.0039 U	0.0039 U	NA	0.0039 U	NA
BENZO(B)FLUORANTHENE	0.22	NA	**3.9**	0.004 U	**6.4**	0.0039 U	**0.29**	0.0039 U	0.0039 U	NA	0.0039 U	NA
BENZO(G,H,I)PERYLENE	230	NA	**1.7**	0.004 U	**5.9**	0.0039 U	**0.14**	0.0039 U	0.0039 U	NA	0.0039 U	NA
BENZO(K)FLUORANTHENE	2.2	NA	**1.4**	0.004 U	**2.5**	0.0039 U	**0.1**	0.0039 U	0.0039 U	NA	0.0039 U	NA
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.14 U	0.023 U	**0.62 B**	**0.036 B**	**0.041 B**	**0.039 B**	0.022 U	NA	0.023 U	NA
BUTYL BENZYL PHTHALATE	NA	NA	0.076 U	0.012 U	0.11 U	0.012 U	0.012 U	0.012 U	0.012 U	NA	0.012 U	NA
CAPROLACTAM	NA	NA	0.28 U	0.045 U	0.4 U	0.043 U	0.045 U	0.043 U	0.043 U	NA	0.044 U	NA
CARBAZOLE	32	NA	**0.7**	0.033 U	0.29 U	0.032 U	0.033 U	0.032 U	0.032 U	NA	0.032 U	NA
CHRYSENE	22	NA	**3.1**	0.0013 U	**6.5**	0.0013 U	**0.22**	0.0013 U	0.0013 U	NA	0.0013 U	NA
DIBENZO(A,H)ANTHRACENE	0.022	NA	**0.52**	0.004 U	**1.4**	0.0039 U	**0.031**	0.0039 U	0.0039 U	NA	0.0039 U	NA
DIBENZOFURAN	7.8	NA	**0.3 J**	0.024 U	0.22 U	0.023 U	0.024 U	0.023 U	0.023 U	NA	0.024 U	NA
DIETHYL PHTHALATE	6300	NA	0.12 U	0.019 U	0.17 U	0.019 U	0.019 U	0.019 U	0.019 U	NA	0.019 U	NA
DIMETHYL PHTHALATE	NA	NA	0.13 U	0.021 U	0.18 U	0.02 U	0.021 U	0.02 U	0.02 U	NA	0.02 U	NA
DI-N-BUTYL PHTHALATE	780	NA	0.11 U	0.018 U	0.16 U	0.018 U	**0.018 B**	0.018 U	0.018 U	NA	0.018 U	NA
FLUORANTHENE	310	NA	**7**	0.004 U	**8.4**	0.0039 U	**0.46**	0.0039 U	0.0039 U	NA	0.0039 U	NA
FLUORENE	310	NA	**0.57**	0.004 U	**0.47**	0.0039 U	**0.012**	0.0039 U	0.0039 U	NA	0.0039 U	NA
HIGH MOLECULAR WEIGHT PAHS	NA	NA	**24.22**	0 U	**50.7**	0 U	**1.681**	0 U	0 U	NA	0 U	NA
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**31.22**	0.01865 U	**59.1**	0.0182 U	**2.141**	0.0182 U	0.0182 U	NA	0.0182 U	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**24.22**	**0.01665**	**50.7**	**0.01625**	**1.681**	**0.01625**	**0.01625**	NA	**0.01625**	NA
INDENO(1,2,3-CD)PYRENE	0.22	NA	**1.6**	0.004 U	**4.4**	0.0039 U	**0.12**	0.0039 U	0.0039 U	NA	0.0039 U	NA
ISOPHORONE	670	NA	0.099 U	0.016 U	0.14 U	0.015 U	0.016 U	0.015 U	0.015 U	NA	0.015 U	NA
LOW MOLECULAR WEIGHT PAHS	NA	NA	**15.516**	0 U	**16.57**	0 U	**0.683**	0 U	0 U	NA	0 U	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**8.516**	0.014 U	**8.17**	0.01365 U	**0.229**	0.01365 U	0.01365 U	NA	0.01365 U	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**15.516**	**0.016**	**16.57**	**0.0156**	**0.689**	**0.0156**	**0.0156**	NA	**0.0156**	NA
NAPHTHALENE	160	NA	**0.25**	0.004 U	**0.67**	0.0039 U	0.004 U	0.0039 U	0.0039 U	NA	0.0039 U	NA
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.2 U	0.033 U	0.29 U	0.032 U	**0.12**	0.032 U	0.032 U	NA	0.032 U	NA
PENTACHLOROPHENOL	5.3	NA	0.61 U	0.097 U	0.86 U	0.094 U	0.097 U	0.094 U	0.094 U	NA	0.095 U	NA
PHENANTHRENE	2300	NA	**5.3**	0.004 U	**4**	0.0039 U	**0.16**	0.0039 U	0.0039 U	NA	0.0039 U	NA
PHENOL	2300	NA	0.2 U	0.033 U	0.29 U	0.032 U	0.033 U	0.032 U	0.032 U	NA	0.032 U	NA
PYRENE	230	NA	**5.9**	0.004 U	**12**	0.0039 U	**0.38**	0.0039 U	0.0039 U	NA	0.0039 U	NA
TOTAL PAHS	NA	NA	**39.736**	0 U	**67.27**	0 U	**2.364**	0 U	0 U	NA	0 U	NA
TOTAL PAHS ECO HALFND	NA	NA	**39.736**	0.03265 U	**67.27**	0.03185 U	**2.37**	0.03185 U	0.03185 U	NA	0.03185 U	NA
TOTAL PAHS HALFND	NA	NA	**39.736**	0.03265 U	**67.27**	0.03185 U	**2.37**	0.03185 U	0.03185 U	NA	0.03185 U	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.015 U	0.016 U	0.014 U	0.015 U	0.016 U	0.015 U	0.015 U	NA	0.015 U	NA
AROCLOR-1260	0.32	NA	0.019 U	0.021 U	0.018 U	0.02 U	0.021 U	0.02 U	0.02 U	NA	0.02 U	NA
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	NA	0 U	NA
TOTAL AROCLOR HALFND	0.32	NA	**0.065**	**0.07**	**0.0615**	**0.0675**	**0.0705**	**0.0675**	**0.0675**	NA	**0.068**	NA
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.075 J**	**0.062 B**	**0.23 J**	**0.023 B**	**0.026 B**	**0.059 J**	**0.057 B**	NA	**0.12 J**	NA
ARSENIC	0.43	3.6	**3**	**0.53 J**	**1.9 J**	**0.46 J**	**0.98**	**0.69**	**0.97**	NA	**3.3**	NA
BARIUM	1600	NA	**21.9 K**	**5 K**	**266 J**	**3.7 J**	**3.9 J**	**3.5 J**	**1.5**	NA	**10.9**	NA
BERYLLIUM	16	NA	**0.17**	**0.03 J**	**1.6 J**	**0.026 B**	**0.055 J**	**0.027 B**	**0.022 B**	NA	**0.093 J**	NA
CADMIUM	3.9	NA	**0.13 K**	**0.0057 B**	**0.15 J**	0.0029 U	**0.0077 B**	0.0029 U	**0.0019 B**	NA	**0.0077 B**	NA
CHROMIUM	23	28	**8.1 K**	**3.9 K**	**16.2 J**	**2.1 J**	**3.4 J**	**6.3 J**	**1.9 J**	NA	**19.8 J**	NA
COBALT	NA	NA	**1.8**	**0.23**	**1.9 J**	**0.13 J**	**0.22 J**	**0.25 J**	**0.32**	NA	**0.35**	NA
COPPER	310	NA	**5.7 L**	**1 L**	**7.8 J**	**0.56 B**	**1.8 J**	**1.3 J**	**1.4**	NA	**18.8**	NA
IRON	5500	15000	**5750**	**350**	**8110 J**	**226 J**	**866 J**	**334 J**	**569**	NA	**2230**	NA
LEAD	400	NA	**8.6**	**2**	**25.1 J**	**1.6 J**	**1.1 J**	**0.89 J**	**0.51**	NA	**5.5**	NA
MANGANESE	160	480	**41**	**1.3**	**2390 J**	**2.7 J**	**2.5 J**	**0.97 J**	**3.8**	NA	**4.2**	NA
MERCURY	2.3	NA	**0.028 J**	0.02 U	**0.024 J**	0.02 U	0.02 U	0.02 U	0.02 U	NA	0.02 U	NA
MOLYBDENUM	NA	NA	**0.37**	**0.16 J**	**0.4 J**	0.032 U	**0.051 J**	**0.1 J**	**0.15 J**	NA	**0.3**	NA
NICKEL	160	NA	**4.1**	**0.31**	**4 J**	**0.18 B**	**3.9**	**0.81**	**0.3**	NA	**0.66**	NA
SELENIUM	39	NA	**0.52 J**	**0.31 J**	**1.2 J**	**0.28 J**	**0.62**	**0.27 J**	**0.051 J**	NA	**0.93 L**	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-070		GSP-SB-071		GSP-SB-072		GSP-SB-073			
SAMPLE ID			GSP-SB-70-0-2	GSP-SB-70-22-25	GSP-SB-71-0-2	GSP-SB-71-23-25	GSP-SB-72-0-2	GSP-SB-72-20-22	GSP-SB-73-12-14	GSP-SB-73-12-14-R	GSP-SB-73-16-18	GSP-SB-73-16-18-R
			GSP-SB-70-0-2	GSP-SB-70-22-25	GSP-SB-71-0-2	GSP-SB-71-23-25	GSP-SB-72-0-2	GSP-SB-72-20-22	GSP-SB-73-12-14	GSP-SB-73-12-14-R	GSP-SB-73-16-18	GSP-SB-73-16-18-R
			REC=10	REC=10	REC=10	REC=10	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20100416	20100416	20100511	20100511	20100511	20100511	20100412	20100512	20100412	20100512
TOP DEPTH	Residential		0	22	0	23	0	20	12	12	16	16
BOTTOM DEPTH	Soil Standard		2	25	2	25	2	22	14	14	18	18
SILVER	39	NA	0.06 J	0.0051 B	0.071 J	0.0018 U	0.0018 B	0.0018 U	0.0055 B	NA	0.025 B	NA
THALLIUM	0.55	3.9	0.065 B	0.031 B	0.035 B	0.015 U	0.016 U	0.015 U	0.045 B	NA	0.083 B	NA
VANADIUM	7.8	30	13.3	5.6	59 J	4.8 J	5.6 J	11.4 J	7.1 J	NA	50.2 J	NA
ZINC	2300	NA	15.7	1.2 B	15.4 J	1.4 B	21.6	2.2 B	1 B	NA	2.7 B	NA
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	62 J	3.4 UJ	850	4.5 J	3.6 J	3.3 UJ	3.3 UJ	NA	3.3 UJ	NA
GASOLINE RANGE ORGANICS	230	NA	0.032 UJ	0.034 UJ	0.03 U	0.033 U	0.034 U	0.033 U	0.043 J	NA	0.042 J	NA
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-074		GSP-SB-075		GSP-SB-076		GSP-SB-077		GSP-SB-078	
SAMPLE ID			GSP-SB-74-0-2	GSP-SB-74-20-22	GSP-SB-75-0-2	GSP-SB-75-22-25	GSP-SB-76-1-3	GSP-SB-76-23-25	GSP-SB-77-1-3	GSP-SB-77-21-23	GSP-SB-78-0-2	GSP-SB-78-20-22
			GSP-SB-74-0-2	GSP-SB-74-20-22	GSP-SB-75-0-2	GSP-SB-75-22-25	GSP-SB-76-1-3	GSP-SB-76-23-25	GSP-SB-77-1-3	GSP-SB-77-21-23	GSP-SB-78-0-2	GSP-SB-78-20-22
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20100511	20100511	20100412	20100412	20100413	20100413	20100414	20100414	20100413	20100413
TOP DEPTH	Residential		0	20	0	22	1	23	1	21	0	20
BOTTOM DEPTH	Soil Standard		2	22	2	25	3	25	3	23	2	22
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0012 U	0.0011 U	0.00094 U	0.0012 U	0.00096 U	0.0013 U	0.0012 U	0.0012 U	0.0011 U	0.0011 U
1,1-DICHLOROETHENE	390	NA	0.00048 U	0.00044 U	0.00038 U	0.00047 U	0.00038 U	0.00052 U	0.00046 U	0.00048 U	0.00043 U	0.00046 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00035 U	0.00032 U	**0.00036 B**	0.00035 U	0.00028 U	0.00038 U	0.00034 U	0.00035 U	0.00031 U	0.00033 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00016 U	0.00014 U	**0.00018 J**	0.00015 U	**0.00016 J**	0.00017 U	**0.00055 J**	0.00016 U	0.00014 U	0.00015 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00025 U	0.00023 U	**0.00028 B**	0.00025 U	0.0002 U	0.00027 U	0.00024 U	0.00025 U	0.00022 U	0.00024 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.0006 U	0.00055 U	0.00047 U	0.00059 U	0.00048 U	0.00065 U	**0.00099 J**	0.0006 U	0.00054 U	0.00057 U
1,2-DICHLOROBENZENE	700	NA	0.00033 U	0.00031 U	0.00026 U	0.00033 U	0.00026 U	0.00036 U	0.00032 U	0.00033 U	0.0003 U	0.00032 U
1,2-DICHLOROETHANE	7	NA	0.00031 U	0.00029 U	0.00025 U	0.00031 U	0.00025 U	0.00034 U	0.0003 U	0.00031 U	0.00028 U	0.0003 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00032 U	0.0003 U	0.00025 U	0.00032 U	0.00026 U	0.00035 U	0.00031 U	0.00032 U	0.00029 U	0.00031 U
1,4-DICHLOROBENZENE	27	NA	0.0006 U	0.00056 U	0.00048 U	0.0006 U	0.00048 U	0.00067 U	0.00059 U	0.00061 U	0.00054 U	0.00058 U
2-BUTANONE	4700	NA	0.0013 U	0.0012 U	0.001 U	0.0013 U	**0.0043 J**	0.0014 U	**0.0079 J**	0.0013 U	0.0012 U	0.0012 U
2-HEXANONE	NA	NA	0.00058 U	0.00054 U	0.00046 U	0.00057 U	0.00046 U	0.00063 U	0.00056 U	0.00058 U	0.00052 U	0.00055 U
4-ISOPROPYLTOLUENE	NA	NA	0.00019 U	0.00018 U	0.00015 U	0.00019 U	0.00015 U	0.00021 U	0.00019 U	0.00019 U	0.00017 U	0.00018 U
4-METHYL-2-PENTANONE	NA	NA	0.00049 U	0.00046 U	0.00039 U	0.00049 U	0.0004 U	0.00054 U	0.00048 U	0.0005 U	0.00045 U	0.00047 U
ACETONE	7000	NA	**0.012 B**	**0.0083 B**	**0.029**	**0.0086 J**	**0.045**	0.0063 U	**0.036**	**0.027**	0.0052 U	0.0055 U
BENZENE	12	NA	0.00021 U	0.0002 U	0.00017 U	0.00021 U	0.00017 U	0.00023 U	**0.00055 J**	0.00021 U	0.00019 U	0.0002 U
BROMOMETHANE	11	NA	0.00049 U	0.00046 U	0.00039 U	0.00049 U	0.0004 U	0.00054 U	0.00048 U	0.0005 U	0.00045 U	0.00047 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.0004 U	0.00037 UJ	0.00032 U	0.0004 U	0.00032 U	0.00044 U	0.00039 U	0.0004 U	0.00036 U	0.00039 U
CARBON TETRACHLORIDE	4.9	NA	0.00034 U	0.00032 U	0.00027 U	0.00034 U	0.00027 U	0.00037 U	0.00033 U	0.00034 U	0.00031 U	0.00032 U
CHLOROBENZENE	160	NA	0.0003 U	0.00028 U	0.00024 U	0.0003 U	0.00024 U	0.00033 U	0.00029 U	0.0003 U	0.00027 U	0.00029 U
CHLOROETHANE	220	NA	0.00079 U	0.00073 U	0.00062 U	0.00078 U	0.00063 U	0.00087 U	0.00077 U	0.00079 U	0.00071 U	0.00076 U
CHLOROFORM	78	NA	0.00027 U	0.00025 U	0.00021 U	0.00026 U	0.00021 U	0.00029 U	0.00026 U	0.00027 U	0.00024 U	0.00025 U
CHLOROMETHANE	NA	NA	0.00038 U	0.00035 U	0.0003 U	0.00037 U	0.0003 U	0.00041 U	0.00037 U	0.00038 U	0.00034 U	0.00036 U
CIS-1,2-DICHLOROETHENE	78	NA	**0.00096 J**	0.00031 U	0.00026 U	0.00033 U	0.00026 U	0.00036 U	0.00032 U	0.00033 U	0.0003 U	0.00032 U
DIISOPROPYL ETHER	NA	NA	0.0014 U	0.0013 U	0.0011 U	0.0014 U	0.0011 U	0.0015 U	0.0013 U	0.0014 U	0.0012 U	0.0013 U
ETHYLBENZENE	780	NA	0.00024 U	0.00022 U	0.00019 U	0.00024 U	0.00019 U	0.00026 U	0.00023 U	0.00024 U	0.00021 U	0.00023 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00015 U	0.00014 U	0.00012 U	0.00015 U	0.00012 U	0.00016 U	0.00014 U	0.00015 U	0.00013 U	0.00014 U
M+P-XYLENES	NA	NA	0.0011 U	0.001 U	0.00087 U	0.0011 U	0.00088 U	0.0012 U	0.0011 U	0.0011 U	0.00099 U	0.0011 U
METHYL TERT-BUTYL ETHER	160	NA	0.00039 UJ	0.00037 UJ	0.00031 U	0.00039 U	0.00032 U	0.00043 U	0.00038 U	0.0004 U	0.00035 U	0.00038 U
METHYLENE CHLORIDE	85	NA	0.00061 U	0.00057 U	0.00049 U	0.00061 U	0.00049 U	0.00068 U	0.0006 U	0.00062 U	0.00055 U	0.00059 U
NAPHTHALENE	160	NA	0.00017 U	0.00016 U	**0.00053 B**	0.00017 U	**0.0011 B**	0.00019 U	**0.0012 B**	0.00017 U	0.00016 U	0.00017 U
N-BUTYLBENZENE	NA	NA	0.00021 U	0.0002 U	0.00017 U	0.00021 U	0.00017 U	0.00023 U	0.0002 U	0.00021 U	0.00019 U	0.0002 U
N-PROPYLBENZENE	NA	NA	0.00037 U	0.00034 U	0.00029 U	0.00036 U	0.00029 U	0.0004 U	0.00036 U	0.00037 U	0.00033 U	0.00035 U
O-XYLENE	NA	NA	0.00032 U	0.0003 U	0.00025 U	0.00032 U	0.00026 U	0.00035 U	**0.00032 J**	0.00032 U	0.00029 U	0.00031 U
SEC-BUTYLBENZENE	NA	NA	0.00016 U	0.00015 U	0.00013 U	0.00016 U	0.00013 U	0.00018 U	0.00016 U	0.00017 U	0.00015 U	0.00016 U
STYRENE	1600	NA	0.00014 U	0.00013 U	0.00011 U	0.00014 U	0.00011 U	0.00015 U	0.00013 U	0.00014 U	0.00012 U	0.00013 U
TERT-AMYL METHYL ETHER	NA	NA	0.00034 UJ	0.00032 UJ	0.00027 U	0.00034 U	0.00027 UJ	0.00037 UJ	0.00033 UJ	0.00034 UJ	0.00031 UJ	0.00032 UJ
TERT-BUTYLBENZENE	NA	NA	0.00027 U	0.00025 U	0.00021 U	0.00026 U	0.00021 U	0.00029 U	0.00026 U	0.00027 U	0.00024 U	0.00025 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.007 UR	0.0065 UR	0.0055 UR	0.0069 UR	0.0056 UR	0.0077 UR	0.0068 UR	0.007 UR	0.0063 UR	0.0067 UR
TETRACHLOROETHENE	1.2	NA	0.00048 U	0.00044 U	0.00038 U	0.00047 U	0.00038 U	0.00052 U	0.00046 U	0.00048 U	0.00043 U	0.00046 U
TOLUENE	630	NA	0.00025 U	0.00023 U	0.0002 U	0.00025 U	**0.00033 J**	0.00027 U	**0.00068 J**	0.00025 U	0.00022 U	0.00024 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00061 U	0.00057 U	**0.00056 J**	0.00061 U	0.00049 U	0.00068 U	**0.00088 J**	0.00062 U	0.00055 U	0.00059 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00038 U	0.00035 U	0.0003 U	0.00037 U	0.0003 U	0.00041 U	0.00037 U	0.00038 U	0.00034 U	0.00036 U
TRICHLOROETHENE	1.6	NA	**0.0041 J**	0.00036 U	0.0003 U	0.00038 U	0.00031 U	0.00042 U	0.00037 U	0.00039 U	0.00035 U	0.00037 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00031 U	0.00029 U	0.00025 U	0.00031 U	0.00025 U	0.00034 U	0.0003 U	0.00031 U	0.00028 U	0.0003 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00036 U	0.00033 U	0.00028 U	0.00035 U	0.00029 U	0.00039 U	0.00035 U	0.00036 U	0.00032 U	0.00034 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.033 U	0.032 U	0.031 U	0.031 U	0.059 U	0.033 U	0.03 U	0.033 U	0.031 U	0.032 U
2,4-DICHLOROPHENOL	23	NA	0.024 U	0.024 U	0.023 U	0.023 U	0.044 U	0.024 U	0.023 U	0.025 U	0.023 U	0.024 U
2-CHLOROPHENOL	39	NA	0.033 U	0.032 U	0.031 U	0.031 U	0.059 U	0.033 U	0.03 U	0.033 U	0.031 U	0.032 U
2-METHYLNAPHTHALENE	31	NA	0.004 U	0.004 U	**0.0085**	0.0038 U	**0.081**	0.004 U	**0.01**	0.004 U	**0.018**	0.004 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-074		GSP-SB-075		GSP-SB-076		GSP-SB-077		GSP-SB-078	
SAMPLE ID			GSP-SB-74-0-2	GSP-SB-74-20-22	GSP-SB-75-0-2	GSP-SB-75-22-25	GSP-SB-76-1-3	GSP-SB-76-23-25	GSP-SB-77-1-3	GSP-SB-77-21-23	GSP-SB-78-0-2	GSP-SB-78-20-22
			GSP-SB-74-0-2	GSP-SB-74-20-22	GSP-SB-75-0-2	GSP-SB-75-22-25	GSP-SB-76-1-3	GSP-SB-76-23-25	GSP-SB-77-1-3	GSP-SB-77-21-23	GSP-SB-78-0-2	GSP-SB-78-20-22
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20100511	20100511	20100412	20100412	20100413	20100413	20100414	20100414	20100413	20100413
TOP DEPTH	Residential		0	20	0	22	1	23	1	21	0	20
BOTTOM DEPTH	Soil Standard		2	22	2	25	3	25	3	23	2	22
ACENAPHTHENE	470	NA	0.004 U	0.004 U	**0.039**	0.0038 U	**0.44**	0.004 U	0.0037 U	0.004 U	**0.026**	0.004 U
ACENAPHTHYLENE	470	NA	0.004 U	0.004 U	**0.016**	0.0038 U	**0.043**	0.004 U	0.0037 U	0.004 U	**0.03**	0.004 U
ANTHRACENE	2300	NA	0.004 U	0.004 U	**0.082**	0.0038 U	**0.61**	0.004 U	**0.017**	0.004 U	**0.16**	0.004 U
BAP EQUIVALENT-HALFND	NA	NA	**0.005729**	0.004 U	**0.48645**	0.0038 U	**1.7605**	0.004 U	**0.096083**	0.004 U	**0.6903**	0.004 U
BAP EQUIVALENT-POS	NA	NA	**0.001309**	0.004 U	**0.48645**	0.0038 U	**1.7605**	0.004 U	**0.096083**	0.004 U	**0.6903**	0.004 U
BENZALDEHYDE	NA	NA	0.015 U	0.014 U	0.014 U	0.014 U	0.026 U	0.015 U	0.014 U	0.015 U	0.014 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	0.004 U	0.004 U	**0.34**	0.0038 U	**1.3**	0.004 U	**0.064**	0.004 U	**0.53**	0.004 U
BENZO(A)PYRENE	0.022	NA	0.004 U	0.004 U	**0.33**	0.0038 U	**1.2**	0.004 U	**0.065**	0.004 U	**0.48**	0.004 U
BENZO(B)FLUORANTHENE	0.22	NA	**0.013**	0.004 U	**0.43**	0.0038 U	**1.6**	0.004 U	**0.087**	0.004 U	**0.58**	0.004 U
BENZO(G,H,I)PERYLENE	230	NA	0.004 U	0.004 U	**0.24**	0.0038 U	**0.73**	0.004 U	**0.047**	0.004 U	**0.32**	0.004 U
BENZO(K)FLUORANTHENE	2.2	NA	0.004 U	0.004 U	**0.21**	0.0038 U	**0.52**	0.004 U	**0.03**	0.004 U	**0.28**	0.004 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.045 B**	**0.048 B**	**0.032 B**	0.022 U	**0.044 B**	0.023 U	0.021 U	**0.023 J**	0.022 U	**0.035 B**
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.012 U	0.011 U	0.012 U	0.022 U	0.012 U	0.011 U	0.012 U	0.011 U	0.012 U
CAPROLACTAM	NA	NA	0.045 U	0.044 U	0.042 U	0.043 U	0.081 U	0.045 U	0.042 U	0.045 U	0.042 U	0.045 U
CARBAZOLE	32	NA	0.033 U	0.032 U	**0.045 J**	0.031 U	**0.26**	0.033 U	0.03 U	0.033 U	**0.037 J**	0.032 U
CHRYSENE	22	NA	**0.0088**	0.0013 U	**0.35**	0.0013 U	**1.3**	0.0013 U	**0.083**	0.0013 U	**0.5**	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.004 U	0.004 U	**0.057**	0.0038 U	**0.2**	0.004 U	**0.012**	0.004 U	**0.068**	0.004 U
DIBENZOFURAN	7.8	NA	0.024 U	0.024 U	0.023 U	0.023 U	**0.17**	0.024 U	0.023 U	0.025 U	0.023 U	0.024 U
DIETHYL PHTHALATE	6300	NA	0.02 U	0.019 U	0.018 U	0.019 U	0.035 U	0.019 U	0.018 U	0.02 U	0.018 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.021 U	0.02 U	0.019 U	0.02 U	0.037 U	0.021 U	0.019 U	0.021 U	0.019 U	0.02 U
DI-N-BUTYL PHTHALATE	780	NA	0.018 U	0.018 U	0.017 U	0.017 U	0.033 U	0.018 U	0.017 U	0.018 U	0.017 U	0.018 U
FLUORANTHENE	310	NA	**0.018**	0.004 U	**0.72**	0.0038 U	**3**	0.004 U	**0.11**	0.004 U	**1**	0.004 U
FLUORENE	310	NA	0.004 U	0.004 U	**0.03**	0.0038 U	**0.32**	0.004 U	0.0037 U	0.004 U	**0.031**	0.004 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	**0.0368**	0 U	**2.727**	0 U	**9.79**	0 U	**0.524**	0 U	**3.878**	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**0.0668**	0.01865 U	**3.447**	0.01775 U	**12.79**	0.01865 U	**0.634**	0.01865 U	**4.878**	0.01865 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0488**	**0.01665**	**2.727**	**0.01585**	**9.79**	**0.01665**	**0.524**	**0.01665**	**3.878**	**0.01665**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.004 U	0.004 U	**0.2**	0.0038 U	**0.64**	0.004 U	**0.036**	0.004 U	**0.28**	0.004 U
ISOPHORONE	670	NA	0.016 U	0.016 U	0.015 U	0.015 U	0.029 U	0.016 U	0.015 U	0.016 U	0.015 U	0.016 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	**0.03**	0 U	**1.2375**	0 U	**6.714**	0 U	**0.195**	0 U	**1.685**	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**0.024**	0.014 U	**0.5175**	0.0133 U	**3.714**	0.014 U	**0.0924**	0.014 U	**0.685**	0.014 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.042**	**0.016**	**1.2375**	**0.0152**	**6.714**	**0.016**	**0.2024**	**0.016**	**1.685**	**0.016**
NAPHTHALENE	160	NA	0.004 U	0.004 U	**0.012**	0.0038 U	**0.12**	0.004 U	0.0037 U	0.004 U	**0.03**	0.004 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.033 U	0.032 U	0.031 U	0.031 U	0.059 U	0.033 U	0.03 U	0.033 U	0.031 U	0.032 U
PENTACHLOROPHENOL	5.3	NA	0.098 U	0.096 U	0.091 U	0.093 U	0.18 U	0.097 U	0.09 U	0.098 U	0.092 U	0.096 U
PHENANTHRENE	2300	NA	**0.012**	0.004 U	**0.33**	0.0038 U	**2.1**	0.004 U	**0.058**	0.004 U	**0.39**	0.004 U
PHENOL	2300	NA	0.033 U	0.032 U	0.031 U	0.031 U	0.059 U	0.033 U	0.03 U	0.033 U	0.031 U	0.032 U
PYRENE	230	NA	**0.015**	0.004 U	**0.57**	0.0038 U	**2.3**	0.004 U	**0.1**	0.004 U	**0.84**	0.004 U
TOTAL PAHS	NA	NA	**0.0668**	0 U	**3.9645**	0 U	**16.504**	0 U	**0.719**	0 U	**5.563**	0 U
TOTAL PAHS ECO HALFND	NA	NA	**0.0908**	0.03265 U	**3.9645**	0.03105 U	**16.504**	0.03265 U	**0.7264**	0.03265 U	**5.563**	0.03265 U
TOTAL PAHS HALFND	NA	NA	**0.0908**	0.03265 U	**3.9645**	0.03105 U	**16.504**	0.03265 U	**0.7264**	0.03265 U	**5.563**	0.03265 U
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.016 U	0.016 U	0.015 U	0.015 U	0.014 U	0.016 U	0.073 U	0.016 U	0.75 U	0.016 U
AROCLOR-1260	0.32	NA	0.021 U	0.02 U	**0.25**	0.02 U	**0.22**	0.021 U	**1.2**	0.021 U	**12**	0.02 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	**0.25**	0 U	**0.22**	0 U	**1.2**	0 U	**12**	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.071**	**0.0685**	**0.3055**	**0.067**	**0.274**	**0.07**	**1.477**	**0.071**	**14.805**	**0.0685**
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.036 B**	**0.3 L**	**0.13 J**	**0.046 B**	**0.11 J**	**0.051 B**	**0.3 L**	**0.05 B**	**0.13 J**	**0.047 B**
ARSENIC	0.43	3.6	**1.9**	**2**	**3.4**	**1.5**	**2.5**	**2.6**	**2.6 J**	**9.2 J**	**2.6**	**2.9**
BARIUM	1600	NA	**5.2 J**	**3.1 J**	**24.8**	**7.1**	**25.8**	**12.2**	**34.7 J**	**11.1 J**	**21.2**	**8.2**
BERYLLIUM	16	NA	**0.057 J**	**0.029 B**	**0.28**	**0.067 J**	**0.22 K**	**0.16 K**	**0.34 J**	**0.53 J**	**0.25**	**0.35**
CADMIUM	3.9	NA	0.0031 UL	**0.075 J**	**0.075 J**	**0.0049 B**	**0.14 J**	**0.0091 B**	**0.28 L**	**0.014 B**	**0.091 J**	**0.026 B**
CHROMIUM	23	28	**4.3 J**	**7.7 J**	**11.2 J**	**16.7 J**	**9.9 J**	**16.7 J**	**13.4 J**	**19.4 J**	**9.5 J**	**15.3 J**
COBALT	NA	NA	**0.38 J**	**0.31 J**	**2.7**	**0.32**	**1.5**	**0.94**	**3.2 J**	**12.3 J**	**2.3**	**3.1**
COPPER	310	NA	**3.7 J**	**33.4 J**	**6.9**	**15.8**	**7.4**	**13.5**	**13.4**	**18.8**	**6.8**	**481**
IRON	5500	15000	**1390 J**	**377 J**	**9210**	**4530**	**5970**	**1050**	**9590 J**	**981 J**	**9650**	**332**
LEAD	400	NA	**1.1 J**	**4.7 J**	**8.3**	**3.9**	**12.7**	**5.1**	**15.7 J**	**5.7 J**	**9.3**	**8.5**
MANGANESE	160	480	**3.3 J**	**1.9 J**	**57.8**	**2.5**	**75.2**	**5**	**113 J**	**2.3 J**	**101**	**1.7**
MERCURY	2.3	NA	0.02 U	**0.028 J**	0.019 U	0.019 U	**0.052 J**	0.02 U	**0.042 J**	0.02 U	**0.05 J**	0.02 U
MOLYBDENUM	NA	NA	**0.23 J**	**0.57**	**0.38**	**0.051 B**	**0.39**	**0.045 B**	**0.47**	**0.068 B**	**0.34**	**0.04 B**
NICKEL	160	NA	**0.47**	**0.62**	**4.1**	**0.55**	**3.8**	**1.9**	**5.8 J**	**16.2 J**	**3.6**	**6.3**
SELENIUM	39	NA	**0.2 J**	**0.66**	**0.48 J**	**0.73 L**	**0.38 J**	**1.9 L**	**0.45 J**	**2.8**	**0.41 J**	**2.5 L**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-074		GSP-SB-075		GSP-SB-076		GSP-SB-077		GSP-SB-078	
SAMPLE ID			GSP-SB-74-0-2	GSP-SB-74-20-22	GSP-SB-75-0-2	GSP-SB-75-22-25	GSP-SB-76-1-3	GSP-SB-76-23-25	GSP-SB-77-1-3	GSP-SB-77-21-23	GSP-SB-78-0-2	GSP-SB-78-20-22
			GSP-SB-74-0-2	GSP-SB-74-20-22	GSP-SB-75-0-2	GSP-SB-75-22-25	GSP-SB-76-1-3	GSP-SB-76-23-25	GSP-SB-77-1-3	GSP-SB-77-21-23	GSP-SB-78-0-2	GSP-SB-78-20-22
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20100511	20100511	20100412	20100412	20100413	20100413	20100414	20100414	20100413	20100413
TOP DEPTH	Residential		0	20	0	22	1	23	1	21	0	20
BOTTOM DEPTH	Soil Standard		2	22	2	25	3	25	3	23	2	22
SILVER	39	NA	0.0018 U	**0.014 B**	**0.038 B**	**0.012 B**	**0.046 B**	**0.01 B**	**0.088 J**	**0.051 B**	**0.045 B**	**0.043 B**
THALLIUM	0.55	3.9	0.016 U	0.016 U	**0.082 B**	**0.082 B**	**0.056 B**	**0.12 B**	**0.083 B**	**0.18 B**	**0.058 B**	**0.11 B**
VANADIUM	7.8	30	**12 J**	**27.2 J**	**18.9 J**	**21.6 J**	**17.5 J**	**7.9 J**	**20.7**	**17.4**	**15.5 J**	**5 J**
ZINC	2300	NA	**1.9 B**	**2 B**	**19.3 J**	**1.7 B**	**37.6 J**	**3.1 B**	**29 J**	**16 J**	**17 J**	**6.7 J**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	3.4 UJ	3.4 UJ	**26**	**3.5 J**	**23**	3.4 UJ	**150**	**7.2 J**	**64**	**4.3 J**
GASOLINE RANGE ORGANICS	230	NA	0.034 U	0.034 U	0.032 U	**0.034 J**	**0.076 J**	0.034 U	**0.06 J**	0.034 UJ	**0.089 J**	0.034 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-079		GSP-SB-080		GSP-SB-081		GSP-SB-082		GSP-SB-083	
SAMPLE ID			GSP-SB-79-22-25	GSP-SB-79-4-6	GSP-SB-80-0-2	GSP-SB-80-14-16	GSP-SB-81-20-22	GSP-SB-81-2-4	GSP-SB-82-0-2	GSP-SB-82-20-22	GSP-SB-83-0-2	GSP-SB-83-23-25
			GSP-SB-79-22-25	GSP-SB-79-4-6	GSP-SB-80-0-2	GSP-SB-80-14-16	GSP-SB-81-20-22	GSP-SB-81-2-4	GSP-SB-82-0-2	GSP-SB-82-20-22	GSP-SB-83-0-2	GSP-SB-83-23-25
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20100412	20100412	20100413	20100413	20100414	20100414	20100415	20100415	20100415	20100415
TOP DEPTH	Residential		22	4	0	14	20	2	0	20	0	23
BOTTOM DEPTH	Soil Standard		25	6	2	16	22	4	2	22	2	25
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0012 U	0.0013 U	0.0011 U	0.0013 U	0.0013 U	0.035 UL	0.0011 U	0.0012 U	0.0011 U	0.0011 U
1,1-DICHLOROETHENE	390	NA	0.00048 U	0.00053 U	0.00045 U	0.00052 U	0.00053 U	0.016 UL	0.00043 U	0.00047 U	0.00046 U	0.00042 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00035 U	0.00038 U	0.00033 U	0.00038 U	0.00038 U	0.009 UL	0.00032 U	0.00035 U	0.00034 U	0.00031 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00016 U	**0.00043 J**	0.00015 U	0.00017 U	0.00017 U	0.00015 UL	0.00014 U	0.00015 U	0.00015 U	0.00014 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00025 U	0.00027 U	0.00023 U	0.00027 U	0.00027 U	0.0066 UL	0.00022 U	0.00025 U	0.00024 U	0.00022 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00059 U	0.00066 U	0.00056 U	0.00065 U	0.00066 U	0.0045 UL	0.00054 U	0.00059 U	0.00057 U	0.00053 U
1,2-DICHLOROBENZENE	700	NA	0.00033 U	0.00036 U	0.00031 U	0.00036 U	0.00036 U	0.0077 UL	0.0003 U	0.00033 U	0.00032 U	0.00029 U
1,2-DICHLOROETHANE	7	NA	0.00031 U	0.00034 U	0.0003 U	0.00034 U	0.00034 U	0.009 UL	0.00028 U	0.00031 U	0.0003 U	0.00028 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00032 U	0.00035 U	0.0003 U	0.00035 U	0.00035 U	0.0043 UL	0.00029 U	0.00032 U	0.00031 U	0.00029 U
1,4-DICHLOROBENZENE	27	NA	0.0006 U	0.00067 U	0.00057 U	0.00066 U	0.00067 U	0.0072 UL	0.00055 U	0.0006 U	0.00058 U	0.00054 U
2-BUTANONE	4700	NA	0.0013 U	0.0014 U	0.0012 U	0.0014 U	0.0014 U	0.039 UL	0.0012 U	0.0013 U	0.0012 U	0.0011 U
2-HEXANONE	NA	NA	0.00058 U	0.00064 U	0.00055 U	0.00063 U	0.00064 U	0.018 UL	0.00052 U	0.00057 U	0.00056 U	0.00051 U
4-ISOPROPYLTOLUENE	NA	NA	0.00019 U	**0.00024 J**	0.00018 U	0.00021 U	0.00021 U	0.0043 UL	0.00017 U	0.00019 U	0.00019 U	0.00017 U
4-METHYL-2-PENTANONE	NA	NA	0.00049 U	0.00055 U	0.00047 U	0.00054 U	0.00055 U	0.043 UL	0.00045 U	0.00049 U	0.00048 U	0.00044 U
ACETONE	7000	NA	**0.15**	**0.0098 J**	0.0055 U	0.0063 U	**0.1**	0.15 UL	**0.75 J**	**0.34**	**0.28**	**0.21**
BENZENE	12	NA	0.00021 U	0.00023 U	0.0002 U	0.00023 U	0.00023 U	0.011 UL	0.00019 U	0.00021 U	0.0002 U	0.00019 U
BROMOMETHANE	11	NA	0.00049 U	0.00055 U	0.00047 U	0.00054 U	0.00055 U	0.026 UL	0.00045 U	0.00049 U	0.00048 U	0.00044 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.0004 U	0.00044 U	0.00038 U	0.00044 U	0.00044 U	0.011 UL	0.00037 U	0.0004 U	0.00039 U	0.00036 U
CARBON TETRACHLORIDE	4.9	NA	0.00034 U	0.00037 U	0.00032 U	0.00037 U	0.00037 U	0.0058 UL	0.00031 U	0.00034 U	0.00033 U	0.0003 U
CHLOROBENZENE	160	NA	0.0003 U	0.00033 U	0.00029 U	0.00033 U	0.00033 U	0.0058 UL	0.00027 U	0.0003 U	0.00029 U	0.00027 U
CHLOROETHANE	220	NA	0.00079 U	0.00087 U	0.00075 U	0.00086 U	0.00087 U	0.055 UL	0.00072 U	0.00078 U	0.00076 U	0.0007 U
CHLOROFORM	78	NA	0.00027 U	0.00029 U	0.00025 U	0.00029 U	0.00029 U	0.0079 UL	0.00024 U	0.00026 U	0.00026 U	0.00024 U
CHLOROMETHANE	NA	NA	0.00038 U	0.00041 U	0.00036 U	0.00041 U	0.00041 U	0.013 UL	0.00034 U	0.00037 U	0.00036 U	0.00033 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00033 U	0.00036 U	0.00031 U	0.00036 U	0.00036 U	0.0062 UL	0.0003 U	0.00033 U	0.00032 U	0.00029 U
DIISOPROPYL ETHER	NA	NA	0.0014 U	0.0015 U	0.0013 U	0.0015 U	0.0015 U	0.045 UL	0.0012 U	0.0014 U	0.0013 U	0.0012 U
ETHYLBENZENE	780	NA	0.00024 U	0.00026 U	0.00023 U	**0.00026 J**	0.00026 U	0.0049 UL	0.00022 U	0.00024 U	0.00023 U	0.00021 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00015 U	0.00016 U	0.00014 U	0.00016 U	0.00016 U	0.0058 UL	0.00013 U	0.00015 U	0.00014 U	0.00013 U
M+P-XYLENES	NA	NA	0.0011 U	0.0012 U	0.001 U	0.0012 U	0.0012 U	0.056 UL	0.001 U	0.0011 U	0.0011 U	0.00098 U
METHYL TERT-BUTYL ETHER	160	NA	0.00039 U	0.00043 U	0.00037 U	0.00043 U	0.00043 U	0.0064 UL	0.00036 U	0.00039 U	0.00038 U	0.00035 U
METHYLENE CHLORIDE	85	NA	0.00061 U	0.00068 U	0.00058 U	0.00067 U	0.00068 U	0.069 UL	0.00056 U	0.00061 U	0.00059 U	0.00055 U
NAPHTHALENE	160	NA	**0.0018 B**	**0.11**	0.00017 U	**0.003 B**	0.00019 U	**1.1 L**	**0.00063 B**	0.00017 U	0.00017 U	0.00016 U
N-BUTYLBENZENE	NA	NA	0.00021 U	0.00023 U	0.0002 U	0.00023 U	0.00023 U	0.0072 UL	0.00019 U	0.00021 U	0.0002 U	0.00019 U
N-PROPYLBENZENE	NA	NA	0.00037 U	0.0004 U	0.00035 U	0.0004 U	0.0004 U	0.013 UL	0.00033 U	0.00036 U	0.00035 U	0.00033 U
O-XYLENE	NA	NA	0.00032 U	0.00035 U	0.0003 U	0.00035 U	0.00035 U	0.0076 UL	0.00029 U	0.00032 U	0.00031 U	0.00029 U
SEC-BUTYLBENZENE	NA	NA	0.00016 U	0.00018 U	0.00016 U	0.00018 U	0.00018 U	0.0042 UL	0.00015 U	0.00016 U	0.00016 U	0.00015 U
STYRENE	1600	NA	0.00014 U	0.00015 U	0.00013 U	0.00015 U	0.00015 U	0.005 UL	0.00012 U	0.00014 U	0.00013 U	0.00012 U
TERT-AMYL METHYL ETHER	NA	NA	0.00034 U	0.00037 U	0.00032 UJ	0.00037 UJ	0.00037 UJ	0.00033 UL	0.00031 U	0.00034 U	0.00033 U	0.0003 U
TERT-BUTYLBENZENE	NA	NA	0.00027 U	0.00029 U	0.00025 U	0.00029 U	0.00029 U	0.0058 UL	0.00024 U	0.00026 U	0.00026 U	0.00024 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.007 UR	0.0077 UR	0.0066 UR	0.0076 UR	0.0077 UR	0.22 UR	**0.0081 J**	0.0069 UR	0.0067 UR	0.0062 UR
TETRACHLOROETHENE	1.2	NA	0.00048 U	0.00053 U	0.00045 U	0.00052 U	0.00053 U	0.011 UL	0.00043 U	0.00047 U	0.00046 U	0.00042 U
TOLUENE	630	NA	0.00025 U	0.00027 U	0.00023 U	**0.00038 J**	0.00027 U	0.015 UL	0.00022 U	0.00025 U	0.00024 U	0.00022 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00061 U	**0.00072 J**	0.00058 U	0.00067 U	0.00068 U	0.0073 UL	0.00056 U	0.00061 U	0.00059 U	0.00055 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00038 U	0.00041 U	0.00036 U	0.00041 U	0.00041 U	0.0083 UL	0.00034 U	0.00037 U	0.00036 U	0.00033 U
TRICHLOROETHENE	1.6	NA	0.00038 U	0.00042 U	0.00037 U	0.00042 U	0.00042 U	0.0087 UL	0.00035 U	0.00038 U	0.00037 U	0.00034 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00031 U	0.00034 U	0.0003 U	0.00034 U	0.00034 U	0.014 UL	0.00028 U	0.00031 U	0.0003 U	0.00028 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00036 U	0.00039 U	0.00034 U	0.00039 U	0.00039 U	0.016 UL	0.00032 U	0.00036 U	0.00034 U	0.00032 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.033 U	0.031 U	0.031 U	0.033 U	0.036 U	0.61 U	0.062 U	0.032 U	0.4 U	0.032 U
2,4-DICHLOROPHENOL	23	NA	0.024 U	0.023 U	0.023 U	0.024 U	0.027 U	0.45 U	0.046 U	0.024 U	0.3 U	0.024 U
2-CHLOROPHENOL	39	NA	0.033 U	0.031 U	0.031 U	0.033 U	0.036 U	0.61 U	0.062 U	0.032 U	0.4 U	0.032 U
2-METHYLNAPHTHALENE	31	NA	0.004 U	**0.075**	**0.035**	0.004 U	0.0044 U	**2.7**	**0.03**	0.004 U	**0.5**	0.0039 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-079		GSP-SB-080		GSP-SB-081		GSP-SB-082		GSP-SB-083	
SAMPLE ID			GSP-SB-79-22-25	GSP-SB-79-4-6	GSP-SB-80-0-2	GSP-SB-80-14-16	GSP-SB-81-20-22	GSP-SB-81-2-4	GSP-SB-82-0-2	GSP-SB-82-20-22	GSP-SB-83-0-2	GSP-SB-83-23-25
			GSP-SB-79-22-25	GSP-SB-79-4-6	GSP-SB-80-0-2	GSP-SB-80-14-16	GSP-SB-81-20-22	GSP-SB-81-2-4	GSP-SB-82-0-2	GSP-SB-82-20-22	GSP-SB-83-0-2	GSP-SB-83-23-25
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20100412	20100412	20100413	20100413	20100414	20100414	20100415	20100415	20100415	20100415
TOP DEPTH	Residential		22	4	0	14	20	2	0	20	0	23
BOTTOM DEPTH	Soil Standard		25	6	2	16	22	4	2	22	2	25
ACENAPHTHENE	470	NA	0.004 U	0.36	0.037	0.004 U	0.0044 U	1.7	0.036	0.004 U	0.52	0.0039 U
ACENAPHTHYLENE	470	NA	0.004 U	0.0038 U	0.055	0.004 U	0.0044 U	0.71	0.045	0.004 U	0.28	0.0039 U
ANTHRACENE	2300	NA	0.004 U	0.61	0.2	0.004 U	0.0044 U	5.7	0.21	0.004 U	1.9	0.0039 U
BAP EQUIVALENT-HALFND	NA	NA	0.004 U	1.21205	0.95894	0.004 U	0.0044 U	13.917	1.25496	0.006201	7.4042	0.0039 U
BAP EQUIVALENT-POS	NA	NA	0.004 U	1.21205	0.95894	0.004 U	0.0044 U	13.917	1.25496	0.00198	7.4042	0.0039 U
BENZALDEHYDE	NA	NA	0.014 U	0.014 U	0.014 U	0.015 U	0.016 U	0.27 U	0.027 U	0.014 U	0.18 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	0.004 U	0.9	0.67	0.004 U	0.0044 U	11	0.92	0.004 U	5.8	0.0039 U
BENZO(A)PYRENE	0.022	NA	0.004 U	0.83	0.66	0.004 U	0.0044 U	10	0.88	0.004 U	5.2	0.0039 U
BENZO(B)FLUORANTHENE	0.22	NA	0.004 U	0.99	0.77	0.004 U	0.0044 U	9	0.93	0.0088	5.1	0.0039 U
BENZO(G,H,I)PERYLENE	230	NA	0.004 U	0.53	0.49	0.004 U	0.0044 U	5.3	0.58	0.011	3.1	0.0039 U
BENZO(K)FLUORANTHENE	2.2	NA	0.004 U	0.51	0.33	0.004 U	0.0044 U	4.5	0.4	0.004 U	1.8	0.0039 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.023 U	0.022 U	0.022 U	0.023 U	0.042 J	0.43 U	0.043 U	0.023 U	0.28 U	0.022 U
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.012 U	0.011 U	0.012 U	0.013 U	0.22 U	0.023 U	0.012 U	0.15 U	0.012 U
CAPROLACTAM	NA	NA	0.045 U	0.043 J	0.042 U	0.045 U	0.049 U	0.83 U	0.084 U	0.044 U	0.55 U	0.044 U
CARBAZOLE	32	NA	0.033 U	0.44	0.037 J	0.033 U	0.036 U	0.61 U	0.062 U	0.032 U	0.4 U	0.032 U
CHRYSENE	22	NA	0.0013 U	0.95	0.64	0.0013 U	0.0015 U	12	0.96	0.0013 U	6.2	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.004 U	0.14	0.11	0.004 U	0.0044 U	1.4	0.14	0.004 U	0.85	0.0039 U
DIBENZOFURAN	7.8	NA	0.024 U	0.21	0.023 U	0.024 U	0.027 U	0.45 U	0.046 U	0.024 U	0.3 U	0.024 U
DIETHYL PHTHALATE	6300	NA	0.019 U	0.019 U	0.018 U	0.02 U	0.021 U	0.36 U	0.037 U	0.019 U	0.24 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.02 U	0.02 U	0.019 U	0.021 U	0.023 U	0.38 U	0.039 U	0.02 U	0.25 U	0.02 U
DI-N-BUTYL PHTHALATE	780	NA	0.018 U	0.017 U	0.017 U	0.018 U	0.02 U	0.34 U	0.034 U	0.018 U	0.22 U	0.018 U
FLUORANTHENE	310	NA	0.004 U	2.5	1.2	0.004 U	0.0044 U	19	1.4	0.004 U	8.8	0.0039 U
FLUORENE	310	NA	0.004 U	0.33	0.048	0.004 U	0.0044 U	3.8	0.06	0.004 U	0.91	0.0039 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	7.22	5.28	0 U	0 U	83.8	7.06	0.0308	43.45	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.01865 U	9.72	6.48	0.01865 U	0.02055 U	102.8	8.46	0.04345	52.25	0.0182 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	0.01665	7.22	5.28	0.01665	0.01835	83.8	7.06	0.04145	43.45	0.01625
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.004 U	0.47	0.41	0.004 U	0.0044 U	4.6	0.45	0.011	2.4	0.0039 U
ISOPHORONE	670	NA	0.016 U	0.015 U	0.015 U	0.016 U	0.017 U	0.29 U	0.03 U	0.016 U	0.19 U	0.015 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	6.195	2.165	0 U	0 U	59.51	2.6	0 U	21.37	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.014 U	3.6969	0.965	0.014 U	0.0154 U	40.51	1.2	0.014 U	12.57	0.01365 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	0.016	6.1969	2.165	0.016	0.0176	59.51	2.6	0.016	21.37	0.0156
NAPHTHALENE	160	NA	0.004 U	0.22	0.07	0.004 U	0.0044 U	2.9	0.039	0.004 U	0.56	0.0039 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.033 U	0.031 U	0.031 U	0.033 U	0.036 U	0.61 U	0.062 U	0.032 U	0.4 U	0.032 U
PENTACHLOROPHENOL	5.3	NA	0.096 U	0.093 U	0.091 U	0.098 U	0.11 U	1.8 U	0.18 U	0.096 U	1.2 U	0.095 U
PHENANTHRENE	2300	NA	0.004 U	2.1	0.52	0.004 U	0.0044 U	23	0.78	0.004 U	7.9	0.0039 U
PHENOL	2300	NA	0.033 U	0.054 J	0.031 U	0.033 U	0.036 U	0.61 U	0.062 U	0.032 U	0.4 U	0.032 U
PYRENE	230	NA	0.004 U	1.9	1.2	0.004 U	0.0044 U	26	1.8	0.004 U	13	0.0039 U
TOTAL PAHS	NA	NA	0 U	13.415	7.445	0 U	0 U	143.31	9.66	0.0308	64.82	0 U
TOTAL PAHS ECO HALFND	NA	NA	0.03265 U	13.4169	7.445	0.03265 U	0.03595 U	143.31	9.66	0.05745	64.82	0.03185 U
TOTAL PAHS HALFND	NA	NA	0.03265 U	13.4169	7.445	0.03265 U	0.03595 U	143.31	9.66	0.05745	64.82	0.03185 U
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.016 U	0.015 U	0.15 U	0.016 U	0.017 U	0.015 U	0.015 U	0.016 U	0.016 U	0.015 U
AROCLOR-1260	0.32	NA	0.02 U	0.02 U	3.1	0.021 U	0.023 U	0.019 U	0.019 U	0.02 U	0.02 U	0.02 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	3.1	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	0.0685	0.067	3.655	0.071	0.077	0.065	0.065	0.0685	0.0685	0.068
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.043 B	0.081 J	0.13 J	0.051 B	0.13 J	0.13 J	0.2 J	0.062 B	0.051 B	0.054 B
ARSENIC	0.43	3.6	2.2	4.2	3	1.3	19.1 J	3.5 J	4.3	1.5	1.5	3
BARIUM	1600	NA	8	38.6	41.3	2.1	13.1 J	67.2 J	20.5 K	14.9 K	35.8 K	21.7 K
BERYLLIUM	16	NA	0.092 J	0.25	0.4	0.022 B	0.41 J	0.74 J	0.84	0.56	0.19	0.65
CADMIUM	3.9	NA	0.007 B	0.012 B	0.14 J	0.0037 B	0.045 J	0.065 J	0.049 J	0.051 J	0.03 B	0.0098 B
CHROMIUM	23	28	17.1 J	16.3 J	15.5 J	1.4 J	16 J	22.4 J	24.1 K	17.6 K	8.9 K	23.2 K
COBALT	NA	NA	0.33 J	3.1	2.7	0.12	15.4 J	6 J	4.9	45.6	1.2	4.2
COPPER	310	NA	18.9	7	10.3	1.6	35.3	14.1	19.3 L	27.6 L	7.9 L	30.3 L
IRON	5500	15000	1390	13900	9830	578	1060 J	15600 J	15000	555	3720	1950
LEAD	400	NA	3.8	6.1	9.2	0.42	8.9 J	6.6 J	8	6.3	5.1	6.4
MANGANESE	160	480	2.7	34.7	164	1.9	1.9 J	713 J	49.5	2	24.3	6.2
MERCURY	2.3	NA	0.02 U	0.027 J	0.077 J	0.02 U	0.022 U	0.019 U	0.034 J	0.02 U	0.02 U	0.026 J
MOLYBDENUM	NA	NA	0.046 B	0.65	0.39	0.15 J	0.074 B	0.45	0.35	0.054 B	0.26	0.1 J
NICKEL	160	NA	0.61	6.8	6.5	0.21	34.3 J	10.3 J	9.8	89.4	3	12.9
SELENIUM	39	NA	1.3 L	0.49 J	0.43 J	0.086 J	2.3	0.76	3.1 L	2 L	0.54 J	3.1 L

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-079		GSP-SB-080		GSP-SB-081		GSP-SB-082		GSP-SB-083	
SAMPLE ID			GSP-SB-79-22-25	GSP-SB-79-4-6	GSP-SB-80-0-2	GSP-SB-80-14-16	GSP-SB-81-20-22	GSP-SB-81-2-4	GSP-SB-82-0-2	GSP-SB-82-20-22	GSP-SB-83-0-2	GSP-SB-83-23-25
			GSP-SB-79-22-25	GSP-SB-79-4-6	GSP-SB-80-0-2	GSP-SB-80-14-16	GSP-SB-81-20-22	GSP-SB-81-2-4	GSP-SB-82-0-2	GSP-SB-82-20-22	GSP-SB-83-0-2	GSP-SB-83-23-25
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20100412	20100412	20100413	20100413	20100414	20100414	20100415	20100415	20100415	20100415
TOP DEPTH	Residential		22	4	0	14	20	2	0	20	0	23
BOTTOM DEPTH	Soil Standard		25	6	2	16	22	4	2	22	2	25
SILVER	39	NA	0.018 B	0.02 B	0.092 J	0.0044 B	0.067 J	0.031 B	0.073 J	0.049 J	0.016 B	0.041 B
THALLIUM	0.55	3.9	0.065 B	0.12 B	0.055 B	0.021 B	0.21 B	0.07 B	0.088 B	0.21	0.095 B	0.15
VANADIUM	7.8	30	12.8 J	25 J	22 J	3.7 B	13.2	34.6	54.2	18	15	21.9
ZINC	2300	NA	2.1 B	15.6 J	23.7 J	1.6 B	11.9 J	23.1 J	18.3	11.6	13.9	5.8
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	3.4 UJ	3.7 J	91	3.4 UJ	4.2 J	5200	30 J	5.7 J	1800 J	5.8 J
GASOLINE RANGE ORGANICS	230	NA	0.034 U	0.081 J	0.032 U	0.036 J	0.037 J	0.15 J	0.032 UJ	0.034 UJ	0.033 UJ	0.033 UJ
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-084		GSP-SB-085		GSP-SB-086		GSP-SB-087		GSP-SB-088	
SAMPLE ID			GSP-SB-84-0-2	GSP-SB-84-22-25	GSP-SB-85-10-12	GSP-SB-85-22-25	GSP-SB-86-0-2	GSP-SB-86-21-23	GSP-SB-87-0-2	GSP-SB-87-22-25	GSP-SB-88-22-25	GSP-SB-88-2-4
			GSP-SB-84-0-2	GSP-SB-84-22-25	GSP-SB-85-10-12	GSP-SB-85-22-25	GSP-SB-86-0-2	GSP-SB-86-21-23	GSP-SB-87-0-2	GSP-SB-87-22-25	GSP-SB-88-22-25	GSP-SB-88-2-4
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20100415	20100415	20100413	20100413	20100413	20100413	20100414	20100414	20100414	20100414
TOP DEPTH	Residential		0	22	10	22	0	21	0	22	22	2
BOTTOM DEPTH	Soil Standard		2	25	12	25	2	23	2	25	25	4
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0011 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0012 U	0.001 U	0.0012 U	0.00095 U	0.00089 U
1,1-DICHLOROETHENE	390	NA	0.00044 U	0.00042 U	0.00047 U	0.00047 U	0.00055 U	0.00049 U	0.00042 U	0.00049 U	0.00038 U	0.00036 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00032 U	0.00031 U	0.00035 U	0.00035 U	0.0004 U	0.00036 U	0.00031 U	0.00036 U	0.00028 U	0.00026 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00014 U	0.00014 U	0.00015 U	0.00015 U	0.00018 U	0.00016 U	0.00014 U	0.00016 U	0.00012 U	0.00012 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00023 U	0.00022 U	0.00025 U	0.00025 U	0.00029 U	0.00025 U	0.00022 U	0.00025 U	0.0002 U	0.00019 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00055 U	0.00053 U	0.00059 U	0.00059 U	0.00069 U	0.00061 U	0.00052 U	0.00061 U	0.00048 U	0.00045 U
1,2-DICHLOROBENZENE	700	NA	0.00031 U	0.00029 U	0.00033 U	0.00033 U	0.00038 U	0.00034 U	0.00029 U	0.00034 U	0.00026 U	0.00025 U
1,2-DICHLOROETHANE	7	NA	0.00029 U	0.00028 U	0.00031 U	0.00031 U	0.00036 U	0.00032 U	0.00027 U	0.00032 U	0.00025 U	0.00023 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.0003 U	0.00028 U	0.00032 U	0.00032 U	0.00037 U	0.00033 U	0.00028 U	0.00033 U	0.00026 U	0.00024 U
1,4-DICHLOROBENZENE	27	NA	0.00056 U	0.00054 U	0.0006 U	0.0006 U	0.0007 U	0.00062 U	0.00053 U	0.00062 U	0.00048 U	0.00045 U
2-BUTANONE	4700	NA	0.0012 U	0.0011 U	0.0013 U	0.0013 U	0.0015 U	0.0013 U	0.0011 U	0.0013 U	0.001 U	**0.0013 J**
2-HEXANONE	NA	NA	0.00054 U	0.00051 U	0.00057 U	0.00057 U	0.00067 U	0.00059 U	0.00051 U	0.00059 U	0.00046 U	0.00043 U
4-ISOPROPYLTOLUENE	NA	NA	0.00018 U	0.00017 U	0.00019 U	0.00019 U	0.00022 U	0.0002 U	0.00017 U	0.0002 U	0.00015 U	0.00014 U
4-METHYL-2-PENTANONE	NA	NA	0.00046 U	0.00044 U	0.00049 U	0.00049 U	0.00057 U	0.00051 U	0.00043 U	0.00051 U	0.0004 U	0.00037 U
ACETONE	7000	NA	**0.3**	**0.24**	**0.14**	0.0057 U	**0.096**	0.0059 U	**0.15**	**0.66 J**	0.0046 U	**0.0062 J**
BENZENE	12	NA	0.0002 U	0.00019 U	0.00021 U	0.00021 U	0.00024 U	0.00022 U	0.00018 U	0.00022 U	0.00017 U	0.00016 U
BROMOMETHANE	11	NA	0.00046 U	0.00044 U	0.00049 U	0.00049 U	0.00057 U	0.00051 U	0.00043 U	0.00051 U	0.0004 U	0.00037 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00038 U	0.00036 U	0.0004 U	0.0004 U	0.00047 U	0.00041 U	0.00035 U	0.00041 U	0.00032 U	0.0003 U
CARBON TETRACHLORIDE	4.9	NA	0.00032 U	0.0003 U	0.00034 U	0.00034 U	0.00039 U	0.00035 U	0.0003 U	0.00035 U	0.00027 U	0.00025 U
CHLOROBENZENE	160	NA	0.00028 U	0.00027 U	0.0003 U	0.0003 U	0.00035 U	0.00031 U	0.00027 U	0.00031 U	0.00024 U	0.00023 U
CHLOROETHANE	220	NA	0.00073 U	0.0007 U	0.00078 U	0.00078 U	0.00091 U	0.00081 U	0.00069 U	0.00081 U	0.00063 U	0.00059 U
CHLOROFORM	78	NA	0.00025 U	0.00024 U	0.00026 U	0.00026 U	0.00031 U	0.00027 U	0.00023 U	0.00027 U	0.00021 U	0.0002 U
CHLOROMETHANE	NA	NA	0.00035 U	0.00033 U	0.00037 U	0.00037 U	0.00044 U	0.00039 U	0.00033 U	0.00039 U	0.0003 U	0.00028 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00031 U	0.00029 U	0.00033 U	0.00033 U	0.00038 U	0.00034 U	0.00029 U	0.00034 U	0.00026 U	0.00025 U
DIISOPROPYL ETHER	NA	NA	0.0013 U	0.0012 U	0.0014 U	0.0014 U	0.0016 U	0.0014 U	0.0012 U	0.0014 U	0.0011 U	0.001 U
ETHYLBENZENE	780	NA	0.00022 U	0.00021 U	0.00024 U	0.00024 U	0.00028 U	0.00024 U	0.00021 U	0.00025 U	0.00019 U	0.00018 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00014 U	0.00013 U	0.00015 U	0.00015 U	0.00017 U	0.00015 U	0.00013 U	0.00015 U	0.00012 U	0.00011 U
M+P-XYLENES	NA	NA	0.001 U	0.00098 U	0.0011 U	0.0011 U	0.0013 U	0.0011 U	0.00096 U	0.0011 U	0.00088 U	0.00083 U
METHYL TERT-BUTYL ETHER	160	NA	0.00037 U	0.00035 U	0.00039 U	0.00039 U	0.00046 U	0.0004 U	0.00035 U	0.00041 U	0.00031 U	0.0003 U
METHYLENE CHLORIDE	85	NA	0.00057 U	0.00055 U	0.00061 U	0.00061 U	0.00071 U	0.00063 U	0.00054 U	0.00063 U	0.00049 U	0.00046 U
NAPHTHALENE	160	NA	0.00016 U	0.00015 U	0.00017 U	0.00017 U	0.0002 U	**0.00048 B**	0.00015 U	0.00018 U	0.00014 U	0.00013 U
N-BUTYLBENZENE	NA	NA	0.0002 U	0.00019 U	0.00021 U	0.00021 U	0.00024 U	0.00022 U	0.00018 U	0.00022 U	0.00017 U	0.00016 U
N-PROPYLBENZENE	NA	NA	0.00034 U	0.00033 U	0.00036 U	0.00036 U	0.00042 U	0.00038 U	0.00032 U	0.00038 U	0.00029 U	0.00028 U
O-XYLENE	NA	NA	0.0003 U	0.00028 U	0.00032 U	0.00032 U	0.00037 U	0.00033 U	0.00028 U	0.00033 U	0.00026 U	0.00024 U
SEC-BUTYLBENZENE	NA	NA	0.00015 U	0.00015 U	0.00016 U	0.00016 U	0.00019 U	0.00017 U	0.00014 U	0.00017 U	0.00013 U	0.00012 U
STYRENE	1600	NA	0.00013 U	0.00012 U	0.00014 U	0.00014 U	0.00016 U	0.00014 U	0.00012 U	0.00014 U	0.00011 U	0.0001 U
TERT-AMYL METHYL ETHER	NA	NA	0.00032 U	0.0003 U	0.00034 U	0.00034 UJ	0.00039 UJ	0.00035 UJ	0.0003 UJ	0.00035 U	0.00027 UJ	0.00025 UJ
TERT-BUTYLBENZENE	NA	NA	0.00025 U	0.00024 U	0.00026 U	0.00026 U	0.00031 U	0.00027 U	0.00023 U	0.00027 U	0.00021 U	0.0002 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0065 UR	0.0062 UR	0.0069 UR	0.0069 UR	0.0081 UR	0.0071 UR	0.0061 UR	0.0072 UR	0.0056 UR	0.0052 UR
TETRACHLOROETHENE	1.2	NA	0.00044 U	0.00042 U	0.00047 U	0.00047 U	0.00055 U	0.00049 U	0.00042 U	0.00049 U	0.00038 U	0.00036 U
TOLUENE	630	NA	0.00023 U	0.00022 U	0.00025 U	**0.00032 J**	0.00029 U	0.00025 U	0.00022 U	0.00025 U	0.0002 U	0.00019 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00057 U	0.00055 U	0.00061 U	0.00061 U	0.00071 U	0.00063 U	0.00054 U	0.00063 U	0.00049 U	0.00046 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00035 U	0.00033 U	0.00037 U	0.00037 U	0.00044 U	0.00039 U	0.00033 U	0.00039 U	0.0003 U	0.00028 U
TRICHLOROETHENE	1.6	NA	0.00036 U	0.00034 U	0.00038 U	0.00038 U	0.00045 U	0.0004 U	0.00034 U	0.0004 U	0.00031 U	0.00029 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00029 U	0.00028 U	0.00031 U	0.00031 U	0.00036 U	0.00032 U	0.00027 U	0.00032 U	0.00025 U	0.00023 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00033 U	0.00032 U	0.00035 U	0.00035 U	0.00041 U	0.00037 U	0.00031 U	0.00037 U	0.00029 U	0.00027 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.076 U	0.033 U	0.033 U	0.033 U	0.12 U	0.033 U	0.061 U	0.032 U	0.032 U	0.03 U
2,4-DICHLOROPHENOL	23	NA	0.056 U	0.024 U	0.024 U	0.024 U	0.091 U	0.025 U	0.045 U	0.024 U	0.024 U	0.022 U
2-CHLOROPHENOL	39	NA	0.076 U	0.033 U	0.033 U	0.033 U	0.12 U	0.033 U	0.061 U	0.032 U	0.032 U	0.03 U
2-METHYLNAPHTHALENE	31	NA	**0.049**	0.004 U	0.004 U	0.004 U	**0.042**	0.0041 U	**0.065**	0.0039 U	0.0039 U	**0.015**
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-084		GSP-SB-085		GSP-SB-086		GSP-SB-087		GSP-SB-088	
SAMPLE ID			GSP-SB-84-0-2	GSP-SB-84-22-25	GSP-SB-85-10-12	GSP-SB-85-22-25	GSP-SB-86-0-2	GSP-SB-86-21-23	GSP-SB-87-0-2	GSP-SB-87-22-25	GSP-SB-88-22-25	GSP-SB-88-2-4
			GSP-SB-84-0-2	GSP-SB-84-22-25	GSP-SB-85-10-12	GSP-SB-85-22-25	GSP-SB-86-0-2	GSP-SB-86-21-23	GSP-SB-87-0-2	GSP-SB-87-22-25	GSP-SB-88-22-25	GSP-SB-88-2-4
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20100415	20100415	20100413	20100413	20100413	20100413	20100414	20100414	20100414	20100414
TOP DEPTH	Residential		0	22	10	22	0	21	0	22	22	2
BOTTOM DEPTH	Soil Standard		2	25	12	25	2	23	2	25	25	4
ACENAPHTHENE	470	NA	**0.069**	0.004 U	0.004 U	0.004 U	**0.25**	0.0041 U	**0.11**	0.0039 U	0.0039 U	**0.034**
ACENAPHTHYLENE	470	NA	**0.055**	0.004 U	0.004 U	0.004 U	**0.035**	0.0041 U	**0.046**	0.0039 U	0.0039 U	**0.014**
ANTHRACENE	2300	NA	**0.3**	0.004 U	0.004 U	0.004 U	**0.69**	0.0041 U	**0.33**	0.0039 U	0.0039 U	**0.11**
BAP EQUIVALENT-HALFND	NA	NA	**1.5495**	0.004 U	0.004 U	0.004 U	**2.5528**	0.0041 U	**1.463**	0.0039 U	0.0039 U	**0.40953**
BAP EQUIVALENT-POS	NA	NA	**1.5495**	0.004 U	0.004 U	0.004 U	**2.5528**	0.0041 U	**1.463**	0.0039 U	0.0039 U	**0.40953**
BENZALDEHYDE	NA	NA	0.034 U	0.015 U	0.015 U	0.015 U	0.055 U	0.015 U	0.027 U	0.014 U	0.014 U	0.013 U
BENZO(A)ANTHRACENE	0.22	NA	**1**	0.004 U	0.004 U	0.004 U	**1.9**	0.0041 U	**1.1**	0.0039 U	0.0039 U	**0.31**
BENZO(A)PYRENE	0.022	NA	**1.1**	0.004 U	0.004 U	0.004 U	**1.7**	0.0041 U	**1**	0.0039 U	0.0039 U	**0.29**
BENZO(B)FLUORANTHENE	0.22	NA	**1**	0.004 U	0.004 U	0.004 U	**2.1**	0.0041 U	**1.2**	0.0039 U	0.0039 U	**0.3**
BENZO(G,H,I)PERYLENE	230	NA	**0.67**	0.004 U	0.004 U	0.004 U	**1.2**	0.0041 U	**0.63**	0.0039 U	0.0039 U	**0.17**
BENZO(K)FLUORANTHENE	2.2	NA	**0.44**	0.004 U	0.004 U	0.004 U	**1.1**	0.0041 U	**0.49**	0.0039 U	0.0039 U	**0.12**
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.053 U	0.023 U	0.023 U	0.023 U	0.087 U	0.024 U	**0.1 J**	0.022 U	0.022 U	**0.12**
BUTYL BENZYL PHTHALATE	NA	NA	0.028 U	0.012 U	0.012 U	0.012 U	**0.25**	0.012 U	0.023 U	0.012 U	0.012 U	0.011 U
CAPROLACTAM	NA	NA	0.1 U	0.045 U	0.045 U	0.045 U	0.17 U	0.046 U	0.084 U	0.044 U	0.044 U	0.041 U
CARBAZOLE	32	NA	0.076 U	0.033 U	0.033 U	0.033 U	**0.25**	0.033 U	**0.082 J**	0.032 U	0.032 U	0.03 U
CHRYSENE	22	NA	**1.1**	0.0013 U	0.0013 U	0.0013 U	**1.8**	0.0014 U	**1.1**	0.0013 U	0.0013 U	**0.33**
DIBENZO(A,H)ANTHRACENE	0.022	NA	**0.19**	0.004 U	0.004 U	0.004 U	**0.34**	0.0041 U	**0.17**	0.0039 U	0.0039 U	**0.043**
DIBENZOFURAN	7.8	NA	0.056 U	0.024 U	0.024 U	0.024 U	**0.12 J**	0.025 U	0.045 U	0.024 U	0.024 U	0.022 U
DIETHYL PHTHALATE	6300	NA	0.045 U	0.019 U	0.019 U	0.019 U	0.073 U	0.02 U	0.036 U	0.019 U	0.019 U	0.018 U
DIMETHYL PHTHALATE	NA	NA	0.048 U	0.021 U	0.021 U	0.021 U	0.078 U	0.021 U	0.038 U	0.02 U	0.02 U	0.019 U
DI-N-BUTYL PHTHALATE	780	NA	0.042 U	0.018 U	0.018 U	0.018 U	0.069 U	0.019 U	0.034 U	0.018 U	0.018 U	0.017 U
FLUORANTHENE	310	NA	**1.5**	0.004 U	0.004 U	0.004 U	**4.2**	0.0041 U	**2.1**	0.0039 U	0.0039 U	**0.55**
FLUORENE	310	NA	**0.1**	0.004 U	0.004 U	0.004 U	**0.29**	0.0041 U	**0.12**	0.0039 U	0.0039 U	**0.044**
HIGH MOLECULAR WEIGHT PAHS	NA	NA	**8.24**	0 U	0 U	0 U	**14.34**	0 U	**8.26**	0 U	0 U	**2.353**
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**9.74**	0.01865 U	0.01865 U	0.01865 U	**18.54**	0.01915 U	**10.36**	0.0182 U	0.0182 U	**2.903**
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**8.24**	**0.01665**	**0.01665**	**0.01665**	**14.34**	**0.0171**	**8.26**	**0.01625**	**0.01625**	**2.353**
INDENO(1,2,3-CD)PYRENE	0.22	NA	**0.54**	0.004 U	0.004 U	0.004 U	**1**	0.0041 U	**0.57**	0.0039 U	0.0039 U	**0.14**
ISOPHORONE	670	NA	0.036 U	0.016 U	0.016 U	0.016 U	0.059 U	0.016 U	0.029 U	0.015 U	0.015 U	0.014 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	**3.049**	0 U	0 U	0 U	**7.907**	0 U	**4.045**	0 U	0 U	**1**
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**1.549**	0.014 U	0.014 U	0.014 U	**3.707**	0.01435 U	**1.945**	0.01365 U	0.01365 U	**0.45**
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**3.049**	**0.016**	**0.016**	**0.016**	**7.907**	**0.0164**	**4.045**	**0.0156**	**0.0156**	**1**
NAPHTHALENE	160	NA	**0.076**	0.004 U	0.004 U	0.004 U	**0.1**	0.0041 U	**0.074**	0.0039 U	0.0039 U	**0.023**
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.076 U	0.033 U	0.033 U	0.033 U	0.12 U	0.033 U	0.061 U	0.032 U	0.032 U	0.03 U
PENTACHLOROPHENOL	5.3	NA	0.22 U	0.097 U	0.097 U	0.097 U	0.37 U	0.099 U	0.18 U	0.094 U	0.094 U	0.089 U
PHENANTHRENE	2300	NA	**0.9**	0.004 U	0.004 U	0.004 U	**2.3**	0.0041 U	**1.2**	0.0039 U	0.0039 U	**0.21**
PHENOL	2300	NA	0.076 U	0.033 U	0.033 U	0.033 U	0.12 U	0.033 U	0.061 U	0.032 U	0.032 U	0.03 U
PYRENE	230	NA	**2.2**	0.004 U	0.004 U	0.004 U	**3.2**	0.0041 U	**2**	0.0039 U	0.0039 U	**0.65**
TOTAL PAHS	NA	NA	**11.289**	0 U	0 U	0 U	**22.247**	0 U	**12.305**	0 U	0 U	**3.353**
TOTAL PAHS ECO HALFND	NA	NA	**11.289**	0.03265 U	0.03265 U	0.03265 U	**22.247**	0.0335 U	**12.305**	0.03185 U	0.03185 U	**3.353**
TOTAL PAHS HALFND	NA	NA	**11.289**	0.03265 U	0.03265 U	0.03265 U	**22.247**	0.0335 U	**12.305**	0.03185 U	0.03185 U	**3.353**
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.015 U	0.016 U	0.016 U	0.016 U	0.15 U	0.016 U	0.015 U	0.015 U	0.015 U	0.014 U
AROCLOR-1260	0.32	NA	0.019 U	0.021 U	0.021 U	0.021 U	**3.5**	0.021 U	**0.086**	0.02 U	0.02 U	0.019 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	**3.5**	0 U	**0.086**	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.065**	**0.0705**	**0.07**	**0.07**	**4.055**	**0.071**	**0.1415**	**0.068**	**0.068**	**0.064**
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.079 J**	**0.27 J**	**0.019 B**	**0.044 B**	**0.42 L**	**0.095 J**	**0.29 J**	**0.013 B**	**0.076 J**	**0.057 B**
ARSENIC	0.43	3.6	**2.5**	**42.6**	**0.57 J**	**4.7**	**2.9**	**5.7**	**3.5 J**	**0.81 J**	**2.2 J**	**1.5 J**
BARIUM	1600	NA	**73 K**	**10.4 K**	**3.3**	**9.7**	**51.4**	**11.5**	**44.1 J**	**7.6 J**	**14 J**	**9.8 J**
BERYLLIUM	16	NA	**0.87**	**0.22**	**0.041 B**	**0.13 K**	**0.74**	**0.18 K**	**0.55 J**	**0.12 J**	**0.54 J**	**0.09 J**
CADMIUM	3.9	NA	**0.049 J**	**0.021 B**	**0.0076 B**	**0.0084 B**	**0.49 J**	**0.012 B**	**0.24 L**	**0.023 B**	**0.024 B**	**0.01 B**
CHROMIUM	23	28	**12.9 K**	**6 K**	**2.2 J**	**18.7 J**	**18.8 J**	**24.5 J**	**16 J**	**5.7 J**	**23.5 J**	**5.5 J**
COBALT	NA	NA	**2.3**	**93.4**	**0.19**	**0.58**	**3.3**	**1.1**	**10.8 J**	**2.9 J**	**6.2 J**	**0.85 J**
COPPER	310	NA	**7.2 L**	**22.1 L**	**1.5**	**20.1**	**14.2**	**16.8**	**14**	**10.6**	**11.1**	**2.6**
IRON	5500	15000	**5590**	**4020**	**183**	**1580**	**10100**	**5130**	**12000 J**	**294 J**	**3770 J**	**3630 J**
LEAD	400	NA	**7.1**	**24.5**	**0.68**	**5.3**	**25.6**	**7.3**	**15.6 J**	**1.9 J**	**2.7 J**	**2 J**
MANGANESE	160	480	**1050**	**1**	**0.98**	**5.3**	**200**	**11.6**	**323 J**	**2.4 J**	**7.7 J**	**33.2 J**
MERCURY	2.3	NA	**0.028 J**	**0.091 J**	0.02 U	**0.099 J**	**0.051 J**	0.021 U	**0.076 J**	0.02 U	0.02 U	**0.023 J**
MOLYBDENUM	NA	NA	**0.33**	**0.39**	**0.062 B**	**0.095 B**	**0.39**	**0.13 B**	**0.47**	0.017 U	**0.12 B**	**0.26**
NICKEL	160	NA	**4.8**	**134**	**0.24 K**	**1**	**6.6**	**2.1**	**12.5 J**	**3.8 J**	**10 J**	**1.5 J**
SELENIUM	39	NA	**0.85 L**	**2 L**	**0.25 J**	**2.5 L**	**0.56 J**	**2.9 L**	**0.62**	**0.8**	**2.3**	**0.17 J**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-084		GSP-SB-085		GSP-SB-086		GSP-SB-087		GSP-SB-088	
SAMPLE ID			GSP-SB-84-0-2	GSP-SB-84-22-25	GSP-SB-85-10-12	GSP-SB-85-22-25	GSP-SB-86-0-2	GSP-SB-86-21-23	GSP-SB-87-0-2	GSP-SB-87-22-25	GSP-SB-88-22-25	GSP-SB-88-2-4
			GSP-SB-84-0-2	GSP-SB-84-22-25	GSP-SB-85-10-12	GSP-SB-85-22-25	GSP-SB-86-0-2	GSP-SB-86-21-23	GSP-SB-87-0-2	GSP-SB-87-22-25	GSP-SB-88-22-25	GSP-SB-88-2-4
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20100415	20100415	20100413	20100413	20100413	20100413	20100414	20100414	20100414	20100414
TOP DEPTH	Residential		0	22	10	22	0	21	0	22	22	2
BOTTOM DEPTH	Soil Standard		2	25	12	25	2	23	2	25	25	4
SILVER	39	NA	0.036 B	0.052 J	0.0087 B	0.015 B	0.49	0.015 B	0.17 J	0.02 B	0.032 B	0.012 B
THALLIUM	0.55	3.9	0.075 B	0.37	0.03 B	0.064 B	0.05 B	0.08 B	0.065 B	0.1 U	0.14 B	0.032 B
VANADIUM	7.8	30	21	11.1	9.4 J	21.4 J	19.7 J	33.8 J	26.5	10.5	35.9	9.5
ZINC	2300	NA	13.2	21.2	0.88 B	2.2 B	43.9 J	4.5 J	29.3 J	3.9 J	7.9 J	4.4 J
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	1300 J	9.9 J	3.4 UJ	3.4 UJ	53	3.5 UJ	99	3.7 J	4.3 J	46
GASOLINE RANGE ORGANICS	230	NA	0.031 UJ	0.034 UJ	0.034 U	0.034 J	0.033 J	0.037 J	0.032 UJ	0.033 UJ	0.033 UJ	0.031 UJ
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-089		GSP-SB-090		GSP-SB-091			GSP-SB-092		
SAMPLE ID			GSP-SB-89-20-22	GSP-SB-89-2-4	GSP-SB-90-0-2	GSP-SB-90-23-25	GSP-SB-91-0-2	GSP-SB-91-22-24	GSP-SB-91-8-10	GSP-SB-92-0-2	GSP-SB-92-22-25	GSP-SB
			GSP-SB-89-20-22	GSP-SB-89-2-4	GSP-SB-90-0-2	GSP-SB-90-23-25	GSP-SB-91-0-2	GSP-SB-91-22-24	GSP-SB-91-8-10	GSP-SB-92-0-2	GSP-SB-92-22-25	GSP-SB
			REC=11	REC=11	REC=11	REC=11	REC=08	REC=08	REC=08	REC=08	REC=08	REC
SAMPLE DATE	Maryland	ATCs	20100414	20100414	20100415	20100415	20110601	20110601	20110601	20110601	20110601	2011
TOP DEPTH	Residential		20	2	0	23	0	22	8	0	22	
BOTTOM DEPTH	Soil Standard		22	4	2	25	2	24	10	2	25	
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0012 U	0.00094 U	0.0011 U	0.0011 U	0.0012 U	0.0012 U	0.0012 U	0.0013 U	0.037 U	0.001
1,1-DICHLOROETHENE	390	NA	0.00047 U	0.00038 U	0.00044 U	0.00042 U	0.00046 U	0.00046 U	0.00047 U	0.00051 U	0.017 U	0.00041
1,2,3-TRICHLOROBENZENE	NA	NA	0.00035 U	0.00027 U	0.00032 U	0.00031 U	0.00034 U	0.00034 U	0.00034 U	0.00037 U	0.0095 U	0.0003
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00015 U	0.00012 U	0.00014 U	0.00014 U	0.00015 U	0.00015 U	0.00015 U	0.00017 U	0.00016 U	0.00013
1,2,4-TRICHLOROBENZENE	78	NA	0.00025 U	0.0002 U	0.00023 U	0.00022 U	0.00024 U	0.00024 U	0.00024 U	0.00026 U	0.0069 U	0.00021
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00059 U	0.00047 U	0.00055 U	0.00053 U	0.00058 U	0.00058 U	0.00058 U	0.00063 U	0.0047 U	0.00051
1,2-DICHLOROBENZENE	700	NA	0.00033 U	0.00026 U	0.0003 U	0.00029 U	0.00032 U	0.00032 U	0.00032 U	0.00035 U	0.0081 U	0.00028
1,2-DICHLOROETHANE	7	NA	0.00031 U	0.00025 U	0.00029 U	0.00028 U	0.0003 U	0.0003 U	0.00031 U	0.00033 U	0.0095 U	0.00027
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00032 U	0.00025 U	0.0003 U	0.00028 U	0.00031 U	0.00031 U	0.00031 U	0.00034 U	0.0045 U	0.00028
1,4-DICHLOROBENZENE	27	NA	0.0006 U	0.00048 U	0.00056 U	0.00053 U	0.00059 U	0.00058 U	0.00059 U	0.00064 U	0.0076 U	0.00052
2-BUTANONE	4700	NA	0.0013 U	0.001 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0013 U	0.0014 U	0.041 U	0.0011
2-HEXANONE	NA	NA	0.00057 U	0.00046 U	0.00053 U	0.00051 U	0.00056 U	0.00056 U	0.00057 U	0.00061 U	0.019 U	0.0005
4-ISOPROPYLTOLUENE	NA	NA	0.00019 U	0.00015 U	0.00018 U	0.00017 U	0.00019 U	0.00019 U	0.00019 U	0.0002 U	0.0045 U	0.00017
4-METHYL-2-PENTANONE	NA	NA	0.00049 U	0.00039 U	0.00046 U	0.00044 U	0.00048 U	0.00048 U	0.00049 U	0.00052 U	0.045 U	0.00043
ACETONE	7000	NA	0.0057 U	0.0046 U	**0.025**	**0.038**	0.0056 U	0.0056 U	**0.0092 J**	0.0061 U	0.16 U	0.005
BENZENE	12	NA	0.00021 U	0.00017 U	0.00019 U	0.00019 U	0.0002 U	**0.0014 J**	**0.00062 J**	0.00022 U	0.011 U	0.00018
BROMOMETHANE	11	NA	0.00049 U	0.00039 U	0.00046 U	0.00044 U	0.00048 U	0.00048 U	0.00049 U	0.00052 U	0.027 U	0.00043
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.0004 U	0.00032 U	0.00037 U	0.00036 U	0.00039 U	0.00039 U	0.0004 U	0.00043 U	0.011 U	0.00035
CARBON TETRACHLORIDE	4.9	NA	0.00034 U	0.00027 U	0.00031 U	0.0003 U	0.00033 U	0.00033 U	0.00033 U	0.00036 U	0.0061 U	0.00029
CHLOROBENZENE	160	NA	0.0003 U	0.00024 U	0.00028 U	0.00027 U	0.00029 U	0.00029 U	0.0003 U	0.00032 U	0.0061 U	0.00026
CHLOROETHANE	220	NA	0.00078 U	0.00062 U	0.00073 U	0.0007 U	0.00076 U	0.00076 U	0.00077 U	0.00084 UJ	0.058 U	0.00068
CHLOROFORM	78	NA	0.00026 U	0.00021 U	0.00025 U	0.00023 U	0.00026 U	0.00026 U	0.00026 U	0.00028 U	0.0083 U	0.00023
CHLOROMETHANE	NA	NA	0.00037 U	0.0003 U	0.00035 U	0.00033 U	0.00036 U	0.00036 U	0.00037 U	0.0004 U	0.013 U	0.00032
CIS-1,2-DICHLOROETHENE	78	NA	0.00033 U	0.00026 U	0.0003 U	0.00029 U	0.00032 U	0.00032 U	0.00032 U	0.00035 U	0.0065 U	0.00028
DIISOPROPYL ETHER	NA	NA	0.0014 U	0.0011 U	0.0013 U	0.0012 U	0.0013 U	0.0013 U	0.0013 U	0.0015 U	0.047 U	0.0012
ETHYLBENZENE	780	NA	0.00024 U	0.00019 U	0.00022 U	0.00021 U	0.00023 U	0.00023 U	0.00023 U	0.00025 U	0.0051 U	0.00021
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00015 U	0.00012 U	0.00014 U	0.00013 U	0.00014 U	0.00014 U	0.00014 U	0.00016 U	0.0062 U	0.00013
M+P-XYLENES	NA	NA	0.0011 U	0.00087 U	0.001 U	0.00097 U	0.0011 U	0.0011 U	0.0011 U	0.0012 U	0.0059 U	0.00095
METHYL TERT-BUTYL ETHER	160	NA	0.00039 U	0.00031 U	0.00036 U	0.00035 U	0.00038 U	0.00038 U	0.00039 U	0.00042 U	0.0067 U	0.00034
METHYLENE CHLORIDE	85	NA	0.00061 U	0.00048 U	0.00057 U	0.00054 U	0.00059 U	0.00059 U	0.0006 U	**0.0034 J**	0.073 U	**0.0028**
NAPHTHALENE	160	NA	0.00017 U	0.00014 U	0.00016 U	0.00015 U	0.00017 U	0.00017 U	0.00017 U	0.00018 U	0.0063 U	0.00015
N-BUTYLBENZENE	NA	NA	0.00021 U	0.00017 U	0.00019 U	0.00019 U	0.0002 U	0.0002 U	0.00021 U	0.00022 U	0.0076 U	0.00018
N-PROPYLBENZENE	NA	NA	0.00036 U	0.00029 U	0.00034 U	0.00032 U	0.00036 U	0.00035 U	0.00036 U	0.00039 U	0.013 U	0.00032
O-XYLENE	NA	NA	0.00032 U	0.00025 U	0.0003 U	0.00028 U	0.00031 U	0.00031 U	0.00031 U	0.00034 U	0.008 U	0.00028
SEC-BUTYLBENZENE	NA	NA	0.00016 U	0.00013 U	0.00015 U	0.00015 U	0.00016 U	0.00016 U	0.00016 U	0.00017 U	0.0044 U	0.00014
STYRENE	1600	NA	0.00014 U	0.00011 U	0.00013 U	0.00012 U	0.00013 U	0.00013 U	0.00013 U	0.00015 U	0.0053 U	0.00012
TERT-AMYL METHYL ETHER	NA	NA	0.00034 UJ	0.00027 UJ	0.00031 U	0.0003 U	0.00033 U	0.00033 U	0.00033 U	0.00036 U	0.00035 U	0.00029
TERT-BUTYLBENZENE	NA	NA	0.00026 U	0.00021 U	0.00025 U	0.00023 U	0.00026 U	0.00026 U	0.00026 U	0.00028 U	0.0062 U	0.00023
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0069 UR	0.0055 UR	0.0064 UR	0.0062 UR	0.0067 UR	0.0067 UR	0.0068 UR	0.0074 UR	0.23 UR	0.006
TETRACHLOROETHENE	1.2	NA	0.00047 U	0.00038 U	0.00044 U	0.00042 U	0.00046 U	0.00046 U	0.00047 U	0.00051 U	0.011 U	0.00041
TOLUENE	630	NA	0.00025 U	0.0002 U	0.00023 U	0.00022 U	0.00024 U	0.00024 U	0.00024 U	0.00026 U	0.016 U	0.00021
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00061 U	0.00048 U	0.00057 U	0.00054 U	0.00059 U	0.00059 U	0.0006 U	0.00065 U	0.0077 U	0.00053
TRANS-1,2-DICHLOROETHENE	160	NA	0.00037 U	0.0003 U	0.00035 U	0.00033 U	0.00036 U	0.00036 U	0.00037 U	0.0004 U	0.0087 U	0.00032
TRICHLOROETHENE	1.6	NA	0.00038 U	0.0003 U	0.00036 U	0.00034 U	0.00037 U	0.00037 U	0.00038 U	0.00041 U	**2.9**	0.00033
TRICHLOROFLUOROMETHANE	NA	NA	0.00031 U	0.00025 U	0.00029 U	0.00028 U	0.0003 U	0.0003 U	0.00031 U	0.00033 U	0.015 U	0.00027
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00035 U	0.00028 U	0.00033 U	0.00032 U	0.00035 U	0.00035 U	0.00035 U	0.00038 U	0.017 U	0.00031
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.033 U	0.38 U	0.079 U	0.033 U	0.03 U	NA	0.032 U	0.028 U	NA	0.031
2,4-DICHLOROPHENOL	23	NA	0.024 U	0.28 U	0.059 U	0.024 U	0.022 U	NA	0.023 U	0.021 U	NA	0.023
2-CHLOROPHENOL	39	NA	0.033 U	0.38 U	0.079 U	0.033 U	0.03 U	NA	0.032 U	0.028 U	NA	0.031
2-METHYLNAPHTHALENE	31	NA	0.004 U	0.047 U	**0.067**	0.004 U	0.0036 U	NA	0.0039 U	0.0034 U	NA	0.0038
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	0.022 U	NA	0.023 U	0.021 U	NA	0.023

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Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-089		GSP-SB-090		GSP-SB-091			GSP-SB-092		
SAMPLE ID			GSP-SB-89-20-22	GSP-SB-89-2-4	GSP-SB-90-0-2	GSP-SB-90-23-25	GSP-SB-91-0-2	GSP-SB-91-22-24	GSP-SB-91-8-10	GSP-SB-92-0-2	GSP-SB-92-22-25	GSP-SB
			GSP-SB-89-20-22	GSP-SB-89-2-4	GSP-SB-90-0-2	GSP-SB-90-23-25	GSP-SB-91-0-2	GSP-SB-91-22-24	GSP-SB-91-8-10	GSP-SB-92-0-2	GSP-SB-92-22-25	GSP-SB
			REC=11	REC=11	REC=11	REC=11	REC=08	REC=08	REC=08	REC=08	REC=08	REC
SAMPLE DATE	Maryland	ATCs	20100414	20100414	20100415	20100415	20110601	20110601	20110601	20110601	20110601	2011
TOP DEPTH	Residential		20	2	0	23	0	22	8	0	22	
BOTTOM DEPTH	Soil Standard		22	4	2	25	2	24	10	2	25	
ACENAPHTHENE	470	NA	0.004 U	**0.24**	**0.13**	0.004 U	0.0036 U	NA	0.0039 U	0.0034 U	NA	0.0038
ACENAPHTHYLENE	470	NA	0.004 U	0.047 U	**0.088**	0.004 U	0.0036 U	NA	0.0039 U	0.0034 U	NA	0.0038
ANTHRACENE	2300	NA	0.004 U	**0.81**	**0.51**	0.004 U	**0.0046 J**	NA	0.0039 U	**0.013**	NA	0.0038
BAP EQUIVALENT-HALFND	NA	NA	0.004 U	**9.4698**	**2.3459**	**0.008121**	**0.030643**	NA	0.0039 U	**0.125916**	NA	0.0038
BAP EQUIVALENT-POS	NA	NA	0.004 U	**9.4698**	**2.3459**	**0.0039**	**0.028825**	NA	0.0039 U	**0.125916**	NA	0.0038
BENZALDEHYDE	NA	NA	0.015 U	0.17 U	0.035 U	0.015 U	0.013 U	NA	0.014 U	0.012 U	NA	0.014
BENZO(A)ANTHRACENE	0.22	NA	0.004 U	**6.7**	**1.8**	0.004 U	**0.021**	NA	0.0039 U	**0.088**	NA	0.0038
BENZO(A)PYRENE	0.022	NA	0.004 U	**6.3**	**1.6**	0.004 U	**0.023**	NA	0.0039 U	**0.085**	NA	0.0038
BENZO(B)FLUORANTHENE	0.22	NA	0.004 U	**8.9**	**1.7**	**0.018**	**0.025**	NA	0.0039 U	**0.11**	NA	0.0038
BENZO(G,H,I)PERYLENE	230	NA	0.004 U	**3.7**	**1.1**	**0.016**	**0.015**	NA	0.0039 U	**0.056**	NA	0.0038
BENZO(K)FLUORANTHENE	2.2	NA	0.004 U	**4.3**	**0.83**	0.004 U	0.0036 U	NA	0.0039 U	**0.042**	NA	0.0038
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.023 U	0.27 U	0.056 U	0.023 U	0.021 U	NA	0.022 U	0.02 U	NA	0.022
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.14 U	0.029 U	0.012 U	0.011 U	NA	0.012 U	0.01 U	NA	0.012
CAPROLACTAM	NA	NA	0.045 U	0.52 U	0.11 U	0.045 U	0.041 U	NA	0.043 U	0.038 U	NA	0.043
CARBAZOLE	32	NA	0.033 U	**0.42 J**	**0.081 J**	0.033 U	0.03 U	NA	0.032 U	0.028 U	NA	0.031
CHRYSENE	22	NA	0.0013 U	**6.8**	**1.6**	0.0013 U	**0.025**	NA	0.0013 U	**0.096**	NA	0.0013
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.004 U	**1.2**	**0.3**	0.004 U	0.0036 U	NA	0.0039 U	**0.016**	NA	0.0038
DIBENZOFURAN	7.8	NA	0.024 U	0.28 U	0.059 U	0.024 U	0.0036 U	NA	0.0039 U	0.0034 U	NA	0.0038
DIETHYL PHTHALATE	6300	NA	0.019 U	0.23 U	0.047 U	0.019 U	0.018 U	NA	0.019 U	0.017 U	NA	0.018
DIMETHYL PHTHALATE	NA	NA	0.021 U	0.24 U	0.05 U	0.021 U	0.019 U	NA	0.02 U	0.018 U	NA	0.02
DI-N-BUTYL PHTHALATE	780	NA	0.018 U	0.21 U	0.044 U	0.018 U	0.016 U	NA	0.018 U	0.015 U	NA	0.017
FLUORANTHENE	310	NA	0.004 U	**13**	**2.7**	0.004 U	**0.036**	NA	0.0039 U	**0.19**	NA	0.0038
FLUORENE	310	NA	0.004 U	**0.22**	**0.18**	0.004 U	0.0036 U	NA	0.0039 U	0.0034 U	NA	0.0038
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	**52.5**	**12.99**	**0.055**	**0.162**	NA	0 U	**0.699**	NA	0
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.01865 U	**65.5**	**15.69**	**0.06765**	**0.2016**	NA	0.0182 U	**0.889**	NA	0.01775
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.01665**	**52.5**	**12.99**	**0.06565**	**0.1656**	NA	**0.01625**	**0.699**	NA	**0.01585**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.004 U	**3.6**	**0.86**	**0.021**	**0.012**	NA	0.0039 U	**0.046**	NA	0.0038
ISOPHORONE	670	NA	0.016 U	0.18 U	0.038 U	0.016 U	0.014 U	NA	0.015 U	0.013 U	NA	0.015
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	**17.47**	**5.485**	0 U	**0.0576**	NA	0 U	**0.259**	NA	0
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.014 U	**4.5405**	**2.785**	0.014 U	**0.0306**	NA	0.01365 U	**0.0775**	NA	0.0133
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.016**	**17.5405**	**5.485**	**0.016**	**0.0666**	NA	**0.0156**	**0.2675**	NA	**0.0152**
NAPHTHALENE	160	NA	0.004 U	0.047 U	**0.11**	0.004 U	0.0036 U	NA	0.0039 U	0.0034 U	NA	0.0038
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.033 U	0.38 U	0.079 U	0.033 U	0.03 U	NA	0.032 U	0.028 U	NA	0.031
PENTACHLOROPHENOL	5.3	NA	0.097 U	1.1 U	0.24 U	0.097 U	0.088 U	NA	0.094 U	0.083 U	NA	0.092
PHENANTHRENE	2300	NA	0.004 U	**3.2**	**1.7**	0.004 U	**0.017**	NA	0.0039 U	**0.056**	NA	0.0038
PHENOL	2300	NA	0.033 U	0.38 U	0.079 U	0.033 U	0.03 U	NA	0.032 U	0.028 U	NA	0.031
PYRENE	230	NA	0.004 U	**11**	**3.2**	0.004 U	**0.041**	NA	0.0039 U	**0.16**	NA	0.0038
TOTAL PAHS	NA	NA	0 U	**69.97**	**18.475**	**0.055**	**0.2196**	NA	0 U	**0.958**	NA	0
TOTAL PAHS ECO HALFND	NA	NA	0.03265 U	**70.0405**	**18.475**	**0.08165**	**0.2322**	NA	0.03185 U	**0.9665**	NA	0.03105
TOTAL PAHS HALFND	NA	NA	0.03265 U	**70.0405**	**18.475**	**0.08165**	**0.2322**	NA	0.03185 U	**0.9665**	NA	0.03105
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.016 U	0.015 U	0.015 U	0.016 U	0.014 U	NA	0.015 U	0.013 U	NA	0.015
AROCLOR-1260	0.32	NA	0.021 U	0.019 U	0.02 U	0.021 U	0.019 U	NA	0.02 U	0.018 U	NA	0.02
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	0 U	NA	0 U	0 U	NA	0
TOTAL AROCLOR HALFND	0.32	NA	**0.07**	**0.065**	**0.0675**	**0.07**	**0.0635**	NA	**0.0675**	**0.06**	NA	**0.0665**
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.12 J**	**0.12 J**	**0.21 J**	**0.06 B**	0.4 UL	NA	0.46 UL	0.37 UL	NA	0.39
ARSENIC	0.43	3.6	**12.4 J**	**5.8 J**	**3.5**	**2.4**	**2.3**	NA	**6.8**	**1.6**	NA	**1**
BARIUM	1600	NA	**13.1 J**	**18.9 J**	**32.4 K**	**14.6 K**	**11 J**	NA	**3.7 J**	**8.3 J**	NA	**5.6**
BERYLLIUM	16	NA	**0.6 J**	**0.5 J**	**0.56**	**0.6**	**0.045 J**	NA	0.05 U	0.041 U	NA	0.043
CADMIUM	3.9	NA	**0.025 B**	**0.068 J**	**0.1 J**	**0.02 B**	0.037 U	NA	0.042 U	0.034 U	NA	0.036
CHROMIUM	23	28	**20.6 J**	**16.8 J**	**15 K**	**17.8 K**	**7.1**	NA	**39**	**3.6**	NA	**4.6**
COBALT	NA	NA	**22.8 J**	**4.9 J**	**4.6**	**10.4**	**1**	NA	**0.47 J**	**0.79 J**	NA	**0.45**
COPPER	310	NA	**23.8**	**10.3**	**13.2 L**	**27.5 L**	**4.4 K**	NA	**3.6 K**	**6.6**	NA	**1.9**
IRON	5500	15000	**3520 J**	**12000 J**	**14200**	**471**	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**8.9 J**	**6.4 J**	**10.4**	**3.6**	**6.4**	NA	**4.5**	**3.9**	NA	**1.4**
MANGANESE	160	480	**10.1 J**	**131 J**	**110**	**2**	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	**0.036 J**	**0.024 J**	**0.14**	0.02 U	**0.086 J**	NA	0.016 U	0.015 U	NA	0.016
MOLYBDENUM	NA	NA	**0.24**	**0.43**	**0.44**	**0.14 J**	0.28 U	NA	**0.53 B**	**1 B**	NA	**0.34**
NICKEL	160	NA	**21.5 J**	**7.5 J**	**7.6**	**29.6**	**2 J**	NA	**0.33 J**	**2.5 J**	NA	**0.51**
SELENIUM	39	NA	**2.3**	**0.66**	**0.66 L**	**2 L**	0.46 U	NA	0.53 U	0.43 U	NA	0.45

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-089		GSP-SB-090		GSP-SB-091			GSP-SB-092		
SAMPLE ID			GSP-SB-89-20-22	GSP-SB-89-2-4	GSP-SB-90-0-2	GSP-SB-90-23-25	GSP-SB-91-0-2	GSP-SB-91-22-24	GSP-SB-91-8-10	GSP-SB-92-0-2	GSP-SB-92-22-25	GSP-SB
			GSP-SB-89-20-22	GSP-SB-89-2-4	GSP-SB-90-0-2	GSP-SB-90-23-25	GSP-SB-91-0-2	GSP-SB-91-22-24	GSP-SB-91-8-10	GSP-SB-92-0-2	GSP-SB-92-22-25	GSP-SB
			REC=11	REC=11	REC=11	REC=11	REC=08	REC=08	REC=08	REC=08	REC=08	REC
SAMPLE DATE	Maryland	ATCs	20100414	20100414	20100415	20100415	20110601	20110601	20110601	20110601	20110601	2011
TOP DEPTH	Residential		20	2	0	23	0	22	8	0	22	
BOTTOM DEPTH	Soil Standard		22	4	2	25	2	24	10	2	25	
SILVER	39	NA	0.063 J	0.052 J	0.14 K	0.039 B	0.1 U	NA	0.12 U	0.095 U	NA	0.1
THALLIUM	0.55	3.9	0.17 B	0.065 B	0.081 B	0.18	0.57 U	NA	0.64 U	0.52 U	NA	0.56
VANADIUM	7.8	30	31.4	30.8	26.6	19.9	13	NA	93	5.9	NA	6.7
ZINC	2300	NA	7.1 J	20 J	24.7	24.5	11	NA	2.4 B	10	NA	2.4
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	4.4 J	100	250 J	9.6 J	52	12 U	11 U	24	14 J	14
GASOLINE RANGE ORGANICS	230	NA	0.034 UJ	0.032 UJ	0.033 UJ	0.034 UJ	0.027 U	0.031 U	0.029 U	0.026 U	0.03 U	0.029
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION						GSP-SB-093			GSP-SB-094				GSP-SB-095	
SAMPLE ID			-92-6-8	GSP-SB-93-0-2	GSP-SB-93-12-14	GSP-SB-93-22-24	GSP-SB-94-0-2	GSP-SB-94-20-22	GSP-SB-94-6-8	GSP-SB-95-0-2	GSP-SB-95-20-22	GSP-SB-95-6-8
			-92-6-8	GSP-SB-93-0-2	GSP-SB-93-12-14	GSP-SB-93-22-24	GSP-SB-94-0-2	GSP-SB-94-20-22	GSP-SB-94-6-8	GSP-SB-95-0-2	GSP-SB-95-20-22	GSP-SB-95-6-8
			=08	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09
SAMPLE DATE	Maryland	ATCs	0601	20110601	20110601	20110601	20110601	20110601	20110601	20110601	20110601	20110601
TOP DEPTH	Residential		6	0	12	22	0	20	6	0	20	6
BOTTOM DEPTH	Soil Standard		8	2	14	24	2	22	8	2	22	8
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	U	0.00088 U	0.044 U	0.039 U	0.0011 U	0.0013 U	0.0013 U	0.0013 U	0.0016 U	0.0014 U
1,1-DICHLOROETHENE	390	NA	U	0.00035 U	0.02 U	0.018 U	0.00044 U	0.00052 U	0.00051 U	0.0005 U	0.00063 U	0.00057 U
1,2,3-TRICHLOROBENZENE	NA	NA	U	0.00026 U	0.011 U	0.01 U	0.00032 U	0.00038 U	0.00037 U	0.00037 U	0.00046 U	0.00042 U
1,2,3-TRIMETHYLBENZENE	NA	NA	U	0.00012 U	0.00019 U	0.00017 U	0.00014 U	0.00017 U	0.00017 U	0.00016 U	0.00021 U	0.00019 U
1,2,4-TRICHLOROBENZENE	78	NA	U	0.00018 U	0.0082 U	0.0073 U	0.00023 U	0.00027 U	0.00026 U	0.00026 U	0.00033 U	0.0003 U
1,2,4-TRIMETHYLBENZENE	NA	NA	U	0.00044 U	0.0056 U	0.005 U	0.00055 U	0.00066 U	0.00064 U	0.00063 U	0.00079 U	0.00072 U
1,2-DICHLOROBENZENE	700	NA	U	0.00024 U	0.0097 U	0.0086 U	0.00031 U	0.00036 U	0.00035 U	0.00035 U	0.00044 U	0.0004 U
1,2-DICHLOROETHANE	7	NA	U	0.00023 U	0.011 U	0.01 U	0.00029 U	0.00034 U	0.00033 U	0.00033 U	0.00041 U	0.00037 U
1,3,5-TRIMETHYLBENZENE	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	U	0.00024 U	0.0054 U	0.0048 U	0.0003 U	0.00035 U	0.00034 U	0.00034 U	0.00043 U	0.00039 U
1,4-DICHLOROBENZENE	27	NA	U	0.00045 U	0.009 U	0.008 U	0.00056 U	0.00067 U	0.00065 U	0.00064 U	0.0008 U	0.00073 U
2-BUTANONE	4700	NA	U	0.00095 U	0.048 U	0.043 U	0.0012 U	**0.0041 J**	0.0014 U	0.0013 U	0.0017 U	0.0015 U
2-HEXANONE	NA	NA	U	0.00043 U	0.022 U	0.02 U	0.00054 U	0.00064 U	0.00062 U	0.00061 U	0.00077 U	0.00069 U
4-ISOPROPYLTOLUENE	NA	NA	U	0.00014 U	0.0054 U	0.0048 U	0.00018 U	0.00021 U	0.00021 U	0.0002 U	0.00026 U	0.00023 U
4-METHYL-2-PENTANONE	NA	NA	U	0.00037 U	0.054 U	0.048 U	0.00046 U	0.00055 U	0.00053 U	0.00052 U	0.00066 U	0.00059 U
ACETONE	7000	NA	U	0.0043 U	**0.22 J**	**0.17 J**	0.0054 U	**0.019 J**	0.0062 U	0.0061 U	0.0077 U	0.0069 U
BENZENE	12	NA	U	0.00016 U	0.013 U	0.012 U	0.0002 U	0.00023 U	0.00023 U	0.00022 U	0.00028 U	0.00025 U
BROMOMETHANE	11	NA	U	0.00037 U	0.033 U	0.029 U	0.00046 U	0.00055 U	0.00053 U	0.00052 U	0.00066 U	0.00059 U
BTEX	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	U	0.0003 U	0.013 U	0.012 U	0.00037 U	0.00044 U	0.00043 U	0.00042 U	0.00053 U	0.00048 U
CARBON TETRACHLORIDE	4.9	NA	U	0.00025 U	0.0072 U	0.0064 U	0.00031 U	0.00037 U	0.00036 U	0.00036 U	0.00045 U	0.00041 U
CHLOROBENZENE	160	NA	U	0.00022 U	0.0072 U	0.0064 U	0.00028 U	0.00033 U	0.00032 U	0.00032 U	0.0004 U	0.00036 U
CHLOROETHANE	220	NA	UJ	0.00058 UJ	0.069 UJ	0.061 UJ	0.00073 U	0.00087 U	0.00084 U	0.00083 U	0.001 U	0.00095 U
CHLOROFORM	78	NA	U	0.0002 U	0.0099 U	0.0088 U	0.00025 U	0.00029 U	0.00028 U	0.00028 U	0.00035 U	0.00032 U
CHLOROMETHANE	NA	NA	U	0.00028 U	0.016 U	0.014 U	0.00035 U	0.00041 U	0.0004 U	0.00039 U	0.0005 U	0.00045 U
CIS-1,2-DICHLOROETHENE	78	NA	U	0.00024 U	0.0078 U	0.0069 U	0.00031 U	0.00036 U	0.00035 U	0.00035 U	0.00044 U	0.0004 U
DIISOPROPYL ETHER	NA	NA	U	0.001 U	0.056 U	0.05 U	0.0013 U	0.0015 U	0.0015 U	0.0014 U	0.0018 U	0.0017 U
ETHYLBENZENE	780	NA	U	0.00018 U	0.0061 U	0.0054 U	0.00022 U	0.00026 U	0.00025 U	0.00025 U	0.00032 U	0.00029 U
FLUORODICHLOROMETHANE	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	U	0.00011 U	0.0073 U	0.0065 U	0.00014 U	0.00016 U	0.00016 U	0.00015 U	0.00019 U	0.00018 U
M+P-XYLENES	NA	NA	U	0.00081 U	0.007 U	0.0062 U	0.001 U	0.0012 U	0.0012 U	0.0012 U	0.0015 U	0.0013 U
METHYL TERT-BUTYL ETHER	160	NA	U	0.00029 U	0.008 U	0.0071 U	0.00037 U	0.00043 U	0.00042 U	0.00041 U	0.00052 U	0.00047 U
METHYLENE CHLORIDE	85	NA	**J**	**0.0024 J**	**0.82 B**	**0.57 B**	0.00057 U	0.00068 U	0.00066 U	0.00065 U	0.00081 U	0.00074 U
NAPHTHALENE	160	NA	U	0.00013 U	**0.025 B**	0.0067 U	0.00016 U	0.00019 U	0.00019 U	0.00018 U	0.00023 U	0.00021 U
N-BUTYLBENZENE	NA	NA	U	0.00016 U	0.009 U	0.008 U	0.0002 U	0.00023 U	0.00023 U	0.00022 U	0.00028 U	0.00025 U
N-PROPYLBENZENE	NA	NA	U	0.00027 U	0.016 U	0.014 U	0.00034 U	0.0004 U	0.00039 U	0.00039 U	0.00049 U	0.00044 U
O-XYLENE	NA	NA	U	0.00024 U	0.0095 U	0.0085 U	0.0003 U	0.00035 U	0.00034 U	0.00034 U	0.00043 U	0.00039 U
SEC-BUTYLBENZENE	NA	NA	U	0.00012 U	0.0053 U	0.0047 U	0.00015 U	0.00018 U	0.00018 U	0.00017 U	0.00022 U	0.0002 U
STYRENE	1600	NA	U	0.0001 U	0.0063 U	0.0056 U	0.00013 U	0.00015 U	0.00015 U	0.00014 U	0.00018 U	0.00017 U
TERT-AMYL METHYL ETHER	NA	NA	U	0.00025 U	0.00042 U	0.00037 U	0.00031 U	0.00037 U	0.00036 U	0.00036 U	0.00045 U	0.00041 U
TERT-BUTYLBENZENE	NA	NA	U	0.0002 U	0.0073 U	0.0065 U	0.00025 U	0.00029 U	0.00028 U	0.00028 U	0.00035 U	0.00032 U
TERTIARY-BUTYL ALCOHOL	NA	NA	UR	0.0051 UR	0.27 UR	0.24 UR	0.0065 UR	0.0077 UR	0.0074 UR	0.0073 UR	0.0092 UR	0.0084 UR
TETRACHLOROETHENE	1.2	NA	U	0.00035 U	0.013 U	0.012 U	0.00044 U	0.00052 U	0.00051 U	0.0005 U	0.00063 U	0.00057 U
TOLUENE	630	NA	U	0.00018 U	0.019 U	0.017 U	0.00023 U	0.00027 U	0.00026 U	0.00026 U	0.00033 U	0.0003 U
TOTAL CHLORINATED VOCS	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	U	0.00045 U	0.0091 U	0.0081 U	0.00057 U	0.00068 U	0.00066 U	0.00065 U	0.00081 U	0.00074 U
TRANS-1,2-DICHLOROETHENE	160	NA	U	0.00028 U	0.01 U	0.0092 U	0.00035 U	0.00041 U	0.0004 U	0.00039 U	0.0005 U	0.00045 U
TRICHLOROETHENE	1.6	NA	U	0.00028 U	**0.36**	**0.3**	0.00036 U	0.00042 U	0.00041 U	0.0004 U	**0.0053 J**	0.00046 U
TRICHLOROFLUOROMETHANE	NA	NA	U	0.00023 U	0.018 U	0.016 U	0.00029 U	0.00034 U	0.00033 U	0.00033 U	0.00041 U	0.00037 U
UNKNOWN	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	U	0.00026 U	0.02 U	0.018 U	0.00033 U	0.00039 U	0.00038 U	0.00038 U	0.00047 U	0.00043 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	U	0.03 U	0.032 U	NA	0.03 U	NA	0.033 U	0.029 U	NA	0.031 U
2,4-DICHLOROPHENOL	23	NA	U	0.022 U	0.024 U	NA	0.022 U	NA	0.025 U	0.022 U	NA	0.023 U
2-CHLOROPHENOL	39	NA	U	0.03 U	0.032 U	NA	0.03 U	NA	0.033 U	0.029 U	NA	0.031 U
2-METHYLNAPHTHALENE	31	NA	U	0.0037 U	0.0039 U	NA	0.0037 U	NA	0.0041 U	0.0036 U	NA	0.0038 U
3&4-METHYLPHENOL	NA	NA	U	0.022 U	0.024 U	NA	0.022 U	NA	0.025 U	0.022 U	NA	0.023 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION				GSP-SB-093			GSP-SB-094			GSP-SB-095		
SAMPLE ID			-92-6-8	GSP-SB-93-0-2	GSP-SB-93-12-14	GSP-SB-93-22-24	GSP-SB-94-0-2	GSP-SB-94-20-22	GSP-SB-94-6-8	GSP-SB-95-0-2	GSP-SB-95-20-22	GSP-SB-95-6-8
			-92-6-8	GSP-SB-93-0-2	GSP-SB-93-12-14	GSP-SB-93-22-24	GSP-SB-94-0-2	GSP-SB-94-20-22	GSP-SB-94-6-8	GSP-SB-95-0-2	GSP-SB-95-20-22	GSP-SB-95-6-8
			=08	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09
SAMPLE DATE	Maryland	ATCs	0601	20110601	20110601	20110601	20110601	20110601	20110601	20110601	20110601	20110601
TOP DEPTH	Residential		6	0	12	22	0	20	6	0	20	6
BOTTOM DEPTH	Soil Standard		8	2	14	24	2	22	8	2	22	8
ACENAPHTHENE	470	NA	U	0.0037 U	0.0039 U	NA	0.0037 U	NA	0.0041 U	0.0036 U	NA	0.0038 U
ACENAPHTHYLENE	470	NA	U	0.0037 U	0.0039 U	NA	0.0037 U	NA	0.0041 U	0.0036 U	NA	0.0038 U
ANTHRACENE	2300	NA	U	0.0037 U	0.0039 U	NA	**0.0055 J**	NA	0.0041 U	0.0036 U	NA	0.0038 U
BAP EQUIVALENT-HALFND	NA	NA	U	**0.023308**	0.0039 U	NA	**0.040997**	NA	0.0041 U	0.0036 U	NA	0.0038 U
BAP EQUIVALENT-POS	NA	NA	U	**0.021458**	0.0039 U	NA	**0.039147**	NA	0.0041 U	0.0036 U	NA	0.0038 U
BENZALDEHYDE	NA	NA	U	0.013 U	0.014 U	NA	0.013 U	NA	0.015 U	0.013 U	NA	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	U	**0.015**	0.0039 U	NA	**0.03**	NA	0.0041 U	0.0036 U	NA	0.0038 U
BENZO(A)PYRENE	0.022	NA	U	**0.017**	0.0039 U	NA	**0.031**	NA	0.0041 U	0.0036 U	NA	0.0038 U
BENZO(B)FLUORANTHENE	0.22	NA	U	**0.019**	0.0039 U	NA	**0.033**	NA	0.0041 U	0.0036 U	NA	0.0038 U
BENZO(G,H,I)PERYLENE	230	NA	U	**0.013**	0.0039 U	NA	**0.02**	NA	0.0041 U	0.0036 U	NA	0.0038 U
BENZO(K)FLUORANTHENE	2.2	NA	U	**0.01**	0.0039 U	NA	**0.031**	NA	0.0041 U	0.0036 U	NA	0.0038 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	U	0.021 U	0.023 U	NA	**0.029 B**	NA	**0.042 B**	**0.024 B**	NA	**0.039 B**
BUTYL BENZYL PHTHALATE	NA	NA	U	0.011 U	0.012 U	NA	0.011 U	NA	0.012 U	0.011 U	NA	0.011 U
CAPROLACTAM	NA	NA	U	0.041 U	0.044 U	NA	0.041 U	NA	0.045 U	0.04 U	NA	0.043 U
CARBAZOLE	32	NA	U	0.03 U	0.032 U	NA	0.03 U	NA	0.033 U	0.029 U	NA	0.031 U
CHRYSENE	22	NA	U	**0.018**	0.0013 U	NA	**0.037**	NA	0.0014 U	0.0012 U	NA	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	U	0.0037 U	0.0039 U	NA	0.0037 U	NA	0.0041 U	0.0036 U	NA	0.0038 U
DIBENZOFURAN	7.8	NA	U	0.0037 U	0.0039 U	NA	0.0037 U	NA	0.0041 U	0.0036 U	NA	0.0038 U
DIETHYL PHTHALATE	6300	NA	U	0.018 U	0.019 U	NA	0.018 U	NA	0.02 U	0.017 U	NA	0.018 U
DIMETHYL PHTHALATE	NA	NA	U	0.019 U	0.02 U	NA	0.019 U	NA	0.021 U	0.019 U	NA	0.02 U
DI-N-BUTYL PHTHALATE	780	NA	U	**0.018 J**	0.018 U	NA	0.017 U	NA	0.018 U	0.016 U	NA	0.017 U
FLUORANTHENE	310	NA	U	**0.027**	0.0039 U	NA	**0.06**	NA	0.0041 U	0.0036 U	NA	0.0038 U
FLUORENE	310	NA	U	0.0037 U	0.0039 U	NA	0.0037 U	NA	0.0041 U	0.0036 U	NA	0.0038 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	U	**0.1284**	0 U	NA	**0.255**	NA	0 U	0 U	NA	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	U	**0.15725**	0.0182 U	NA	**0.31685**	NA	0.01915 U	0.0168 U	NA	0.01775 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA		**0.13025**	**0.01625**	NA	**0.25685**	NA	**0.0171**	**0.015**	NA	**0.01585**
INDENO(1,2,3-CD)PYRENE	0.22	NA	U	**0.0094**	0.0039 U	NA	**0.015**	NA	0.0041 U	0.0036 U	NA	0.0038 U
ISOPHORONE	670	NA	U	0.014 U	0.015 U	NA	0.014 U	NA	0.016 U	0.014 U	NA	0.015 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	U	**0.0351**	0 U	NA	**0.0815**	NA	0 U	0 U	NA	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	U	**0.0192**	0.01365 U	NA	**0.03075**	NA	0.01435 U	0.0126 U	NA	0.0133 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA		**0.0462**	**0.0156**	NA	**0.09075**	NA	**0.0164**	**0.0144**	NA	**0.0152**
NAPHTHALENE	160	NA	U	0.0037 U	0.0039 U	NA	0.0037 U	NA	0.0041 U	0.0036 U	NA	0.0038 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	U	0.03 U	0.032 U	NA	0.03 U	NA	0.033 U	0.029 U	NA	0.031 U
PENTACHLOROPHENOL	5.3	NA	U	0.089 U	0.095 U	NA	0.089 U	NA	0.098 U	0.087 U	NA	0.092 U
PHENANTHRENE	2300	NA	U	**0.0081**	0.0039 U	NA	**0.016**	NA	0.0041 U	0.0036 U	NA	0.0038 U
PHENOL	2300	NA	U	0.03 U	0.032 U	NA	0.03 U	NA	0.033 U	0.029 U	NA	0.031 U
PYRENE	230	NA	U	**0.027**	0.0039 U	NA	**0.058**	NA	0.0041 U	0.0036 U	NA	0.0038 U
TOTAL PAHS	NA	NA	U	**0.1635**	0 U	NA	**0.3365**	NA	0 U	0 U	NA	0 U
TOTAL PAHS ECO HALFND	NA	NA	U	**0.17645**	0.03185 U	NA	**0.3476**	NA	0.0335 U	0.0294 U	NA	0.03105 U
TOTAL PAHS HALFND	NA	NA	U	**0.17645**	0.03185 U	NA	**0.3476**	NA	0.0335 U	0.0294 U	NA	0.03105 U
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	U	0.014 U	0.015 U	NA	0.014 U	NA	0.016 U	0.014 U	NA	0.015 U
AROCLOR-1260	0.32	NA	U	0.019 U	0.02 U	NA	0.019 U	NA	0.021 U	0.019 U	NA	0.02 U
TOTAL AROCLOR	0.32	NA	U	0 U	0 U	NA	0 U	NA	0 U	0 U	NA	0 U
TOTAL AROCLOR HALFND	0.32	NA		**0.0635**	**0.068**	NA	**0.0635**	NA	**0.071**	**0.063**	NA	**0.0665**
METALS (MG/KG)												
ANTIMONY	3.1	NA	UL	0.36 UL	0.38 UL	NA	0.42 UL	NA	0.44 UL	0.35 UL	NA	0.44 UL
ARSENIC	0.43	3.6	**J**	**2.8**	**0.85 J**	NA	**2.1**	NA	0.34 U	**1.2 J**	NA	**6.4**
BARIUM	1600	NA	**J**	**11 J**	**1.1 J**	NA	**22**	NA	**1.7 J**	**6.9 J**	NA	**4.5 J**
BERYLLIUM	16	NA	U	**0.077 J**	0.042 U	NA	**0.046 J**	NA	0.048 U	0.038 U	NA	0.048 U
CADMIUM	3.9	NA	U	0.033 U	0.035 U	NA	0.039 U	NA	0.04 U	0.032 U	NA	0.041 U
CHROMIUM	23	28		**7.2**	**5.9**	NA	**7.2**	NA	**1.4 K**	**3.3**	NA	**18**
COBALT	NA	NA	**J**	**1.2**	0.15 U	NA	**2**	NA	**0.23 J**	**0.69 J**	NA	**0.37 J**
COPPER	310	NA	**J**	**6**	**0.73 J**	NA	**38**	NA	0.83 U	**2.3 K**	NA	**4.3 K**
IRON	5500	15000		NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**K**	**5.9**	**1.2 K**	NA	**12**	NA	**0.47 J**	**2.5**	NA	**1.7 K**
MANGANESE	160	480		NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	U	**0.06 J**	0.011 U	NA	**0.063 J**	NA	0.018 U	**0.037 J**	NA	**0.011 J**
MOLYBDENUM	NA	NA	**B**	**0.39 B**	**0.28 B**	NA	**0.54 B**	NA	0.3 U	**0.29 B**	NA	**0.88 B**
NICKEL	160	NA	**J**	**1.9 J**	0.26 U	NA	**4 J**	NA	0.3 U	**0.82 J**	NA	**0.42 J**
SELENIUM	39	NA	U	0.42 U	0.43 U	NA	**0.49 J**	NA	0.5 U	0.4 U	NA	0.51 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION				GSP-SB-093			GSP-SB-094			GSP-SB-095		
SAMPLE ID			-92-6-8	GSP-SB-93-0-2	GSP-SB-93-12-14	GSP-SB-93-22-24	GSP-SB-94-0-2	GSP-SB-94-20-22	GSP-SB-94-6-8	GSP-SB-95-0-2	GSP-SB-95-20-22	GSP-SB-95-6-8
			-92-6-8	GSP-SB-93-0-2	GSP-SB-93-12-14	GSP-SB-93-22-24	GSP-SB-94-0-2	GSP-SB-94-20-22	GSP-SB-94-6-8	GSP-SB-95-0-2	GSP-SB-95-20-22	GSP-SB-95-6-8
			=08	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09
SAMPLE DATE	Maryland	ATCs	0601	20110601	20110601	20110601	20110601	20110601	20110601	20110601	20110601	20110601
TOP DEPTH	Residential		6	0	12	22	0	20	6	0	20	6
BOTTOM DEPTH	Soil Standard		8	2	14	24	2	22	8	2	22	8
SILVER	39	NA	U	0.093 U	0.097 U	NA	0.11 U	NA	0.11 U	0.089 U	NA	0.11 U
THALLIUM	0.55	3.9	U	0.51 U	0.53 U	NA	0.59 U	NA	0.62 U	0.49 U	NA	0.62 U
VANADIUM	7.8	30		**14**	**6.6**	NA	**17**	NA	**1.3**	**5.9**	NA	**25**
ZINC	2300	NA	J	**13**	0.97 U	NA	**41**	NA	**1.5 B**	**5 B**	NA	**2.8 B**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	J	10 U	**16 J**	**11 J**	**21**	12 U	11 U	**120**	12 U	**17 J**
GASOLINE RANGE ORGANICS	230	NA	U	0.028 U	0.03 U	0.03 U	0.028 U	0.031 U	0.031 U	0.027 U	0.031 U	0.029 U
TPH (C06-C10)	230	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-096			GSP-SB-097		GSP-SB-098		GSP-SB-099			GSP-S
SAMPLE ID			GSP-SB-96-0-2	GSP-SB-96-22-24	GSP-SB-96-6-8	GSP-SB-97-0-2	GSP-SB-97-6-8	GSP-SB-98-0-2	GSP-SB-98-6-8	GSP-SB-99-0-2	GSP-SB-99-6-8	GSP-SB-100-2-4	
			GSP-SB-96-0-2	GSP-SB-96-22-24	GSP-SB-96-6-8	GSP-SB-97-0-2	GSP-SB-97-6-8	GSP-SB-98-0-2	GSP-SB-98-6-8	GSP-SB-99-0-2	GSP-SB-99-6-8	GSP-SB-100-2-4	
			REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	
SAMPLE DATE	Maryland	ATCs	20110601	20110601	20110601	20110601	20110601	20110601	20110601	20110602	20110602	20110602	
TOP DEPTH	Residential		0	22	6	0	6	0	6	0	6	2	
BOTTOM DEPTH	Soil Standard		2	24	8	2	8	2	8	2	8	4	
VOLATILES (MG/KG)													
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0011 U	0.0012 U	0.0012 U	0.0013 U	0.0012 U	0.00081 U	0.00073 U	0.0013 U	0.0013 U	0.0011 U	
1,1-DICHLOROETHENE	390	NA	0.00045 U	0.00047 U	0.00047 U	0.00052 U	0.00048 U	0.00032 U	0.00029 U	0.0005 U	0.00051 U	0.00046 U	
1,2,3-TRICHLOROBENZENE	NA	NA	0.00033 U	0.00034 U	0.00034 U	0.00038 U	0.00035 U	0.00024 U	0.00021 U	0.00037 U	0.00037 U	0.00033 U	
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00015 U	0.00015 U	0.00015 U	0.00017 U	0.00016 U	0.00011 U	0.000096 U	0.00016 U	0.00017 U	0.00015 U	
1,2,4-TRICHLOROBENZENE	78	NA	0.00023 U	0.00024 U	0.00024 U	0.00027 U	0.00025 U	0.00017 U	0.00015 U	0.00026 U	0.00026 U	0.00024 U	
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00057 U	0.00059 U	0.00059 U	0.00064 U	0.00059 U	0.0004 U	0.00037 U	0.00063 U	0.00063 U	0.00057 U	
1,2-DICHLOROBENZENE	700	NA	0.00031 U	0.00033 U	0.00032 U	0.00036 U	0.00033 U	0.00022 U	0.0002 U	0.00035 U	0.00035 U	0.00032 U	
1,2-DICHLOROETHANE	7	NA	0.0003 U	0.00031 U	0.00031 U	0.00034 U	0.00031 U	0.00021 U	0.00019 U	0.00033 U	0.00033 U	0.0003 U	
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,3-DICHLOROBENZENE	23	NA	0.0003 U	0.00032 U	0.00032 U	0.00035 U	0.00032 U	0.00022 U	0.0002 U	0.00034 U	0.00034 U	0.00031 U	
1,4-DICHLOROBENZENE	27	NA	0.00057 U	0.0006 U	0.0006 U	0.00065 U	0.0006 U	0.00041 U	0.00037 U	0.00064 U	0.00064 U	0.00058 U	
2-BUTANONE	4700	NA	0.0012 U	0.0013 U	0.0013 U	0.0014 U	0.0013 U	0.00087 U	0.00079 U	0.0013 U	0.0014 U	0.0012 U	
2-HEXANONE	NA	NA	0.00055 U	0.00057 U	0.00057 U	0.00062 U	0.00058 U	0.00039 U	0.00036 U	0.00061 U	0.00061 U	0.00055 U	
4-ISOPROPYLTOLUENE	NA	NA	0.00018 U	0.00019 U	0.00019 U	0.00021 U	0.00019 U	0.00013 U	0.00012 U	0.0002 U	0.0002 U	0.00018 U	
4-METHYL-2-PENTANONE	NA	NA	0.00047 U	0.00049 U	0.00049 U	0.00054 U	0.00049 U	0.00034 U	0.0003 U	0.00052 U	0.00053 U	0.00047 U	
ACETONE	7000	NA	0.0055 U	0.0057 U	0.0057 U	**0.0066 B**	0.0058 U	0.0039 U	**0.0056 B**	**0.0095 B**	**0.0076 B**	**0.019 B**	
BENZENE	12	NA	0.0002 U	0.00021 U	0.00021 U	0.00023 U	0.00021 U	0.00014 U	0.00013 U	0.00022 U	0.00022 U	0.0002 U	
BROMOMETHANE	11	NA	0.00047 U	0.00049 U	0.00049 U	0.00054 U	0.00049 U	0.00034 U	0.0003 U	0.00052 U	0.00053 U	0.00047 U	
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
CARBON DISULFIDE	780	NA	0.00038 U	0.0004 U	0.0004 U	0.00044 U	0.0004 U	0.00027 U	**0.00063 J**	0.00042 U	0.00043 U	0.00039 U	
CARBON TETRACHLORIDE	4.9	NA	0.00032 U	0.00034 U	0.00033 U	0.00037 U	0.00034 U	0.00023 U	0.00021 U	0.00036 U	0.00036 U	0.00032 U	
CHLOROBENZENE	160	NA	0.00029 U	0.0003 U	0.0003 U	0.00033 U	0.0003 U	0.0002 U	0.00019 U	0.00032 U	0.00032 U	0.00029 U	
CHLOROETHANE	220	NA	0.00075 UJ	0.00078 UJ	0.00078 U	0.00085 UJ	0.00079 UJ	0.00053 UJ	0.00048 UJ	0.00083 UJ	0.00084 UJ	0.00075 UJ	
CHLOROFORM	78	NA	0.00025 U	0.00026 U	0.00026 U	0.00029 U	0.00027 U	0.00018 U	0.00016 U	0.00028 U	0.00028 U	0.00025 U	
CHLOROMETHANE	NA	NA	0.00036 U	0.00037 U	0.00037 U	0.00041 U	0.00038 U	0.00025 U	0.00023 U	0.0004 U	0.0004 U	0.00036 U	
CIS-1,2-DICHLOROETHENE	78	NA	0.00031 U	0.00033 U	0.00032 U	0.00036 U	0.00033 U	0.00022 U	0.0002 U	0.00035 U	0.00035 U	0.00032 U	
DIISOPROPYL ETHER	NA	NA	0.0013 U	0.0014 U	0.0014 U	0.0015 U	0.0014 U	0.00093 U	0.00085 U	0.0014 U	0.0015 U	0.0013 U	
ETHYLBENZENE	780	NA	0.00023 U	0.00024 U	0.00023 U	0.00026 U	0.00024 U	0.00016 U	0.00015 U	0.00025 U	0.00025 U	0.00023 U	
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ISOPROPYLBENZENE	780	NA	0.00014 U	0.00014 U	0.00014 U	0.00016 U	0.00015 U	0.000099 U	0.00009 U	0.00015 U	0.00016 U	0.00014 U	
M+P-XYLENES	NA	NA	0.001 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U	0.00074 U	0.00068 U	0.0012 U	0.0012 U	0.0011 U	
METHYL TERT-BUTYL ETHER	160	NA	0.00037 U	0.00039 U	0.00039 U	0.00043 U	0.00039 U	0.00027 U	0.00024 U	0.00041 U	0.00042 U	0.00038 U	
METHYLENE CHLORIDE	85	NA	**0.0027 B**	**0.0031 J**	0.0006 U	**0.0036 J**	**0.0024 J**	**0.0023 J**	**0.0015 J**	**0.003 B**	**0.0031 B**	**0.0025 B**	
NAPHTHALENE	160	NA	0.00017 U	0.00017 U	0.00017 U	0.00019 U	0.00017 U	0.00012 U	0.00011 U	0.00018 U	0.00019 U	0.00017 U	
N-BUTYLBENZENE	NA	NA	0.0002 U	0.00021 U	0.00021 U	0.00023 U	0.00021 U	0.00014 U	0.00013 U	0.00022 U	0.00022 U	0.0002 U	
N-PROPYLBENZENE	NA	NA	0.00035 U	0.00036 U	0.00036 U	0.0004 U	0.00037 U	0.00025 U	0.00023 U	0.00039 U	0.00039 U	0.00035 U	
O-XYLENE	NA	NA	0.0003 U	0.00032 U	0.00032 U	0.00035 U	0.00032 U	0.00022 U	0.0002 U	0.00034 U	0.00034 U	0.00031 U	
SEC-BUTYLBENZENE	NA	NA	0.00016 U	0.00016 U	0.00016 U	0.00018 U	0.00016 U	0.00011 U	0.0001 U	0.00017 U	0.00018 U	0.00016 U	
STYRENE	1600	NA	0.00013 U	0.00014 U	0.00014 U	0.00015 U	0.00014 U	0.000093 U	0.000085 U	0.00014 U	0.00015 U	0.00013 U	
TERT-AMYL METHYL ETHER	NA	NA	0.00032 U	0.00034 U	0.00033 U	0.00037 U	0.00034 U	0.00023 U	0.00021 U	0.00036 U	0.00036 U	0.00032 U	
TERT-BUTYLBENZENE	NA	NA	0.00025 U	0.00026 U	0.00026 U	0.00029 U	0.00027 U	0.00018 U	0.00016 U	0.00028 U	0.00028 U	0.00025 U	
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0066 UR	0.0069 UR	0.0069 UR	0.0075 UR	0.007 UR	0.0047 UR	0.0043 UR	0.0073 UR	0.0074 UR	0.0067 UR	
TETRACHLOROETHENE	1.2	NA	0.00045 U	0.00047 U	0.00047 U	0.00052 U	0.00048 U	0.00032 U	0.00029 U	0.0005 U	0.00051 U	0.00046 U	
TOLUENE	630	NA	0.00023 U	0.00024 U	0.00024 U	0.00027 U	0.00025 U	0.00017 U	0.00015 U	0.00026 U	0.00026 U	**0.00028 J**	
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TOTAL XYLENES	1600	NA	0.00058 U	0.00061 U	0.0006 U	0.00066 U	0.00061 U	0.00042 U	0.00038 U	0.00065 U	0.00065 U	0.00059 U	
TRANS-1,2-DICHLOROETHENE	160	NA	0.00036 U	0.00037 U	0.00037 U	0.00041 U	0.00038 U	0.00025 U	0.00023 U	0.0004 U	0.0004 U	0.00036 U	
TRICHLOROETHENE	1.6	NA	0.00037 U	0.00038 U	0.00038 U	0.00042 U	0.00038 U	0.00026 U	0.00024 U	0.0004 U	0.00041 U	0.00037 U	
TRICHLOROFLUOROMETHANE	NA	NA	0.0003 U	0.00031 U	0.00031 U	0.00034 U	0.00031 U	0.00021 U	0.00019 U	0.00033 U	0.00033 U	0.0003 U	
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
VINYL CHLORIDE	0.09	NA	0.00034 U	0.00035 U	0.00035 U	0.00039 U	0.00036 U	0.00024 U	0.00022 U	0.00038 U	0.00038 U	0.00034 U	
SEMIVOLATILES (MG/KG)													
1,1-BIPHENYL	NA	NA	0.03 U	NA	0.029 U	0.029 U	0.031 U	0.03 U	0.031 U	0.031 U	0.034 U	0.031 U	
2,4-DICHLOROPHENOL	23	NA	0.023 U	NA	0.022 U	0.022 U	0.023 U	0.022 U	0.023 U	0.023 U	0.025 U	0.023 U	
2-CHLOROPHENOL	39	NA	0.03 U	NA	0.029 U	0.029 U	0.031 U	0.03 U	0.031 U	0.031 U	0.034 U	0.031 U	
2-METHYLNAPHTHALENE	31	NA	0.0037 U	NA	0.0036 U	0.0036 U	0.0038 U	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.0038 U	
3&4-METHYLPHENOL	NA	NA	0.023 U	NA	0.022 U	0.022 U	0.023 U	0.022 U	0.023 U	0.023 U	0.025 U	0.023 U	

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-096			GSP-SB-097		GSP-SB-098		GSP-SB-099		GSP-S
SAMPLE ID			GSP-SB-96-0-2	GSP-SB-96-22-24	GSP-SB-96-6-8	GSP-SB-97-0-2	GSP-SB-97-6-8	GSP-SB-98-0-2	GSP-SB-98-6-8	GSP-SB-99-0-2	GSP-SB-99-6-8	GSP-SB-100-2-4
			GSP-SB-96-0-2	GSP-SB-96-22-24	GSP-SB-96-6-8	GSP-SB-97-0-2	GSP-SB-97-6-8	GSP-SB-98-0-2	GSP-SB-98-6-8	GSP-SB-99-0-2	GSP-SB-99-6-8	GSP-SB-100-2-4
			REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09
SAMPLE DATE	Maryland	ATCs	20110601	20110601	20110601	20110601	20110601	20110601	20110601	20110602	20110602	20110602
TOP DEPTH	Residential		0	22	6	0	6	0	6	0	6	2
BOTTOM DEPTH	Soil Standard		2	24	8	2	8	2	8	2	8	4
ACENAPHTHENE	470	NA	0.0037 U	NA	0.0036 U	0.0036 U	0.0038 U	0.0037 U	0.0038 U	**0.017**	0.0041 U	0.0038 U
ACENAPHTHYLENE	470	NA	**0.0057 J**	NA	0.0036 U	0.0036 U	0.0038 U	0.0037 U	0.0038 U	0.0038 U	0.0041 U	0.0038 U
ANTHRACENE	2300	NA	**0.012**	NA	0.0036 U	**0.012**	0.0038 U	0.0037 U	0.0038 U	**0.035**	0.0041 U	0.0038 U
BAP EQUIVALENT-HALFND	NA	NA	**0.05733**	NA	0.0036 U	**0.119005**	0.0038 U	0.0037 U	0.0038 U	**0.12285**	0.0041 U	0.0038 U
BAP EQUIVALENT-POS	NA	NA	**0.05548**	NA	0.0036 U	**0.119005**	0.0038 U	0.0037 U	0.0038 U	**0.12285**	0.0041 U	0.0038 U
BENZALDEHYDE	NA	NA	0.014 U	NA	0.013 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.015 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	**0.04**	NA	0.0036 U	**0.08**	0.0038 U	0.0037 U	0.0038 U	**0.083**	0.0041 U	0.0038 U
BENZO(A)PYRENE	0.022	NA	**0.042**	NA	0.0036 U	**0.081**	0.0038 U	0.0037 U	0.0038 U	**0.085**	0.0041 U	0.0038 U
BENZO(B)FLUORANTHENE	0.22	NA	**0.066**	NA	0.0036 U	**0.1**	0.0038 U	0.0037 U	0.0038 U	**0.11**	0.0041 U	0.0038 U
BENZO(G,H,I)PERYLENE	230	NA	**0.029**	NA	0.0036 U	**0.06**	0.0038 U	0.0037 U	0.0038 U	**0.06**	0.0041 U	0.0038 U
BENZO(K)FLUORANTHENE	2.2	NA	**0.023**	NA	0.0036 U	**0.032**	0.0038 U	0.0037 U	0.0038 U	**0.046**	0.0041 U	0.0038 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.088 B**	NA	**0.033 B**	**0.034 B**	0.022 U	0.021 U	**0.038 B**	0.022 U	0.024 U	**0.034 J**
BUTYL BENZYL PHTHALATE	NA	NA	0.011 U	NA	0.011 U	0.011 U	0.012 U	0.011 U	0.012 U	0.011 U	0.012 U	0.011 U
CAPROLACTAM	NA	NA	0.042 U	NA	0.04 U	0.04 U	0.043 U	0.041 U	0.043 U	0.042 U	0.046 U	0.042 U
CARBAZOLE	32	NA	0.03 U	NA	0.029 U	0.029 U	0.031 U	0.03 U	0.031 U	0.031 U	0.034 U	0.031 U
CHRYSENE	22	NA	**0.05**	NA	0.0012 U	**0.085**	0.0013 U	0.0012 U	0.0013 U	**0.09**	0.0014 U	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0037 U	NA	0.0036 U	**0.015**	0.0038 U	0.0037 U	0.0038 U	**0.013**	0.0041 U	0.0038 U
DIBENZOFURAN	7.8	NA	0.0037 U	NA	0.0036 U	0.0036 U	0.0038 U	0.0037 U	0.0038 U	**0.0091 J**	0.0041 U	0.0038 U
DIETHYL PHTHALATE	6300	NA	0.018 U	NA	0.017 U	0.017 U	0.018 U	0.018 U	0.019 U	0.018 U	0.02 U	0.018 U
DIMETHYL PHTHALATE	NA	NA	0.019 U	NA	0.018 U	0.019 U	0.02 U	0.019 U	0.02 U	0.019 U	0.021 U	0.019 U
DI-N-BUTYL PHTHALATE	780	NA	0.017 U	NA	0.016 U	**0.016 J**	0.017 U	0.017 U	**0.026 J**	0.017 U	0.019 U	0.017 U
FLUORANTHENE	310	NA	**0.095**	NA	0.0036 U	**0.14**	0.0038 U	**0.0052 J**	0.0038 U	**0.21**	0.0041 U	0.0038 U
FLUORENE	310	NA	0.0037 U	NA	0.0036 U	0.0036 U	0.0038 U	0.0037 U	0.0038 U	**0.015**	0.0041 U	0.0038 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	**0.351**	NA	0 U	**0.639**	0 U	**0.0077**	0 U	**0.687**	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**0.44785**	NA	0.0168 U	**0.779**	0.01775 U	**0.02645**	0.01775 U	**0.897**	0.01915 U	0.01775 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.35285**	NA	**0.015**	**0.639**	**0.01585**	**0.02125**	**0.01585**	**0.687**	**0.0171**	**0.01585**
INDENO(1,2,3-CD)PYRENE	0.22	NA	**0.026**	NA	0.0036 U	**0.046**	0.0038 U	0.0037 U	0.0038 U	**0.05**	0.0041 U	0.0038 U
ISOPHORONE	670	NA	0.015 U	NA	0.014 U	0.014 U	0.015 U	0.014 U	0.015 U	0.015 U	0.016 U	0.015 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	**0.1377**	NA	0 U	**0.192**	0 U	**0.0052**	0 U	**0.407**	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**0.0501**	NA	0.0126 U	**0.061**	0.0133 U	0.01295 U	0.0133 U	**0.2008**	0.01435 U	0.0133 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.1451**	NA	**0.0144**	**0.201**	**0.0152**	**0.01815**	**0.0152**	**0.4108**	**0.0164**	**0.0152**
NAPHTHALENE	160	NA	0.0037 U	NA	0.0036 U	0.0036 U	0.0038 U	0.0037 U	0.0038 U	**0.01**	0.0041 U	0.0038 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.03 U	NA	0.029 U	0.029 U	0.031 U	0.03 U	0.031 U	0.031 U	0.034 U	0.031 U
PENTACHLOROPHENOL	5.3	NA	0.09 U	NA	0.087 U	0.087 U	0.092 U	0.089 U	0.093 U	0.092 U	0.1 U	0.091 U
PHENANTHRENE	2300	NA	**0.025**	NA	0.0036 U	**0.04**	0.0038 U	0.0037 U	0.0038 U	**0.12**	0.0041 U	0.0038 U
PHENOL	2300	NA	0.03 U	NA	0.029 U	0.029 U	0.031 U	0.03 U	0.031 U	0.031 U	0.034 U	0.031 U
PYRENE	230	NA	**0.075**	NA	0.0036 U	**0.14**	0.0038 U	**0.0077**	0.0038 U	**0.15**	0.0041 U	0.0038 U
TOTAL PAHS	NA	NA	**0.4887**	NA	0 U	**0.831**	0 U	**0.0129**	0 U	**1.094**	0 U	0 U
TOTAL PAHS ECO HALFND	NA	NA	**0.49795**	NA	0.0294 U	**0.84**	0.03105 U	**0.0394**	0.03105 U	**1.0978**	0.0335 U	0.03105 U
TOTAL PAHS HALFND	NA	NA	**0.49795**	NA	0.0294 U	**0.84**	0.03105 U	**0.0394**	0.03105 U	**1.0978**	0.0335 U	0.03105 U
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.015 U	NA	0.014 U	0.014 U	0.015 U	0.014 U	0.015 UL	0.015 U	0.016 U	0.015 U
AROCLOR-1260	0.32	NA	**0.063 J**	NA	0.018 U	0.018 U	0.02 U	0.019 U	0.02 UL	0.02 U	0.021 U	0.019 U
TOTAL AROCLOR	0.32	NA	**0.063**	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.1185**	NA	**0.0615**	**0.0615**	**0.0665**	**0.064**	**0.067**	**0.0665**	**0.071**	**0.065**
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.38 UL	NA	0.4 UL	0.42 U	0.39 UL	0.32 UL	0.43 UL	0.4 UL	0.46 UL	0.41 UL
ARSENIC	0.43	3.6	**1.6**	NA	**1 J**	**1.8**	**3**	**2**	**1.7**	**2.4**	**2.2**	**1.7**
BARIUM	1600	NA	**41**	NA	**3.5 J**	**5.1 J**	**6.3 J**	**30**	**5.8 J**	**23**	**6.1 J**	**5.4 J**
BERYLLIUM	16	NA	**0.52**	NA	0.044 U	0.046 U	0.043 U	**0.047 J**	0.048 U	**0.073 J**	0.051 U	0.045 U
CADMIUM	3.9	NA	0.035 U	NA	0.037 U	0.039 U	0.036 U	0.03 U	0.04 U	0.037 U	0.043 U	0.038 U
CHROMIUM	23	28	**5.3**	NA	**2 K**	**3.1**	**5.1**	**8.1**	**5**	**7.4 K**	**3.8 K**	**7.2 K**
COBALT	NA	NA	**1.4**	NA	**0.19 J**	**0.59 J**	**0.43 J**	**1.7**	**0.29 J**	**2**	**0.69 J**	**0.17 J**
COPPER	310	NA	**15**	NA	**0.76 J**	**2.2 J**	**6.3**	**4 K**	**2.8 K**	**6.7**	**2.1 J**	**2.1 J**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**16**	NA	**1.1 K**	**1.9 K**	**1.7 K**	**4.7**	**1.3 K**	**13**	**1.7 K**	**2.2 K**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	0.017 U	NA	0.015 U	0.015 U	0.014 U	**0.013 J**	0.017 U	**0.033 J**	0.013 U	0.017 U
MOLYBDENUM	NA	NA	**0.42 B**	NA	0.28 U	**0.45 B**	**0.34 B**	**0.22 B**	0.3 U	0.28 U	0.32 U	0.28 U
NICKEL	160	NA	**2.6 J**	NA	0.28 U	**0.89 J**	**1.2 J**	**3.8**	**0.47 J**	**3.7 J**	**0.91 J**	**0.33 J**
SELENIUM	39	NA	**0.46 J**	NA	0.46 U	0.48 U	0.45 U	0.37 U	0.5 U	**0.68 J**	0.53 U	0.47 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-096			GSP-SB-097		GSP-SB-098		GSP-SB-099		GSP-S
SAMPLE ID			GSP-SB-96-0-2	GSP-SB-96-22-24	GSP-SB-96-6-8	GSP-SB-97-0-2	GSP-SB-97-6-8	GSP-SB-98-0-2	GSP-SB-98-6-8	GSP-SB-99-0-2	GSP-SB-99-6-8	GSP-SB-100-2-4
			GSP-SB-96-0-2	GSP-SB-96-22-24	GSP-SB-96-6-8	GSP-SB-97-0-2	GSP-SB-97-6-8	GSP-SB-98-0-2	GSP-SB-98-6-8	GSP-SB-99-0-2	GSP-SB-99-6-8	GSP-SB-100-2-4
			REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09	REC=09
SAMPLE DATE	Maryland	ATCs	20110601	20110601	20110601	20110601	20110601	20110601	20110601	20110602	20110602	20110602
TOP DEPTH	Residential		0	22	6	0	6	0	6	0	6	2
BOTTOM DEPTH	Soil Standard		2	24	8	2	8	2	8	2	8	4
SILVER	39	NA	0.098 U	NA	0.1 U	0.11 U	0.1 U	0.083 U	0.11 U	**0.38 J**	0.12 U	0.11 U
THALLIUM	0.55	3.9	0.54 U	NA	0.56 U	0.59 U	0.55 U	0.46 U	0.61 U	0.56 U	0.65 U	0.58 U
VANADIUM	7.8	30	**8.6**	NA	**4.3**	**5.8**	**8.9**	**14**	**9.5**	**14**	**9.7**	**10**
ZINC	2300	NA	**22**	NA	**1.5 B**	**4.6 B**	**3.2 B**	**12**	**1.8 J**	**22**	**4.4 J**	**3 J**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	**46**	11 U	10 U	**17 J**	11 U	10 U	**14 J**	**47 B**	**16 B**	11 U
GASOLINE RANGE ORGANICS	230	NA	0.028 U	0.03 U	0.027 U	0.027 U	0.029 U	0.028 U	0.029 U	0.029 U	0.031 U	0.028 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-100	GSP-SB-101		GSP-SB-102		GSP-SB-103		GSP-SB-104		GSP-S
SAMPLE ID			GSP-SB-100-6-8 GSP-SB-100-6-8 REC=09	GSP-SB-101-0-2 GSP-SB-101-0-2 REC=10	GSP-SB-101-6-8 GSP-SB-101-6-8 REC=10	GSP-SB-102-0-2 GSP-SB-102-0-2 REC=10	GSP-SB-102-6-8 GSP-SB-102-6-8 REC=10	GSP-SB-103-0-2 GSP-SB-103-0-2 REC=10	GSP-SB-103-6-8 GSP-SB-103-6-8 REC=10	GSP-SB-104-0-2 GSP-SB-104-0-2 REC=10	GSP-SB-104-6-8 GSP-SB-104-6-8 REC=10	GSP-SB-105-0-2 GSP-SB-105-0-2 REC=10
SAMPLE DATE	Maryland	ATCs	20110602	20110602	20110602	20110602	20110602	20110602	20110602	20110601	20110601	20110602
TOP DEPTH	Residential		6	0	6	0	6	0	6	0	6	0
BOTTOM DEPTH	Soil Standard		8	2	8	2	8	2	8	2	8	2
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0011 U	0.0013 U	0.0012 U	0.0016 U	0.0012 U	0.00099 U	0.0012 U	0.0014 U	0.0012 U	0.0013 U
1,1-DICHLOROETHENE	390	NA	0.00045 U	0.0005 U	0.00049 U	0.00063 U	0.00049 U	0.00039 U	0.00049 U	0.00055 U	0.00049 U	0.0005 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00033 U	0.00037 U	0.00036 U	0.00046 U	0.00036 U	0.00029 U	0.00036 U	0.0004 U	0.00036 U	0.00037 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00015 U	0.00016 UJ	0.00016 U	0.0002 U	0.00016 U	0.00013 U	0.00016 U	0.00018 U	0.00016 U	0.00016 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00023 U	0.00026 UJ	0.00026 U	0.00032 U	0.00025 U	0.0002 U	0.00025 U	0.00029 U	0.00026 U	0.00026 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00056 U	0.00063 UJ	0.00062 U	0.00078 U	0.00061 U	0.00049 U	0.00061 U	0.00069 U	0.00062 U	0.00063 U
1,2-DICHLOROBENZENE	700	NA	0.00031 U	0.00035 UJ	0.00034 U	0.00043 U	0.00034 U	0.00027 U	0.00034 U	0.00038 U	0.00034 U	0.00035 U
1,2-DICHLOROETHANE	7	NA	0.00029 U	0.00033 U	0.00032 U	0.00041 U	0.00032 U	0.00026 U	0.00032 U	0.00036 U	0.00032 U	0.00033 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.0003 U	0.00034 UJ	0.00033 U	0.00042 U	0.00033 U	0.00027 U	0.00033 U	0.00037 U	0.00033 U	0.00034 U
1,4-DICHLOROBENZENE	27	NA	0.00057 U	0.00064 UJ	0.00063 U	0.00079 U	0.00062 U	0.0005 U	0.00062 U	0.0007 U	0.00063 U	0.00064 U
2-BUTANONE	4700	NA	0.0012 U	**0.0018 J**	0.0013 U	0.0017 U	0.0013 U	0.0011 U	0.0013 U	**0.01 J**	0.0013 U	**0.0098 J**
2-HEXANONE	NA	NA	0.00054 U	0.00061 U	0.0006 U	0.00076 U	0.00059 U	0.00048 U	0.00059 U	0.00067 U	0.0006 U	0.00061 U
4-ISOPROPYLTOLUENE	NA	NA	0.00018 U	0.0002 UJ	0.0002 U	0.00025 U	0.0002 U	0.00016 U	0.0002 U	0.00022 U	0.0002 U	0.0002 U
4-METHYL-2-PENTANONE	NA	NA	0.00047 U	0.00052 U	0.00051 U	0.00065 U	0.00051 U	0.00041 U	0.00051 U	0.00057 U	0.00051 U	0.00052 U
ACETONE	7000	NA	**0.021 B**	0.0061 U	0.006 U	0.0076 U	**0.014 B**	0.0048 U	0.0059 U	**0.046**	0.006 U	**0.064**
BENZENE	12	NA	0.0002 U	0.00022 U	0.00022 U	0.00028 U	0.00022 U	0.00017 U	0.00022 U	0.00024 U	0.00022 U	0.00022 U
BROMOMETHANE	11	NA	0.00047 U	0.00052 U	0.00051 U	0.00065 U	0.00051 U	0.00041 U	0.00051 U	0.00057 U	0.00051 U	0.00052 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00038 U	**0.003 J**	0.00042 U	0.00053 U	0.00041 U	0.00033 U	0.00041 U	**0.0008 J**	0.00042 U	0.00042 U
CARBON TETRACHLORIDE	4.9	NA	0.00032 U	0.00036 U	0.00035 U	0.00045 U	0.00035 U	0.00028 U	0.00035 U	0.00039 U	0.00035 U	0.00036 U
CHLOROBENZENE	160	NA	0.00028 U	0.00032 U	0.00031 U	0.0004 U	0.00031 U	0.00025 U	0.00031 U	0.00035 U	0.00031 U	0.00032 U
CHLOROETHANE	220	NA	0.00074 UJ	0.00083 U	0.00081 U	0.001 UJ	0.00081 UJ	0.00065 U	0.00081 U	0.00091 U	0.00082 U	0.00083 U
CHLOROFORM	78	NA	0.00025 U	0.00028 U	0.00027 U	0.00035 U	0.00027 U	0.00022 U	0.00027 U	0.00031 U	0.00028 U	0.00028 U
CHLOROMETHANE	NA	NA	0.00035 U	0.0004 U	0.00039 U	0.00049 U	0.00038 U	0.00031 U	0.00038 U	0.00043 U	0.00039 U	0.00039 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00031 U	0.00035 U	0.00034 U	0.00043 U	0.00034 U	0.00027 U	0.00034 U	0.00038 U	0.00034 U	0.00035 U
DIISOPROPYL ETHER	NA	NA	0.0013 U	0.0015 U	0.0014 U	0.0018 U	0.0014 U	0.0011 U	0.0014 U	0.0016 U	0.0014 U	0.0014 U
ETHYLBENZENE	780	NA	0.00022 U	0.00025 U	0.00025 U	0.00031 U	0.00024 U	0.0002 U	0.00024 U	0.00028 U	0.00025 U	0.00025 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00014 U	0.00016 U	0.00015 U	0.00019 U	0.00015 U	0.00012 U	0.00015 U	0.00017 U	0.00015 U	0.00015 U
M+P-XYLENES	NA	NA	0.001 U	0.0012 U	0.0011 U	0.0014 U	0.0011 U	0.00091 U	0.0011 U	0.0013 U	0.0011 U	0.0012 U
METHYL TERT-BUTYL ETHER	160	NA	0.00037 U	0.00042 U	0.00041 U	0.00052 U	0.0004 U	0.00033 U	0.0004 U	0.00046 U	0.00041 U	0.00041 U
METHYLENE CHLORIDE	85	NA	**0.0035 B**	0.00065 U	0.00063 U	**0.0037 B**	**0.0032 B**	0.00051 U	0.00063 U	0.00071 U	0.00064 U	0.00064 U
NAPHTHALENE	160	NA	**0.00036 B**	0.00018 UJ	0.00018 U	**0.004 J**	**0.00026 B**	0.00014 U	0.00018 U	0.0002 U	0.00018 U	0.00018 U
N-BUTYLBENZENE	NA	NA	0.0002 U	0.00022 UJ	0.00022 U	0.00028 U	0.00022 U	0.00017 U	0.00022 U	0.00024 U	0.00022 U	0.00022 U
N-PROPYLBENZENE	NA	NA	0.00035 U	0.00039 UJ	0.00038 U	0.00048 U	0.00038 U	0.0003 U	0.00037 U	0.00042 U	0.00038 U	0.00038 U
O-XYLENE	NA	NA	0.0003 U	0.00034 U	0.00033 U	0.00042 U	0.00033 U	0.00027 U	0.00033 U	0.00037 U	0.00033 U	0.00034 U
SEC-BUTYLBENZENE	NA	NA	0.00016 U	0.00017 UJ	0.00017 U	0.00022 U	0.00017 U	0.00014 U	0.00017 U	0.00019 U	0.00017 U	0.00017 U
STYRENE	1600	NA	0.00013 U	0.00015 U	0.00014 U	0.00018 U	0.00014 U	0.00011 U	0.00014 U	0.00016 U	0.00014 U	0.00014 U
TERT-AMYL METHYL ETHER	NA	NA	0.00032 U	0.00036 U	0.00035 U	0.00045 U	0.00035 U	0.00028 U	0.00035 U	0.00039 U	0.00035 U	0.00036 U
TERT-BUTYLBENZENE	NA	NA	0.00025 U	0.00028 UJ	0.00027 U	0.00035 U	0.00027 U	0.00022 U	0.00027 U	0.00031 U	0.00028 U	0.00028 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0066 UR	0.0074 UR	0.0072 UR	0.0091 UR	0.0071 UR	0.0058 UR	0.0071 UR	0.0081 UR	0.0072 UR	0.0073 UR
TETRACHLOROETHENE	1.2	NA	0.00045 U	0.0005 U	0.00049 U	0.00063 U	0.00049 U	0.00039 U	0.00049 U	0.00055 U	0.00049 U	0.0005 U
TOLUENE	630	NA	**0.00026 J**	0.00026 U	0.00026 U	**0.00059 J**	**0.00029 J**	0.0002 U	0.00025 U	0.00029 U	0.00026 U	0.00026 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00058 U	0.00065 U	0.00063 U	0.00081 U	0.00063 U	0.00051 U	0.00063 U	0.00071 U	0.00064 U	0.00064 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00035 U	0.0004 U	0.00039 U	0.00049 U	0.00038 U	0.00031 U	0.00038 U	0.00043 U	0.00039 U	0.00039 U
TRICHLOROETHENE	1.6	NA	0.00036 U	0.00041 U	0.0004 U	0.00051 U	0.00039 U	0.00032 U	0.00039 U	0.00045 U	0.0004 U	0.0004 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00029 U	0.00033 U	0.00032 U	0.00041 U	0.00032 U	0.00026 U	0.00032 U	0.00036 U	0.00032 U	0.00033 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00034 U	0.00038 U	0.00037 U	0.00047 U	0.00037 U	0.0003 U	0.00037 U	0.00041 U	0.00037 U	0.00038 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.03 U	0.14 U	0.031 U	0.028 U	0.15 U	0.032 U	0.03 U	0.031 U	0.034 U	0.16 U
2,4-DICHLOROPHENOL	23	NA	0.022 U	0.11 U	0.023 U	0.021 U	0.11 U	0.024 U	0.022 U	0.023 U	0.025 U	0.12 U
2-CHLOROPHENOL	39	NA	0.03 U	0.14 U	0.031 U	0.028 U	0.15 U	0.032 U	0.03 U	0.031 U	0.034 U	0.16 U
2-METHYLNAPHTHALENE	31	NA	0.0037 U	0.017 U	0.0038 U	**0.071**	**0.77**	0.0039 U	0.0037 U	0.0038 U	0.0042 U	0.019 U
3&4-METHYLPHENOL	NA	NA	0.022 U	0.11 U	0.023 U	0.021 U	0.11 U	0.024 U	0.022 U	0.023 U	0.025 U	0.12 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-100	GSP-SB-101		GSP-SB-102		GSP-SB-103		GSP-SB-104		GSP-S
SAMPLE ID			GSP-SB-100-6-8 GSP-SB-100-6-8 REC=09	GSP-SB-101-0-2 GSP-SB-101-0-2 REC=10	GSP-SB-101-6-8 GSP-SB-101-6-8 REC=10	GSP-SB-102-0-2 GSP-SB-102-0-2 REC=10	GSP-SB-102-6-8 GSP-SB-102-6-8 REC=10	GSP-SB-103-0-2 GSP-SB-103-0-2 REC=10	GSP-SB-103-6-8 GSP-SB-103-6-8 REC=10	GSP-SB-104-0-2 GSP-SB-104-0-2 REC=10	GSP-SB-104-6-8 GSP-SB-104-6-8 REC=10	GSP-SB-105-0-2 GSP-SB-105-0-2 REC=10
SAMPLE DATE	Maryland	ATCs	20110602	20110602	20110602	20110602	20110602	20110602	20110602	20110601	20110601	20110602
TOP DEPTH	Residential		6	0	6	0	6	0	6	0	6	0
BOTTOM DEPTH	Soil Standard		8	2	8	2	8	2	8	2	8	2
ACENAPHTHENE	470	NA	0.0037 U	0.017 U	0.0038 U	**0.017**	**0.3**	0.0039 U	0.0037 U	0.0038 U	0.0042 U	0.019 U
ACENAPHTHYLENE	470	NA	0.0037 U	0.017 U	0.0038 U	**0.045**	**0.37**	0.0039 U	0.0037 U	0.0038 U	0.0042 U	0.019 U
ANTHRACENE	2300	NA	0.0037 U	**0.044**	0.0038 U	**0.098**	**1.2**	0.0039 U	0.0037 U	**0.0091**	0.0042 U	0.019 U
BAP EQUIVALENT-HALFND	NA	NA	0.0037 U	**0.21015**	0.0038 U	**0.27706**	**3.3395**	**0.015678**	0.0037 U	**0.055556**	0.0042 U	**0.14212**
BAP EQUIVALENT-POS	NA	NA	0.0037 U	**0.20165**	0.0038 U	**0.27706**	**3.3395**	**0.013513**	0.0037 U	**0.053656**	0.0042 U	**0.13167**
BENZALDEHYDE	NA	NA	0.013 U	0.063 U	0.014 U	0.012 U	0.065 U	0.014 U	0.013 U	0.014 U	0.015 U	0.069 U
BENZO(A)ANTHRACENE	0.22	NA	0.0037 U	**0.12**	0.0038 U	**0.14**	**1.6**	**0.011**	0.0037 U	**0.042**	0.0042 U	**0.086**
BENZO(A)PYRENE	0.022	NA	0.0037 U	**0.16**	0.0038 U	**0.2**	**2.4**	**0.011**	0.0037 U	**0.042**	0.0042 U	**0.11**
BENZO(B)FLUORANTHENE	0.22	NA	0.0037 U	**0.19**	0.0038 U	**0.14**	**1.9**	**0.014**	0.0037 U	**0.05**	0.0042 U	**0.12**
BENZO(G,H,I)PERYLENE	230	NA	0.0037 U	**0.13**	0.0038 U	**0.26**	**1.5**	**0.0079**	0.0037 U	**0.025**	0.0042 U	0.019 U
BENZO(K)FLUORANTHENE	2.2	NA	0.0037 U	**0.09**	0.0038 U	**0.09**	**0.75**	0.0039 U	0.0037 U	**0.021**	0.0042 U	**0.092**
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.027 J**	0.1 U	0.022 U	0.02 U	0.1 U	0.022 U	0.021 U	**0.058 B**	**0.06 B**	0.11 U
BUTYL BENZYL PHTHALATE	NA	NA	0.011 U	0.053 U	0.012 U	0.01 U	0.054 U	0.012 U	0.011 U	0.011 U	0.013 U	0.058 U
CAPROLACTAM	NA	NA	0.041 U	0.2 U	0.043 U	0.038 U	0.2 U	0.044 U	0.041 U	0.042 U	0.047 U	0.21 U
CARBAZOLE	32	NA	0.03 U	0.14 U	0.031 U	0.028 U	0.15 U	0.032 U	0.03 U	0.031 U	0.034 U	0.16 U
CHRYSENE	22	NA	0.0012 U	**0.15**	0.0013 U	**0.16**	**2**	**0.013**	0.0012 U	**0.046**	0.0014 U	**0.15**
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0037 U	0.017 U	0.0038 U	**0.032**	**0.47**	0.0039 U	0.0037 U	0.0038 U	0.0042 U	0.019 U
DIBENZOFURAN	7.8	NA	0.0037 U	0.017 U	0.0038 U	0.0034 U	**0.073 J**	0.0039 U	0.0037 U	0.0038 U	0.0042 U	0.019 U
DIETHYL PHTHALATE	6300	NA	0.018 U	0.085 U	0.019 U	0.017 U	0.086 U	0.019 U	0.018 U	**0.045 J**	0.02 U	0.093 U
DIMETHYL PHTHALATE	NA	NA	0.019 U	0.09 U	0.02 U	0.018 U	0.092 U	0.02 U	0.019 U	0.019 U	0.022 U	0.098 U
DI-N-BUTYL PHTHALATE	780	NA	0.017 U	0.079 U	0.017 U	0.016 U	0.081 U	0.018 U	0.017 U	**0.02 J**	**0.032 J**	0.087 U
FLUORANTHENE	310	NA	0.0037 U	**0.23**	0.0038 U	**0.2**	**2.3**	**0.021**	0.0037 U	**0.082**	0.0042 U	**0.19**
FLUORENE	310	NA	0.0037 U	0.017 U	0.0038 U	**0.035**	**0.64**	0.0039 U	0.0037 U	0.0038 U	0.0042 U	0.019 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	**1.156**	0 U	**1.432**	**14.92**	**0.0739**	0 U	**0.323**	0 U	**0.738**
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.01725 U	**1.3945**	0.01775 U	**1.632**	**17.22**	**0.10075**	0.01725 U	**0.4069**	0.0196 U	**0.9565**
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0154**	**1.1645**	**0.01585**	**1.432**	**14.92**	**0.07975**	**0.0154**	**0.3249**	**0.0175**	**0.7665**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.0037 U	**0.096**	0.0038 U	**0.16**	**1.1**	0.0039 U	0.0037 U	**0.022**	0.0042 U	0.019 U
ISOPHORONE	670	NA	0.014 U	0.069 U	0.015 U	0.013 U	0.07 U	0.015 U	0.014 U	0.015 U	0.017 U	0.075 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	**0.347**	0 U	**0.77**	**9.17**	**0.0291**	0 U	**0.1231**	0 U	**0.263**
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.01295 U	**0.1595**	0.0133 U	**0.57**	**6.87**	**0.0198**	0.01295 U	**0.0506**	0.0147 U	**0.13**
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0148**	**0.3895**	**0.0152**	**0.77**	**9.17**	**0.0408**	**0.0148**	**0.1326**	**0.0168**	**0.32**
NAPHTHALENE	160	NA	0.0037 U	0.017 U	0.0038 U	**0.094**	**0.89**	0.0039 U	0.0037 U	0.0038 U	0.0042 U	0.019 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.03 U	0.14 U	0.031 U	0.028 U	0.15 U	0.032 U	0.03 U	0.031 U	0.034 U	0.16 U
PENTACHLOROPHENOL	5.3	NA	0.089 U	0.42 U	0.093 U	0.083 U	0.43 U	0.094 U	0.089 U	0.091 U	0.1 U	0.46 U
PHENANTHRENE	2300	NA	0.0037 U	**0.073**	0.0038 U	**0.21**	**2.7**	**0.0081**	0.0037 U	**0.032**	0.0042 U	**0.073**
PHENOL	2300	NA	0.03 U	0.14 U	0.031 U	0.028 U	0.15 U	0.032 U	0.03 U	0.031 U	0.034 U	0.16 U
PYRENE	230	NA	0.0037 U	**0.22**	0.0038 U	**0.25**	**3.2**	**0.017**	0.0037 U	**0.075**	0.0042 U	**0.18**
TOTAL PAHS	NA	NA	0 U	**1.503**	0 U	**2.202**	**24.09**	**0.103**	0 U	**0.4461**	0 U	**1.001**
TOTAL PAHS ECO HALFND	NA	NA	0.0302 U	**1.554**	0.03105 U	**2.202**	**24.09**	**0.12055**	0.0302 U	**0.4575**	0.0343 U	**1.0865**
TOTAL PAHS HALFND	NA	NA	0.0302 U	**1.554**	0.03105 U	**2.202**	**24.09**	**0.12055**	0.0302 U	**0.4575**	0.0343 U	**1.0865**
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.014 U	0.014 U	0.015 U	0.014 U	0.014 U	0.015 U	0.014 U	0.015 U	0.017 U	0.015 U
AROCLOR-1260	0.32	NA	0.019 U	0.018 U	0.02 U	0.018 U	0.018 U	0.02 U	0.019 U	0.019 U	0.022 U	0.02 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.064**	**0.061**	**0.067**	**0.061**	**0.0615**	**0.068**	**0.0635**	**0.065**	**0.074**	**0.0665**
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.41 UL	0.37 UL	0.32 UL	**0.72 J**	0.36 UL	0.43 UL	0.4 UL	0.4 UL	0.45 UL	0.38 UL
ARSENIC	0.43	3.6	**1.7**	**1.8**	**1.2**	**2.1**	**5.2**	**4.1**	**1.7**	**3.3**	**2.5**	**2**
BARIUM	1600	NA	**2.6 J**	**190**	**5.2 J**	**140**	**21**	**24**	**21**	**25**	**6.5 J**	**25**
BERYLLIUM	16	NA	0.045 U	**1.1**	0.036 U	0.044 U	**0.45 J**	**0.12 J**	**0.093 J**	**0.21 J**	0.049 U	**0.072 J**
CADMIUM	3.9	NA	0.037 U	**0.078 J**	0.03 U	0.037 U	0.033 U	0.04 U	0.036 U	0.037 U	0.041 U	0.035 U
CHROMIUM	23	28	**3.3 K**	**11 K**	**4 K**	**17 K**	**16 K**	**11 K**	**9 K**	**11**	**6.7**	**7.5 K**
COBALT	NA	NA	0.17 U	**1.6**	**0.99**	**5.6**	**5.7**	**2.5**	**0.97 J**	**3.2**	**0.81 J**	**1.5**
COPPER	310	NA	**1.1 J**	**9.4**	**1.7 J**	**12**	**23**	**4.2**	**12**	**7.3**	**4 K**	**8**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**0.79 B**	**16**	**1.4 K**	**8.4**	**4.4**	**5.5**	**3.8**	**9.7**	**1.9 K**	**17**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	0.016 U	**0.022 J**	0.017 U	**0.084 J**	0.014 U	0.015 U	0.014 U	**0.037 J**	0.014 U	**0.039 J**
MOLYBDENUM	NA	NA	0.28 U	0.26 U	0.22 U	0.28 U	**0.51 B**	**0.34 B**	0.27 U	**0.49 B**	0.31 U	0.27 U
NICKEL	160	NA	0.28 U	**3.9**	**0.71 J**	**7.6**	**8.1**	**4.8**	**0.82 J**	**5.2**	**1.3 J**	**3 J**
SELENIUM	39	NA	0.47 U	**0.55 J**	0.37 U	0.47 U	0.42 U	**0.75 J**	0.46 U	**0.62 J**	0.52 U	**0.6 J**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-100	GSP-SB-101		GSP-SB-102		GSP-SB-103		GSP-SB-104		GSP-S
SAMPLE ID			GSP-SB-100-6-8	GSP-SB-101-0-2	GSP-SB-101-6-8	GSP-SB-102-0-2	GSP-SB-102-6-8	GSP-SB-103-0-2	GSP-SB-103-6-8	GSP-SB-104-0-2	GSP-SB-104-6-8	GSP-SB-105-0-2
			GSP-SB-100-6-8	GSP-SB-101-0-2	GSP-SB-101-6-8	GSP-SB-102-0-2	GSP-SB-102-6-8	GSP-SB-103-0-2	GSP-SB-103-6-8	GSP-SB-104-0-2	GSP-SB-104-6-8	GSP-SB-105-0-2
			REC=09	REC=10	REC=10	REC=10	REC=10	REC=10	REC=10	REC=10	REC=10	REC=10
SAMPLE DATE	Maryland	ATCs	20110602	20110602	20110602	20110602	20110602	20110602	20110602	20110601	20110601	20110602
TOP DEPTH	Residential		6	0	6	0	6	0	6	0	6	0
BOTTOM DEPTH	Soil Standard		8	2	8	2	8	2	8	2	8	2
SILVER	39	NA	0.1 U	0.095 U	0.083 U	0.1 U	0.093 U	0.11 U	0.1 U	0.1 U	0.11 U	0.098 U
THALLIUM	0.55	3.9	0.57 U	**2.3 K**	0.46 U	**2 J**	0.51 U	0.61 U	0.56 U	0.57 U	0.63 U	0.54 U
VANADIUM	7.8	30	**4.8**	**19**	**8.9**	**22**	**29**	**20**	**11**	**19**	**17**	**13**
ZINC	2300	NA	**1.4 J**	**28**	**3 J**	**38**	**19**	**16**	**3.7 J**	**22**	**5.2 B**	**24**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	10 U	**72 B**	**13 B**	**190**	**340**	11 U	**13 B**	**30 B**	12 U	**140**
GASOLINE RANGE ORGANICS	230	NA	0.028 U	0.026 U	0.029 U	0.026 U	0.027 U	0.029 U	0.028 U	0.029 U	0.032 U	0.029 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-105	GSP-SB-106		GSP-SB-107		GSP-SB-108		GSP-SB-109		GSP-S
SAMPLE ID			GSP-SB-105-6-8 GSP-SB-105-6-8 REC=10	GSP-SB-106-0-2 GSP-SB-106-0-2 REC=10	GSP-SB-106-6-8 GSP-SB-106-6-8 REC=10	GSP-SB-107-0-2 GSP-SB-107-0-2 REC=10	GSP-SB-107-6-8 GSP-SB-107-6-8 REC=10	GSP-SB-108-0-2 GSP-SB-108-0-2 REC=10	GSP-SB-108-6-8 GSP-SB-108-6-8 REC=10	GSP-SB-109-0-2 GSP-SB-109-0-2 REC=10	GSP-SB-109-6-8 GSP-SB-109-6-8 REC=10	GSP-SB-110-0-2 GSP-SB-110-0-2 REC=10
SAMPLE DATE	Maryland	ATCs	20110602	20110601	20110601	20110602	20110602	20110602	20110602	20110602	20110602	20110602
TOP DEPTH	Residential		6	0	6	0	6	0	6	0	6	0
BOTTOM DEPTH	Soil Standard		8	2	8	2	8	2	8	2	8	2
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0011 U	0.00073 U	0.00093 U	0.0014 U	0.0012 U	0.0011 U	0.0011 U	0.0012 U	0.0012 U	0.0011 U
1,1-DICHLOROETHENE	390	NA	0.00044 U	0.00029 U	0.00037 U	0.00057 U	0.00049 U	0.00044 U	0.00044 U	0.00048 U	0.00049 U	0.00044 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00032 U	0.00021 U	0.00027 U	0.00041 U	0.00036 U	0.00032 U	0.00032 U	0.00035 U	0.00036 U	0.00032 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00014 U	0.000095 U	0.00012 U	0.00019 U	0.00016 U	0.00014 U	0.00014 U	0.00016 U	0.00016 U	0.00014 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00023 U	0.00015 U	0.00019 U	0.00029 U	0.00025 U	0.00023 U	0.00023 U	0.00025 U	0.00025 U	0.00023 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00055 U	0.00036 U	0.00047 U	0.00071 U	0.00061 U	0.00055 U	0.00054 U	0.0006 U	0.00061 U	0.00055 U
1,2-DICHLOROBENZENE	700	NA	0.0003 U	0.0002 U	0.00026 U	0.00039 U	0.00034 U	0.0003 U	0.0003 U	0.00033 U	0.00034 U	0.00031 U
1,2-DICHLOROETHANE	7	NA	0.00029 U	0.00019 U	0.00024 U	0.00037 U	0.00032 U	0.00029 U	0.00028 U	0.00031 U	0.00032 U	0.00029 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.0003 U	0.0002 U	0.00025 U	0.00038 U	0.00033 U	0.00029 U	0.00029 U	0.00032 U	0.00033 U	0.0003 U
1,4-DICHLOROBENZENE	27	NA	0.00056 U	0.00037 U	0.00047 U	0.00072 U	0.00062 U	0.00055 U	0.00055 U	0.00061 U	0.00062 U	0.00056 U
2-BUTANONE	4700	NA	0.0012 U	**0.0053 J**	0.001 U	**0.0026 J**	**0.0039 J**	0.0012 U	0.0012 U	**0.0017 J**	**0.0019 J**	0.0012 U
2-HEXANONE	NA	NA	0.00053 U	0.00035 U	0.00045 U	0.00069 U	0.00059 U	0.00053 U	0.00053 U	0.00058 U	0.00059 U	0.00054 U
4-ISOPROPYLTOLUENE	NA	NA	0.00018 U	0.00012 U	0.00015 U	0.00023 U	0.0002 U	0.00018 U	0.00018 U	0.00019 U	0.0002 U	0.00018 U
4-METHYL-2-PENTANONE	NA	NA	0.00046 U	0.0003 U	0.00039 U	0.00059 U	0.00051 U	0.00045 U	0.00045 U	0.0005 U	0.00051 U	0.00046 U
ACETONE	7000	NA	0.0053 U	**0.029 B**	**0.017 B**	**0.034 B**	**0.021 B**	**0.0059 B**	**0.023 B**	**0.012 B**	**0.025 B**	**0.016 B**
BENZENE	12	NA	0.00019 U	0.00013 U	0.00016 U	0.00025 U	0.00022 U	0.00019 U	0.00019 U	0.00021 U	0.00022 U	0.0002 U
BROMOMETHANE	11	NA	0.00046 U	0.0003 U	0.00039 U	0.00059 U	0.00051 U	0.00045 U	0.00045 U	0.0005 U	0.00051 U	0.00046 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00037 U	0.00025 U	0.00032 U	0.00048 U	0.00042 U	0.00037 U	0.00037 U	0.0004 U	0.00042 U	0.00037 U
CARBON TETRACHLORIDE	4.9	NA	0.00031 U	0.00021 U	0.00027 U	0.0004 U	0.00035 U	0.00031 U	0.00031 U	0.00034 U	0.00035 U	0.00031 U
CHLOROBENZENE	160	NA	0.00028 U	0.00018 U	0.00024 U	0.00036 U	0.00031 U	0.00028 U	0.00028 U	0.0003 U	0.00031 U	0.00028 U
CHLOROETHANE	220	NA	0.00073 U	0.00048 UJ	0.00062 UJ	0.00094 UJ	0.00081 UJ	0.00072 UJ	0.00072 UJ	0.00079 UJ	0.00081 UJ	0.00073 UJ
CHLOROFORM	78	NA	0.00025 U	0.00016 U	0.00021 U	0.00032 U	0.00027 U	0.00024 U	0.00024 U	0.00027 U	0.00027 U	0.00025 U
CHLOROMETHANE	NA	NA	0.00035 U	0.00023 U	0.00029 U	0.00045 U	0.00039 U	0.00034 U	0.00034 U	0.00038 U	0.00039 U	0.00035 U
CIS-1,2-DICHLOROETHENE	78	NA	0.0003 U	0.0002 U	0.00026 U	0.00039 U	0.00034 U	0.0003 U	0.0003 U	0.00033 U	0.00034 U	0.00031 U
DIISOPROPYL ETHER	NA	NA	0.0013 U	0.00084 U	0.0011 U	0.0016 U	0.0014 U	0.0013 U	0.0013 U	0.0014 U	0.0014 U	0.0013 U
ETHYLBENZENE	780	NA	0.00022 U	**0.00021 J**	0.00019 U	0.00028 U	0.00025 U	0.00022 U	0.00022 U	0.00024 U	0.00025 U	0.00022 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00014 U	0.00009 U	0.00011 U	0.00017 U	0.00015 U	0.00013 U	0.00013 U	0.00015 U	0.00015 U	0.00014 U
M+P-XYLENES	NA	NA	0.001 U	0.00067 U	0.00086 U	0.0013 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.0011 U	0.001 U
METHYL TERT-BUTYL ETHER	160	NA	0.00036 U	0.00024 U	0.00031 U	0.00047 U	0.00041 U	0.00036 U	0.00036 U	0.00039 U	0.00041 U	0.00037 U
METHYLENE CHLORIDE	85	NA	0.00057 U	**0.0017 J**	**0.0023 J**	**0.004 B**	**0.0039 B**	**0.0023 B**	**0.0024 B**	**0.0023 B**	**0.003 B**	**0.003 B**
NAPHTHALENE	160	NA	0.00016 U	0.00011 U	0.00014 U	0.00021 U	0.00018 U	0.00016 U	0.00016 U	**0.00055 B**	0.00018 U	0.00016 U
N-BUTYLBENZENE	NA	NA	0.00019 U	0.00013 U	0.00016 U	0.00025 U	0.00022 U	0.00019 U	0.00019 U	0.00021 U	0.00022 U	0.0002 U
N-PROPYLBENZENE	NA	NA	0.00034 U	**0.00024 J**	0.00029 U	0.00044 U	0.00038 U	0.00034 U	0.00034 U	0.00037 U	0.00038 U	0.00034 U
O-XYLENE	NA	NA	0.0003 U	0.0002 U	0.00025 U	0.00038 U	0.00033 U	0.00029 U	0.00029 U	0.00032 U	0.00033 U	**0.00052 J**
SEC-BUTYLBENZENE	NA	NA	0.00015 U	0.0001 U	0.00013 U	0.0002 U	0.00017 U	0.00015 U	0.00015 U	0.00017 U	0.00017 U	0.00015 U
STYRENE	1600	NA	0.00013 U	0.000084 U	0.00011 U	0.00016 U	0.00014 U	0.00013 U	0.00013 U	0.00014 U	0.00014 U	0.00013 U
TERT-AMYL METHYL ETHER	NA	NA	0.00031 U	0.00021 U	0.00027 U	0.0004 U	0.00035 U	0.00031 U	0.00031 U	0.00034 U	0.00035 U	0.00031 U
TERT-BUTYLBENZENE	NA	NA	0.00025 U	0.00016 U	0.00021 U	0.00032 U	0.00027 U	0.00024 U	0.00024 U	0.00027 U	0.00027 U	0.00025 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0064 UR	0.0043 UR	0.0054 UR	0.0083 UR	0.0072 UR	0.0064 UR	0.0064 UR	0.007 UR	0.0072 UR	0.0065 UR
TETRACHLOROETHENE	1.2	NA	0.00044 U	0.00029 U	0.00037 U	0.00057 U	0.00049 U	0.00044 U	0.00044 U	0.00048 U	0.00049 U	0.00044 U
TOLUENE	630	NA	0.00023 U	0.00015 U	0.00019 U	**0.00029 J**	0.00025 U	**0.00027 J**	**0.00033 J**	**0.00042 J**	0.00025 U	**0.00066 J**
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00057 U	0.00038 U	0.00048 U	0.00073 U	0.00063 U	0.00056 U	0.00056 U	0.00061 U	0.00063 U	0.00057 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00035 U	0.00023 U	0.00029 U	0.00045 U	0.00039 U	0.00034 U	0.00034 U	0.00038 U	0.00039 U	0.00035 U
TRICHLOROETHENE	1.6	NA	0.00036 U	0.00024 U	0.0003 U	0.00046 U	0.0004 U	0.00035 U	0.00035 U	0.00039 U	0.0004 U	0.00036 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00029 U	0.00019 U	0.00024 U	0.00037 U	0.00032 U	0.00029 U	0.00028 U	0.00031 U	0.00032 U	0.00029 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00033 U	0.00022 U	0.00028 U	0.00042 U	0.00037 U	0.00033 U	0.00033 U	0.00036 U	0.00037 U	0.00033 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.031 U	0.03 U	0.033 U	0.033 U	0.032 U	0.031 U	0.032 U	0.28 U	0.76 U	0.031 U
2,4-DICHLOROPHENOL	23	NA	0.023 U	0.022 U	0.024 U	0.025 U	0.024 U	0.023 U	0.024 U	0.21 U	0.57 U	0.023 U
2-CHLOROPHENOL	39	NA	0.031 U	0.03 U	0.033 U	0.033 U	0.032 U	0.031 U	0.032 U	0.28 U	0.76 U	0.031 U
2-METHYLNAPHTHALENE	31	NA	0.0037 U	**0.029**	0.004 U	0.0041 U	0.0039 U	0.0038 U	0.0039 U	0.035 U	**1.2**	**0.021**
3&4-METHYLPHENOL	NA	NA	0.023 U	0.022 U	0.024 U	0.025 U	0.024 U	0.023 U	0.024 U	0.21 U	0.57 U	0.023 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-105	GSP-SB-106		GSP-SB-107		GSP-SB-108		GSP-SB-109		GSP-S
SAMPLE ID			GSP-SB-105-6-8 GSP-SB-105-6-8 REC=10	GSP-SB-106-0-2 GSP-SB-106-0-2 REC=10	GSP-SB-106-6-8 GSP-SB-106-6-8 REC=10	GSP-SB-107-0-2 GSP-SB-107-0-2 REC=10	GSP-SB-107-6-8 GSP-SB-107-6-8 REC=10	GSP-SB-108-0-2 GSP-SB-108-0-2 REC=10	GSP-SB-108-6-8 GSP-SB-108-6-8 REC=10	GSP-SB-109-0-2 GSP-SB-109-0-2 REC=10	GSP-SB-109-6-8 GSP-SB-109-6-8 REC=10	GSP-SB-110-0-2 GSP-SB-110-0-2 REC=10
SAMPLE DATE	Maryland	ATCs	20110602	20110601	20110601	20110602	20110602	20110602	20110602	20110602	20110602	20110602
TOP DEPTH	Residential		6	0	6	0	6	0	6	0	6	0
BOTTOM DEPTH	Soil Standard		8	2	8	2	8	2	8	2	8	2
ACENAPHTHENE	470	NA	0.0037 U	**0.026**	0.004 U	0.0041 U	0.0039 U	0.0038 U	0.0039 U	0.035 U	**1.1**	0.0037 U
ACENAPHTHYLENE	470	NA	0.0037 U	**0.075**	0.004 U	0.0041 U	0.0039 U	0.0038 U	0.0039 U	0.035 U	**1.9**	**0.016**
ANTHRACENE	2300	NA	0.0037 U	**0.15**	0.004 U	0.0041 U	0.0039 U	0.0038 U	0.0039 U	**0.15**	**4**	**0.027**
BAP EQUIVALENT-HALFND	NA	NA	**0.010024**	**0.69255**	0.004 U	**0.021286**	0.0039 U	0.0038 U	**0.02761**	**0.58091**	**20.027**	**0.062647**
BAP EQUIVALENT-POS	NA	NA	**0.0076**	**0.69075**	0.004 U	**0.019215**	0.0039 U	0.0038 U	**0.02566**	**0.56341**	**20.027**	**0.060797**
BENZALDEHYDE	NA	NA	0.014 U	0.013 U	0.015 U	0.015 U	0.014 U	0.014 U	0.014 U	0.13 U	0.34 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	0.0037 U	**0.52**	0.004 U	**0.012**	0.0039 U	0.0038 U	**0.014**	**0.29**	**13**	**0.032**
BENZO(A)PYRENE	0.022	NA	**0.0076**	**0.55**	0.004 U	**0.015**	0.0039 U	0.0038 U	**0.02**	**0.46**	**14**	**0.049**
BENZO(B)FLUORANTHENE	0.22	NA	0.0037 U	**0.58**	0.004 U	**0.019**	0.0039 U	0.0038 U	**0.026**	**0.38**	**12**	**0.04**
BENZO(G,H,I)PERYLENE	230	NA	**0.013**	**0.39**	0.004 U	**0.013**	0.0039 U	0.0038 U	**0.019**	**0.55**	**10**	**0.081**
BENZO(K)FLUORANTHENE	2.2	NA	0.0037 U	**0.32**	0.004 U	0.0041 U	0.0039 U	0.0038 U	**0.014**	**0.2**	**6.3**	**0.016**
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.022 J**	0.021 U	**0.041 B**	0.023 U	0.023 U	**0.025 J**	0.023 U	0.2 U	0.54 U	0.022 U
BUTYL BENZYL PHTHALATE	NA	NA	0.011 U	0.011 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.1 U	0.28 U	0.011 U
CAPROLACTAM	NA	NA	0.042 U	0.041 U	0.045 U	0.046 U	0.044 U	0.043 U	0.044 U	0.39 U	1 U	0.042 U
CARBAZOLE	32	NA	0.031 U	0.03 U	0.033 U	0.033 U	0.032 U	0.031 U	0.032 U	0.28 U	0.76 U	0.031 U
CHRYSENE	22	NA	0.0012 U	**0.55**	0.0013 U	**0.015**	0.0013 U	0.0013 U	**0.02**	**0.41**	**14**	**0.037**
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0037 U	0.0036 U	0.004 U	0.0041 U	0.0039 U	0.0038 U	0.0039 U	0.035 U	**2.7**	0.0037 U
DIBENZOFURAN	7.8	NA	0.0037 U	0.0036 U	0.004 U	0.0041 U	0.0039 U	0.0038 U	0.0039 U	0.035 U	**0.29 J**	0.0037 U
DIETHYL PHTHALATE	6300	NA	0.018 U	0.018 U	0.019 U	0.02 U	0.019 U	0.019 U	0.019 U	0.17 U	0.45 U	0.018 U
DIMETHYL PHTHALATE	NA	NA	0.019 U	0.019 U	0.021 U	0.021 U	0.02 U	0.02 U	0.02 U	0.18 U	0.48 U	0.019 U
DI-N-BUTYL PHTHALATE	780	NA	0.017 U	0.016 U	0.018 U	0.018 U	0.018 U	0.017 U	0.018 U	0.16 U	0.42 U	0.017 U
FLUORANTHENE	310	NA	0.0037 U	**0.81**	0.004 U	**0.022**	0.0039 U	**0.0087**	**0.028**	**0.48**	**21**	**0.037**
FLUORENE	310	NA	0.0037 U	**0.036**	0.004 U	0.0041 U	0.0039 U	0.0038 U	0.0039 U	0.035 U	**2**	**0.0094**
HIGH MOLECULAR WEIGHT PAHS	NA	NA	**0.029**	**4.28**	**0.0082**	**0.107**	0 U	**0.0071**	**0.154**	**3.23**	**111.5**	**0.353**
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**0.0407**	**5.0918**	**0.02485**	**0.1331**	0.0182 U	**0.02975**	**0.18395**	**3.7275**	**132.5**	**0.39185**
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.03885**	**4.2818**	**0.02285**	**0.1111**	**0.01625**	**0.02105**	**0.15595**	**3.2475**	**111.5**	**0.35485**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.0037 U	**0.27**	0.004 U	**0.011**	0.0039 U	0.0038 U	**0.015**	**0.34**	**7.5**	**0.044**
ISOPHORONE	670	NA	0.015 U	0.014 U	0.016 U	0.016 U	0.016 U	0.015 U	0.015 U	0.14 U	0.37 U	0.015 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	**1.52**	0 U	**0.0303**	0 U	**0.0087**	**0.039**	**0.99**	**45.3**	**0.1804**
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.01295 U	**0.71**	0.014 U	**0.0206**	0.01365 U	0.0133 U	**0.0227**	**0.5975**	**24.3**	**0.14525**
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0148**	**1.52**	**0.016**	**0.0426**	**0.0156**	**0.022**	**0.0507**	**1.0775**	**45.3**	**0.18225**
NAPHTHALENE	160	NA	0.0037 U	**0.044**	0.004 U	0.0041 U	0.0039 U	0.0038 U	0.0039 U	0.035 U	**1.1**	**0.024**
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.031 U	0.03 U	0.033 U	0.033 U	0.032 U	0.031 U	0.032 U	0.28 U	0.76 U	0.031 U
PENTACHLOROPHENOL	5.3	NA	0.091 U	0.088 U	0.097 U	0.098 U	0.096 U	0.093 U	0.095 U	0.84 U	2.3 U	0.091 U
PHENANTHRENE	2300	NA	0.0037 U	**0.35**	0.004 U	**0.0083**	0.0039 U	0.0038 U	**0.011**	**0.36**	**13**	**0.046**
PHENOL	2300	NA	0.031 U	0.03 U	0.033 U	0.033 U	0.032 U	0.031 U	0.032 U	0.28 U	0.76 U	0.031 U
PYRENE	230	NA	**0.0084**	**1.1**	**0.0082**	**0.022**	0.0039 U	**0.0071 J**	**0.026**	**0.6**	**32**	**0.054**
TOTAL PAHS	NA	NA	**0.029**	**5.8**	**0.0082**	**0.1373**	0 U	**0.0158**	**0.193**	**4.22**	**156.8**	**0.5334**
TOTAL PAHS ECO HALFND	NA	NA	**0.05365**	**5.8018**	**0.03885**	**0.1537**	0.03185 U	**0.04305**	**0.20665**	**4.325**	**156.8**	**0.5371**
TOTAL PAHS HALFND	NA	NA	**0.05365**	**5.8018**	**0.03885**	**0.1537**	0.03185 U	**0.04305**	**0.20665**	**4.325**	**156.8**	**0.5371**
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.015 U	0.014 U	0.016 U	0.016 U	0.016 U	0.015 U	0.015 U	0.014 U	0.015 U	0.015 U
AROCLOR-1260	0.32	NA	0.019 U	0.019 U	0.021 U	0.021 U	0.02 U	0.02 U	0.02 U	0.018 U	**0.064**	0.019 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	**0.064**	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.065**	**0.0635**	**0.0705**	**0.071**	**0.0685**	**0.067**	**0.068**	**0.061**	**0.1195**	**0.065**
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.43 UL	0.43 UL	0.42 UL	0.44 UL	0.41 UL	0.39 UL	0.45 UL	0.35 UL	**0.39 J**	0.41 UL
ARSENIC	0.43	3.6	4.1	**3.1**	4.1	**1.9**	**1.5 J**	5.5	5.4	**3.6**	4	5.6
BARIUM	1600	NA	**29**	**25**	**8.9 J**	**14 J**	**8.9 J**	**25**	**17 J**	**69**	**74**	**32**
BERYLLIUM	16	NA	0.047 U	**0.15 J**	**0.084 J**	**0.049 J**	0.045 U	**0.36 J**	**0.65**	0.039 U	**0.19 J**	**0.19 J**
CADMIUM	3.9	NA	0.039 U	0.04 U	0.039 U	**0.062 J**	0.037 U	0.036 U	0.041 U	0.033 U	0.032 U	0.038 U
CHROMIUM	23	28	**27 K**	**12**	**11**	**9.5 K**	**5.8 K**	**24 K**	32 K	**17 K**	**15 K**	**23 K**
COBALT	NA	NA	**0.78 J**	**2.9**	**2.7**	**1.6**	**1**	**7.1**	**8.2**	**4.9**	**7.4**	**5.6**
COPPER	310	NA	**2.1 J**	**9.6**	**7.5**	**6.8**	**2.3 J**	**14**	**26**	**9.9**	**17**	**14**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**4**	**7.8**	**2.6**	**10**	**2.1**	**7.9**	**4.6**	**7.6**	**18**	**5.4**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	0.014 U	**0.06 J**	0.018 U	0.017 U	0.016 U	0.011 U	**0.034 J**	**0.11**	**0.058 J**	**0.035 J**
MOLYBDENUM	NA	NA	**0.48 B**	**0.61 B**	**0.56 B**	0.3 U	**0.89 B**	0.27 U	0.31 U	**1.1 B**	**0.4 B**	0.28 U
NICKEL	160	NA	**0.83 J**	**4.7**	**1.5 J**	**3.5 J**	**1.1 J**	**15**	**22**	**6.1**	**8.6**	**4.6**
SELENIUM	39	NA	0.49 U	**0.56 J**	0.49 U	0.51 U	0.47 U	0.45 U	**0.54 J**	0.41 U	0.4 U	**0.78 J**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-105	GSP-SB-106		GSP-SB-107		GSP-SB-108		GSP-SB-109		GSP-S
SAMPLE ID			GSP-SB-105-6-8	GSP-SB-106-0-2	GSP-SB-106-6-8	GSP-SB-107-0-2	GSP-SB-107-6-8	GSP-SB-108-0-2	GSP-SB-108-6-8	GSP-SB-109-0-2	GSP-SB-109-6-8	GSP-SB-110-0-2
			GSP-SB-105-6-8	GSP-SB-106-0-2	GSP-SB-106-6-8	GSP-SB-107-0-2	GSP-SB-107-6-8	GSP-SB-108-0-2	GSP-SB-108-6-8	GSP-SB-109-0-2	GSP-SB-109-6-8	GSP-SB-110-0-2
			REC=10	REC=10	REC=10	REC=10	REC=10	REC=10	REC=10	REC=10	REC=10	REC=10
SAMPLE DATE	Maryland	ATCs	20110602	20110601	20110601	20110602	20110602	20110602	20110602	20110602	20110602	20110602
TOP DEPTH	Residential		6	0	6	0	6	0	6	0	6	0
BOTTOM DEPTH	Soil Standard		8	2	8	2	8	2	8	2	8	2
SILVER	39	NA	0.11 U	0.11 U	0.11 U	0.11 U	0.1 U	0.1 U	0.11 U	0.09 U	0.089 U	0.1 U
THALLIUM	0.55	3.9	0.6 U	0.6 U	0.6 U	0.62 U	0.57 U	0.55 U	0.63 U	**0.7 J**	**0.67 J**	0.57 U
VANADIUM	7.8	30	49	**19**	**26**	**13**	**9.8**	65	59	**18**	**26**	47
ZINC	2300	NA	**5.1 J**	**20**	**6.5 K**	**24**	**5 J**	**29**	**31**	**42**	**35**	**14**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	**27 B**	**140**	11 U	11 U	11 U	**24 B**	**23 B**	**290**	**410**	**320**
GASOLINE RANGE ORGANICS	230	NA	0.028 U	0.027 U	0.03 U	0.031 U	0.03 U	0.029 U	0.03 U	0.026 U	0.028 U	0.028 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-110	GSP-SB-111			GSP-SB-112		GSP-SB-113			
SAMPLE ID			GSP-SB-110-6-8 GSP-SB-110-6-8 REC=10	GSP-SB-111-0-2 GSP-SB-111-0-2 REC=11	GSP-SB-111-22-24 GSP-SB-111-22-24 REC=11	GSP-SB-111-6-8 GSP-SB-111-6-8 REC=11	GSP-SB-112-0-2 GSP-SB-112-0-2 REC=11	GSP-SB-112-6-8 GSP-SB-112-6-8 REC=11	GSP-SB-113-0-2 GSP-SB-113-0-2 REC=11	GSP-SB-113-22-24 GSP-SB-113-22-24 REC=11	GSP-SB-113-6-8 GSP-SB-113-6-8 REC=11	GSP-SB-114-0-2 GSP-SB-114-0-2 REC=11
SAMPLE DATE	Maryland	ATCs	20110602	20110603	20110603	20110603	20110603	20110603	20110601	20110601	20110601	20110601
TOP DEPTH	Residential		6	0	22	6	0	6	0	22	6	0
BOTTOM DEPTH	Soil Standard		8	2	24	8	2	8	2	24	8	2
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0016 U	0.0012 U	0.0012 U	0.0014 U	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0011 U	0.0013 U
1,1-DICHLOROETHENE	390	NA	0.00065 U	0.00047 U	0.00046 U	0.00055 U	0.0005 U	0.00043 U	0.00045 U	0.00059 U	0.00045 U	0.00051 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00047 U	0.00034 U	0.00034 U	0.0004 U	0.00036 U	0.00032 U	0.00033 U	0.00043 U	0.00033 U	0.00037 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00021 U	0.00015 U	0.00015 U	0.00018 U	0.00016 U	0.00014 U	0.00015 U	0.00019 U	0.00015 U	0.00017 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00034 U	0.00024 U	0.00024 U	0.00028 U	0.00026 U	0.00023 U	0.00024 U	0.00031 U	0.00023 U	0.00026 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00081 U	0.00058 U	0.00058 U	0.00068 U	0.00062 U	0.00054 U	0.00057 U	0.00074 U	0.00056 U	0.00064 U
1,2-DICHLOROBENZENE	700	NA	0.00045 U	0.00032 U	0.00032 U	0.00038 U	0.00035 U	0.0003 U	0.00031 U	0.00041 U	0.00031 U	0.00035 U
1,2-DICHLOROETHANE	7	NA	0.00042 U	0.00031 U	0.0003 U	0.00036 U	0.00033 U	0.00028 U	0.0003 U	0.00039 U	0.00029 U	0.00033 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00044 U	0.00031 U	0.00031 U	0.00037 U	0.00034 U	0.00029 U	0.00031 U	0.0004 U	0.0003 U	0.00034 U
1,4-DICHLOROBENZENE	27	NA	0.00082 U	0.00059 U	0.00059 U	0.00069 U	0.00063 U	0.00055 U	0.00058 U	0.00075 U	0.00057 U	0.00065 U
2-BUTANONE	4700	NA	0.0017 U	0.0013 U	0.0012 U	0.0015 U	0.0013 U	0.0012 U	0.0012 U	0.0016 U	**0.0084 J**	0.0014 U
2-HEXANONE	NA	NA	0.00079 U	0.00057 U	0.00056 U	0.00066 U	0.0006 U	0.00053 U	0.00055 U	0.00072 U	0.00055 U	0.00062 U
4-ISOPROPYLTOLUENE	NA	NA	0.00026 U	0.00019 U	0.00019 U	0.00022 U	0.0002 U	0.00018 U	0.00018 U	0.00024 U	0.00018 U	0.00021 U
4-METHYL-2-PENTANONE	NA	NA	0.00067 U	0.00048 U	0.00048 U	0.00057 U	0.00052 U	0.00045 U	0.00047 U	0.00062 U	0.00047 U	0.00053 U
ACETONE	7000	NA	0.0079 U	0.0057 U	**0.024 B**	**0.024 B**	0.006 U	0.0053 U	0.0055 U	0.0072 U	**0.061**	0.0062 U
BENZENE	12	NA	0.00029 U	0.00021 U	0.0002 U	0.00024 U	0.00022 U	0.00019 U	0.0002 U	0.00026 U	0.0002 U	0.00023 U
BROMOMETHANE	11	NA	0.00067 U	0.00048 U	0.00048 U	0.00057 U	0.00052 U	0.00045 U	0.00047 U	0.00062 U	0.00047 U	0.00053 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00055 U	0.00039 U	0.00039 U	0.00046 U	0.00042 U	0.00037 U	0.00038 U	**0.00067 J**	**0.00055 J**	0.00043 U
CARBON TETRACHLORIDE	4.9	NA	0.00046 U	0.00033 U	0.00033 U	0.00039 U	0.00035 U	0.00031 U	0.00032 U	0.00042 U	0.00032 U	0.00036 U
CHLOROBENZENE	160	NA	0.00041 U	0.0003 U	0.00029 U	0.00035 U	0.00032 U	0.00028 U	0.00029 U	0.00038 U	0.00029 U	0.00032 U
CHLOROETHANE	220	NA	0.0011 UJ	0.00077 U	0.00077 UJ	0.0009 UJ	0.00082 U	0.00072 UJ	0.00075 U	0.00098 U	0.00075 U	0.00084 U
CHLOROFORM	78	NA	0.00036 U	0.00026 U	0.00026 U	0.0003 U	0.00028 U	0.00024 U	0.00025 U	0.00033 U	0.00025 U	0.00028 U
CHLOROMETHANE	NA	NA	0.00051 U	0.00037 U	0.00037 U	0.00043 U	0.00039 U	0.00034 U	0.00036 U	0.00047 U	0.00036 U	0.0004 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00045 U	0.00032 U	0.00032 U	0.00038 U	0.00035 U	0.0003 U	0.00031 U	0.00041 U	0.00031 U	0.00035 U
DIISOPROPYL ETHER	NA	NA	0.0019 U	0.0013 U	0.0013 U	0.0016 U	0.0014 U	0.0013 U	0.0013 U	0.0017 U	0.0013 U	0.0015 U
ETHYLBENZENE	780	NA	0.00032 U	0.00023 U	0.00023 U	0.00027 U	0.00025 U	0.00022 U	0.00023 U	0.0003 U	**0.0012 J**	0.00025 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.0002 U	0.00014 U	0.00014 U	0.00017 U	0.00015 U	0.00013 U	0.00014 U	0.00018 U	0.00014 U	0.00016 U
M+P-XYLENES	NA	NA	0.0015 U	0.0011 U	0.0011 U	0.0013 U	0.0012 U	0.001 U	0.001 U	0.0014 U	0.001 U	0.0012 U
METHYL TERT-BUTYL ETHER	160	NA	0.00054 U	0.00039 U	0.00038 U	0.00045 U	0.00041 U	0.00036 U	0.00037 U	0.00049 U	0.00037 U	0.00042 U
METHYLENE CHLORIDE	85	NA	**0.005 B**	0.0006 U	**0.0036 B**	**0.0039 B**	0.00064 U	**0.0031 B**	0.00058 U	0.00076 U	0.00058 U	0.00066 U
NAPHTHALENE	160	NA	**0.00025 B**	0.00017 U	0.00017 U	0.0002 U	0.00018 U	0.00016 U	0.00017 U	0.00022 U	**0.0034 J**	0.00019 U
N-BUTYLBENZENE	NA	NA	0.00029 U	0.00021 U	0.0002 U	0.00024 U	0.00022 U	0.00019 U	0.0002 U	0.00026 U	0.0002 U	0.00023 U
N-PROPYLBENZENE	NA	NA	0.0005 U	0.00036 U	0.00036 U	0.00042 U	0.00038 U	0.00033 U	0.00035 U	0.00046 U	0.00035 U	0.00039 U
O-XYLENE	NA	NA	0.00044 U	0.00031 U	0.00031 U	**0.00045 J**	0.00034 U	**0.00029 J**	0.00031 U	0.0004 U	0.0003 U	0.00034 U
SEC-BUTYLBENZENE	NA	NA	0.00022 U	0.00016 U	0.00016 U	0.00019 U	0.00017 U	0.00015 U	0.00016 U	0.00021 U	0.00016 U	0.00018 U
STYRENE	1600	NA	0.00019 U	0.00013 U	0.00013 U	0.00016 U	0.00014 U	0.00013 U	0.00013 U	0.00017 U	0.00013 U	0.00015 U
TERT-AMYL METHYL ETHER	NA	NA	0.00046 U	0.00033 U	0.00033 U	0.00039 U	0.00035 U	0.00031 U	0.00032 U	0.00042 U	0.00032 U	0.00036 U
TERT-BUTYLBENZENE	NA	NA	0.00036 U	0.00026 U	0.00026 U	0.0003 U	0.00028 U	0.00024 U	0.00025 U	0.00033 U	0.00025 U	0.00028 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0095 UR	0.0068 UR	0.0068 UR	0.008 UR	0.0073 UR	0.0063 UR	0.0066 UR	0.0087 UR	0.0066 UR	0.0074 UR
TETRACHLOROETHENE	1.2	NA	0.00065 U	0.00047 U	0.00046 U	0.00055 U	0.0005 U	0.00043 U	0.00045 U	0.00059 U	0.00045 U	0.00051 U
TOLUENE	630	NA	**0.00039 J**	0.00024 U	**0.00042 J**	**0.00077 J**	0.00026 U	**0.00034 J**	0.00024 U	0.00031 U	**0.044**	0.00026 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00084 U	0.0006 U	0.0006 U	0.0007 U	0.00064 U	0.00056 U	0.00058 U	0.00076 U	0.00058 U	0.00066 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00051 U	0.00037 U	0.00037 U	0.00043 U	0.00039 U	0.00034 U	0.00036 U	0.00047 U	0.00036 U	0.0004 U
TRICHLOROETHENE	1.6	NA	0.00052 U	0.00038 U	0.00037 U	0.00044 U	0.0004 U	0.00035 U	0.00037 U	**0.0047 J**	0.00036 U	0.00041 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00042 U	0.00031 U	0.0003 U	0.00036 U	0.00033 U	0.00028 U	0.0003 U	0.00039 U	0.00029 U	0.00033 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00049 U	0.00035 U	0.00035 U	0.00041 U	0.00037 U	0.00033 U	0.00034 U	0.00044 U	0.00034 U	0.00038 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.29 U	0.031 U	0.032 U	0.031 U	0.059 U	0.032 U	0.03 U	0.036 U	0.03 U	0.03 U
2,4-DICHLOROPHENOL	23	NA	0.22 U	0.023 U	0.024 U	0.023 U	0.044 U	0.024 U	0.022 U	0.026 U	0.022 U	0.022 U
2-CHLOROPHENOL	39	NA	0.29 UJ	0.031 U	0.032 U	0.031 U	0.059 U	0.032 U	0.03 U	0.036 U	0.03 U	0.03 U
2-METHYLNAPHTHALENE	31	NA	0.036 U	**0.012**	0.0039 U	0.0037 U	**0.051**	0.0039 U	**0.019**	0.0044 U	0.0037 U	**0.016**
3&4-METHYLPHENOL	NA	NA	0.22 UJ	0.023 U	0.024 U	0.023 U	0.044 U	0.024 U	0.022 U	0.026 U	0.022 U	0.022 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-110	GSP-SB-111			GSP-SB-112		GSP-SB-113			
SAMPLE ID			GSP-SB-110-6-8 GSP-SB-110-6-8 REC=10	GSP-SB-111-0-2 GSP-SB-111-0-2 REC=11	GSP-SB-111-22-24 GSP-SB-111-22-24 REC=11	GSP-SB-111-6-8 GSP-SB-111-6-8 REC=11	GSP-SB-112-0-2 GSP-SB-112-0-2 REC=11	GSP-SB-112-6-8 GSP-SB-112-6-8 REC=11	GSP-SB-113-0-2 GSP-SB-113-0-2 REC=11	GSP-SB-113-22-24 GSP-SB-113-22-24 REC=11	GSP-SB-113-6-8 GSP-SB-113-6-8 REC=11	GSP-SB-114-0-2 GSP-SB-114-0-2 REC=11
SAMPLE DATE	Maryland	ATCs	20110602	20110603	20110603	20110603	20110603	20110603	20110601	20110601	20110601	20110601
TOP DEPTH	Residential		6	0	22	6	0	6	0	22	6	0
BOTTOM DEPTH	Soil Standard		8	2	24	8	2	8	2	24	8	2
ACENAPHTHENE	470	NA	0.036 U	**0.018**	0.0039 U	0.0037 U	**0.069**	0.0039 U	**0.022**	0.0044 U	0.0037 U	**0.025**
ACENAPHTHYLENE	470	NA	0.036 U	**0.018**	0.0039 U	0.0037 U	**0.1**	0.0039 U	**0.032**	0.0044 U	0.0037 U	**0.046**
ANTHRACENE	2300	NA	**0.13**	**0.1**	0.0039 U	0.0037 U	**0.36**	0.0039 U	**0.093**	0.0044 U	0.0037 U	**0.098**
BAP EQUIVALENT-HALFND	NA	NA	**0.49946**	**0.59262**	**0.023087**	**0.004889**	**1.7773**	0.0039 U	**0.40464**	0.0044 U	0.0037 U	**0.4927**
BAP EQUIVALENT-POS	NA	NA	**0.48146**	**0.59262**	**0.021137**	**0.0008**	**1.7773**	0.0039 U	**0.40279**	0.0044 U	0.0037 U	**0.49085**
BENZALDEHYDE	NA	NA	0.13 UJ	0.014 U	0.014 U	0.014 U	0.026 U	0.014 U	0.013 U	0.016 U	0.013 U	0.013 U
BENZO(A)ANTHRACENE	0.22	NA	**0.28**	**0.45**	**0.012**	0.0037 U	**1.3**	0.0039 U	**0.34**	0.0044 U	0.0037 U	**0.39**
BENZO(A)PYRENE	0.022	NA	**0.39**	**0.39**	**0.017**	0.0037 U	**1.2**	0.0039 U	**0.32**	0.0044 U	0.0037 U	**0.39**
BENZO(B)FLUORANTHENE	0.22	NA	**0.34**	**0.41**	**0.015**	**0.008**	**1.2**	0.0039 U	**0.31**	0.0044 U	0.0037 U	**0.4**
BENZO(G,H,I)PERYLENE	230	NA	**0.43**	**0.26**	**0.015**	0.0037 U	**0.72**	0.0039 U	**0.2**	0.0044 U	0.0037 U	**0.25**
BENZO(K)FLUORANTHENE	2.2	NA	**0.21**	**0.22**	**0.012**	0.0037 U	**0.69**	0.0039 U	**0.24**	0.0044 U	0.0037 U	**0.24**
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.21 U	**0.03 J**	0.022 U	0.021 U	0.042 U	0.022 U	**0.031 B**	**0.049 B**	**0.033 B**	**0.031 B**
BUTYL BENZYL PHTHALATE	NA	NA	0.11 U	0.011 U	0.012 U	0.011 U	0.022 U	0.012 U	0.011 U	0.013 U	0.011 U	0.011 U
CAPROLACTAM	NA	NA	0.4 U	**0.05 J**	0.044 U	0.042 U	0.081 U	0.044 U	0.042 U	0.049 U	0.041 U	0.041 U
CARBAZOLE	32	NA	0.29 U	0.031 U	0.032 U	0.031 U	**0.072 J**	0.032 U	0.03 U	0.036 U	0.03 U	**0.03 J**
CHRYSENE	22	NA	**0.36**	**0.42**	**0.017**	0.0012 U	**1.4**	0.0013 U	**0.39**	0.0015 U	0.0012 U	**0.45**
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.036 U	**0.094**	0.0039 U	0.0037 U	**0.26**	0.0039 U	0.0037 U	0.0044 U	0.0037 U	0.0037 U
DIBENZOFURAN	7.8	NA	0.036 U	0.0037 U	0.0039 U	0.0037 U	0.0072 U	0.0039 U	**0.0052 J**	0.0044 U	0.0037 U	**0.0094 J**
DIETHYL PHTHALATE	6300	NA	0.17 U	0.018 U	0.019 U	0.018 U	0.035 U	0.019 U	0.018 U	0.021 U	0.018 U	0.018 U
DIMETHYL PHTHALATE	NA	NA	0.18 U	0.019 U	0.02 U	0.019 U	0.037 U	0.02 U	0.019 U	0.023 U	0.019 U	0.019 U
DI-N-BUTYL PHTHALATE	780	NA	0.16 U	0.017 U	0.018 U	0.017 U	0.033 U	0.018 U	0.017 U	**0.026 J**	0.017 U	0.017 U
FLUORANTHENE	310	NA	**0.5**	**0.82**	**0.019**	0.0037 U	**2.4**	0.0039 U	**0.56**	**0.013**	0.0037 U	**0.78**
FLUORENE	310	NA	0.036 U	**0.025**	0.0039 U	0.0037 U	**0.1**	0.0039 U	**0.036**	0.0044 U	0.0037 U	**0.032**
HIGH MOLECULAR WEIGHT PAHS	NA	NA	**2.77**	**3.224**	**0.13**	**0.0171**	**9.86**	0 U	**2.66**	**0.015**	0 U	**2.86**
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**3.288**	**4.044**	**0.15095**	**0.03065**	**12.26**	0.0182 U	**3.22185**	**0.04415**	0.01725 U	**3.64185**
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**2.788**	**3.224**	**0.13195**	**0.0288**	**9.86**	**0.01625**	**2.66185**	**0.03115**	**0.0154**	**2.86185**
INDENO(1,2,3-CD)PYRENE	0.22	NA	**0.27**	**0.2**	**0.013**	0.0037 U	**0.59**	0.0039 U	**0.15**	0.0044 U	0.0037 U	**0.19**
ISOPHORONE	670	NA	0.14 U	0.015 U	0.015 U	0.015 U	0.029 U	0.015 U	0.015 U	0.017 U	0.014 U	0.015 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	**0.94**	**1.348**	**0.031**	0 U	**4.24**	0 U	**1.089**	**0.026**	0 U	**1.319**
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**0.53**	**0.528**	**0.0237**	0.01295 U	**1.84**	0.01365 U	**0.529**	**0.0262**	0.01295 U	**0.539**
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**1.03**	**1.348**	**0.0427**	**0.0148**	**4.24**	**0.0156**	**1.089**	**0.0392**	**0.0148**	**1.319**
NAPHTHALENE	160	NA	0.036 U	**0.015**	0.0039 U	0.0037 U	**0.06**	0.0039 U	**0.027**	0.0044 U	0.0037 U	**0.022**
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.29 UJ	0.031 U	0.032 U	0.031 U	0.059 U	0.032 U	0.03 U	0.036 U	0.03 U	0.03 U
PENTACHLOROPHENOL	5.3	NA	0.86 U	0.091 U	0.094 U	0.09 U	0.18 U	0.094 U	0.09 U	0.11 U	0.089 U	0.09 U
PHENANTHRENE	2300	NA	**0.31**	**0.34**	**0.012**	0.0037 U	**1.1**	0.0039 U	**0.3**	**0.013**	0.0037 U	**0.3**
PHENOL	2300	NA	0.29 UJ	0.031 U	0.032 U	0.031 U	0.059 U	0.032 U	0.03 U	0.036 U	0.03 U	0.03 U
PYRENE	230	NA	**0.49**	**0.78**	**0.029**	**0.0091**	**2.5**	0.0039 U	**0.71**	**0.015**	0.0037 U	**0.55**
TOTAL PAHS	NA	NA	**3.71**	**4.572**	**0.161**	**0.0171**	**14.1**	0 U	**3.749**	**0.041**	0 U	**4.179**
TOTAL PAHS ECO HALFND	NA	NA	**3.818**	**4.572**	**0.17465**	**0.0436**	**14.1**	0.03185 U	**3.75085**	**0.07035**	0.0302 U	**4.18085**
TOTAL PAHS HALFND	NA	NA	**3.818**	**4.572**	**0.17465**	**0.0436**	**14.1**	0.03185 U	**3.75085**	**0.07035**	0.0302 U	**4.18085**
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.014 U	0.015 U	NA	0.015 U	0.014 U	0.015 U	0.015 U	NA	0.015 U	0.015 U
AROCLOR-1260	0.32	NA	0.018 U	0.019 U	NA	0.019 U	0.019 U	0.02 U	0.019 U	NA	0.019 U	**0.07**
TOTAL AROCLOR	0.32	NA	0 U	0 U	NA	0 U	0 U	0 U	0 U	NA	0 U	**0.07**
TOTAL AROCLOR HALFND	0.32	NA	**0.0615**	**0.065**	NA	**0.065**	**0.0635**	**0.0675**	**0.065**	NA	**0.0645**	**0.1255**
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.48 J**	0.4 U	NA	**0.99 B**	0.43 U	0.36 U	**0.41 B**	NA	0.37 UL	0.41 UL
ARSENIC	0.43	3.6	**2.6**	**2.8**	NA	**52**	**3.3**	**2.9**	**4**	NA	**1.6**	**3.3**
BARIUM	1600	NA	**250**	**13 J**	NA	**12 J**	**22**	**23**	**43**	NA	**11 J**	**32**
BERYLLIUM	16	NA	0.045 U	**0.046 J**	NA	0.047 U	**0.37 J**	**0.072 J**	**0.44 J**	NA	0.041 U	**0.36 J**
CADMIUM	3.9	NA	0.038 U	0.037 U	NA	0.039 U	0.04 U	0.034 U	0.037 U	NA	0.034 U	0.038 U
CHROMIUM	23	28	**14 K**	**13**	NA	**27**	**14**	**18**	**18**	NA	**5.1**	**15**
COBALT	NA	NA	**4**	**1.4**	NA	**2.2**	**2.7**	**0.35 J**	**5**	NA	**0.61 J**	**3.6**
COPPER	310	NA	**11**	**13**	NA	**12**	**11**	**16**	**18**	NA	**4.8 K**	**11**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**13**	**8.3**	NA	**13**	**8.3**	**5.9**	**21**	NA	**4**	**9.8**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	**0.063 J**	0.015 U	NA	**0.017 J**	**0.035 J**	**0.022 J**	**0.3**	NA	0.016 U	**0.1 J**
MOLYBDENUM	NA	NA	0.29 U	**0.68 B**	NA	**2.4 B**	0.3 U	0.25 U	**0.3 B**	NA	0.26 U	**0.62 B**
NICKEL	160	NA	**6.4**	**1.5 J**	NA	**4.8**	**5.5**	**1 J**	**9.6**	NA	**1.2 J**	**6.2**
SELENIUM	39	NA	0.48 U	**0.48 J**	NA	**0.84 J**	**0.58 J**	0.42 U	**0.51 J**	NA	0.43 U	0.48 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-110	GSP-SB-111			GSP-SB-112		GSP-SB-113			
SAMPLE ID			GSP-SB-110-6-8 GSP-SB-110-6-8 REC=10	GSP-SB-111-0-2 GSP-SB-111-0-2 REC=11	GSP-SB-111-22-24 GSP-SB-111-22-24 REC=11	GSP-SB-111-6-8 GSP-SB-111-6-8 REC=11	GSP-SB-112-0-2 GSP-SB-112-0-2 REC=11	GSP-SB-112-6-8 GSP-SB-112-6-8 REC=11	GSP-SB-113-0-2 GSP-SB-113-0-2 REC=11	GSP-SB-113-22-24 GSP-SB-113-22-24 REC=11	GSP-SB-113-6-8 GSP-SB-113-6-8 REC=11	GSP-SB-114-0-2 GSP-SB-114-0-2 REC=11
SAMPLE DATE	Maryland	ATCs	20110602	20110603	20110603	20110603	20110603	20110603	20110601	20110601	20110601	20110601
TOP DEPTH	Residential		6	0	22	6	0	6	0	22	6	0
BOTTOM DEPTH	Soil Standard		8	2	24	8	2	8	2	24	8	2
SILVER	39	NA	0.11 U	0.1 U	NA	0.11 U	0.11 U	0.094 U	**0.44 J**	NA	0.095 U	**0.11 J**
THALLIUM	0.55	3.9	**1.5 J**	**0.7 B**	NA	0.6 U	**0.65 B**	0.51 U	0.56 U	NA	0.52 U	0.58 U
VANADIUM	7.8	30	**26**	**22**	NA	300	**25**	37	**29**	NA	**8.3**	**25**
ZINC	2300	NA	**43**	**4.6 J**	NA	**9.9**	**22**	**6.1**	**43**	NA	**7.7 K**	**23**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	**210**	10 U	11 U	10 U	**66**	11 U	**110**	12 U	10 U	**91**
GASOLINE RANGE ORGANICS	230	NA	0.027 U	0.028 U	0.03 U	0.028 U	0.028 U	0.029 U	0.028 U	0.033 U	0.028 U	0.028 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-114		GSP-SB-115			GSP-SB-116		GSP-SB-117		
SAMPLE ID			GSP-SB-114-22-24	GSP-SB-114-6-8	GSP-SB-115-0-2	GSP-SB-115-10-12	GSP-SB-115-18-20	GSP-SB-116-0-2	GSP-SB-116-6-8	GSP-SB-117-0-2	GSP-SB-117-20-22	GSP-SB-117-6-8
			GSP-SB-114-22-24	GSP-SB-114-6-8	GSP-SB-115-0-2	GSP-SB-115-10-12	GSP-SB-115-18-20	GSP-SB-116-0-2	GSP-SB-116-6-8	GSP-SB-117-0-2	GSP-SB-117-20-22	GSP-SB-117-6-8
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20110601	20110601	20110531	20110531	20110531	20110603	20110603	20110531	20110531	20110531
TOP DEPTH	Residential		22	6	0	10	18	0	6	0	20	6
BOTTOM DEPTH	Soil Standard		24	8	2	12	20	2	8	2	22	8
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0013 U	0.0014 U	0.0014 U	0.0011 U	0.0015 U	0.0012 U	0.0013 U	0.0013 U	0.0011 U	0.0011 U
1,1-DICHLOROETHENE	390	NA	0.00051 U	0.00057 U	0.00054 U	0.00044 U	0.00058 U	0.00049 U	0.00053 U	0.00053 U	0.00042 U	0.00044 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00038 U	0.00041 U	0.0004 U	0.00032 U	0.00043 U	0.00035 U	0.00039 U	0.00039 U	0.00031 U	0.00032 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00017 U	0.00019 U	0.00018 U	0.00014 U	0.00019 U	0.00016 U	0.00017 U	0.00017 U	0.00014 U	0.00014 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00027 U	0.00029 U	0.00028 U	0.00023 U	0.0003 U	0.00025 U	0.00027 U	0.00028 U	0.00022 U	0.00023 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00064 U	0.00071 U	0.00068 U	0.00055 U	0.00073 U	0.00061 U	0.00066 U	0.00067 U	0.00053 U	0.00054 U
1,2-DICHLOROBENZENE	700	NA	0.00036 U	0.00039 U	0.00037 U	0.0003 U	0.0004 U	0.00034 U	0.00037 U	0.00037 U	0.00029 U	0.0003 U
1,2-DICHLOROETHANE	7	NA	0.00034 U	0.00037 U	0.00035 U	0.00029 U	0.00038 U	0.00032 U	0.00035 U	0.00035 U	0.00028 U	0.00028 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00035 U	0.00038 U	0.00036 U	0.0003 U	0.00039 U	0.00033 U	0.00036 U	0.00036 U	0.00029 U	0.00029 U
1,4-DICHLOROBENZENE	27	NA	0.00065 U	0.00072 U	0.00069 U	0.00056 U	0.00074 U	0.00062 U	0.00067 U	0.00068 U	0.00054 U	0.00055 U
2-BUTANONE	4700	NA	0.0014 U	**0.0043 J**	0.0015 U	0.0012 U	0.0016 U	0.0013 U	**0.0023 B**	0.0014 U	0.0011 U	0.0012 U
2-HEXANONE	NA	NA	0.00062 U	0.00069 U	0.00066 U	0.00053 U	0.00071 U	0.00059 U	0.00064 U	0.00065 U	0.00051 U	0.00053 U
4-ISOPROPYLTOLUENE	NA	NA	0.00021 U	0.00023 U	0.00022 U	0.00018 U	0.00024 U	0.0002 U	0.00021 U	0.00022 U	0.00017 U	0.00018 U
4-METHYL-2-PENTANONE	NA	NA	0.00053 U	0.00059 U	0.00056 U	0.00046 U	0.00061 U	0.0005 U	0.00055 U	0.00055 U	0.00044 U	0.00045 U
ACETONE	7000	NA	0.0062 U	**0.032**	0.0066 U	0.0053 U	**0.013 B**	0.0059 U	**0.027 B**	0.0065 U	0.0051 U	0.0053 U
BENZENE	12	NA	0.00023 U	0.00025 U	0.00024 U	0.00019 U	0.00026 U	0.00021 U	0.00023 U	0.00024 U	0.00019 U	0.00019 U
BROMOMETHANE	11	NA	0.00053 U	0.00059 U	0.00056 U	0.00046 U	0.00061 U	0.0005 U	0.00055 U	0.00055 U	0.00044 U	0.00045 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00043 U	**0.0011 J**	0.00046 U	0.00037 U	**0.0011 J**	0.00041 U	0.00045 U	0.00045 U	0.00036 U	**0.00056 J**
CARBON TETRACHLORIDE	4.9	NA	0.00037 U	0.0004 U	0.00038 U	0.00031 U	0.00042 U	0.00035 U	0.00038 U	0.00038 U	0.0003 U	0.00031 U
CHLOROBENZENE	160	NA	0.00033 U	0.00036 U	0.00034 U	0.00028 U	0.00037 U	0.00031 U	0.00034 U	0.00034 U	0.00027 U	0.00028 U
CHLOROETHANE	220	NA	0.00085 U	0.00094 U	0.00089 UJ	0.00073 UJ	0.00097 UJ	0.0008 UJ	0.00087 UJ	0.00088 UJ	0.0007 UJ	0.00072 UJ
CHLOROFORM	78	NA	0.00029 U	0.00032 U	0.0003 U	0.00024 U	0.00033 U	0.00027 U	0.00029 U	0.0003 U	0.00024 U	0.00024 U
CHLOROMETHANE	NA	NA	0.00041 U	0.00045 U	0.00043 U	0.00035 U	0.00046 U	0.00038 U	0.00042 U	0.00042 U	0.00033 U	0.00034 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00036 U	0.00039 U	0.00037 U	0.0003 U	**0.002 J**	0.00034 U	0.00037 U	0.00037 U	0.00029 U	0.0003 U
DIISOPROPYL ETHER	NA	NA	0.0015 U	0.0016 U	0.0016 U	0.0013 U	0.0017 U	0.0014 U	0.0015 U	0.0015 U	0.0012 U	0.0013 U
ETHYLBENZENE	780	NA	0.00026 U	0.00028 U	0.00027 U	0.00022 U	0.00029 U	0.00024 U	0.00026 U	0.00027 U	0.00021 U	0.00022 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00016 U	0.00017 U	0.00017 U	0.00014 U	0.00018 U	0.00015 U	0.00016 U	0.00016 U	0.00013 U	0.00013 U
M+P-XYLENES	NA	NA	0.0012 U	0.0013 U	0.0012 U	0.001 U	0.0013 U	0.0011 U	0.0012 U	0.0012 U	0.00098 U	0.001 U
METHYL TERT-BUTYL ETHER	160	NA	0.00043 U	0.00047 U	0.00045 U	0.00036 U	0.00048 U	0.0004 U	0.00044 U	0.00044 U	0.00035 U	0.00036 U
METHYLENE CHLORIDE	85	NA	0.00066 U	0.00073 U	**0.0024 B**	**0.002 B**	**0.0025 B**	**0.0045 B**	**0.0044 B**	**0.0021 B**	**0.0022 B**	**0.0018 B**
NAPHTHALENE	160	NA	0.00019 U	0.00021 U	0.0002 U	0.00016 U	0.00021 U	0.00018 U	0.00019 U	0.0002 U	0.00015 U	0.00016 U
N-BUTYLBENZENE	NA	NA	0.00023 U	0.00025 U	0.00024 U	0.00019 U	0.00026 U	0.00021 U	0.00023 U	0.00024 U	0.00019 U	0.00019 U
N-PROPYLBENZENE	NA	NA	0.0004 U	0.00044 U	0.00042 U	0.00034 U	0.00045 U	0.00037 U	0.00041 U	0.00041 U	0.00033 U	0.00033 U
O-XYLENE	NA	NA	0.00035 U	0.00038 U	0.00036 U	0.0003 U	0.00039 U	0.00033 U	0.00036 U	0.00036 U	0.00029 U	0.00029 U
SEC-BUTYLBENZENE	NA	NA	0.00018 U	0.0002 U	0.00019 U	0.00015 U	0.0002 U	0.00017 U	0.00018 U	0.00018 U	0.00015 U	0.00015 U
STYRENE	1600	NA	0.00015 U	0.00016 U	0.00016 U	0.00013 U	0.00017 U	0.00014 U	0.00015 U	0.00015 U	0.00012 U	0.00013 U
TERT-AMYL METHYL ETHER	NA	NA	0.00037 U	0.0004 U	0.00038 U	0.00031 U	0.00042 U	0.00035 U	0.00038 U	0.00038 U	0.0003 U	0.00031 U
TERT-BUTYLBENZENE	NA	NA	0.00029 U	0.00032 U	0.0003 U	0.00024 U	0.00033 U	0.00027 U	0.00029 U	0.0003 U	0.00024 U	0.00024 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0075 UR	0.0083 UR	0.0079 UR	0.0064 UR	0.0085 UR	0.0071 UR	0.0077 UR	0.0078 UR	0.0062 UR	0.0064 UR
TETRACHLOROETHENE	1.2	NA	0.00051 U	0.00057 U	0.00054 U	0.00044 U	0.00058 U	0.00049 U	0.00053 U	0.00053 U	0.00042 U	0.00044 U
TOLUENE	630	NA	0.00027 U	0.00029 U	0.00028 U	0.00023 U	0.0003 U	0.00025 U	**0.00039 J**	0.00028 U	0.00022 U	0.00023 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00066 U	0.00073 U	0.0007 U	0.00057 U	0.00075 U	0.00063 U	0.00068 U	0.00069 U	0.00055 U	0.00056 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00041 U	0.00045 U	0.00043 U	0.00035 U	0.00046 U	0.00038 U	0.00042 U	0.00042 U	0.00033 U	0.00034 U
TRICHLOROETHENE	1.6	NA	0.00042 U	0.00046 U	0.00044 U	0.00035 U	**0.032**	0.00039 U	0.00043 U	0.00043 U	**0.0014 J**	0.00035 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00034 U	0.00037 U	0.00035 U	0.00029 U	0.00038 U	0.00032 U	0.00035 U	0.00035 U	0.00028 U	0.00028 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00039 U	0.00042 U	0.00041 U	0.00033 U	**0.00045 J**	0.00036 U	0.0004 U	0.0004 U	**0.00055 J**	0.00033 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.034 U	0.031 U	0.067 U	0.031 U	0.033 U	0.03 U	0.033 U	0.074 U	0.033 U	0.031 U
2,4-DICHLOROPHENOL	23	NA	0.025 U	0.023 U	0.05 U	0.023 U	0.024 U	0.022 U	0.025 U	0.055 U	0.024 U	0.023 U
2-CHLOROPHENOL	39	NA	0.034 U	0.031 U	0.067 U	0.031 U	0.033 U	0.03 U	0.033 U	0.074 U	0.033 U	0.031 U
2-METHYLNAPHTHALENE	31	NA	0.0042 U	**0.086**	**0.4**	**0.082**	0.004 U	**0.02**	0.0041 U	**0.026**	0.004 U	0.0038 U
3&4-METHYLPHENOL	NA	NA	0.025 U	0.023 U	0.05 U	0.023 U	0.024 U	0.022 U	0.025 U	0.055 U	0.024 U	0.023 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-114		GSP-SB-115			GSP-SB-116		GSP-SB-117		
SAMPLE ID			GSP-SB-114-22-24	GSP-SB-114-6-8	GSP-SB-115-0-2	GSP-SB-115-10-12	GSP-SB-115-18-20	GSP-SB-116-0-2	GSP-SB-116-6-8	GSP-SB-117-0-2	GSP-SB-117-20-22	GSP-SB-117-6-8
			GSP-SB-114-22-24	GSP-SB-114-6-8	GSP-SB-115-0-2	GSP-SB-115-10-12	GSP-SB-115-18-20	GSP-SB-116-0-2	GSP-SB-116-6-8	GSP-SB-117-0-2	GSP-SB-117-20-22	GSP-SB-117-6-8
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20110601	20110601	20110531	20110531	20110531	20110603	20110603	20110531	20110531	20110531
TOP DEPTH	Residential		22	6	0	10	18	0	6	0	20	6
BOTTOM DEPTH	Soil Standard		24	8	2	12	20	2	8	2	22	8
ACENAPHTHENE	470	NA	0.0042 U	**0.043**	**0.23**	**0.048**	0.004 U	**0.017**	0.0041 U	**0.1**	0.004 U	0.0038 U
ACENAPHTHYLENE	470	NA	0.0042 U	**0.009**	**0.073**	**0.014**	0.004 U	**0.011**	0.0041 U	**0.022**	0.004 U	0.0038 U
ANTHRACENE	2300	NA	0.0042 U	**0.11**	**0.57 K**	**0.089**	0.004 U	**0.036**	0.0041 U	**0.26**	0.004 U	0.0038 U
BAP EQUIVALENT-HALFND	NA	NA	**0.009642**	**0.20604**	**0.99979**	**0.2683**	0.004 U	**0.38172**	**0.021134**	**1.4969**	0.004 U	0.0038 U
BAP EQUIVALENT-POS	NA	NA	**0.0071**	**0.20414**	**0.99979**	**0.2683**	0.004 U	**0.37992**	**0.019084**	**1.4969**	0.004 U	0.0038 U
BENZALDEHYDE	NA	NA	0.015 U	0.014 U	0.03 U	0.014 U	0.015 U	0.013 U	0.015 U	0.033 U	0.015 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	0.0042 U	**0.19**	**0.74 K**	**0.23**	0.004 U	**0.22**	**0.013**	**1.2**	0.004 U	0.0038 U
BENZO(A)PYRENE	0.022	NA	**0.006 J**	**0.16**	**0.68**	**0.18**	0.004 U	**0.31**	**0.015**	**1**	0.004 U	0.0038 U
BENZO(B)FLUORANTHENE	0.22	NA	**0.011**	**0.17**	**0.71**	**0.21**	0.004 U	**0.27**	**0.017**	**1.3**	0.004 U	0.0038 U
BENZO(G,H,I)PERYLENE	230	NA	0.0042 U	**0.086**	**0.36**	**0.086**	0.004 U	**0.22**	**0.019**	**0.69**	0.004 U	0.0038 U
BENZO(K)FLUORANTHENE	2.2	NA	0.0042 U	**0.095**	**0.3**	**0.089**	0.004 U	**0.16**	**0.007 J**	**0.67**	0.004 U	0.0038 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.031 B**	**0.027 B**	**0.059 B**	0.022 U	**0.025 B**	**0.023 J**	0.023 U	0.052 U	0.023 U	**0.028 B**
BUTYL BENZYL PHTHALATE	NA	NA	0.013 U	0.011 U	0.025 U	0.012 U	0.012 U	0.011 U	0.012 U	0.028 U	0.012 U	0.011 U
CAPROLACTAM	NA	NA	0.047 U	0.042 U	0.092 UL	0.043 UL	0.045 UL	0.041 U	0.046 U	0.1 UL	0.045 UL	0.042 UL
CARBAZOLE	32	NA	0.034 U	0.031 U	0.067 U	0.031 U	0.033 U	0.03 U	0.033 U	**0.12 J**	0.033 U	0.031 U
CHRYSENE	22	NA	0.0014 U	**0.19**	**0.79 K**	**0.21**	0.0013 U	**0.32**	**0.014**	**1.2**	0.0013 U	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0042 U	0.0038 U	**0.14**	**0.036**	0.004 U	0.0036 U	0.0041 U	**0.18**	0.004 U	0.0038 U
DIBENZOFURAN	7.8	NA	0.0042 U	**0.026 J**	**0.073 J**	0.0038 U	0.004 U	0.0036 U	0.0041 U	**0.044 J**	0.004 U	0.0038 U
DIETHYL PHTHALATE	6300	NA	0.02 U	0.018 U	0.04 U	0.019 U	0.02 U	0.018 U	0.02 U	0.044 U	0.02 U	0.018 U
DIMETHYL PHTHALATE	NA	NA	0.022 U	0.02 U	0.042 U	0.02 U	0.021 U	0.019 U	0.021 U	0.047 U	0.021 U	0.019 U
DI-N-BUTYL PHTHALATE	780	NA	0.019 U	**0.034 J**	0.037 U	0.017 U	**0.018 J**	0.016 U	0.019 U	0.041 U	0.018 U	0.017 U
FLUORANTHENE	310	NA	**0.013**	**0.41**	**1.3 K**	**0.4**	0.004 U	**0.38**	**0.014**	**2.2**	0.004 U	**0.0088**
FLUORENE	310	NA	0.0042 U	**0.074**	**0.5 K**	**0.088**	0.004 U	**0.017**	0.0041 U	**0.085**	0.004 U	0.0038 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	**0.017**	**1.301**	**5.73**	**1.703**	0 U	**2.13**	**0.116**	**8.93**	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**0.0433**	**1.7129**	**7.03**	**2.103**	0.01865 U	**2.5118**	**0.13205**	**11.13**	0.01865 U	**0.02465**
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0303**	**1.3029**	**5.73**	**1.703**	**0.01665**	**2.1318**	**0.11805**	**8.93**	**0.01665**	**0.01585**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.0042 U	**0.07**	**0.31**	**0.072**	0.004 U	**0.19**	**0.01**	**0.59**	0.004 U	0.0038 U
ISOPHORONE	670	NA	0.017 U	0.015 U	0.032 U	0.015 U	0.016 U	0.014 U	0.016 U	0.036 U	0.016 U	0.015 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	**0.013**	**1.262**	**5.623**	**1.149**	0 U	**0.642**	**0.014**	**3.613**	0 U	**0.0088**
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.0147 U	**0.852**	**4.323**	**0.749**	0.014 U	**0.262**	0.01435 U	**1.413**	0.014 U	0.0133 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0277**	**1.262**	**5.623**	**1.149**	**0.016**	**0.642**	**0.02835**	**3.613**	**0.016**	**0.0221**
NAPHTHALENE	160	NA	0.0042 U	**0.13**	**0.45**	**0.088**	0.004 U	**0.021**	0.0041 U	**0.03**	0.004 U	0.0038 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.034 U	0.031 U	0.067 U	0.031 U	0.033 U	0.03 U	0.033 U	0.074 U	0.033 U	0.031 U
PENTACHLOROPHENOL	5.3	NA	0.1 U	0.092 U	0.2 UR	0.093 U	0.098 U	0.088 U	0.099 U	0.22 U	0.098 U	0.091 U
PHENANTHRENE	2300	NA	0.0042 U	**0.4**	**2.1 K**	**0.34**	0.004 U	**0.14**	0.0041 U	**0.89**	0.004 U	0.0038 U
PHENOL	2300	NA	0.034 U	0.031 U	0.067 U	0.031 U	0.033 U	0.03 U	0.033 U	0.074 U	0.033 U	0.031 U
PYRENE	230	NA	0.0042 U	**0.34**	**1.7 K**	**0.59**	0.004 U	**0.44**	**0.021**	**2.1**	0.004 U	0.0038 U
TOTAL PAHS	NA	NA	**0.03**	**2.563**	**11.353**	**2.852**	0 U	**2.772**	**0.13**	**12.543**	0 U	**0.0088**
TOTAL PAHS ECO HALFND	NA	NA	**0.058**	**2.5649**	**11.353**	**2.852**	0.03265 U	**2.7738**	**0.1464**	**12.543**	0.03265 U	**0.03795**
TOTAL PAHS HALFND	NA	NA	**0.058**	**2.5649**	**11.353**	**2.852**	0.03265 U	**2.7738**	**0.1464**	**12.543**	0.03265 U	**0.03795**
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	NA	0.015 U	0.016 U	0.015 U	NA	0.014 U	0.016 U	0.014 U	NA	0.015 U
AROCLOR-1260	0.32	NA	NA	0.02 U	0.021 U	0.02 U	NA	0.019 U	0.021 U	0.019 U	NA	0.019 U
TOTAL AROCLOR	0.32	NA	NA	0 U	0 U	0 U	NA	0 U	0 U	0 U	NA	0 U
TOTAL AROCLOR HALFND	0.32	NA	NA	**0.0665**	**0.071**	**0.067**	NA	**0.0635**	**0.071**	**0.0635**	NA	**0.065**
METALS (MG/KG)												
ANTIMONY	3.1	NA	NA	0.42 UL	0.43 UL	0.43 UL	NA	0.42 U	0.44 U	**0.41 J**	NA	0.43 UL
ARSENIC	0.43	3.6	NA	**1.4 J**	**3.4**	**2.9**	NA	**2.8**	**1.1 J**	**3.4**	NA	**0.46 J**
BARIUM	1600	NA	NA	**21 J**	**23**	**10 J**	NA	**23**	**17 J**	**21**	NA	**13 J**
BERYLLIUM	16	NA	NA	0.047 U	**0.11 J**	0.047 U	NA	**0.79**	0.048 U	**0.12 J**	NA	0.047 U
CADMIUM	3.9	NA	NA	0.039 U	0.039 U	0.04 U	NA	0.039 U	0.04 U	0.037 U	NA	0.04 U
CHROMIUM	23	28	NA	**5.3**	**11**	**17**	NA	**14**	**24**	**14**	NA	**5.2**
COBALT	NA	NA	NA	**0.94 J**	**2.4**	**0.69 J**	NA	**5.9**	**0.77 J**	**3.8**	NA	**0.54 J**
COPPER	310	NA	NA	**6.4**	**7.1**	**19**	NA	**14**	**11**	**9.9**	NA	**3.2**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	NA	**12**	**6.4**	**3.7**	NA	**8.6**	**7**	**6.5**	NA	**3.4**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	NA	**0.035 J**	**0.04 J**	0.017 U	NA	**0.04 J**	0.015 U	**0.053 J**	NA	0.017 U
MOLYBDENUM	NA	NA	NA	0.29 U	**0.66 B**	**0.64 B**	NA	**0.45 B**	0.3 U	**0.31 B**	NA	0.3 U
NICKEL	160	NA	NA	**1.9 J**	**4.3 J**	**0.85 J**	NA	**10**	**2.3 J**	**6.2**	NA	**0.36 J**
SELENIUM	39	NA	NA	**0.61 J**	0.49 U	0.49 U	NA	**0.53 J**	0.5 U	0.46 U	NA	0.49 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-114		GSP-SB-115			GSP-SB-116		GSP-SB-117		
SAMPLE ID			GSP-SB-114-22-24	GSP-SB-114-6-8	GSP-SB-115-0-2	GSP-SB-115-10-12	GSP-SB-115-18-20	GSP-SB-116-0-2	GSP-SB-116-6-8	GSP-SB-117-0-2	GSP-SB-117-20-22	GSP-SB-117-6-8
			GSP-SB-114-22-24	GSP-SB-114-6-8	GSP-SB-115-0-2	GSP-SB-115-10-12	GSP-SB-115-18-20	GSP-SB-116-0-2	GSP-SB-116-6-8	GSP-SB-117-0-2	GSP-SB-117-20-22	GSP-SB-117-6-8
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20110601	20110601	20110531	20110531	20110531	20110603	20110603	20110531	20110531	20110531
TOP DEPTH	Residential		22	6	0	10	18	0	6	0	20	6
BOTTOM DEPTH	Soil Standard		24	8	2	12	20	2	8	2	22	8
SILVER	39	NA	NA	0.11 U	0.11 U	0.11 U	NA	0.11 U	0.11 U	0.1 U	NA	0.11 U
THALLIUM	0.55	3.9	NA	0.6 U	0.6 U	**0.67 J**	NA	0.6 U	0.61 U	0.56 U	NA	0.6 U
VANADIUM	7.8	30	NA	**9.6**	**20**	**19**	NA	**28**	**20**	**27**	NA	**9.5**
ZINC	2300	NA	NA	**14**	**16**	**2.5 B**	NA	**33**	**19**	**20**	NA	**2.2 B**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	12 U	**180**	**700 L**	**16 J**	**19 J**	**13 J**	11 U	**210**	**11 J**	**23**
GASOLINE RANGE ORGANICS	230	NA	0.032 U	0.029 U	**0.057 J**	0.029 U	0.03 U	0.027 U	0.031 U	0.028 U	0.031 U	0.029 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-118			GSP-SB-119				GSP-SB-120			
SAMPLE ID			GSP-SB-118-0-2 GSP-SB-118-0-2 REC=11	GSP-SB-118-20-22 GSP-SB-118-20-22 REC=11	GSP-SB-118-6-8 GSP-SB-118-6-8 REC=11	GSP-SB-119-0-2 GSP-SB-119-0-2 REC=11	GSP-SB-119-20-22 GSP-SB-119-20-22 REC=11	GSP-SB-119-6-8 GSP-SB-119-6-8 REC=11	GSP-SB-120-0-2 GSP-SB-120-0-2 REC=11	GSP-SB-120-18-20 GSP-SB-120-18-20 REC=11	GSP-SB-120-6-8 GSP-SB-120-6-8 REC=11	GSP-SB-121-0-3 GSP-SB-121-0-3 REC=11
SAMPLE DATE	Maryland	ATCs	20110531	20110531	20110531	20110531	20110531	20110531	20110531	20110531	20110531	20110531
TOP DEPTH	Residential		0	20	6	0	20	6	0	18	6	0
BOTTOM DEPTH	Soil Standard		2	22	8	2	22	8	2	20	8	3
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.001 U	0.00093 U	0.00088 U	0.0012 U	0.0011 U	0.0012 U	0.0013 UL	0.0012 U	0.045 U	0.0013 U
1,1-DICHLOROETHENE	390	NA	0.00041 U	0.00037 U	0.00035 U	0.00048 U	0.00046 U	0.00047 U	0.00051 UL	0.00049 U	0.021 U	0.00052 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.0003 U	0.00027 U	0.00026 U	0.00035 U	**0.00036 J**	0.00034 U	0.00037 UL	0.00036 U	0.012 U	0.00038 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00013 U	0.00012 U	0.00012 U	0.00016 U	**0.00078 J**	0.00015 U	0.00017 UL	**0.00026 J**	0.0002 U	**0.00041 J**
1,2,4-TRICHLOROBENZENE	78	NA	0.00021 U	0.00019 U	0.00018 U	**0.0042 J**	**0.011**	0.00024 U	0.00026 UL	0.00026 U	0.0084 U	0.00027 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00051 U	0.00046 U	0.00044 U	0.0006 U	**0.0012 J**	0.00058 U	0.00063 UL	0.00062 U	**0.0082 J**	0.00065 U
1,2-DICHLOROBENZENE	700	NA	0.00028 U	0.00026 U	0.00024 U	**0.00035 J**	0.00032 U	0.00032 U	0.00035 UL	0.00034 U	0.0099 U	0.00036 U
1,2-DICHLOROETHANE	7	NA	0.00027 U	0.00024 U	0.00023 U	0.00031 U	0.0003 U	0.0003 U	0.00033 UL	0.00032 U	0.012 U	0.00034 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00027 U	0.00025 U	0.00024 U	**0.0066**	**0.01**	0.00031 U	0.00034 UL	0.00033 U	0.0055 U	0.00035 U
1,4-DICHLOROBENZENE	27	NA	0.00052 U	0.00047 U	0.00045 U	0.0006 U	**0.00061 J**	0.00059 U	0.00064 UL	0.00063 U	0.0092 U	0.00066 U
2-BUTANONE	4700	NA	0.0011 U	0.001 U	0.00095 U	0.0013 U	**0.011 J**	0.0013 U	0.0014 UL	0.0013 U	0.05 U	0.0014 U
2-HEXANONE	NA	NA	0.00049 U	0.00045 U	0.00043 U	0.00058 U	0.00055 U	0.00056 U	0.00061 UL	0.0006 U	0.023 U	0.00063 U
4-ISOPROPYLTOLUENE	NA	NA	0.00016 U	0.00015 U	0.00014 U	0.00019 U	0.00018 U	0.00019 U	0.0002 UL	0.0002 U	0.0055 U	0.00021 U
4-METHYL-2-PENTANONE	NA	NA	0.00042 U	0.00039 U	0.00037 U	0.00049 U	0.00047 U	0.00048 U	0.00053 UL	0.00051 U	0.055 U	0.00054 U
ACETONE	7000	NA	0.0049 U	**0.01 B**	0.0043 U	**0.022 B**	**0.052 B**	0.0056 U	0.0061 UL	**0.017 B**	0.2 U	**0.037 B**
BENZENE	12	NA	0.00018 U	**0.0005 J**	0.00016 U	0.00021 U	0.0002 U	0.00021 U	0.00022 UL	0.00022 U	0.014 U	0.00023 U
BROMOMETHANE	11	NA	0.00042 U	0.00039 U	0.00037 U	0.00049 U	0.00047 U	0.00048 U	0.00053 UL	0.00051 U	0.033 U	0.00054 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00034 U	0.00031 U	0.0003 U	0.0004 U	**0.0018 J**	0.00039 U	0.00043 UL	0.00042 U	0.014 U	**0.0019 J**
CARBON TETRACHLORIDE	4.9	NA	0.00029 U	0.00026 U	0.00025 U	0.00034 U	0.00032 U	0.00033 U	0.00036 UL	0.00035 U	0.0074 U	0.00037 U
CHLOROBENZENE	160	NA	0.00026 U	0.00024 U	0.00022 U	**0.00036 J**	0.00029 U	0.0003 U	0.00032 UL	0.00031 U	0.0074 U	0.00033 U
CHLOROETHANE	220	NA	0.00067 UJ	0.00061 U	0.00058 U	0.00079 UJ	0.00075 UJ	0.00077 UJ	0.00084 UJ	0.00082 U	0.07 U	0.00085 U
CHLOROFORM	78	NA	0.00023 U	0.00021 U	0.0002 U	0.00027 U	0.00025 U	0.00026 U	0.00028 UL	0.00028 U	0.01 U	0.00029 U
CHLOROMETHANE	NA	NA	0.00032 U	0.00029 U	0.00028 U	0.00038 U	0.00036 U	0.00037 U	0.0004 UL	0.00039 U	0.016 U	0.00041 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00028 U	**0.0042**	0.00024 U	0.00033 U	**0.00049 J**	**0.0022 J**	0.00035 UL	0.00034 U	0.008 U	0.00036 U
DIISOPROPYL ETHER	NA	NA	0.0012 U	0.0011 U	0.001 U	0.0014 U	0.0013 U	0.0013 U	0.0015 UL	0.0014 U	0.058 U	0.0015 U
ETHYLBENZENE	780	NA	0.0002 U	0.00019 U	0.00018 U	0.00024 U	**0.00024 J**	0.00023 U	0.00025 UL	**0.0004 J**	0.0062 U	**0.00031 J**
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00013 U	0.00011 U	0.00011 U	0.00015 U	0.00014 U	0.00014 U	0.00016 UL	0.00015 U	0.0075 U	0.00016 U
M+P-XYLENES	NA	NA	0.00094 U	0.00086 U	0.00081 U	0.0011 U	0.0011 U	0.0011 U	0.0012 UL	0.0011 U	**0.015 J**	0.0012 U
METHYL TERT-BUTYL ETHER	160	NA	0.00034 U	0.00031 U	0.00029 U	0.00039 U	0.00038 U	0.00038 U	0.00042 UL	0.00041 U	0.0082 U	0.00043 U
METHYLENE CHLORIDE	85	NA	**0.0022 B**	**0.0022 B**	**0.0017 B**	**0.0022 B**	**0.0027 B**	**0.0021 B**	**0.0033 B**	**0.0029 B**	**0.4 B**	**0.0034 B**
NAPHTHALENE	160	NA	0.00015 U	0.00014 U	0.00013 U	0.00017 U	**0.011**	0.00017 U	**0.00076 J**	**0.038**	**1.2**	**0.032**
N-BUTYLBENZENE	NA	NA	0.00018 U	0.00016 U	0.00016 U	0.00021 U	0.0002 U	0.00021 U	0.00022 UL	0.00022 U	0.0092 U	0.00023 U
N-PROPYLBENZENE	NA	NA	0.00031 U	0.00029 U	0.00027 U	0.00037 U	0.00035 U	0.00036 U	0.00039 UL	0.00038 U	0.016 U	0.0004 U
O-XYLENE	NA	NA	0.00027 U	0.00025 U	0.00024 U	0.00032 U	**0.00042 J**	0.00031 U	0.00034 UL	**0.00065 J**	0.0098 U	**0.0005 J**
SEC-BUTYLBENZENE	NA	NA	0.00014 U	0.00013 U	0.00012 U	0.00016 U	0.00016 U	0.00016 U	0.00018 UL	0.00017 U	0.0054 U	0.00018 U
STYRENE	1600	NA	0.00012 U	0.00011 U	0.0001 U	0.00014 U	0.00013 U	0.00013 U	0.00015 UL	**0.00017 J**	0.0065 U	0.00015 U
TERT-AMYL METHYL ETHER	NA	NA	0.00029 U	0.00026 U	0.00025 U	0.00034 U	0.00032 U	0.00033 U	0.00036 UL	0.00035 U	0.00043 U	0.00037 U
TERT-BUTYLBENZENE	NA	NA	0.00023 U	0.00021 U	0.0002 U	0.00027 U	0.00025 U	0.00026 U	0.00028 UL	0.00028 U	0.0075 U	0.00029 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.006 UR	0.0054 UR	0.0051 UR	0.007 UR	0.0067 UR	0.0068 UR	0.0074 UR	0.0072 UR	0.28 UR	0.0076 UR
TETRACHLOROETHENE	1.2	NA	0.00041 U	0.00037 U	0.00035 U	0.00048 U	0.00046 U	0.00047 U	0.00051 UL	0.00049 U	0.014 U	0.00052 U
TOLUENE	630	NA	0.00021 U	0.00019 U	0.00018 U	0.00025 U	**0.00057 J**	0.00024 U	0.00026 UL	**0.0005 J**	0.02 U	**0.00029 J**
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00052 U	0.00048 U	0.00045 U	0.00061 U	0.00059 U	0.0006 U	0.00065 UL	**0.00065 J**	**0.015 J**	0.00067 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00032 U	0.00029 U	0.00028 U	0.00038 U	0.00036 U	0.00037 U	0.0004 UL	0.00039 U	0.011 U	0.00041 U
TRICHLOROETHENE	1.6	NA	0.00033 U	**0.0025 J**	0.00028 U	0.00038 U	**0.00089 J**	**0.0038 J**	0.00041 UL	0.0004 U	0.011 U	0.00042 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00027 U	0.00024 U	0.00023 U	0.00031 U	0.0003 U	0.0003 U	0.00033 UL	0.00032 U	0.018 U	0.00034 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00031 U	**0.0015 J**	0.00026 U	0.00036 U	0.00034 U	0.00035 U	0.00038 UL	0.00037 U	0.021 U	0.00039 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.062 U	0.033 U	0.032 U	0.03 UR	0.064 U	0.031 UL	0.078 U	0.66 U	0.074 U	0.063 U
2,4-DICHLOROPHENOL	23	NA	0.046 U	0.025 U	0.024 U	0.022 UR	0.047 U	0.023 UL	0.058 U	0.49 UR	0.055 U	0.046 UJ
2-CHLOROPHENOL	39	NA	0.062 U	0.033 U	0.032 U	0.03 UR	0.064 U	0.031 UL	0.078 U	0.66 UR	0.074 U	0.063 UJ
2-METHYLNAPHTHALENE	31	NA	**0.056**	0.0041 U	0.0039 U	**0.028 L**	**0.059**	0.0037 UL	**0.036**	**0.46**	**0.15**	**0.088 J**
3&4-METHYLPHENOL	NA	NA	0.046 U	0.025 U	0.024 U	0.022 UR	0.047 U	0.023 UL	0.058 U	0.49 UR	0.055 U	0.046 UJ

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-118			GSP-SB-119			GSP-SB-120			
SAMPLE ID			GSP-SB-118-0-2	GSP-SB-118-20-22	GSP-SB-118-6-8	GSP-SB-119-0-2	GSP-SB-119-20-22	GSP-SB-119-6-8	GSP-SB-120-0-2	GSP-SB-120-18-20	GSP-SB-120-6-8	GSP-SB-121-0-3
			GSP-SB-118-0-2	GSP-SB-118-20-22	GSP-SB-118-6-8	GSP-SB-119-0-2	GSP-SB-119-20-22	GSP-SB-119-6-8	GSP-SB-120-0-2	GSP-SB-120-18-20	GSP-SB-120-6-8	GSP-SB-121-0-3
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20110531	20110531	20110531	20110531	20110531	20110531	20110531	20110531	20110531	20110531
TOP DEPTH	Residential		0	20	6	0	20	6	0	18	6	0
BOTTOM DEPTH	Soil Standard		2	22	8	2	22	8	2	20	8	3
ACENAPHTHENE	470	NA	0.037	0.014	0.0039 U	0.02 L	0.15	0.0037 UL	0.08	2	0.5	0.24
ACENAPHTHYLENE	470	NA	0.069	0.0041 U	0.0039 U	0.038 L	0.017	0.0037 UL	0.048	0.43	0.009 U	0.059
ANTHRACENE	2300	NA	0.22	0.02	0.0039 U	0.1 L	0.26	0.011 L	0.32	7.4	0.58	0.5
BAP EQUIVALENT-HALFND	NA	NA	1.08166	0.029103	0.005903	0.83601	0.8145	0.040869	1.9331	12.725	1.2882	1.7727
BAP EQUIVALENT-POS	NA	NA	1.08166	0.027053	0.001788	0.83601	0.8145	0.039019	1.9331	12.725	1.2882	1.7727
BENZALDEHYDE	NA	NA	0.028 U	0.015 U	0.014 U	0.013 UR	0.028 U	0.014 UL	0.035 U	0.3 U	0.033 U	0.028 UJ
BENZO(A)ANTHRACENE	0.22	NA	0.76	0.023	0.0088	0.59 L	0.74	0.029 L	1.6	11	0.96	1.2
BENZO(A)PYRENE	0.022	NA	0.75	0.021	0.0039 U	0.54 L	0.57	0.031 L	1.3	8.7	0.88	1.2
BENZO(B)FLUORANTHENE	0.22	NA	0.73	0.024	0.009	0.72 L	0.61	0.032 L	1.6	9.2	1	1.4
BENZO(G,H,I)PERYLENE	230	NA	0.45	0.014	0.0039 U	0.38 L	0.31	0.019 L	0.76	4.5	0.54	0.71
BENZO(K)FLUORANTHENE	2.2	NA	0.39	0.013	0.0039 U	0.24 L	0.49	0.018 L	0.86	6.4	0.52	0.66
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.044 U	0.11 B	0.022 U	0.021 UR	0.045 U	0.022 UL	0.055 U	0.47 U	0.052 U	0.074 B
BUTYL BENZYL PHTHALATE	NA	NA	0.023 U	0.012 U	0.012 U	0.011 UR	0.024 U	0.011 UL	0.029 U	0.25 U	0.027 U	0.023 U
CAPROLACTAM	NA	NA	0.085 UL	0.046 UL	0.044 UL	0.041 UR	0.088 UL	0.042 UL	0.11 UL	0.91 UL	0.1 UL	0.086 UJ
CARBAZOLE	32	NA	0.062 U	0.033 U	0.032 U	0.03 UR	0.13	0.031 UL	0.13 J	0.92 J	0.45	0.19
CHRYSENE	22	NA	0.76	0.023	0.0081	0.61 L	0.6	0.039 L	1.5	11	1	1.1
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.14	0.0041 U	0.0039 U	0.13 L	0.074	0.0037 UL	0.23	1.5	0.16	0.24
DIBENZOFURAN	7.8	NA	0.0076 U	0.0041 U	0.0039 U	0.009 L	0.074 J	0.0037 UL	0.031 J	1.8	0.3	0.12
DIETHYL PHTHALATE	6300	NA	0.037 U	0.02 U	0.019 U	0.018 UR	0.038 U	0.018 UL	0.046 U	0.39 U	0.044 U	0.037 U
DIMETHYL PHTHALATE	NA	NA	0.039 U	0.021 U	0.02 U	0.019 UR	0.04 U	0.019 UL	0.049 U	0.42 U	0.047 U	0.039 U
DI-N-BUTYL PHTHALATE	780	NA	0.035 U	0.023 J	0.018 U	0.023 B	0.035 U	0.017 UL	0.043 U	0.37 U	0.041 U	0.035 U
FLUORANTHENE	310	NA	1.2	0.064	0.02	1.1 L	1.4	0.061 L	2.8	28	2.6	2.4
FLUORENE	310	NA	0.08	0.013	0.0039 U	0.028 L	0.15	0.0076 L	0.09	3.9	0.46	0.21
HIGH MOLECULAR WEIGHT PAHS	NA	NA	5.76	0.178	0.0409	4.52	4.894	0.238	11.38	76.6	7.52	9.36
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	6.96	0.24405	0.07065	5.62	6.294	0.30085	14.18	104.6	10.12	11.76
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	5.76	0.18005	0.05065	4.52	4.894	0.23985	11.38	76.6	7.52	9.36
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.38	0.012	0.0039 U	0.32 L	0.3	0.017 L	0.73	4.3	0.46	0.65
ISOPHORONE	670	NA	0.03 U	0.016 U	0.015 U	0.015 UR	0.031 U	0.015 UL	0.038 U	0.32 U	0.036 U	0.03 UJ
LOW MOLECULAR WEIGHT PAHS	NA	NA	2.371	0.186	0.037	1.688	3.08	0.1186	4.515	68.92	6.95	5.117
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	1.171	0.12815	0.0287	0.588	1.68	0.065	1.715	40.92	4.3545	2.717
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	2.371	0.19215	0.0487	1.688	3.08	0.126	4.515	68.92	6.9545	5.117
NAPHTHALENE	160	NA	0.069	0.0041 U	0.0039 U	0.034 L	0.054	0.0037 UL	0.041	0.73	0.26	0.12 J
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.062 U	0.033 U	0.032 U	0.03 UR	0.064 U	0.031 UL	0.078 U	0.66 U	0.074 U	0.063 UJ
PENTACHLOROPHENOL	5.3	NA	0.18 U	0.099 U	0.094 U	0.09 UR	0.19 U	0.091 UL	0.23 U	2 UR	0.22 U	0.19 U
PHENANTHRENE	2300	NA	0.64	0.075	0.017	0.34 L	0.99	0.039 L	1.1	26	2.4	1.5
PHENOL	2300	NA	0.062 U	0.033 U	0.032 U	0.03 UR	0.064 U	0.031 UL	0.078 U	0.66 UR	0.13 J	0.063 UJ
PYRENE	230	NA	1.4	0.048	0.015	0.99 L	1.2	0.053 L	2.8	20	2	2.2
TOTAL PAHS	NA	NA	8.131	0.364	0.0779	6.208	7.974	0.3566	15.895	145.52	14.47	14.477
TOTAL PAHS ECO HALFND	NA	NA	8.131	0.3722	0.09935	6.208	7.974	0.36585	15.895	145.52	14.4745	14.477
TOTAL PAHS HALFND	NA	NA	8.131	0.3722	0.09935	6.208	7.974	0.36585	15.895	145.52	14.4745	14.477
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.15 U	NA	0.015 U	0.015 U	NA	0.15 U	0.15 U	NA	0.021 J	0.15 U
AROCLOR-1260	0.32	NA	1.2	NA	0.02 U	0.092	NA	2.7	1.7	NA	0.037	2.4
TOTAL AROCLOR	0.32	NA	1.2	NA	0 U	0.092	NA	2.7	1.7	NA	0.058	2.4
TOTAL AROCLOR HALFND	0.32	NA	1.755	NA	0.068	0.1475	NA	3.255	2.265	NA	0.1035	2.965
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.71 J	NA	0.46 UL	0.41 J	NA	0.71 J	0.69 J	NA	0.37 UL	1.2 J
ARSENIC	0.43	3.6	2.8	NA	1 J	4.2	NA	2.1	3.6	NA	1.7	4.1
BARIUM	1600	NA	33	NA	39	31	NA	37	44	NA	27	42
BERYLLIUM	16	NA	0.28 J	NA	0.16 J	0.37 J	NA	0.19 J	0.33 J	NA	0.09 J	0.32 J
CADMIUM	3.9	NA	0.04 U	NA	0.043 U	0.033 U	NA	0.038 U	0.23 J	NA	0.034 U	0.057 J
CHROMIUM	23	28	13	NA	21	19	NA	13	19	NA	8.2	18
COBALT	NA	NA	3.4	NA	2.5	4.4	NA	2.6	4.1	NA	1.4	3.7
COPPER	310	NA	12	NA	68	14	NA	11	17	NA	5.4	26
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	19	NA	6.7	15	NA	11	23	NA	8.8	27
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	0.15	NA	0.048 J	0.13	NA	0.035 J	0.095 J	NA	0.028 J	0.052 J
MOLYBDENUM	NA	NA	0.5 B	NA	0.32 U	0.3 B	NA	0.49 B	0.33 B	NA	0.33 B	0.29 U
NICKEL	160	NA	6.8	NA	4.6 J	7.8	NA	4.6	7.9	NA	2.8 J	7.8
SELENIUM	39	NA	0.5 U	NA	0.53 U	0.51 J	NA	0.48 U	0.47 U	NA	0.43 U	0.49 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-118			GSP-SB-119			GSP-SB-120			
SAMPLE ID			GSP-SB-118-0-2	GSP-SB-118-20-22	GSP-SB-118-6-8	GSP-SB-119-0-2	GSP-SB-119-20-22	GSP-SB-119-6-8	GSP-SB-120-0-2	GSP-SB-120-18-20	GSP-SB-120-6-8	GSP-SB-121-0-3
			GSP-SB-118-0-2	GSP-SB-118-20-22	GSP-SB-118-6-8	GSP-SB-119-0-2	GSP-SB-119-20-22	GSP-SB-119-6-8	GSP-SB-120-0-2	GSP-SB-120-18-20	GSP-SB-120-6-8	GSP-SB-121-0-3
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20110531	20110531	20110531	20110531	20110531	20110531	20110531	20110531	20110531	20110531
TOP DEPTH	Residential		0	20	6	0	20	6	0	18	6	0
BOTTOM DEPTH	Soil Standard		2	22	8	2	22	8	2	20	8	3
SILVER	39	NA	0.11 U	NA	0.12 U	**0.25 J**	NA	0.11 U	**0.2 J**	NA	0.096 U	0.11 U
THALLIUM	0.55	3.9	0.61 U	NA	0.65 U	0.5 U	NA	**0.64 J**	**0.92 J**	NA	0.53 U	0.6 U
VANADIUM	7.8	30	**22**	NA	**11**	33	NA	**18**	**22**	NA	**14**	31
ZINC	2300	NA	**39**	NA	**28**	**31**	NA	**28**	**45**	NA	**24**	**51**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	**110**	11 U	**12 J**	**61**	**320 J**	**40**	**280**	**97**	**46**	**280**
GASOLINE RANGE ORGANICS	230	NA	0.029 U	0.031 U	0.03 U	0.028 U	0.03 U	0.028 U	0.029 U	**0.044 J**	**0.057**	0.029 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-121		GSP-SB-122			GSP-SB-123		GSP-SB-124		GSP-S
SAMPLE ID			GSP-SB-121-18-20	GSP-SB-121-6-8	GSP-SB-122-0-2	GSP-SB-122-20-22	GSP-SB-122-6-8	GSP-SB-123-0-2	GSP-SB-123-6-8	GSP-SB-124-0-2	GSP-SB-124-6-8	GSP-SB-125-0-2
			GSP-SB-121-18-20	GSP-SB-121-6-8	GSP-SB-122-0-2	GSP-SB-122-20-22	GSP-SB-122-6-8	GSP-SB-123-0-2	GSP-SB-123-6-8	GSP-SB-124-0-2	GSP-SB-124-6-8	GSP-SB-125-0-2
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20110531	20110531	20110531	20110531	20110531	20110606	20110606	20110606	20110606	20110603
TOP DEPTH	Residential		18	6	0	20	6	0	6	0	6	0
BOTTOM DEPTH	Soil Standard		20	8	2	22	8	2	8	2	8	2
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.00075 U	0.028 UJ	0.0012 U	0.0014 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U	0.0015 U
1,1-DICHLOROETHENE	390	NA	0.0003 U	0.013 UJ	0.00049 U	0.00056 U	0.00047 U	0.00048 U	0.00047 U	0.00047 U	0.00047 U	0.00061 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00022 U	0.0072 UJ	0.00036 U	0.00041 U	0.00034 U	0.00035 U	0.00034 U	0.00034 U	0.00035 U	0.00044 U
1,2,3-TRIMETHYLBENZENE	NA	NA	**0.0001 J**	0.00012 UJ	0.00016 U	0.00018 U	0.00015 U	0.00016 U	0.00015 U	0.00015 U	0.00015 U	0.0002 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00016 U	0.0052 UJ	0.00026 U	0.00029 U	0.00024 U	0.00025 U	0.00024 U	0.00024 U	0.00025 U	0.00031 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00037 U	**0.0094 J**	0.00062 U	0.0007 U	0.00059 U	0.0006 U	0.00059 U	0.00058 U	0.00059 U	0.00076 U
1,2-DICHLOROBENZENE	700	NA	0.00021 U	0.0062 UJ	0.00034 U	0.00039 U	0.00033 U	0.00033 U	0.00033 U	0.00032 U	0.00033 U	0.00042 U
1,2-DICHLOROETHANE	7	NA	0.0002 U	0.0072 UJ	0.00032 U	0.00037 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.0004 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.0002 U	0.0034 UJ	0.00033 U	0.00038 U	0.00032 U	0.00032 U	0.00032 U	0.00031 U	0.00032 U	0.00041 U
1,4-DICHLOROBENZENE	27	NA	0.00038 U	0.0057 UJ	0.00063 U	0.00071 U	0.0006 U	0.00061 U	0.0006 U	0.00059 U	0.0006 U	0.00077 U
2-BUTANONE	4700	NA	0.00081 U	0.031 UJ	0.0013 U	0.0015 U	0.0013 U	0.0013 U	0.0013 U	**0.0016 B**	0.0013 U	**0.0047 B**
2-HEXANONE	NA	NA	0.00036 U	0.014 UJ	0.0006 U	0.00068 U	0.00057 U	0.00058 U	0.00057 U	0.00057 U	0.00057 U	0.00073 U
4-ISOPROPYLTOLUENE	NA	NA	**0.0013 J**	0.0034 UJ	0.0002 U	0.00023 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00024 U
4-METHYL-2-PENTANONE	NA	NA	0.00031 U	0.034 UJ	0.00051 U	0.00058 U	0.00049 U	**0.00058 J**	0.00049 U	0.00049 U	0.00049 U	0.00063 U
ACETONE	7000	NA	**0.014 B**	**0.22 J**	0.006 U	**0.025 B**	**0.063 B**	**0.017 B**	**0.0098 B**	0.0057 U	0.0057 U	**0.028 B**
BENZENE	12	NA	**0.00045 J**	0.0086 UJ	0.00022 U	0.00025 U	0.00021 U	0.00021 U	0.00021 U	0.00021 U	0.00021 U	0.00027 U
BROMOMETHANE	11	NA	0.00031 U	0.021 UJ	0.00051 U	0.00058 U	0.00049 U	0.0005 U	0.00049 U	0.00049 U	0.00049 U	0.00063 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00025 U	0.0086 UJ	0.00042 U	**0.00055 J**	0.0004 U	0.00041 U	0.0004 U	0.0004 U	0.0004 U	0.00051 U
CARBON TETRACHLORIDE	4.9	NA	0.00021 U	0.0046 UJ	0.00035 U	0.0004 U	0.00033 U	0.00034 U	0.00033 U	0.00033 U	0.00034 U	0.00043 U
CHLOROBENZENE	160	NA	0.00019 U	0.0046 UJ	0.00031 U	0.00036 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.00038 U
CHLOROETHANE	220	NA	0.00049 UJ	0.044 UJ	0.00082 U	0.00093 U	0.00078 U	0.00079 UJ	0.00078 U	0.00077 U	0.00078 U	0.001 UJ
CHLOROFORM	78	NA	0.00017 U	0.0063 UJ	0.00028 U	0.00031 U	0.00026 U	0.00027 U	0.00026 U	0.00026 U	0.00026 U	0.00034 U
CHLOROMETHANE	NA	NA	0.00024 U	0.01 UJ	0.00039 U	0.00044 U	0.00037 U	0.00038 U	0.00037 U	0.00037 U	0.00037 U	0.00048 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00021 U	0.0049 UJ	0.00034 U	0.00039 U	0.00033 U	0.00033 U	0.00033 U	0.00032 U	0.00033 U	0.00042 U
DIISOPROPYL ETHER	NA	NA	0.00086 U	0.036 UJ	0.0014 U	0.0016 U	0.0014 U	0.0014 U	0.0014 U	0.0013 U	0.0014 U	0.0017 U
ETHYLBENZENE	780	NA	**0.00053 J**	**0.0044 J**	0.00025 U	0.00028 U	0.00024 U	0.00024 U	0.00024 U	0.00023 U	0.00024 U	0.0003 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.000092 U	0.0047 UJ	0.00015 U	0.00017 U	0.00014 U	0.00015 U	0.00014 U	0.00014 U	0.00015 U	0.00019 U
M+P-XYLENES	NA	NA	0.00069 U	**0.014 J**	0.0011 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0014 U
METHYL TERT-BUTYL ETHER	160	NA	0.00025 U	0.0051 UJ	0.00041 U	0.00047 U	0.00039 U	0.0004 U	0.00039 U	0.00039 U	0.00039 U	0.0005 U
METHYLENE CHLORIDE	85	NA	**0.0015 B**	**0.42 B**	**0.0032 B**	**0.0038 B**	**0.0038 B**	**0.0037 B**	0.00061 U	0.0006 U	0.00061 U	**0.0041 B**
NAPHTHALENE	160	NA	**0.031**	**1.7 J**	**0.00053 B**	**0.0025 B**	0.00017 U	0.00018 U	0.00017 U	0.00017 U	0.00017 U	0.00022 U
N-BUTYLBENZENE	NA	NA	0.00013 U	0.0057 UJ	0.00022 U	0.00025 U	0.00021 U	0.00021 U	0.00021 U	0.00021 U	0.00021 U	0.00027 U
N-PROPYLBENZENE	NA	NA	0.00023 U	0.01 UJ	0.00038 U	0.00043 U	0.00036 U	0.00037 U	0.00036 U	0.00036 U	0.00036 U	0.00047 U
O-XYLENE	NA	NA	**0.00036 J**	**0.0064 J**	0.00033 U	0.00038 U	0.00032 U	0.00032 U	0.00032 U	0.00031 U	0.00032 U	0.00041 U
SEC-BUTYLBENZENE	NA	NA	0.0001 U	0.0034 UJ	0.00017 U	0.00019 U	0.00016 U	0.00017 U	0.00016 U	0.00016 U	0.00016 U	0.00021 U
STYRENE	1600	NA	0.000086 U	0.004 UJ	0.00014 U	0.00016 U	0.00014 U	0.00014 U	0.00014 U	0.00013 U	0.00014 U	0.00017 U
TERT-AMYL METHYL ETHER	NA	NA	0.00021 U	0.00026 UJ	0.00035 U	0.0004 U	0.00033 U	0.00034 U	0.00033 U	0.00033 U	0.00034 U	0.00043 U
TERT-BUTYLBENZENE	NA	NA	0.00017 U	0.0047 UJ	0.00028 U	0.00031 U	0.00026 U	0.00027 U	0.00026 U	0.00026 U	0.00026 U	0.00034 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0044 UR	0.17 UR	0.0072 UR	0.0082 UR	0.0069 UR	0.007 UR	0.0069 UR	0.0068 UR	0.0069 UR	0.0089 UR
TETRACHLOROETHENE	1.2	NA	0.0003 U	0.0086 UJ	0.00049 U	0.00056 U	0.00047 U	0.00048 U	0.00047 U	0.00047 U	0.00047 U	0.00061 U
TOLUENE	630	NA	**0.001 J**	0.012 UJ	0.00026 U	0.00029 U	0.00024 U	0.00025 U	**0.00036 J**	0.00024 U	0.00025 U	0.00031 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00039 U	**0.02 J**	0.00064 U	0.00073 U	0.00061 U	0.00062 U	0.00061 U	0.0006 U	0.00061 U	0.00078 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00024 U	0.0066 UJ	0.00039 U	0.00044 U	0.00037 U	0.00038 U	0.00037 U	0.00037 U	0.00037 U	0.00048 U
TRICHLOROETHENE	1.6	NA	0.00024 U	0.0069 UJ	0.0004 U	0.00045 U	0.00038 U	0.00039 U	0.00038 U	0.00038 U	**0.019 J**	0.00049 U
TRICHLOROFLUOROMETHANE	NA	NA	0.0002 U	0.011 UJ	0.00032 U	0.00037 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.0004 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00022 U	0.013 UJ	0.00037 U	0.00042 U	0.00035 U	0.00036 U	0.00035 U	0.00035 U	0.00036 U	0.00045 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.033 U	0.31 U	0.029 U	0.035 U	0.076 U	0.03 U	0.033 U	0.59 UJ	0.032 UJ	0.035 U
2,4-DICHLOROPHENOL	23	NA	0.024 U	0.23 UR	0.022 U	0.026 U	0.056 U	0.022 U	0.025 U	0.44 U	0.024 U	0.026 U
2-CHLOROPHENOL	39	NA	0.033 U	0.31 UR	0.029 U	0.035 U	0.076 U	0.03 U	0.033 U	0.59 U	0.032 U	0.035 U
2-METHYLNAPHTHALENE	31	NA	0.004 U	**0.48**	**0.024**	0.0043 U	0.0093 U	**0.0093**	0.004 U	**0.36**	0.004 U	**0.016**
3&4-METHYLPHENOL	NA	NA	0.024 U	0.23 UR	0.022 U	0.026 U	0.056 U	0.022 U	0.025 U	0.44 U	0.024 U	0.026 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-121		GSP-SB-122			GSP-SB-123		GSP-SB-124		GSP-S
SAMPLE ID			GSP-SB-121-18-20	GSP-SB-121-6-8	GSP-SB-122-0-2	GSP-SB-122-20-22	GSP-SB-122-6-8	GSP-SB-123-0-2	GSP-SB-123-6-8	GSP-SB-124-0-2	GSP-SB-124-6-8	GSP-SB-125-0-2
			GSP-SB-121-18-20	GSP-SB-121-6-8	GSP-SB-122-0-2	GSP-SB-122-20-22	GSP-SB-122-6-8	GSP-SB-123-0-2	GSP-SB-123-6-8	GSP-SB-124-0-2	GSP-SB-124-6-8	GSP-SB-125-0-2
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20110531	20110531	20110531	20110531	20110531	20110606	20110606	20110606	20110606	20110603
TOP DEPTH	Residential		18	6	0	20	6	0	6	0	6	0
BOTTOM DEPTH	Soil Standard		20	8	2	22	8	2	8	2	8	2
ACENAPHTHENE	470	NA	0.004 U	**1.6**	**0.025**	0.0043 U	0.0093 U	**0.028**	0.004 U	**0.24**	0.004 U	**0.031**
ACENAPHTHYLENE	470	NA	0.004 U	0.038 U	**0.044**	0.0043 U	0.0093 U	**0.013**	0.004 U	**0.3**	0.004 U	**0.017**
ANTHRACENE	2300	NA	0.004 U	**2.5**	**0.11**	0.0043 U	0.0093 U	**0.068**	0.004 U	**1.2**	0.004 U	**0.11**
BAP EQUIVALENT-HALFND	NA	NA	**0.021874**	**5.6142**	**0.68268**	0.0043 U	0.0093 U	**0.32473**	0.004 U	**5.7552**	0.004 U	**0.73997**
BAP EQUIVALENT-POS	NA	NA	**0.019874**	**5.6142**	**0.68268**	0.0043 U	0.0093 U	**0.32473**	0.004 U	**5.7552**	0.004 U	**0.73782**
BENZALDEHYDE	NA	NA	0.015 U	0.14 U	0.013 U	0.015 U	0.034 U	0.013 U	0.015 U	0.26 U	0.014 U	0.016 U
BENZO(A)ANTHRACENE	0.22	NA	**0.019**	**4.4**	**0.39**	0.0043 U	0.0093 U	**0.23**	0.004 U	**3.7**	0.004 U	**0.51**
BENZO(A)PYRENE	0.022	NA	**0.015**	**3.7**	**0.44**	0.0043 U	0.0093 U	**0.22**	0.004 U	**4**	0.004 U	**0.6**
BENZO(B)FLUORANTHENE	0.22	NA	**0.019**	**4**	**0.46**	0.0043 U	0.0093 U	**0.27**	0.004 U	**4**	0.004 U	**0.53**
BENZO(G,H,I)PERYLENE	230	NA	**0.011**	**2.1**	**0.3**	0.0043 U	0.0093 U	**0.12**	0.004 U	**2.5**	0.004 U	**0.32**
BENZO(K)FLUORANTHENE	2.2	NA	**0.0086**	**2**	**0.23**	0.0043 U	0.0093 U	**0.15**	0.004 U	**1.1**	0.004 U	**0.33**
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.027 B**	0.22 U	**0.022 B**	**0.046 J**	**0.1 J**	**0.024 J**	0.023 U	0.42 U	0.023 U	0.025 U
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.12 U	0.011 U	0.013 U	0.028 U	0.011 U	0.012 U	0.22 UJ	0.012 UJ	0.013 U
CAPROLACTAM	NA	NA	0.045 UL	0.43 UL	0.04 UL	0.048 U	0.1 U	0.041 U	0.045 U	0.81 U	0.044 U	0.048 U
CARBAZOLE	32	NA	0.033 U	**1.6**	0.029 U	0.035 U	0.076 U	**0.03 J**	0.033 U	0.59 U	0.032 U	0.035 U
CHRYSENE	22	NA	**0.018**	**4.2**	**0.38**	0.0014 U	0.0031 U	**0.23**	0.0013 U	**4.2**	0.0013 U	**0.52**
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.004 U	**0.86**	**0.13**	0.0043 U	0.0093 U	**0.042**	0.004 U	**0.78**	0.004 U	0.0043 U
DIBENZOFURAN	7.8	NA	0.004 U	**1**	0.0036 U	0.0043 U	0.0093 U	0.0036 U	0.004 U	0.072 U	0.004 U	0.0043 U
DIETHYL PHTHALATE	6300	NA	0.019 U	0.18 U	0.017 U	0.021 U	0.045 U	0.018 U	0.02 U	0.35 U	0.019 U	0.021 U
DIMETHYL PHTHALATE	NA	NA	0.021 U	0.2 U	0.018 U	0.022 U	0.048 U	0.019 U	0.021 U	0.37 U	0.02 U	0.022 U
DI-N-BUTYL PHTHALATE	780	NA	0.018 U	0.17 U	**0.017 J**	**0.02 J**	0.042 U	0.016 UJ	0.018 U	0.33 U	0.018 U	0.02 U
FLUORANTHENE	310	NA	**0.043**	**10**	**0.6**	**0.0072 J**	0.0093 U	**0.47**	0.004 U	**5**	0.004 U	**1**
FLUORENE	310	NA	0.004 U	**1.6**	**0.029**	0.0043 U	0.0093 U	**0.023**	0.004 U	**0.45**	0.004 U	**0.037**
HIGH MOLECULAR WEIGHT PAHS	NA	NA	**0.1333**	**30.86**	**3.23**	**0.0064**	0 U	**1.782**	0 U	**29.98**	0 U	**4.01**
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**0.1783**	**40.86**	**3.83**	**0.02935**	0.0434 U	**2.252**	0.01865 U	**34.98**	0.01865 U	**5.01215**
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.1353**	**30.86**	**3.23**	**0.02215**	**0.03875**	**1.782**	**0.01665**	**29.98**	**0.01665**	**4.01215**
INDENO(1,2,3-CD)PYRENE	0.22	NA	**0.0097**	**1.9**	**0.25**	0.0043 U	0.0093 U	**0.11**	0.004 U	**1.9**	0.004 U	**0.3**
ISOPHORONE	670	NA	0.016 U	0.15 U	0.014 U	0.017 U	0.037 U	0.014 U	0.016 U	0.28 U	0.016 U	0.017 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	**0.075**	**26.37**	**1.108**	**0.0072**	0 U	**0.8413**	0 U	**11.45**	0 U	**1.627**
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**0.044**	**16.389**	**0.508**	0.01505 U	0.03255 U	**0.3731**	0.014 U	**6.45**	0.014 U	**0.627**
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.087**	**26.389**	**1.108**	**0.02225**	**0.0372**	**0.8431**	**0.016**	**11.45**	**0.016**	**1.627**
NAPHTHALENE	160	NA	0.004 U	**0.69**	**0.036**	0.0043 U	0.0093 U	0.0036 U	0.004 U	**0.4**	0.004 U	**0.016**
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.033 U	0.31 U	0.029 U	0.035 U	0.076 U	0.03 U	0.033 U	0.59 U	0.032 U	0.035 U
PENTACHLOROPHENOL	5.3	NA	0.097 U	0.92 UR	0.086 U	0.1 U	0.23 U	0.088 UR	0.098 U	1.8 U	0.096 U	0.1 U
PHENANTHRENE	2300	NA	**0.032**	**9.5**	**0.24**	0.0043 U	0.0093 U	**0.23**	0.004 U	**3.5**	0.004 U	**0.4**
PHENOL	2300	NA	0.033 U	0.31 UR	0.029 U	0.035 U	0.076 U	0.03 U	0.033 U	0.59 U	0.032 U	0.035 U
PYRENE	230	NA	**0.033**	**7.7**	**0.65**	**0.0064 J**	0.0093 U	**0.41**	0.004 U	**7.8**	0.004 U	**0.9**
TOTAL PAHS	NA	NA	**0.2083**	**57.23**	**4.338**	**0.0136**	0 U	**2.6233**	0 U	**41.43**	0 U	**5.637**
TOTAL PAHS ECO HALFND	NA	NA	**0.2223**	**57.249**	**4.338**	**0.0444**	0.07595 U	**2.6251**	0.03265 U	**41.43**	0.03265 U	**5.63915**
TOTAL PAHS HALFND	NA	NA	**0.2223**	**57.249**	**4.338**	**0.0444**	0.07595 U	**2.6251**	0.03265 U	**41.43**	0.03265 U	**5.63915**
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	NA	**0.13**	0.28 U	NA	0.015 U	0.072 U	0.016 U	0.014 U	0.016 U	0.017 U
AROCLOR-1260	0.32	NA	NA	**0.047**	**3.4**	NA	**0.019 J**	**0.64**	0.021 U	**0.024 J**	0.021 U	0.022 U
TOTAL AROCLOR	0.32	NA	NA	**0.177**	**3.4**	NA	**0.019**	**0.64**	0 U	**0.024**	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	NA	**0.225**	**4.445**	NA	**0.0745**	**0.9125**	**0.071**	**0.078**	**0.07**	**0.0745**
METALS (MG/KG)												
ANTIMONY	3.1	NA	NA	0.45 UL	0.34 UL	NA	0.4 UL	**0.42 J**	0.47 U	**1.1 J**	0.44 U	**1.2 B**
ARSENIC	0.43	3.6	NA	**2.8**	**3.2**	NA	**2.6**	**3.2**	**1.1 J**	4.1	**1.7**	3.9
BARIUM	1600	NA	NA	**57**	**26**	NA	**13 J**	**30**	**4.1 J**	**72**	**8.1 J**	**33**
BERYLLIUM	16	NA	NA	0.049 U	**0.19 J**	NA	0.045 U	**0.24 J**	0.052 U	**0.37 J**	0.049 U	**0.28 J**
CADMIUM	3.9	NA	NA	**0.14 J**	0.032 U	NA	0.037 U	0.037 U	0.044 U	0.038 U	0.041 U	0.046 U
CHROMIUM	23	28	NA	**13**	**12**	NA	**7.3**	**14**	**3.6**	**13**	**10**	**16**
COBALT	NA	NA	NA	**2.7**	**3.2**	NA	**3.1**	**2.4**	0.19 U	**3.8**	**0.34 J**	**3.9**
COPPER	310	NA	NA	**11**	**19**	NA	**5.7**	**8.8**	**1.4 J**	**12**	**4.5 K**	**20**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	NA	**19**	**14**	NA	**3.1**	**15**	**1.1 B**	**34**	**3.1**	**41**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	NA	**0.044 J**	**0.045 J**	NA	0.013 U	**0.053 J**	0.015 U	0.014 U	0.018 U	**0.085 J**
MOLYBDENUM	NA	NA	NA	**0.38 B**	0.24 U	NA	0.28 U	**0.31 B**	**0.63 B**	**0.31 B**	0.31 U	**0.5 B**
NICKEL	160	NA	NA	**5.6**	**5.1**	NA	**2.7 J**	**4.4**	0.33 U	**5.2**	**0.62 J**	**6.6**
SELENIUM	39	NA	NA	0.51 U	**0.46 J**	NA	0.47 U	0.46 U	0.55 U	**0.61 J**	0.51 U	**0.66 J**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-121		GSP-SB-122			GSP-SB-123		GSP-SB-124		GSP-S
SAMPLE ID			GSP-SB-121-18-20	GSP-SB-121-6-8	GSP-SB-122-0-2	GSP-SB-122-20-22	GSP-SB-122-6-8	GSP-SB-123-0-2	GSP-SB-123-6-8	GSP-SB-124-0-2	GSP-SB-124-6-8	GSP-SB-125-0-2
			GSP-SB-121-18-20	GSP-SB-121-6-8	GSP-SB-122-0-2	GSP-SB-122-20-22	GSP-SB-122-6-8	GSP-SB-123-0-2	GSP-SB-123-6-8	GSP-SB-124-0-2	GSP-SB-124-6-8	GSP-SB-125-0-2
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20110531	20110531	20110531	20110531	20110531	20110606	20110606	20110606	20110606	20110603
TOP DEPTH	Residential		18	6	0	20	6	0	6	0	6	0
BOTTOM DEPTH	Soil Standard		20	8	2	22	8	2	8	2	8	2
SILVER	39	NA	NA	0.11 U	0.088 U	NA	0.1 U	0.1 U	0.12 U	0.11 U	0.11 U	0.13 U
THALLIUM	0.55	3.9	NA	**0.94 J**	0.48 U	NA	0.57 U	0.56 U	0.67 U	0.58 U	0.63 U	0.7 U
VANADIUM	7.8	30	NA	**15**	**20**	NA	**15**	**21**	**15**	**23**	**27**	**24**
ZINC	2300	NA	NA	**63**	**29**	NA	**9.6 K**	**29**	**3.2 J**	**41**	**2.9 J**	**50**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	**14 J**	**340**	**150**	**16 B**	**14 J**	**42**	11 U	**890**	11 U	**410**
GASOLINE RANGE ORGANICS	230	NA	0.031 U	**0.13**	0.027 U	0.032 U	0.028 U	0.028 U	0.031 U	0.028 U	0.03 U	0.033 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-125	GSP-SB-126			GSP-SB-127		GSP-SB-128		GSP-SB-129	
SAMPLE ID			GSP-SB-125-6-8 GSP-SB-125-6-8 REC=11	GSP-SB-126-0-2 GSP-SB-126-0-2 REC=11	GSP-SB-126-20-22 GSP-SB-126-20-22 REC=11	GSP-SB-126-8-10 GSP-SB-126-8-10 REC=11	GSP-SB-127-0-2 GSP-SB-127-0-2 REC=11	GSP-SB-127-6-8 GSP-SB-127-6-8 REC=11	GSP-SB-128-0-2 GSP-SB-128-0-2 REC=11	GSP-SB-128-6-8 GSP-SB-128-6-8 REC=11	GSP-SB-129-0-2 GSP-SB-129-0-2 REC=11	GSP-SB-129-20-22 GSP-SB-129-20-22 REC=11
SAMPLE DATE	Maryland	ATCs	20110603	20110606	20110606	20110606	20110606	20110606	20110606	20110606	20110531	20110531
TOP DEPTH	Residential		6	0	20	8	0	6	0	6	0	20
BOTTOM DEPTH	Soil Standard		8	2	22	10	2	8	2	8	2	22
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0016 U	0.0013 U	0.0013 U	0.0013 U	0.0012 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0012 U
1,1-DICHLOROETHENE	390	NA	0.00062 U	0.00052 U	0.00054 U	0.0005 U	0.00046 U	0.00057 U	0.00055 U	0.00055 U	0.00057 U	0.00049 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00045 U	0.00038 U	0.00039 U	0.00037 U	0.00034 U	0.00041 U	0.0004 U	0.0004 U	0.00042 U	0.00036 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.0002 U	0.00017 U	0.00018 U	0.00016 U	0.00015 U	0.00018 U	0.00018 U	0.00018 U	0.00019 U	0.00016 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00032 U	0.00027 U	0.00028 U	0.00026 U	0.00024 U	0.00029 U	0.00029 U	0.00028 U	0.0003 U	0.00026 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00078 U	0.00065 U	0.00067 U	0.00063 U	0.00058 U	0.00071 U	0.00069 U	0.00068 U	0.00071 U	0.00062 U
1,2-DICHLOROBENZENE	700	NA	0.00043 U	0.00036 U	0.00037 U	0.00035 U	0.00032 U	0.00039 U	0.00038 U	0.00038 U	0.0004 U	0.00034 U
1,2-DICHLOROETHANE	7	NA	0.00041 U	0.00034 U	0.00035 U	0.00033 U	0.0003 U	0.00037 U	0.00036 U	0.00036 U	0.00037 U	0.00032 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00042 U	0.00035 U	0.00036 U	0.00034 U	0.00031 U	0.00038 U	0.00037 U	0.00037 U	0.00038 U	0.00033 U
1,4-DICHLOROBENZENE	27	NA	0.00079 U	0.00066 U	0.00068 U	0.00064 U	0.00059 U	0.00072 U	0.0007 U	0.00069 U	0.00073 U	0.00063 U
2-BUTANONE	4700	NA	0.0017 U	0.0014 U	0.0015 U	0.0014 U	0.0012 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0013 U
2-HEXANONE	NA	NA	0.00075 U	0.00063 U	0.00065 U	0.00061 U	0.00056 U	0.00068 U	0.00067 U	0.00066 U	0.00069 U	0.0006 U
4-ISOPROPYLTOLUENE	NA	NA	0.00025 U	0.00021 U	0.00022 U	0.0002 U	0.00019 U	0.00023 U	0.00022 U	0.00022 U	0.00023 U	0.0002 U
4-METHYL-2-PENTANONE	NA	NA	0.00065 U	0.00054 U	0.00056 U	0.00052 U	0.00048 U	0.00059 U	0.00058 U	0.00057 U	0.00059 U	0.00051 U
ACETONE	7000	NA	**0.018 B**	0.0063 U	0.0065 U	**0.022 B**	0.0056 U	0.0068 U	0.0067 U	**0.046 B**	0.0069 U	**0.0072 B**
BENZENE	12	NA	0.00028 U	0.00023 U	0.00024 U	0.00022 U	0.0002 U	0.00025 U	0.00025 U	0.00024 U	0.00025 U	0.00022 U
BROMOMETHANE	11	NA	0.00065 U	0.00054 U	0.00056 U	0.00052 U	0.00048 U	0.00059 U	0.00058 U	0.00057 U	0.00059 U	0.00051 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00053 U	0.00044 U	0.00046 U	0.00042 U	0.00039 U	0.00048 U	0.00047 U	0.00046 U	0.00048 U	0.00042 U
CARBON TETRACHLORIDE	4.9	NA	0.00044 U	0.00037 U	0.00038 U	0.00036 U	0.00033 U	0.0004 U	0.00039 U	0.00039 U	0.00041 U	0.00035 U
CHLOROBENZENE	160	NA	0.00039 U	0.00033 U	0.00034 U	0.00032 U	0.00029 U	0.00036 U	0.00035 U	0.00035 U	0.00036 U	0.00031 U
CHLOROETHANE	220	NA	0.001 UJ	0.00086 U	0.00089 U	0.00083 U	0.00076 U	0.00094 U	0.00092 UJ	0.0009 UJ	0.00095 U	0.00082 U
CHLOROFORM	78	NA	0.00035 U	0.00029 U	0.0003 U	0.00028 U	0.00026 U	0.00032 U	0.00031 U	0.0003 U	0.00032 U	0.00028 U
CHLOROMETHANE	NA	NA	0.00049 U	0.00041 U	0.00042 U	0.0004 U	0.00036 U	0.00045 U	0.00044 U	0.00043 U	0.00045 U	0.00039 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00043 U	0.00036 U	0.00037 U	0.00035 U	0.00032 U	0.00039 U	0.00038 U	0.00038 U	0.0004 U	0.00034 U
DIISOPROPYL ETHER	NA	NA	0.0018 U	0.0015 U	0.0016 U	0.0014 U	0.0013 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0014 U
ETHYLBENZENE	780	NA	0.00031 U	0.00026 U	0.00027 U	0.00025 U	0.00023 U	0.00028 U	0.00028 U	0.00027 U	0.00029 U	0.00025 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00019 U	0.00016 U	0.00017 U	0.00015 U	0.00014 U	0.00017 U	0.00017 U	0.00017 U	0.00018 U	0.00015 U
M+P-XYLENES	NA	NA	0.0014 U	0.0012 U	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0011 U
METHYL TERT-BUTYL ETHER	160	NA	0.00051 U	0.00043 U	0.00045 U	0.00042 U	0.00038 U	0.00047 U	0.00046 U	0.00045 U	0.00047 U	0.00041 U
METHYLENE CHLORIDE	85	NA	**0.0044 B**	0.00067 U	0.00069 U	0.00065 U	0.00059 U	0.00073 U	**0.0034 B**	**0.0048 B**	**0.0044 B**	**0.0031 B**
NAPHTHALENE	160	NA	0.00023 U	0.00019 U	0.0002 U	0.00018 U	0.00017 U	0.00021 U	0.0002 U	0.0002 U	0.00021 U	0.00018 U
N-BUTYLBENZENE	NA	NA	0.00028 U	0.00023 U	0.00024 U	0.00022 U	0.0002 U	0.00025 U	0.00025 U	0.00024 U	0.00025 U	0.00022 U
N-PROPYLBENZENE	NA	NA	0.00048 U	0.0004 U	0.00041 U	0.00039 U	0.00036 U	0.00043 U	0.00043 U	0.00042 U	0.00044 U	0.00038 U
O-XYLENE	NA	NA	0.00042 U	0.00035 U	0.00036 U	0.00034 U	0.00031 U	0.00038 U	0.00037 U	0.00037 U	0.00038 U	0.00033 U
SEC-BUTYLBENZENE	NA	NA	0.00022 U	0.00018 U	0.00019 U	0.00017 U	0.00016 U	0.0002 U	0.00019 U	0.00019 U	0.0002 U	0.00017 U
STYRENE	1600	NA	0.00018 U	0.00015 U	0.00016 U	0.00014 U	0.00013 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00014 U
TERT-AMYL METHYL ETHER	NA	NA	0.00044 U	0.00037 U	0.00038 U	0.00036 U	0.00033 U	0.0004 U	0.00039 U	0.00039 U	0.00041 U	0.00035 U
TERT-BUTYLBENZENE	NA	NA	0.00035 U	0.00029 U	0.0003 U	0.00028 U	0.00026 U	0.00032 U	0.00031 U	0.0003 U	0.00032 U	0.00028 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0091 UR	0.0076 UR	0.0079 UR	0.0073 UR	0.0067 UR	0.0083 UR	0.0081 UR	0.008 UR	0.0084 UR	0.0072 UR
TETRACHLOROETHENE	1.2	NA	0.00062 U	0.00052 U	0.00054 U	0.0005 U	0.00046 U	0.00057 U	0.00055 U	0.00055 U	0.00057 U	0.00049 U
TOLUENE	630	NA	**0.00033 J**	0.00027 U	0.00028 U	0.00026 U	0.00024 U	0.00029 U	**0.00037 J**	**0.0004 J**	0.0003 U	0.00026 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.0008 U	0.00067 U	0.00069 U	0.00065 U	0.00059 U	0.00073 U	0.00071 U	0.0007 U	0.00074 U	0.00064 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00049 U	0.00041 U	0.00042 U	0.0004 U	0.00036 U	0.00045 U	0.00044 U	0.00043 U	0.00045 U	0.00039 U
TRICHLOROETHENE	1.6	NA	0.0005 U	0.00042 U	**0.01 J**	**0.00081 J**	0.00037 U	0.00046 U	0.00045 U	0.00044 U	0.00046 U	0.0004 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00041 U	0.00034 U	0.00035 U	0.00033 U	0.0003 U	0.00037 U	0.00036 U	0.00036 U	0.00037 U	0.00032 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00047 U	0.00039 U	0.0004 U	0.00038 U	0.00035 U	0.00042 U	0.00042 U	0.00041 U	0.00043 U	0.00037 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.033 U	0.03 UJ	0.035 U	0.032 UJ	0.031 UJ	0.034 UJ	0.034 U	0.034 U	0.031 U	0.032 U
2,4-DICHLOROPHENOL	23	NA	0.025 U	0.022 U	0.026 U	0.024 U	0.023 U	0.025 U	0.025 U	0.025 U	0.023 U	0.024 U
2-CHLOROPHENOL	39	NA	0.033 U	0.03 U	0.035 U	0.032 U	0.031 U	0.034 U	0.034 U	0.034 U	0.031 U	0.032 U
2-METHYLNAPHTHALENE	31	NA	0.0041 U	0.0036 U	0.0043 U	0.0039 U	0.0037 U	0.0041 U	**0.015**	0.0042 U	0.0038 U	0.004 U
3&4-METHYLPHENOL	NA	NA	0.025 U	0.022 U	0.026 U	0.024 U	0.023 U	0.025 U	0.025 U	0.025 U	0.023 U	0.024 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-125	GSP-SB-126			GSP-SB-127		GSP-SB-128		GSP-SB-129	
SAMPLE ID			GSP-SB-125-6-8 GSP-SB-125-6-8 REC=11	GSP-SB-126-0-2 GSP-SB-126-0-2 REC=11	GSP-SB-126-20-22 GSP-SB-126-20-22 REC=11	GSP-SB-126-8-10 GSP-SB-126-8-10 REC=11	GSP-SB-127-0-2 GSP-SB-127-0-2 REC=11	GSP-SB-127-6-8 GSP-SB-127-6-8 REC=11	GSP-SB-128-0-2 GSP-SB-128-0-2 REC=11	GSP-SB-128-6-8 GSP-SB-128-6-8 REC=11	GSP-SB-129-0-2 GSP-SB-129-0-2 REC=11	GSP-SB-129-20-22 GSP-SB-129-20-22 REC=11
SAMPLE DATE	Maryland	ATCs	20110603	20110606	20110606	20110606	20110606	20110606	20110606	20110606	20110531	20110531
TOP DEPTH	Residential		6	0	20	8	0	6	0	6	0	20
BOTTOM DEPTH	Soil Standard		8	2	22	10	2	8	2	8	2	22
ACENAPHTHENE	470	NA	0.0041 U	0.0036 U	0.0043 U	0.0039 U	0.0037 U	0.0041 U	**0.024**	0.0042 U	0.0038 U	0.004 U
ACENAPHTHYLENE	470	NA	0.0041 U	0.0036 U	0.0043 U	0.0039 U	0.0037 U	0.0041 U	**0.023**	0.0042 U	0.0038 U	0.004 U
ANTHRACENE	2300	NA	0.0041 U	**0.01**	0.0043 U	0.0039 U	**0.02**	0.0041 U	**0.086**	0.0042 U	**0.01**	0.004 U
BAP EQUIVALENT-HALFND	NA	NA	0.0041 U	**0.060645**	0.0043 U	0.0039 U	**0.081967**	0.0041 U	**0.43886**	0.0042 U	**0.063815**	**0.016183**
BAP EQUIVALENT-POS	NA	NA	0.0041 U	**0.060645**	0.0043 U	0.0039 U	**0.081967**	0.0041 U	**0.43886**	0.0042 U	**0.063815**	**0.014183**
BENZALDEHYDE	NA	NA	0.015 U	0.013 U	0.016 U	0.014 U	0.014 U	0.015 U	0.015 U	0.015 U	0.014 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	0.0041 U	**0.042**	0.0043 U	0.0039 U	**0.062**	0.0041 U	**0.36**	0.0042 U	**0.05**	**0.021**
BENZO(A)PYRENE	0.022	NA	0.0041 U	**0.041**	0.0043 U	0.0039 U	**0.055**	0.0041 U	**0.31**	0.0042 U	**0.044**	**0.01**
BENZO(B)FLUORANTHENE	0.22	NA	0.0041 U	**0.05**	0.0043 U	0.0039 U	**0.072**	0.0041 U	**0.33**	0.0042 U	**0.06**	**0.016**
BENZO(G,H,I)PERYLENE	230	NA	0.0041 U	**0.031**	0.0043 U	0.0039 U	**0.038**	0.0041 U	**0.18**	0.0042 U	**0.026**	**0.0044 J**
BENZO(K)FLUORANTHENE	2.2	NA	0.0041 U	**0.03**	0.0043 U	0.0039 U	**0.031**	0.0041 U	**0.25**	0.0042 U	**0.026**	**0.0056 J**
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.023 U	0.021 U	0.025 U	0.023 U	0.022 U	0.024 U	**0.097**	0.024 U	**0.025 J**	**0.025 J**
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.011 UJ	0.013 U	0.012 UJ	0.011 UJ	0.013 UJ	0.012 U	0.013 U	0.011 U	0.012 U
CAPROLACTAM	NA	NA	0.045 U	0.041 U	0.048 U	0.044 U	0.042 U	0.046 U	0.046 U	0.047 U	0.042 U	0.044 U
CARBAZOLE	32	NA	0.033 U	0.03 U	0.035 U	0.032 U	0.031 U	0.034 U	**0.045 J**	0.034 U	0.031 U	0.032 U
CHRYSENE	22	NA	0.0014 U	**0.045**	0.0014 U	0.0013 U	**0.057**	0.0014 U	**0.36**	0.0014 U	**0.055**	**0.017**
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0041 U	**0.0075**	0.0043 U	0.0039 U	**0.01**	0.0041 U	**0.04**	0.0042 U	**0.0063 J**	0.004 U
DIBENZOFURAN	7.8	NA	0.0041 U	0.0036 U	0.0043 U	0.0039 U	0.0037 U	0.0041 U	**0.015 J**	0.0042 U	0.0038 U	0.004 U
DIETHYL PHTHALATE	6300	NA	0.02 U	0.018 U	0.021 U	0.019 U	0.018 U	0.02 U	0.02 U	0.02 U	0.018 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.021 U	0.019 U	0.022 U	0.02 U	0.019 U	0.021 U	0.021 U	0.022 U	0.019 U	0.02 U
DI-N-BUTYL PHTHALATE	780	NA	0.018 U	0.017 U	0.02 U	0.018 U	0.017 U	0.019 U	0.019 U	0.019 U	0.017 U	**0.027 J**
FLUORANTHENE	310	NA	0.0041 U	**0.088**	0.0043 U	0.0039 U	**0.13**	0.0041 U	**0.73**	0.0042 U	**0.11**	**0.049**
FLUORENE	310	NA	0.0041 U	0.0036 U	0.0043 U	0.0039 U	0.0037 U	0.0041 U	**0.026**	0.0042 U	0.0038 U	0.004 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	**0.3455**	0 U	0 U	**0.456**	0 U	**2.59**	0 U	**0.3863**	**0.1171**
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.01915 U	**0.4335**	0.02005 U	0.0182 U	**0.586**	0.01915 U	**3.32**	0.0196 U	**0.4963**	**0.1681**
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0171**	**0.3455**	**0.0179**	**0.01625**	**0.456**	**0.0171**	**2.59**	**0.0175**	**0.3863**	**0.1191**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.0041 U	**0.026**	0.0043 U	0.0039 U	**0.032**	0.0041 U	**0.17**	0.0042 U	**0.022**	**0.0041 J**
ISOPHORONE	670	NA	0.016 U	0.014 U	0.017 U	0.015 U	0.015 U	0.016 U	0.016 U	0.017 U	0.015 U	0.016 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	**0.141**	0 U	0 U	**0.218**	0 U	**1.178**	0 U	**0.158**	**0.069**
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.01435 U	**0.062**	0.01505 U	0.01365 U	**0.09725**	0.01435 U	**0.448**	0.0147 U	**0.0575**	**0.032**
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0164**	**0.15**	**0.0172**	**0.0156**	**0.22725**	**0.0164**	**1.178**	**0.0168**	**0.1675**	**0.081**
NAPHTHALENE	160	NA	0.0041 U	0.0036 U	0.0043 U	0.0039 U	0.0037 U	0.0041 U	**0.014**	0.0042 U	0.0038 U	0.004 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.033 U	0.03 U	0.035 U	0.032 U	0.031 U	0.034 U	0.034 U	0.034 U	0.031 U	0.032 U
PENTACHLOROPHENOL	5.3	NA	0.098 U	0.088 U	0.1 U	0.095 U	0.091 U	0.1 U	0.099 U	0.1 U	0.092 U	0.096 U
PHENANTHRENE	2300	NA	0.0041 U	**0.043**	0.0043 U	0.0039 U	**0.068**	0.0041 U	**0.26**	0.0042 U	**0.038**	**0.02**
PHENOL	2300	NA	0.033 U	0.03 U	0.035 U	0.032 U	0.031 U	0.034 U	0.034 U	0.034 U	0.031 U	0.032 U
PYRENE	230	NA	0.0041 U	**0.073**	0.0043 U	0.0039 U	**0.099**	0.0041 U	**0.59**	0.0042 U	**0.097**	**0.039**
TOTAL PAHS	NA	NA	0 U	**0.4865**	0 U	0 U	**0.674**	0 U	**3.768**	0 U	**0.5443**	**0.1861**
TOTAL PAHS ECO HALFND	NA	NA	0.0335 U	**0.4955**	0.0351 U	0.03185 U	**0.68325**	0.0335 U	**3.768**	0.0343 U	**0.5538**	**0.2001**
TOTAL PAHS HALFND	NA	NA	0.0335 U	**0.4955**	0.0351 U	0.03185 U	**0.68325**	0.0335 U	**3.768**	0.0343 U	**0.5538**	**0.2001**
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.016 U	0.014 U	NA	0.015 U	0.015 U	0.016 U	0.016 U	0.017 U	0.015 U	NA
AROCLOR-1260	0.32	NA	0.021 U	0.019 U	NA	0.02 U	**0.062**	0.021 U	**0.03 J**	0.022 U	**0.22**	NA
TOTAL AROCLOR	0.32	NA	0 U	0 U	NA	0 U	**0.062**	0 U	**0.03**	0 U	**0.22**	NA
TOTAL AROCLOR HALFND	0.32	NA	**0.071**	**0.0635**	NA	**0.068**	**0.1175**	**0.0715**	**0.0905**	**0.074**	**0.2765**	NA
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.47 U	0.4 U	NA	0.42 U	0.39 U	0.45 U	0.48 U	0.48 U	0.39 UL	NA
ARSENIC	0.43	3.6	**1.8**	4.5	NA	**0.65 J**	**1.9**	**0.98 J**	3.7	**1.3 J**	**2.6**	NA
BARIUM	1600	NA	**8.6 J**	**20 J**	NA	**3.1 J**	**20**	**3.9 J**	**8.3 J**	**3.3 J**	**18 J**	NA
BERYLLIUM	16	NA	0.052 U	**0.081 J**	NA	0.046 U	**0.088 J**	0.05 U	0.053 U	0.053 U	**0.11 J**	NA
CADMIUM	3.9	NA	0.044 U	0.037 U	NA	0.038 U	0.036 U	0.042 U	0.044 U	0.044 U	0.036 U	NA
CHROMIUM	23	28	**8.4**	**11**	NA	**5.8**	**6.7**	**3.5**	**11**	**2.5**	**10**	NA
COBALT	NA	NA	**1.9**	**1.1**	NA	**0.42 J**	**0.88 J**	0.19 U	**0.53 J**	**0.2 J**	**2.1**	NA
COPPER	310	NA	**3.3**	**7.2**	NA	**1.2 J**	**4 K**	**1.6 J**	**3.4 K**	**1.6 J**	**6.6**	NA
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**14**	**5.7**	NA	**1.5 K**	**7.9**	**1.1 B**	**2.3 K**	**0.73 B**	**9.5**	NA
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	**0.027 J**	0.016 U	NA	0.016 U	0.017 U	0.017 U	0.017 U	0.018 U	**0.099 J**	NA
MOLYBDENUM	NA	NA	0.33 U	0.28 U	NA	**0.48 B**	**0.47 B**	0.31 U	0.33 U	0.33 U	**0.44 B**	NA
NICKEL	160	NA	**3.1 J**	**2.4 J**	NA	**0.36 J**	**2 J**	**0.36 J**	**0.95 J**	0.33 U	**3.6 J**	NA
SELENIUM	39	NA	0.55 U	0.46 U	NA	0.48 U	0.45 U	0.52 U	0.56 U	0.55 U	0.45 U	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-125	GSP-SB-126			GSP-SB-127		GSP-SB-128		GSP-SB-129	
SAMPLE ID			GSP-SB-125-6-8 GSP-SB-125-6-8 REC=11	GSP-SB-126-0-2 GSP-SB-126-0-2 REC=11	GSP-SB-126-20-22 GSP-SB-126-20-22 REC=11	GSP-SB-126-8-10 GSP-SB-126-8-10 REC=11	GSP-SB-127-0-2 GSP-SB-127-0-2 REC=11	GSP-SB-127-6-8 GSP-SB-127-6-8 REC=11	GSP-SB-128-0-2 GSP-SB-128-0-2 REC=11	GSP-SB-128-6-8 GSP-SB-128-6-8 REC=11	GSP-SB-129-0-2 GSP-SB-129-0-2 REC=11	GSP-SB-129-20-22 GSP-SB-129-20-22 REC=11
SAMPLE DATE	Maryland	ATCs	20110603	20110606	20110606	20110606	20110606	20110606	20110606	20110606	20110531	20110531
TOP DEPTH	Residential		6	0	20	8	0	6	0	6	0	20
BOTTOM DEPTH	Soil Standard		8	2	22	10	2	8	2	8	2	22
SILVER	39	NA	0.12 U	0.1 U	NA	0.11 U	0.1 U	0.12 U	0.12 U	0.12 U	0.1 U	NA
THALLIUM	0.55	3.9	0.67 U	0.57 U	NA	0.59 U	0.55 U	0.64 U	0.68 U	0.67 U	0.55 U	NA
VANADIUM	7.8	30	**9.5**	**16**	NA	**10**	**13**	**8.3**	**22**	**5.3**	**15**	NA
ZINC	2300	NA	**11**	**15**	NA	**1.9 J**	**29**	**2.4 J**	**5.5 J**	**3.5 J**	**20**	NA
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	**11 J**	10 U	12 U	11 U	10 U	12 U	12 U	12 U	**22 B**	**15 B**
GASOLINE RANGE ORGANICS	230	NA	0.031 U	0.028 U	0.033 U	0.03 U	0.028 U	0.031 U	0.031 U	0.032 U	0.029 U	0.03 U
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-129-6-8	GSP-SB-130			GSP-SB-131		GSP-SB-132		GSP-SB-133	
SAMPLE ID			GSP-SB-129-6-8	GSP-SB-130-0-2	GSP-SB-130-20-22	GSP-SB-130-6-8	GSP-SB-131-12'-14'	GSP-SB-131-14'-18.5'	GSP-SB-132-30'-32'	GSP-SB-132-35'-36.5'	GSP-SB-133-16'-18.5'	GSP-SB-133-8'-10.5'
			REC=11	REC=11	REC=11	REC=11	REC=09	REC=09	REC=09	REC=09	REC=08	REC=08
SAMPLE DATE	Maryland	ATCs	20110531	20110606	20110606	20110606	20120907	20120907	20120906	20120906	20120907	20120907
TOP DEPTH	Residential		6	0	20	6	12	14	30	35	16	8
BOTTOM DEPTH	Soil Standard		8	2	22	8	14	18.5	32	36.5	18.5	10.5
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0012 U	0.0014 U	0.0013 U	0.0013 U	0.0012 U	0.0012 U	0.0013 U	0.0014 U	0.0011 U	0.0012 U
1,1-DICHLOROETHENE	390	NA	0.00049 U	0.00056 U	0.0005 U	0.0005 U	0.00049 U	0.00049 U	0.00053 U	0.00055 U	0.00046 U	0.00048 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00036 U	0.00041 U	0.00037 U	0.00037 U	0.00036 U	0.00036 U	0.00039 U	0.0004 U	0.00033 U	0.00035 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00016 U	0.00018 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00017 U	0.00018 U	0.00015 U	0.00016 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00026 U	0.00029 U	0.00026 U	0.00026 U	0.00025 U	0.00025 U	0.00028 U	0.00028 U	0.00024 U	0.00025 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00062 U	0.0007 U	0.00063 U	0.00063 U	0.00061 U	0.00061 U	0.00067 U	0.00068 U	0.00057 U	0.0006 U
1,2-DICHLOROBENZENE	700	NA	0.00034 U	0.00039 U	0.00035 U	0.00035 U	0.00034 U	0.00034 U	0.00037 U	0.00038 U	0.00032 U	0.00033 U
1,2-DICHLOROETHANE	7	NA	0.00032 U	0.00037 U	0.00033 U	0.00033 U	0.00032 U	0.00032 U	0.00035 U	0.00036 U	0.0003 U	0.00031 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00033 U	0.00038 U	0.00034 U	0.00034 U	0.00033 U	0.00033 U	0.00036 U	0.00037 U	0.00031 U	0.00032 U
1,4-DICHLOROBENZENE	27	NA	0.00063 U	0.00071 U	0.00064 U	0.00064 U	0.00062 U	0.00062 U	0.00068 U	0.00069 U	0.00058 U	0.00061 U
2-BUTANONE	4700	NA	0.0013 U	0.0015 U	0.0014 U	0.0014 U	0.0013 U	**0.0019 J**	0.0014 U	**0.0016 B**	0.0012 U	0.0013 U
2-HEXANONE	NA	NA	0.0006 U	0.00068 U	0.00061 U	0.00061 U	0.00059 U	0.00059 U	0.00065 U	0.00066 U	0.00055 U	0.00058 U
4-ISOPROPYLTOLUENE	NA	NA	0.0002 U	0.00023 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00022 U	0.00022 U	0.00018 U	0.00019 U
4-METHYL-2-PENTANONE	NA	NA	0.00051 U	0.00058 U	0.00052 U	0.00052 U	0.00051 U	0.0005 U	0.00055 U	0.00057 U	0.00048 U	0.0005 U
ACETONE	7000	NA	**0.0065 B**	0.0068 U	**0.0096 B**	**0.014 B**	0.0059 U	**0.013 J**	0.0065 U	**0.0091 J**	0.0055 U	0.0058 U
BENZENE	12	NA	0.00022 U	0.00025 U	0.00022 U	0.00022 U	0.00022 U	0.00021 U	0.00024 U	**0.00034 J**	0.0002 U	0.00021 U
BROMOMETHANE	11	NA	0.00051 U	0.00058 U	0.00052 U	0.00052 U	0.00051 U	0.0005 U	0.00055 U	0.00057 U	0.00048 U	0.0005 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00042 U	0.00047 U	0.00043 U	0.00043 U	0.00041 U	0.00041 U	0.00045 U	0.00046 U	0.00039 U	0.0004 U
CARBON TETRACHLORIDE	4.9	NA	0.00035 U	0.0004 U	0.00036 U	0.00036 U	0.00035 U	0.00035 U	0.00038 U	0.00039 U	0.00033 U	0.00034 U
CHLOROBENZENE	160	NA	0.00031 U	0.00036 U	0.00032 U	0.00032 U	0.00031 U	0.00031 U	0.00034 U	0.00035 U	0.00029 U	0.0003 U
CHLOROETHANE	220	NA	0.00082 U	0.00093 U	0.00083 U	0.00083 U	0.00081 U	0.0008 U	0.00088 U	0.00091 U	0.00076 U	0.00079 U
CHLOROFORM	78	NA	0.00027 U	0.00031 U	0.00028 U	0.00028 U	0.00027 U	0.00027 U	0.0003 U	0.00031 U	0.00026 U	0.00027 U
CHLOROMETHANE	NA	NA	0.00039 U	0.00044 U	0.0004 U	0.0004 U	0.00039 U	0.00038 U	0.00042 U	0.00043 U	0.00036 U	0.00038 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00034 U	0.00039 U	0.00035 U	0.00035 U	0.00034 U	0.00034 U	0.00037 U	0.00038 U	0.00032 U	0.00033 U
DIISOPROPYL ETHER	NA	NA	0.0014 U	0.0016 U	0.0015 U	0.0015 U	0.0014 U	0.0014 U	0.0015 U	0.0016 U	0.0013 U	0.0014 U
ETHYLBENZENE	780	NA	0.00025 U	0.00028 U	0.00025 U	0.00025 U	0.00024 U	0.00024 U	0.00027 U	0.00027 U	0.00023 U	0.00024 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00015 U	0.00017 U	0.00016 U	0.00015 U	0.00015 U	0.00015 U	0.00016 U	0.00017 U	0.00014 U	0.00015 U
M+P-XYLENES	NA	NA	0.0011 U	0.0013 U	0.0012 U	0.0012 U	0.0011 U	0.0011 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
METHYL TERT-BUTYL ETHER	160	NA	0.00041 U	0.00046 U	0.00042 U	0.00042 U	0.0004 U	0.0004 U	0.00044 U	0.00045 U	0.00038 U	0.00039 U
METHYLENE CHLORIDE	85	NA	**0.0032 B**	0.00072 U	0.00065 U	0.00065 U	0.00063 U	0.00063 U	0.00069 U	0.00071 U	0.00059 U	0.00061 U
NAPHTHALENE	160	NA	0.00018 U	0.0002 U	**0.0013 B**	0.00018 U	0.00018 U	**0.0011 B**	**0.00021 B**	**0.0002 B**	**0.00017 B**	0.00017 U
N-BUTYLBENZENE	NA	NA	0.00022 U	0.00025 U	0.00022 U	0.00022 U	0.00022 U	0.00021 U	0.00024 U	0.00024 U	0.0002 U	0.00021 U
N-PROPYLBENZENE	NA	NA	0.00038 U	0.00043 U	0.00039 U	0.00039 U	0.00038 U	0.00037 U	0.00041 U	0.00042 U	0.00035 U	0.00037 U
O-XYLENE	NA	NA	0.00033 U	0.00038 U	0.00034 U	0.00034 U	0.00033 U	0.00033 U	0.00036 U	0.00037 U	0.00031 U	0.00032 U
SEC-BUTYLBENZENE	NA	NA	0.00017 U	0.00019 U	0.00017 U	0.00017 U	0.00017 U	0.00017 U	0.00018 U	0.00019 U	0.00016 U	0.00017 U
STYRENE	1600	NA	0.00014 U	0.00016 U	0.00015 U	0.00015 U	0.00014 U	**0.00029 J**	0.00015 U	0.00016 U	0.00013 U	0.00014 U
TERT-AMYL METHYL ETHER	NA	NA	0.00035 U	0.0004 U	0.00036 U	0.00036 U	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	0.00027 U	0.00031 U	0.00028 U	0.00028 U	0.00027 U	0.00027 U	0.0003 U	0.00031 U	0.00026 U	0.00027 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0072 UR	0.0082 UR	0.0074 UR	0.0074 UR	0.0072 UR	0.0071 UR	0.0078 UR	0.008 UR	0.0067 UR	0.007 UR
TETRACHLOROETHENE	1.2	NA	0.00049 U	0.00056 U	0.0005 U	0.0005 U	0.00049 U	0.00049 U	0.00053 U	0.00055 U	0.00046 U	0.00048 U
TOLUENE	630	NA	0.00026 U	0.00029 U	0.00026 U	0.00026 U	**0.00084 J**	**0.00073 J**	**0.00076 J**	**0.0015 J**	**0.00075 J**	**0.001 J**
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00063 U	0.00072 U	0.00065 U	0.00065 U	0.00063 U	0.00063 U	0.00069 U	0.00071 U	0.00059 U	0.00061 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00039 U	0.00044 U	0.0004 U	0.0004 U	0.00039 U	0.00038 U	0.00042 U	0.00043 U	0.00036 U	0.00038 U
TRICHLOROETHENE	1.6	NA	0.0004 U	0.00045 U	**0.0055 J**	0.00041 U	0.0004 U	**0.0012 J**	**0.026**	**0.06**	0.00037 U	**0.00053 J**
TRICHLOROFLUOROMETHANE	NA	NA	0.00032 U	0.00037 U	0.00033 U	0.00033 U	0.00032 U	0.00032 U	0.00035 U	0.00036 U	0.0003 U	0.00031 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00037 U	0.00042 U	0.00038 U	0.00038 U	0.00037 U	0.00036 U	0.0004 U	0.00041 U	0.00034 U	0.00036 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.032 U	0.13 UJ	0.033 U	0.033 UJ	0.033 U	0.033 U	0.034 U	0.033 U	0.031 U	0.033 U
2,4-DICHLOROPHENOL	23	NA	0.024 U	0.093 U	0.025 U	0.024 U	0.025 U	0.024 U	0.025 U	0.024 U	0.023 U	0.024 U
2-CHLOROPHENOL	39	NA	0.032 U	0.13 U	0.033 U	0.033 U	0.033 U	0.033 U	0.034 U	0.033 U	0.031 U	0.033 U
2-METHYLNAPHTHALENE	31	NA	0.0039 U	0.015 U	0.004 U	0.004 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0038 U	0.004 U
3&4-METHYLPHENOL	NA	NA	0.024 U	0.093 U	0.025 U	0.024 U	0.025 U	0.024 U	0.025 U	0.024 U	0.023 U	0.024 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-130				GSP-SB-131		GSP-SB-132		GSP-SB-133	
SAMPLE ID			GSP-SB-129-6-8	GSP-SB-130-0-2	GSP-SB-130-20-22	GSP-SB-130-6-8	GSP-SB-131-12'-14'	GSP-SB-131-14'-18.5'	GSP-SB-132-30'-32'	GSP-SB-132-35'-36.5'	GSP-SB-133-16'-18.5'	GSP-SB-133-8'-10.5'
			GSP-SB-129-6-8	GSP-SB-130-0-2	GSP-SB-130-20-22	GSP-SB-130-6-8	GSP-SB-131-12'-14'	GSP-SB-131-14'-18.5'	GSP-SB-132-30'-32'	GSP-SB-132-35'-36.5'	GSP-SB-133-16'-18.5'	GSP-SB-133-8'-10.5'
			REC=11	REC=11	REC=11	REC=11	REC=09	REC=09	REC=09	REC=09	REC=08	REC=08
SAMPLE DATE	Maryland	ATCs	20110531	20110606	20110606	20110606	20120907	20120907	20120906	20120906	20120907	20120907
TOP DEPTH	Residential		6	0	20	6	12	14	30	35	16	8
BOTTOM DEPTH	Soil Standard		8	2	22	8	14	18.5	32	36.5	18.5	10.5
ACENAPHTHENE	470	NA	0.0039 U	0.015 U	0.004 U	0.004 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0038 U	0.004 U
ACENAPHTHYLENE	470	NA	0.0039 U	0.015 U	0.004 U	0.004 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0038 U	0.004 U
ANTHRACENE	2300	NA	0.0039 U	**0.034**	**0.0074 J**	0.004 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0038 U	0.004 U
BAP EQUIVALENT-HALFND	NA	NA	**0.009702**	**0.17312**	**0.01781**	0.004 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0038 U	0.004 U
BAP EQUIVALENT-POS	NA	NA	**0.007538**	**0.17312**	**0.01561**	0.004 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0038 U	0.004 U
BENZALDEHYDE	NA	NA	0.014 U	0.056 U	0.015 U	0.014 U	0.015 U	0.015 U	0.015 U	0.014 U	0.014 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	**0.008**	**0.12**	**0.012**	0.004 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0038 U	0.004 U
BENZO(A)PYRENE	0.022	NA	**0.0059 J**	**0.12**	**0.013**	0.004 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0038 U	0.004 U
BENZO(B)FLUORANTHENE	0.22	NA	**0.0083**	**0.14**	**0.013**	0.004 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0038 U	0.004 U
BENZO(G,H,I)PERYLENE	230	NA	0.0039 U	**0.077**	0.004 U	0.004 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0038 U	0.004 U
BENZO(K)FLUORANTHENE	2.2	NA	0.0039 U	**0.039**	**0.0096**	0.004 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0038 U	0.004 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.043 J**	0.089 U	0.023 U	0.023 U	0.023 U	0.023 U	0.024 U	0.023 U	0.022 U	0.023 U
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.047 UJ	0.012 U	0.012 UJ	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U
CAPROLACTAM	NA	NA	0.044 U	0.17 U	0.045 U	0.045 U	0.046 U	0.045 U	**0.077 J**	0.045 U	0.043 U	0.045 U
CARBAZOLE	32	NA	0.032 U	0.13 U	0.033 U	0.033 U	0.033 U	0.033 U	0.034 U	0.033 U	0.031 U	0.033 U
CHRYSENE	22	NA	**0.0078 J**	**0.13**	**0.014**	0.0013 U	0.0014 U	0.0013 U	0.0014 U	0.0013 U	0.0013 U	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0039 U	**0.02 J**	0.004 U	0.004 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0038 U	0.004 U
DIBENZOFURAN	7.8	NA	0.0039 U	0.015 U	0.004 U	0.004 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0038 U	0.004 U
DIETHYL PHTHALATE	6300	NA	0.019 U	0.075 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U	0.019 U	0.018 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.02 U	0.079 U	0.021 U	0.021 U	0.021 U	0.021 U	0.021 U	0.021 U	0.02 U	0.021 U
DI-N-BUTYL PHTHALATE	780	NA	0.018 U	0.07 U	0.018 U	0.018 U	0.018 U	0.018 U	0.019 U	0.018 U	0.017 U	0.018 U
FLUORANTHENE	310	NA	**0.015**	**0.21**	**0.033**	0.004 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0038 U	0.004 U
FLUORENE	310	NA	0.0039 U	0.015 U	0.004 U	0.004 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0038 U	0.004 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	**0.045**	**0.892**	**0.0856**	0 U	0 U	0 U	0 U	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**0.0678**	**1.102**	**0.1246**	0.01865 U	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0528**	**0.892**	**0.0916**	**0.01665**	**0.0171**	**0.01665**	**0.0171**	**0.01665**	**0.01585**	**0.01665**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.0039 U	**0.066**	0.004 U	0.004 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0038 U	0.004 U
ISOPHORONE	670	NA	0.015 U	0.061 U	0.016 U	0.016 U	0.016 U	0.016 U	0.016 U	0.016 U	0.015 U	0.016 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	**0.0226**	**0.34**	**0.0654**	0 U	0 U	0 U	0 U	0 U	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**0.0193**	**0.1675**	**0.0424**	0.014 U	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0343**	**0.3775**	**0.0754**	**0.016**	**0.0164**	**0.016**	**0.0164**	**0.016**	**0.0152**	**0.016**
NAPHTHALENE	160	NA	0.0039 U	0.015 U	0.004 U	0.004 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0038 U	0.004 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.032 U	0.13 U	0.033 U	0.033 U	0.033 U	0.033 U	0.034 U	0.033 U	0.031 U	0.033 U
PENTACHLOROPHENOL	5.3	NA	0.095 U	0.37 U	0.098 U	0.096 U	0.098 U	0.097 U	0.1 U	0.097 U	0.092 U	0.097 U
PHENANTHRENE	2300	NA	**0.0076 J**	**0.096**	**0.025**	0.004 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0038 U	0.004 U
PHENOL	2300	NA	0.032 U	0.13 U	0.033 U	0.033 U	0.033 U	0.033 U	0.034 U	0.033 U	0.031 U	0.033 U
PYRENE	230	NA	**0.015**	**0.18**	**0.024**	0.004 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0038 U	0.004 U
TOTAL PAHS	NA	NA	**0.0676**	**1.232**	**0.151**	0 U	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	**0.0871**	**1.2695**	**0.167**	0.03265 U	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	**0.0871**	**1.2695**	**0.167**	0.03265 U	NA	NA	NA	NA	NA	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.015 U	0.015 U	NA	0.016 U	NA	NA	NA	NA	NA	NA
AROCLOR-1260	0.32	NA	0.02 U	**0.056**	NA	0.02 U	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR	0.32	NA	0 U	**0.056**	NA	0 U	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR HALFND	0.32	NA	**0.068**	**0.113**	NA	**0.0685**	NA	NA	NA	NA	NA	NA
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.41 UL	0.43 U	NA	0.42 U	**0.69 B**	**0.38 B**	**0.54 B**	0.35 UL	0.41 UL	**0.61 B**
ARSENIC	0.43	3.6	**1.2 J**	**2.4**	NA	0.33 U	**2.9**	**1.3 J**	**1.2 J**	**0.68 J**	**1.1 J**	**4.4**
BARIUM	1600	NA	**7.1 J**	**26**	NA	**3.4 J**	**8.4 J**	**1.4 J**	**11 J**	**2.2 J**	**13 J**	**8.6 J**
BERYLLIUM	16	NA	0.045 U	**0.24 J**	NA	0.047 U	0.044 U	0.041 U	0.052 U	0.039 U	**0.12 J**	0.04 U
CADMIUM	3.9	NA	0.038 U	**1**	NA	**0.07 J**	0.037 U	0.034 U	0.044 U	0.033 U	0.038 U	0.034 U
CHROMIUM	23	28	**3.5**	**9.6**	NA	**3.2**	**13**	**4.4**	**6.5**	**4**	**8.1**	**36**
COBALT	NA	NA	**0.82 J**	**1.7**	NA	0.17 U	**0.2 J**	0.15 U	**0.69 J**	0.15 U	**0.24 J**	**0.62 J**
COPPER	310	NA	**2.7**	**7.8**	NA	0.8 U	**9.3**	**2.4**	**2.5 J**	**1.3 J**	**8.6**	**8**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**1.6 K**	**19**	NA	**0.84 B**	**2.3**	**0.77 J**	**2.7**	**0.7 J**	**3.6**	**5**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	0.016 U	**0.1 J**	NA	0.016 U	0.021 U	0.018 U	**0.035 J**	0.017 U	0.017 U	**0.043 J**
MOLYBDENUM	NA	NA	0.28 U	**0.32 B**	NA	0.29 U	0.28 U	**0.45 B**	0.33 U	**0.33 B**	0.29 U	**0.26 B**
NICKEL	160	NA	**0.96 J**	**5.1**	NA	0.29 U	**0.46 J**	0.26 U	**0.37 J**	0.25 U	**0.73 J**	**0.82 J**
SELENIUM	39	NA	0.47 U	0.5 U	NA	0.49 U	0.46 U	0.43 U	0.54 U	0.41 U	0.48 U	0.42 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION				GSP-SB-130			GSP-SB-131		GSP-SB-132		GSP-SB-133	
SAMPLE ID			GSP-SB-129-6-8	GSP-SB-130-0-2	GSP-SB-130-20-22	GSP-SB-130-6-8	GSP-SB-131-12'-14'	GSP-SB-131-14'-18.5'	GSP-SB-132-30'-32'	GSP-SB-132-35'-36.5'	GSP-SB-133-16'-18.5'	GSP-SB-133-8'-10.5'
			GSP-SB-129-6-8	GSP-SB-130-0-2	GSP-SB-130-20-22	GSP-SB-130-6-8	GSP-SB-131-12'-14'	GSP-SB-131-14'-18.5'	GSP-SB-132-30'-32'	GSP-SB-132-35'-36.5'	GSP-SB-133-16'-18.5'	GSP-SB-133-8'-10.5'
			REC=11	REC=11	REC=11	REC=11	REC=09	REC=09	REC=09	REC=09	REC=08	REC=08
SAMPLE DATE	Maryland	ATCs	20110531	20110606	20110606	20110606	20120907	20120907	20120906	20120906	20120907	20120907
TOP DEPTH	Residential		6	0	20	6	12	14	30	35	16	8
BOTTOM DEPTH	Soil Standard		8	2	22	8	14	18.5	32	36.5	18.5	10.5
SILVER	39	NA	0.1 U	**0.26 J**	NA	**0.18 J**	0.1 UL	0.095 UL	0.12 UL	0.091 UL	0.11 UL	0.093 UL
THALLIUM	0.55	3.9	0.58 U	0.61 U	NA	0.6 U	0.56 U	0.52 U	0.67 U	0.5 U	0.58 U	0.51 U
VANADIUM	7.8	30	**6.8**	**18**	NA	**4.2**	**17 J**	**6.4 J**	**9.5 J**	**5.9 J**	**9.9 J**	45 J
ZINC	2300	NA	**4.4 B**	**44**	NA	**2.6 J**	**3 J**	0.95 U	**2.5 J**	0.91 U	**3.6 J**	**3.3 J**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	**15 B**	**100**	11 U	11 U	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	0.03 U	0.029 U	0.031 U	0.03 U	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	230	NA	NA	NA	NA	NA	0.056 U	0.056 U	**0.063 J**	0.056 U	0.053 U	0.055 U
TPH (C10-C32)	230	NA	NA	NA	NA	NA	**16 B**	**17 B**	12 U	**11 B**	**17 B**	**17 B**
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-134		GSP-SB-135		GSP-SB-136		GSP-SB-137		GSP-SB-138	
SAMPLE ID			GSP-SB-134-25'-27'	GSP-SB-134-27'-31'	GSP-SB-135-0'-2.5'	GSP-SB-135-10.5'-12'	GSP-SB-136-02	GSP-SB-136-10	GSP-SB-137-04	GSP-SB-137-18	GSP-SB-138-20-22	GSP-SB-138-24-26
			GSP-SB-134-25'-27'	GSP-SB-134-27'-31'	GSP-SB-135-0'-2.5'	GSP-SB-135-10.5'-12'	GSP-SB-136-02	GSP-SB-136-10	GSP-SB-137-04	GSP-SB-137-18	GSP-SB-138-20-22	GSP-SB-138-24-26
			REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08
SAMPLE DATE	Maryland	ATCs	20120906	20120906	20120907	20120907	20120914	20120914	20120926	20120926	20120921	20120921
TOP DEPTH	Residential		25	27	0	10.5	0	8	2	16	20	24
BOTTOM DEPTH	Soil Standard		27	31	2.5	12	2	10	4	18	22	26
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.048 U	0.037 U	0.00092 U	0.0013 UJ	0.0013 U	0.0012 U	0.00098 U	0.0011 U	0.0012 U	0.0013 U
1,1-DICHLOROETHENE	390	NA	0.022 U	0.017 U	0.00037 U	0.00051 UJ	**0.00072 J**	0.00047 U	0.00039 U	0.00044 U	0.00049 U	0.00052 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.012 U	0.0096 U	0.00027 U	0.00037 UJ	0.00037 U	0.00035 U	0.00029 U	0.00032 U	0.00036 U	0.00038 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00021 U	0.00016 U	0.00012 U	0.00017 UJ	0.00017 U	0.00015 U	0.00013 U	0.00014 U	0.00016 U	0.00017 U
1,2,4-TRICHLOROBENZENE	78	NA	**0.017 J**	0.007 U	0.00019 U	0.00026 UJ	0.00026 U	0.00025 U	0.0002 U	0.00023 U	0.00025 U	0.00027 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.0062 U	0.0048 U	0.00046 U	0.00064 UJ	0.00063 U	0.00059 U	0.00049 U	0.00055 U	0.00061 U	0.00065 U
1,2-DICHLOROBENZENE	700	NA	0.011 U	0.0082 U	0.00025 U	0.00035 UJ	0.00035 U	0.00033 U	0.00027 U	0.00031 U	0.00034 U	0.00036 U
1,2-DICHLOROETHANE	7	NA	0.012 U	0.0096 U	0.00024 U	0.00033 UJ	0.00033 U	0.00031 U	0.00026 U	0.00029 U	0.00032 U	0.00034 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	**0.0074 J**	**0.0063 J**	0.00025 U	0.00034 UJ	0.00034 U	0.00032 U	0.00026 U	0.0003 U	0.00033 U	0.00035 U
1,4-DICHLOROBENZENE	27	NA	0.0098 U	0.0077 U	0.00046 U	0.00065 UJ	0.00064 U	0.0006 U	0.0005 U	0.00056 U	0.00062 U	0.00066 U
2-BUTANONE	4700	NA	0.053 U	0.041 U	0.00099 U	0.0014 UJ	0.0014 U	0.0013 U	**0.0023 J**	0.0012 U	0.0013 U	0.0014 U
2-HEXANONE	NA	NA	0.025 U	0.019 U	0.00044 U	0.00062 UJ	0.00061 U	0.00057 U	0.00048 U	0.00053 U	0.00059 U	0.00063 U
4-ISOPROPYLTOLUENE	NA	NA	0.0059 U	0.0046 U	0.00015 U	0.00021 UJ	0.0002 U	0.00019 U	0.00016 U	0.00018 U	0.0002 U	0.00021 U
4-METHYL-2-PENTANONE	NA	NA	0.059 U	0.046 U	0.00038 U	0.00053 UJ	0.00052 U	0.00049 U	0.00041 U	0.00046 U	0.00051 U	0.00054 U
ACETONE	7000	NA	0.21 U	0.16 U	0.0044 U	**0.011 J**	0.0061 U	0.0057 U	**0.034**	0.0053 U	**0.013 J**	**0.023**
BENZENE	12	NA	0.015 U	0.011 U	0.00016 U	**0.00026 J**	0.00022 U	0.00021 U	0.00017 U	**0.00022 J**	0.00022 U	**0.00034 J**
BROMOMETHANE	11	NA	0.036 U	0.028 U	0.00038 U	0.00053 UJ	0.00052 U	0.00049 U	0.00041 U	0.00046 U	0.00051 U	0.00054 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.015 U	0.011 U	0.00031 U	0.00043 UJ	0.00043 U	0.0004 U	0.00033 U	0.00037 U	0.00041 U	0.00044 U
CARBON TETRACHLORIDE	4.9	NA	0.0079 U	0.0061 U	0.00026 U	0.00036 UJ	0.00036 U	0.00034 U	0.00028 U	0.00031 U	0.00035 U	0.00037 U
CHLOROBENZENE	160	NA	0.0079 U	0.0061 U	0.00023 U	**0.0016 J**	0.00032 U	0.0003 U	0.00025 U	0.00028 U	0.00031 U	0.00033 U
CHLOROETHANE	220	NA	0.075 U	0.058 U	0.00061 U	0.00084 UJ	0.00083 U	0.00078 U	0.00065 U	0.00073 U	0.0008 U	0.00086 U
CHLOROFORM	78	NA	0.011 U	0.0084 U	0.0002 U	0.00028 UJ	0.00028 U	0.00026 U	0.00022 U	0.00025 U	0.00027 U	0.00029 U
CHLOROMETHANE	NA	NA	0.017 U	0.013 U	0.00029 U	0.0004 UJ	0.0004 U	0.00037 U	0.00031 U	0.00035 U	0.00038 U	0.00041 U
CIS-1,2-DICHLOROETHENE	78	NA	0.0085 U	0.0066 U	0.00025 U	0.00035 UJ	0.00035 U	0.00033 U	0.00027 U	**0.00043 J**	0.00034 U	0.00036 U
DIISOPROPYL ETHER	NA	NA	0.062 U	0.048 U	0.0011 U	0.0015 UJ	0.0015 U	0.0014 U	0.0011 U	0.0013 U	0.0014 U	0.0015 U
ETHYLBENZENE	780	NA	0.0066 U	0.0052 U	0.00018 U	0.00025 UJ	0.00025 U	0.00024 U	0.0002 U	0.00022 U	0.00024 U	0.00026 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.008 U	0.0062 U	0.00011 U	0.00016 UJ	0.00016 U	0.00015 U	0.00012 U	0.00014 U	0.00015 U	0.00016 U
M+P-XYLENES	NA	NA	**0.0082 J**	**0.0065 J**	0.00084 U	0.0012 UJ	0.0012 U	0.0011 U	0.00091 U	0.001 U	0.0011 U	0.0012 U
METHYL TERT-BUTYL ETHER	160	NA	0.0087 U	0.0068 U	0.0003 U	0.00042 UJ	0.00042 U	0.00039 U	0.00033 U	0.00036 U	0.0004 U	0.00043 U
METHYLENE CHLORIDE	85	NA	0.095 U	0.074 U	0.00047 U	0.00066 UJ	0.00065 U	0.00061 U	0.00051 U	0.00057 U	0.00063 U	0.00067 U
NAPHTHALENE	160	NA	**0.022 B**	**0.015 B**	**0.00013 B**	0.00019 UJ	**0.00063 B**	**0.00032 B**	0.00014 U	0.00016 U	0.00018 U	0.00019 U
N-BUTYLBENZENE	NA	NA	0.0098 U	0.0077 U	0.00016 U	0.00023 UJ	0.00022 U	0.00021 U	0.00017 U	0.0002 U	0.00022 U	0.00023 U
N-PROPYLBENZENE	NA	NA	0.017 U	0.013 U	0.00028 U	0.00039 UJ	0.00039 U	0.00036 U	0.0003 U	0.00034 U	0.00037 U	0.0004 U
O-XYLENE	NA	NA	0.01 U	0.0081 U	0.00025 U	0.00034 UJ	0.00034 U	0.00032 U	0.00026 U	0.0003 U	0.00033 U	0.00035 U
SEC-BUTYLBENZENE	NA	NA	0.0058 U	0.0045 U	0.00013 U	0.00018 UJ	0.00017 U	0.00016 U	0.00014 U	0.00015 U	0.00017 U	0.00018 U
STYRENE	1600	NA	0.0069 U	0.0054 U	0.00011 U	0.00015 UJ	0.00015 U	0.00014 U	0.00011 U	0.00013 U	0.00014 U	0.00015 U
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	0.008 U	0.0062 U	0.0002 U	0.00028 UJ	0.00028 U	0.00026 U	0.00022 U	0.00025 U	0.00027 U	0.00029 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.3 UR	0.23 UR	0.0054 UR	0.0074 UR	0.0074 UR	0.0069 UR	0.0057 UR	0.0064 UR	0.0071 UR	0.0076 UR
TETRACHLOROETHENE	1.2	NA	0.015 U	0.011 U	0.00037 U	0.00051 UJ	**0.00074 J**	0.00047 U	0.00039 U	0.00044 U	0.00049 U	0.00052 U
TOLUENE	630	NA	0.021 U	0.016 U	**0.00041 J**	**0.0012 J**	**0.00026 J**	**0.00088 J**	**0.00043 J**	**0.00054 J**	**0.00061 J**	**0.0011 J**
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.01 U	0.0078 U	0.00047 U	0.00066 UJ	0.00065 U	0.00061 U	0.00051 U	0.00057 U	0.00063 U	0.00067 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.011 U	0.0088 U	0.00029 U	0.0004 UJ	0.0004 U	0.00037 U	0.00031 U	0.00035 U	0.00038 U	0.00041 U
TRICHLOROETHENE	1.6	NA	**3.9**	**1.1**	0.0003 U	0.00041 UJ	**0.0012 J**	0.00038 U	0.00032 U	0.00036 U	0.00039 U	0.00042 U
TRICHLOROFLUOROMETHANE	NA	NA	0.02 U	0.015 U	0.00024 U	0.00033 UJ	0.00033 U	0.00031 U	0.00026 U	0.00029 U	0.00032 U	0.00034 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.022 U	0.017 U	0.00027 U	0.00038 UJ	0.00038 U	0.00036 U	0.00029 U	0.00033 U	0.00037 U	0.00039 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.034 U	0.032 U	0.031 U	0.032 U	0.029 U	0.03 U	0.03 U	0.032 U	0.032 U	0.032 U
2,4-DICHLOROPHENOL	23	NA	0.025 U	0.024 U	0.023 U	0.024 U	0.021 U	0.022 U	0.022 U	0.024 U	0.024 U	0.024 U
2-CHLOROPHENOL	39	NA	0.034 U	0.032 U	0.031 U	0.032 U	0.029 U	0.03 U	0.03 U	0.032 U	0.032 U	0.032 U
2-METHYLNAPHTHALENE	31	NA	0.0041 U	0.0039 U	0.0038 U	0.004 U	0.0035 U	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0039 U
3&4-METHYLPHENOL	NA	NA	0.025 U	0.024 U	0.023 U	0.024 U	0.021 U	0.022 U	0.022 U	0.024 U	0.024 U	0.024 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-134		GSP-SB-135		GSP-SB-136		GSP-SB-137		GSP-SB-138	
SAMPLE ID			GSP-SB-134-25'-27'	GSP-SB-134-27'-31'	GSP-SB-135-0'-2.5'	GSP-SB-135-10.5'-12'	GSP-SB-136-02	GSP-SB-136-10	GSP-SB-137-04	GSP-SB-137-18	GSP-SB-138-20-22	GSP-SB-138-24-26
			GSP-SB-134-25'-27'	GSP-SB-134-27'-31'	GSP-SB-135-0'-2.5'	GSP-SB-135-10.5'-12'	GSP-SB-136-02	GSP-SB-136-10	GSP-SB-137-04	GSP-SB-137-18	GSP-SB-138-20-22	GSP-SB-138-24-26
			REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08
SAMPLE DATE	Maryland	ATCs	20120906	20120906	20120907	20120907	20120914	20120914	20120926	20120926	20120921	20120921
TOP DEPTH	Residential		25	27	0	10.5	0	8	2	16	20	24
BOTTOM DEPTH	Soil Standard		27	31	2.5	12	2	10	4	18	22	26
ACENAPHTHENE	470	NA	0.0041 U	0.0039 U	0.0038 U	0.004 U	**0.0036 J**	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0039 U
ACENAPHTHYLENE	470	NA	0.0041 U	0.0039 U	0.0038 U	0.004 U	**0.0048 J**	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0039 U
ANTHRACENE	2300	NA	0.0041 U	0.0039 U	0.0038 U	0.004 U	**0.013**	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0039 U
BAP EQUIVALENT-HALFND	NA	NA	0.0041 U	0.0039 U	0.0038 U	0.004 U	**0.121309**	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0039 U
BAP EQUIVALENT-POS	NA	NA	0.0041 U	0.0039 U	0.0038 U	0.004 U	**0.119559**	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0039 U
BENZALDEHYDE	NA	NA	0.015 U	0.014 U	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.014 U	0.014 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	0.0041 U	0.0039 U	0.0038 U	0.004 U	**0.085**	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0039 U
BENZO(A)PYRENE	0.022	NA	0.0041 U	0.0039 U	0.0038 U	0.004 U	**0.094**	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0039 U
BENZO(B)FLUORANTHENE	0.22	NA	0.0041 U	0.0039 U	0.0038 U	0.004 U	**0.11**	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0039 U
BENZO(G,H,I)PERYLENE	230	NA	0.0041 U	0.0039 U	0.0038 U	0.004 U	**0.062 J**	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0039 U
BENZO(K)FLUORANTHENE	2.2	NA	0.0041 U	0.0039 U	0.0038 U	0.004 U	**0.046**	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0039 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.024 U	0.022 U	**0.039 J**	0.023 U	**0.025 J**	0.021 U	**0.021 J**	0.023 U	0.023 U	0.022 U
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.012 U	0.011 U	0.012 U	0.011 U	0.011 U	0.011 U	0.012 U	0.012 U	0.012 U
CAPROLACTAM	NA	NA	0.046 U	0.044 U	0.042 U	0.044 U	0.039 U	0.041 U	0.041 U	0.044 U	0.044 U	0.044 U
CARBAZOLE	32	NA	0.034 U	0.032 U	0.031 U	0.032 U	0.029 U	0.03 U	0.03 U	0.032 U	0.032 U	0.032 U
CHRYSENE	22	NA	0.0014 U	0.0013 U	0.0013 U	0.0013 U	**0.099**	0.0012 U	0.0012 U	0.0013 U	0.0013 U	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0041 U	0.0039 U	0.0038 U	0.004 U	0.0035 U	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0039 U
DIBENZOFURAN	7.8	NA	0.0041 U	0.0039 U	0.0038 U	0.004 U	0.0035 U	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0039 U
DIETHYL PHTHALATE	6300	NA	0.02 U	0.019 U	0.018 U	0.019 U	0.017 U	0.018 U	0.018 U	0.019 U	0.019 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.021 U	0.02 U	0.019 U	0.02 U	0.018 U	0.019 U	0.019 U	0.02 U	0.02 U	0.02 U
DI-N-BUTYL PHTHALATE	780	NA	0.019 U	0.018 U	0.017 U	0.018 U	0.016 U	0.017 U	0.017 U	0.018 U	0.018 U	0.018 U
FLUORANTHENE	310	NA	0.0041 U	0.0039 U	0.0038 U	0.004 U	**0.16**	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0039 U
FLUORENE	310	NA	0.0041 U	0.0039 U	0.0038 U	0.004 U	0.0035 U	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0039 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	**0.721**	0 U	0 U	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0171**	**0.01625**	**0.01585**	**0.01665**	**0.72275**	**0.0154**	**0.0154**	**0.01665**	**0.01625**	**0.01625**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.0041 U	0.0039 U	0.0038 U	0.004 U	**0.055**	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0039 U
ISOPHORONE	670	NA	0.016 U	0.015 U	0.015 U	0.016 U	0.014 U	0.014 U	0.015 U	0.016 U	0.016 U	0.015 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	**0.236**	0 U	0 U	0 U	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0164**	**0.0156**	**0.0152**	**0.016**	**0.2395**	**0.0148**	**0.0148**	**0.016**	**0.0156**	**0.0156**
NAPHTHALENE	160	NA	0.0041 U	0.0039 U	0.0038 U	0.004 U	**0.0046 J**	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0039 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.034 U	0.032 U	0.031 U	0.032 U	0.029 U	0.03 U	0.03 U	0.032 U	0.032 U	0.032 U
PENTACHLOROPHENOL	5.3	NA	0.099 U	0.094 U	0.091 U	0.096 U	0.085 U	0.089 U	0.089 U	0.096 U	0.096 U	0.094 U
PHENANTHRENE	2300	NA	0.0041 U	0.0039 U	0.0038 U	0.004 U	**0.05**	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0039 U
PHENOL	2300	NA	0.034 U	0.032 U	0.031 U	0.032 U	0.029 U	0.03 U	0.03 U	0.032 U	0.032 U	0.032 U
PYRENE	230	NA	0.0041 U	0.0039 U	0.0038 U	0.004 U	**0.17**	0.0037 U	0.0037 U	0.004 U	0.0039 U	0.0039 U
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1260	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR HALFND	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (MG/KG)												
ANTIMONY	3.1	NA	**0.69 B**	**0.53 B**	0.34 UL	**0.73 B**	0.39 UL	**0.61 B**	0.43 UL	0.43 UL	0.46 UL	**0.73 J**
ARSENIC	0.43	3.6	**1.7**	**0.52 J**	**1.5**	21	**2**	**1.7**	**1.7**	**2.5**	**1 J**	3.9
BARIUM	1600	NA	**2 J**	**4.9 J**	**6 J**	**5 J**	**27**	**4.8 J**	**14 J**	**4.9 J**	**7.9 J**	**4 J**
BERYLLIUM	16	NA	0.044 U	0.048 U	0.037 U	0.038 U	**0.096 J**	0.044 U	**0.082 J**	0.047 UL	0.051 U	0.05 U
CADMIUM	3.9	NA	0.037 U	0.04 U	0.031 U	0.032 U	**0.12 J**	0.036 U	0.039 U	0.04 U	0.042 U	**0.047 J**
CHROMIUM	23	28	**3.5**	**6.3**	**3.6**	35	**7.8**	**3.9**	**7.2**	**11**	**8.7 J**	44 J
COBALT	NA	NA	**0.59 J**	**0.23 J**	**0.65 J**	**0.64 J**	**2.3**	**0.4 J**	**0.83 J**	0.18 U	**0.41 J**	0.19 U
COPPER	310	NA	**1.3 J**	**3**	**2 J**	**5.3**	**15**	**1.8 J**	**2.6 J**	**1.5 J**	**2.5 J**	0.87 U
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**1.6**	**2.8**	**1.8**	**5.7**	**9.3**	**1.2**	**3**	**2.3**	**2.6**	**6**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	0.019 U	0.017 U	**0.019 J**	0.02 U	**0.039 J**	0.018 U	0.019 U	**0.023 J**	0.019 U	0.015 U
MOLYBDENUM	NA	NA	0.28 U	0.3 U	0.23 U	**0.35 B**	**0.67 B**	**0.35 B**	0.3 U	0.3 U	0.32 U	**0.51 J**
NICKEL	160	NA	0.28 U	**0.38 J**	**1.1 J**	**0.63 J**	**4.4**	**1.6 J**	**2.1 J**	**0.33 J**	**0.47 J**	0.32 U
SELENIUM	39	NA	0.46 U	0.5 U	0.39 U	**1 J**	0.45 U	0.46 U	0.49 U	0.49 U	0.53 U	**0.77 J**

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-134		GSP-SB-135		GSP-SB-136		GSP-SB-137		GSP-SB-138	
SAMPLE ID			GSP-SB-134-25'-27'	GSP-SB-134-27'-31'	GSP-SB-135-0'-2.5'	GSP-SB-135-10.5'-12'	GSP-SB-136-02	GSP-SB-136-10	GSP-SB-137-04	GSP-SB-137-18	GSP-SB-138-20-22	GSP-SB-138-24-26
			GSP-SB-134-25'-27'	GSP-SB-134-27'-31'	GSP-SB-135-0'-2.5'	GSP-SB-135-10.5'-12'	GSP-SB-136-02	GSP-SB-136-10	GSP-SB-137-04	GSP-SB-137-18	GSP-SB-138-20-22	GSP-SB-138-24-26
			REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08
SAMPLE DATE	Maryland	ATCs	20120906	20120906	20120907	20120907	20120914	20120914	20120926	20120926	20120921	20120921
TOP DEPTH	Residential		25	27	0	10.5	0	8	2	16	20	24
BOTTOM DEPTH	Soil Standard		27	31	2.5	12	2	10	4	18	22	26
SILVER	39	NA	0.1 UL	0.11 UL	0.086 UL	0.089 UL	**0.2 J**	0.1 U	0.11 UL	0.11 UL	0.12 U	0.12 U
THALLIUM	0.55	3.9	0.56 U	0.62 U	0.48 U	0.49 U	**0.86 B**	0.56 UL	0.6 U	0.6 U	0.65 U	0.64 U
VANADIUM	7.8	30	**11 J**	**5.7 J**	**7.4 J**	61 J	**12 J**	**5.9 J**	**10**	**8.5**	**8.6 J**	77 J
ZINC	2300	NA	**1.5 J**	**2.1 J**	**4.3**	**3.3 J**	**25 K**	**3.6 J**	**6.7**	**1.6 J**	**1.9 J**	**1.3 J**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	230	NA	**0.24**	0.054 U	0.052 U	0.056 U	0.049 U	0.051 U	0.051 U	0.056 U	**0.059 B**	0.054 U
TPH (C10-C32)	230	NA	**17 B**	**15 B**	**13 B**	**18 B**	**11 B**	**11 B**	10 U	11 U	11 U	**19 B**
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-139			GSP-SB-140		GSP-SB-141		GSP-SB-142			GSP-S
SAMPLE ID			GSP-SB-139-02	GSP-SB-139-20-23	GSP-SB-139-32-34.5	GSP-SB-140-02	GSP-SB-140-08	GSP-SB-141-02	GSP-SB-141-10	GSP-SB-142-20	GSP-SB-142-28	GSP-SB-143-02	
			GSP-SB-139-02	GSP-SB-139-20-23	GSP-SB-139-32-34.5	GSP-SB-140-02	GSP-SB-140-08	GSP-SB-141-02	GSP-SB-141-10	GSP-SB-142-20	GSP-SB-142-28	GSP-SB-143-02	
			REC=08	REC=08	REC=08	REC=08	REC=08	REC=11	REC=11	REC=11	REC=11	REC=11	
SAMPLE DATE	Maryland	ATCs	20121002	20120921	20120921	20120926	20120926	20121001	20121001	20120928	20120928	20120927	
TOP DEPTH	Residential		0	20	32	0	6	0	8	18	26	0	
BOTTOM DEPTH	Soil Standard		2	23	34.5	2	8	2	10	20	28	2	
VOLATILES (MG/KG)													
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	0.0013 U	0.0013 U	0.0011 U	0.00095 U	0.0012 U	0.0011 U	0.00095 U	0.0011 U	0.001 U	
1,1-DICHLOROETHENE	390	NA	NA	0.00051 U	0.00052 U	0.00043 U	0.00038 U	0.00047 U	0.00043 U	0.00038 U	0.00045 U	0.00042 U	
1,2,3-TRICHLOROBENZENE	NA	NA	NA	0.00038 U	0.00038 U	0.00031 U	0.00028 U	0.00034 U	0.00032 U	0.00028 U	0.00033 U	0.0003 U	
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	0.00017 U	0.00017 U	0.00014 U	0.00012 U	0.00015 U	0.00014 U	0.00012 U	0.00015 U	0.00014 U	
1,2,4-TRICHLOROBENZENE	78	NA	NA	0.00027 U	0.00027 U	0.00022 U	0.0002 U	**0.0004 B**	0.00022 U	0.0002 U	0.00023 U	0.00022 U	
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	0.00064 U	0.00065 U	0.00054 U	0.00048 U	0.00059 U	0.00054 U	0.00047 U	0.00056 U	0.00052 U	
1,2-DICHLOROBENZENE	700	NA	NA	0.00036 U	0.00036 U	0.0003 U	0.00026 U	0.00032 U	0.0003 U	0.00026 U	0.00031 U	0.00029 U	
1,2-DICHLOROETHANE	7	NA	NA	0.00034 U	0.00034 U	0.00028 U	0.00025 U	0.00031 U	0.00028 U	0.00025 U	0.00029 U	0.00027 U	
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,3-DICHLOROBENZENE	23	NA	NA	0.00035 U	0.00035 U	0.00029 U	0.00026 U	0.00032 U	0.00029 U	0.00026 U	0.0003 U	0.00028 U	
1,4-DICHLOROBENZENE	27	NA	NA	0.00065 U	0.00066 U	0.00054 U	0.00048 U	0.00059 U	0.00055 U	0.00048 U	0.00057 U	0.00053 U	
2-BUTANONE	4700	NA	NA	0.0014 U	0.0014 U	**0.0074 J**	**0.0018 J**	0.0013 U	**0.0016 B**	0.001 U	0.0012 U	0.0011 U	
2-HEXANONE	NA	NA	NA	0.00062 U	0.00063 U	0.00052 U	0.00046 U	0.00057 U	0.00052 U	0.00046 U	0.00054 U	0.0005 U	
4-ISOPROPYLTOLUENE	NA	NA	NA	0.00021 U	0.00021 U	0.00017 U	0.00015 U	0.00019 U	0.00017 U	0.00015 U	0.00018 U	0.00017 U	
4-METHYL-2-PENTANONE	NA	NA	NA	0.00053 U	0.00054 U	0.00045 U	0.0004 U	0.00049 U	0.00045 U	0.00039 U	0.00046 U	0.00043 U	
ACETONE	7000	NA	NA	**0.0074 J**	**0.018 J**	**0.061**	**0.06**	0.0057 U	**0.025 B**	0.0046 U	**0.035 B**	0.005 U	
BENZENE	12	NA	NA	**0.00023 J**	0.00023 U	0.00019 U	0.00017 U	0.00021 U	0.00019 U	0.00017 U	0.0002 U	0.00018 U	
BROMOMETHANE	11	NA	NA	0.00053 U	0.00054 U	0.00045 U	0.0004 U	0.00049 U	0.00045 U	0.00039 U	0.00046 U	0.00043 U	
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
CARBON DISULFIDE	780	NA	NA	0.00044 U	0.00044 U	**0.00069 J**	0.00032 U	0.0004 U	0.00037 U	0.00032 U	0.00038 U	0.00035 U	
CARBON TETRACHLORIDE	4.9	NA	NA	0.00037 U	0.00037 U	0.00031 U	0.00027 U	0.00033 U	0.00031 U	0.00027 U	0.00032 U	0.0003 U	
CHLOROBENZENE	160	NA	NA	**0.00064 J**	0.00033 U	0.00027 U	0.00024 U	0.0003 U	0.00027 U	0.00024 U	0.00028 U	0.00026 U	
CHLOROETHANE	220	NA	NA	0.00085 U	0.00086 U	0.00071 U	0.00063 U	0.00077 U	0.00072 U	0.00063 U	0.00074 U	0.00069 U	
CHLOROFORM	78	NA	NA	0.00029 U	0.00029 U	0.00024 U	0.00021 U	0.00026 U	0.00024 U	0.00021 U	0.00025 U	0.00023 U	
CHLOROMETHANE	NA	NA	NA	0.00041 U	0.00041 U	0.00034 U	0.0003 U	0.00037 U	0.00034 U	0.0003 U	0.00035 U	0.00033 U	
CIS-1,2-DICHLOROETHENE	78	NA	NA	0.00036 U	0.00036 U	0.0003 U	0.00026 U	0.00032 U	0.0003 U	0.00026 U	0.00031 U	0.00029 U	
DIISOPROPYL ETHER	NA	NA	NA	0.0015 U	0.0015 U	0.0012 U	0.0011 U	0.0014 U	0.0012 U	0.0011 U	0.0013 U	0.0012 U	
ETHYLBENZENE	780	NA	NA	0.00026 U	0.00026 U	0.00021 U	0.00019 U	0.00023 U	0.00022 U	0.00019 U	0.00022 U	0.00021 U	
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ISOPROPYLBENZENE	780	NA	NA	0.00016 U	0.00016 U	0.00013 U	0.00012 U	0.00014 U	0.00013 U	0.00012 U	0.00014 U	0.00013 U	
M+P-XYLENES	NA	NA	NA	0.0012 U	0.0012 U	0.00099 U	0.00088 U	0.0011 U	0.001 U	0.00087 U	0.001 U	0.00096 U	
METHYL TERT-BUTYL ETHER	160	NA	NA	0.00043 U	0.00043 U	0.00035 U	0.00032 U	0.00039 U	0.00036 U	0.00031 U	0.00037 U	0.00034 U	
METHYLENE CHLORIDE	85	NA	NA	0.00066 U	0.00067 U	0.00055 U	0.00049 U	0.0006 U	0.00056 U	0.00049 U	0.00058 U	0.00054 U	
NAPHTHALENE	160	NA	NA	0.00019 U	0.00019 U	0.00016 U	0.00014 U	**0.011 J**	0.00016 U	0.00014 U	**0.00016 B**	**0.00022 B**	
N-BUTYLBENZENE	NA	NA	NA	0.00023 U	0.00023 U	0.00019 U	0.00017 U	0.00021 U	0.00019 U	0.00017 U	0.0002 U	0.00018 U	
N-PROPYLBENZENE	NA	NA	NA	0.0004 U	0.0004 U	0.00033 U	0.00029 U	0.00036 U	0.00033 U	0.00029 U	0.00034 U	0.00032 U	
O-XYLENE	NA	NA	NA	0.00035 U	0.00035 U	0.00029 U	0.00026 U	0.00032 U	0.00029 U	0.00026 U	0.0003 U	0.00028 U	
SEC-BUTYLBENZENE	NA	NA	NA	0.00018 U	0.00018 U	0.00015 U	0.00013 U	0.00016 U	0.00015 U	0.00013 U	0.00015 U	0.00014 U	
STYRENE	1600	NA	NA	0.00015 U	0.00015 U	0.00012 U	0.00011 U	0.00014 U	0.00012 U	0.00011 U	0.00013 U	0.00012 U	
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TERT-BUTYLBENZENE	NA	NA	NA	0.00029 U	0.00029 U	0.00024 U	0.00021 U	0.00026 U	0.00024 U	0.00021 U	0.00025 U	0.00023 U	
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	0.0075 UR	0.0076 UR	0.0063 UR	0.0056 UR	0.0068 UR	0.0063 UR	0.0055 UR	0.0065 UR	0.0061 UR	
TETRACHLOROETHENE	1.2	NA	NA	0.00051 U	0.00052 U	0.00043 U	0.00038 U	0.00047 U	0.00043 U	0.00038 U	0.00045 U	0.00042 U	
TOLUENE	630	NA	NA	**0.00054 J**	**0.00072 J**	**0.001 J**	**0.0009 J**	**0.00073 J**	**0.00067 J**	**0.00039 J**	**0.0005 J**	**0.00043 J**	
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TOTAL XYLENES	1600	NA	NA	0.00066 U	0.00067 U	0.00055 U	0.00049 U	0.0006 U	0.00056 U	0.00049 U	0.00058 U	0.00054 U	
TRANS-1,2-DICHLOROETHENE	160	NA	NA	0.00041 U	0.00041 U	0.00034 U	0.0003 U	0.00037 U	0.00034 U	0.0003 U	0.00035 U	0.00033 U	
TRICHLOROETHENE	1.6	NA	NA	0.00042 U	**0.00069 J**	0.00035 U	0.00031 U	0.00038 U	0.00035 U	0.00031 U	0.00036 U	0.00034 U	
TRICHLOROFLUOROMETHANE	NA	NA	NA	0.00034 U	0.00034 U	0.00028 U	0.00025 U	0.00031 U	0.00028 U	0.00025 U	0.00029 U	0.00027 U	
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
VINYL CHLORIDE	0.09	NA	NA	0.00039 U	0.00039 U	0.00032 U	0.00029 U	0.00035 U	0.00032 U	0.00028 U	0.00033 U	0.00031 U	
SEMIVOLATILES (MG/KG)													
1,1-BIPHENYL	NA	NA	NA	0.033 U	0.032 U	0.03 U	0.032 U	0.06 U	0.032 U	0.029 U	0.033 U	0.03 U	
2,4-DICHLOROPHENOL	23	NA	NA	0.025 U	0.024 U	0.022 U	0.023 U	0.045 U	0.024 U	0.022 U	0.025 U	0.022 U	
2-CHLOROPHENOL	39	NA	NA	0.033 U	0.032 U	0.03 U	0.032 U	0.06 U	0.032 U	0.029 U	0.033 U	0.03 U	
2-METHYLNAPHTHALENE	31	NA	NA	0.0041 U	0.0039 U	0.0036 U	0.0039 U	**0.028**	0.0039 U	**0.016**	0.0041 U	**0.01**	
3&4-METHYLPHENOL	NA	NA	NA	0.025 U	0.024 U	0.022 U	0.023 U	0.045 U	0.024 U	0.022 U	0.025 U	0.022 U	

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-139			GSP-SB-140		GSP-SB-141		GSP-SB-142		GSP-S
SAMPLE ID			GSP-SB-139-02	GSP-SB-139-20-23	GSP-SB-139-32-34.5	GSP-SB-140-02	GSP-SB-140-08	GSP-SB-141-02	GSP-SB-141-10	GSP-SB-142-20	GSP-SB-142-28	GSP-SB-143-02
			GSP-SB-139-02	GSP-SB-139-20-23	GSP-SB-139-32-34.5	GSP-SB-140-02	GSP-SB-140-08	GSP-SB-141-02	GSP-SB-141-10	GSP-SB-142-20	GSP-SB-142-28	GSP-SB-143-02
			REC=08	REC=08	REC=08	REC=08	REC=08	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20121002	20120921	20120921	20120926	20120926	20121001	20121001	20120928	20120928	20120927
TOP DEPTH	Residential		0	20	32	0	6	0	8	18	26	0
BOTTOM DEPTH	Soil Standard		2	23	34.5	2	8	2	10	20	28	2
ACENAPHTHENE	470	NA	NA	0.0041 U	0.0039 U	**0.018**	0.0039 U	**0.077**	0.0039 U	**0.016**	0.0041 U	**0.012**
ACENAPHTHYLENE	470	NA	NA	0.0041 U	0.0039 U	0.0036 U	0.0039 U	**0.029**	0.0039 U	**0.016**	0.0041 U	**0.014**
ANTHRACENE	2300	NA	NA	0.0041 U	0.0039 U	**0.038**	0.0039 U	**0.19**	0.0039 U	**0.069**	0.0041 U	**0.048**
BAP EQUIVALENT-HALFND	NA	NA	NA	0.0041 U	0.0039 U	**0.14729**	0.0039 U	**1.06584**	**0.040991**	**0.45578**	0.0041 U	**0.41977**
BAP EQUIVALENT-POS	NA	NA	NA	0.0041 U	0.0039 U	**0.14729**	0.0039 U	**1.06219**	**0.038826**	**0.45398**	0.0041 U	**0.41797**
BENZALDEHYDE	NA	NA	NA	0.015 U	0.014 U	0.013 U	0.014 U	0.027 U	0.014 U	0.013 U	0.015 U	0.013 U
BENZO(A)ANTHRACENE	0.22	NA	NA	0.0041 U	0.0039 U	**0.15**	0.0039 U	**0.88**	**0.025**	**0.34**	0.0041 U	**0.32**
BENZO(A)PYRENE	0.022	NA	NA	0.0041 U	0.0039 U	**0.1**	0.0039 U	**0.81**	**0.032**	**0.36**	0.0041 U	**0.33**
BENZO(B)FLUORANTHENE	0.22	NA	NA	0.0041 U	0.0039 U	**0.13**	0.0039 U	**1.3**	**0.043**	**0.46**	0.0041 U	**0.42**
BENZO(G,H,I)PERYLENE	230	NA	NA	0.0041 U	0.0039 U	**0.052**	0.0039 U	**0.32**	0.0039 U	**0.15**	0.0041 U	**0.14**
BENZO(K)FLUORANTHENE	2.2	NA	NA	0.0041 U	0.0039 U	**0.066**	0.0039 U	**0.42**	0.0039 U	**0.16**	0.0041 U	**0.16**
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	NA	0.023 U	0.022 U	**0.028 J**	0.022 U	0.042 U	0.022 U	0.021 U	0.023 U	0.021 U
BUTYL BENZYL PHTHALATE	NA	NA	NA	0.012 U	0.012 U	0.011 U	0.012 U	0.022 U	0.012 U	0.011 U	0.012 U	0.011 U
CAPROLACTAM	NA	NA	NA	0.046 U	0.044 U	0.041 U	0.043 U	0.082 U	0.044 U	0.04 U	0.045 U	0.04 U
CARBAZOLE	32	NA	NA	0.033 U	0.032 U	0.03 U	0.032 U	0.06 U	0.032 U	0.029 U	0.033 U	0.03 U
CHRYSENE	22	NA	NA	0.0014 U	0.0013 U	**0.13**	0.0013 U	**0.99**	**0.026**	**0.38**	0.0014 U	**0.37**
DIBENZO(A,H)ANTHRACENE	0.022	NA	NA	0.0041 U	0.0039 U	**0.014**	0.0039 U	0.0073 U	0.0039 U	0.0036 U	0.0041 U	0.0036 U
DIBENZOFURAN	7.8	NA	NA	0.0041 U	0.0039 U	**0.0087 J**	0.0039 U	**0.018 J**	0.0039 U	**0.0062 J**	0.0041 U	**0.0038 J**
DIETHYL PHTHALATE	6300	NA	NA	0.02 U	0.019 U	0.018 U	0.019 U	0.036 U	0.019 U	0.017 U	0.02 U	0.017 U
DIMETHYL PHTHALATE	NA	NA	NA	0.021 U	0.02 U	0.019 U	0.02 U	0.038 U	0.02 U	0.018 U	0.021 U	0.019 U
DI-N-BUTYL PHTHALATE	780	NA	NA	0.018 U	0.018 U	0.017 U	0.018 U	0.033 U	0.018 U	0.016 U	0.018 U	0.016 U
FLUORANTHENE	310	NA	NA	0.0041 U	0.0039 U	**0.31**	0.0039 U	**1.7**	**0.041**	**0.5**	0.0041 U	**0.54**
FLUORENE	310	NA	NA	0.0041 U	0.0039 U	**0.022**	0.0039 U	**0.062**	0.0039 U	**0.023**	0.0041 U	**0.013**
HIGH MOLECULAR WEIGHT PAHS	NA	NA	NA	0 U	0 U	**0.927**	0 U	**6.81**	**0.17**	**2.62**	0 U	**2.45**
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	**0.0171**	**0.01625**	**0.927**	**0.01625**	**6.81365**	**0.1778**	**2.6218**	**0.0171**	**2.4518**
INDENO(1,2,3-CD)PYRENE	0.22	NA	NA	0.0041 U	0.0039 U	**0.045**	0.0039 U	**0.29**	0.0039 U	**0.12**	0.0041 U	**0.12**
ISOPHORONE	670	NA	NA	0.016 U	0.015 U	0.014 U	0.015 U	0.029 U	0.015 U	0.014 U	0.016 U	0.014 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	NA	0 U	0 U	**0.498**	0 U	**3.019**	**0.055**	**0.937**	0 U	**0.846**
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	**0.0164**	**0.0156**	**0.5034**	**0.0156**	**3.019**	**0.0667**	**0.937**	**0.0164**	**0.846**
NAPHTHALENE	160	NA	NA	0.0041 U	0.0039 U	0.0036 U	0.0039 U	**0.033**	0.0039 U	**0.027**	0.0041 U	**0.019**
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	NA	0.033 U	0.032 U	0.03 U	0.032 U	0.06 U	0.032 U	0.029 U	0.033 U	0.03 U
PENTACHLOROPHENOL	5.3	NA	NA	0.099 U	0.094 U	0.088 U	0.093 U	0.18 U	0.094 U	0.086 U	0.098 U	0.087 U
PHENANTHRENE	2300	NA	NA	0.0041 U	0.0039 U	**0.11**	0.0039 U	**0.9**	**0.014**	**0.27**	0.0041 U	**0.19**
PHENOL	2300	NA	NA	0.033 U	0.032 U	0.03 U	0.032 U	0.06 U	0.032 U	0.029 U	0.033 U	0.03 U
PYRENE	230	NA	NA	0.0041 U	0.0039 U	**0.24**	0.0039 U	**1.8**	**0.044**	**0.65**	0.0041 U	**0.59**
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1260	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR HALFND	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (MG/KG)												
ANTIMONY	3.1	NA	NA	0.47 UL	0.39 UL	0.31 UL	0.42 UL	**0.46 J**	0.35 UL	0.34 UL	2 UL	0.38 UL
ARSENIC	0.43	3.6	NA	**1.2 J**	**3**	**1.5**	0.32 U	**11 J**	**2.7 J**	**3.1**	**1.7 J**	**2.6**
BARIUM	1600	NA	NA	**9.5 J**	**1.3 J**	**20**	**5.9 J**	**45**	**6.4 J**	**21**	**21**	**24**
BERYLLIUM	16	NA	NA	0.051 U	0.043 U	**0.16 J**	0.046 UL	**0.49 J**	**0.061 J**	**0.35 J**	**0.45 J**	**0.87 L**
CADMIUM	3.9	NA	NA	0.043 U	0.036 U	**0.044 J**	0.038 U	**0.32 J**	0.033 U	**0.055 J**	0.19 UL	**0.05 J**
CHROMIUM	23	28	NA	**5.6 J**	**8.1 J**	**5.8**	**3.7**	**39 J**	**9.6 J**	**14**	**21**	**11**
COBALT	NA	NA	NA	**0.28 J**	0.16 U	**1.4**	0.17 U	**4.6**	**0.3 J**	**3.4**	**14**	**3.7**
COPPER	310	NA	NA	**3.3**	**4.1**	**3.1**	**3.3**	**19**	**5.2**	**8.7**	**29**	**11**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	NA	**2.3 L**	**0.63 J**	**3.9**	**1.3**	**30 J**	**3.8 J**	**7.7**	**10**	**7.5**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	NA	0.02 U	0.017 U	0.016 U	0.02 U	**0.51**	**0.045 J**	**0.03 J**	**0.13**	0.019 U
MOLYBDENUM	NA	NA	NA	0.32 U	**0.28 J**	**0.36 J**	0.29 U	**0.52 J**	**0.4 J**	**0.31 J**	1.4 U	**0.3 J**
NICKEL	160	NA	NA	**0.67 J**	0.27 U	**2.7 J**	**0.46 J**	**12**	**0.62 J**	**6.4**	**53**	**8.3**
SELENIUM	39	NA	NA	0.54 U	0.45 U	0.35 U	0.48 U	0.46 U	0.41 U	0.39 U	2.4 U	0.44 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-139			GSP-SB-140		GSP-SB-141		GSP-SB-142		GSP-S
SAMPLE ID			GSP-SB-139-02	GSP-SB-139-20-23	GSP-SB-139-32-34.5	GSP-SB-140-02	GSP-SB-140-08	GSP-SB-141-02	GSP-SB-141-10	GSP-SB-142-20	GSP-SB-142-28	GSP-SB-143-02
			GSP-SB-139-02	GSP-SB-139-20-23	GSP-SB-139-32-34.5	GSP-SB-140-02	GSP-SB-140-08	GSP-SB-141-02	GSP-SB-141-10	GSP-SB-142-20	GSP-SB-142-28	GSP-SB-143-02
			REC=08	REC=08	REC=08	REC=08	REC=08	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20121002	20120921	20120921	20120926	20120926	20121001	20121001	20120928	20120928	20120927
TOP DEPTH	Residential		0	20	32	0	6	0	8	18	26	0
BOTTOM DEPTH	Soil Standard		2	23	34.5	2	8	2	10	20	28	2
SILVER	39	NA	NA	0.12 U	0.1 U	0.079 UL	0.11 UL	**0.25 J**	0.091 U	0.086 UL	0.53 UL	0.097 UL
THALLIUM	0.55	3.9	NA	0.66 U	0.55 U	0.43 U	0.59 U	0.57 U	0.5 U	0.48 U	0.58 U	0.54 U
VANADIUM	7.8	30	NA	**6.4 J**	**7.4 J**	**9.5**	**3.6**	**29**	**25**	**26**	**18**	**21**
ZINC	2300	NA	NA	**2.1 J**	**1.4 J**	**11**	**1.5 J**	**51**	**3 J**	**22**	**9.1**	**28**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	230	NA	NA	0.057 U	0.054 U	0.05 U	0.053 U	0.05 U	0.053 U	0.05 U	0.056 U	0.05 U
TPH (C10-C32)	230	NA	NA	11 U	11 U	**27**	11 U	**110**	11 U	**70**	11 U	**190**
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	0.0008 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	0.00075 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	0.0024 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	0.00035 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	0.00021 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	**0.0034 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	**0.2 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	**0.0012 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	**0.0049 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	**0.0093 B**	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-143	GSP-SB-144			GSP-SB-145		GSP-SB-146		GSP-SB-147	
SAMPLE ID			GSP-SB-143-26	GSP-SB-144-05	GSP-SB-144-10	GSP-SB-144-20	GSP-SB-145-06	GSP-SB-145-20	GSP-SB-146-06	GSP-SB-146-20	GSP-SB-147-10	GSP-SB-147-24
			GSP-SB-143-26	GSP-SB-144-05	GSP-SB-144-10	GSP-SB-144-20	GSP-SB-145-06	GSP-SB-145-20	GSP-SB-146-06	GSP-SB-146-20	GSP-SB-147-10	GSP-SB-147-24
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20120927	20121002	20120928	20120928	20121001	20121001	20121001	20121001	20120928	20120928
TOP DEPTH	Residential		24	3	8	18	4	18	4	18	8	22
BOTTOM DEPTH	Soil Standard		26	5	10	20	6	20	6	20	10	24
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0011 U	NA	0.001 U	0.0012 U	0.035 U	0.0011 U	0.031 U	0.0012 U	0.00098 U	0.0011 U
1,1-DICHLOROETHENE	390	NA	0.00045 U	NA	0.00041 U	0.00048 U	0.016 U	0.00044 U	0.014 U	0.00047 U	0.00039 U	0.00044 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00033 U	NA	0.0003 U	0.00035 U	0.009 U	0.00032 U	0.008 U	0.00034 U	0.00029 U	0.00032 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00015 U	NA	0.00013 U	0.00016 U	0.00015 U	0.00014 U	**0.0055 J**	0.00015 U	0.00013 U	0.00014 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00023 U	NA	0.00021 U	0.00025 U	0.0066 U	0.00023 U	0.0058 U	0.00024 U	0.0002 U	0.00023 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00056 U	NA	0.00051 U	0.0006 U	0.0045 U	0.00055 U	**0.0072 J**	0.00058 U	0.00049 U	0.00055 U
1,2-DICHLOROBENZENE	700	NA	0.00031 U	NA	0.00028 U	0.00033 U	0.0077 U	0.00031 U	0.0069 U	0.00032 U	0.00027 U	0.00031 U
1,2-DICHLOROETHANE	7	NA	0.00029 U	NA	0.00027 U	0.00031 U	0.009 U	0.00029 U	0.008 U	0.0003 U	0.00026 U	0.00029 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.0003 U	NA	0.00028 U	0.00032 U	0.0043 U	0.0003 U	0.0038 U	0.00031 U	0.00026 U	0.0003 U
1,4-DICHLOROBENZENE	27	NA	0.00057 U	NA	0.00052 U	0.00061 U	0.0072 U	0.00056 U	0.0064 U	0.00059 U	0.0005 U	0.00056 U
2-BUTANONE	4700	NA	0.0012 U	NA	0.0011 U	0.0013 U	**0.089 J**	0.0012 U	0.034 U	0.0013 U	0.0011 U	0.0012 U
2-HEXANONE	NA	NA	0.00054 U	NA	0.0005 U	0.00058 U	0.018 U	0.00053 U	0.016 U	0.00056 U	0.00047 U	0.00054 U
4-ISOPROPYLTOLUENE	NA	NA	0.00018 U	NA	0.00017 U	0.00019 U	**0.026 J**	0.00018 U	0.0038 U	0.00019 U	0.00016 U	0.00018 U
4-METHYL-2-PENTANONE	NA	NA	0.00047 U	NA	0.00043 U	0.0005 U	0.043 U	0.00046 U	0.038 U	0.00048 U	0.00041 U	0.00046 U
ACETONE	7000	NA	**0.013 B**	NA	**0.0087 B**	**0.04 B**	0.15 U	**0.0065 B**	0.14 U	**0.011 B**	**0.018 B**	**0.012 B**
BENZENE	12	NA	0.0002 U	NA	0.00018 U	0.00021 U	0.011 U	0.0002 U	0.0096 U	0.00021 U	0.00017 U	0.0002 U
BROMOMETHANE	11	NA	0.00047 U	NA	0.00043 U	0.0005 U	0.026 U	0.00046 U	0.023 U	0.00048 U	0.00041 U	0.00046 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00038 U	NA	0.00035 U	0.0004 U	0.011 U	0.00037 U	0.0096 U	0.00039 U	0.00033 U	0.00037 U
CARBON TETRACHLORIDE	4.9	NA	0.00032 U	NA	0.00029 U	0.00034 U	0.0058 U	0.00031 U	0.0051 U	0.00033 U	0.00028 U	0.00031 U
CHLOROBENZENE	160	NA	0.00028 U	NA	0.00026 U	0.0003 U	0.0058 U	0.00028 U	0.0051 U	0.0003 U	0.00025 U	0.00028 U
CHLOROETHANE	220	NA	0.00074 U	NA	0.00068 U	0.00079 U	0.055 U	0.00073 U	0.049 U	0.00077 U	0.00065 U	0.00073 U
CHLOROFORM	78	NA	0.00025 U	NA	0.00023 U	0.00027 U	0.0079 U	0.00025 U	0.007 U	0.00026 U	0.00022 U	0.00025 U
CHLOROMETHANE	NA	NA	0.00035 U	NA	0.00032 U	0.00038 U	0.013 U	0.00035 U	0.011 U	0.00037 U	0.00031 U	0.00035 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00031 U	NA	0.00028 U	0.00033 U	0.0062 U	0.00031 U	0.0055 U	0.00032 U	0.00027 U	0.00031 U
DIISOPROPYL ETHER	NA	NA	0.0013 U	NA	0.0012 U	0.0014 U	0.045 U	0.0013 U	0.04 U	0.0013 U	0.0011 U	0.0013 U
ETHYLBENZENE	780	NA	0.00022 U	NA	0.0002 U	0.00024 U	**0.011 J**	0.00022 U	0.0043 U	0.00023 U	0.0002 U	0.00022 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00014 U	NA	0.00013 U	0.00015 U	0.0058 U	0.00014 U	0.0052 U	0.00014 U	0.00012 U	0.00014 U
M+P-XYLENES	NA	NA	0.001 U	NA	0.00094 U	0.0011 U	**0.0064 B**	0.001 U	**0.0053 B**	0.0011 U	0.0009 U	0.001 U
METHYL TERT-BUTYL ETHER	160	NA	0.00037 U	NA	0.00034 U	0.00039 U	0.0064 U	0.00036 U	0.0057 U	0.00038 U	0.00032 U	0.00037 U
METHYLENE CHLORIDE	85	NA	0.00058 U	NA	0.00053 U	0.00062 U	0.069 U	0.00057 U	0.061 U	0.0006 U	0.0005 U	0.00057 U
NAPHTHALENE	160	NA	0.00016 U	NA	**0.00019 B**	0.00017 U	**0.47 J**	0.00016 U	**0.74 J**	0.00017 U	0.00014 U	0.00016 U
N-BUTYLBENZENE	NA	NA	0.0002 U	NA	0.00018 U	0.00021 U	0.0072 U	0.0002 U	0.0064 U	0.00021 U	0.00017 U	0.0002 U
N-PROPYLBENZENE	NA	NA	0.00034 U	NA	0.00031 U	0.00037 U	0.013 U	0.00034 U	0.011 U	0.00036 U	0.0003 U	0.00034 U
O-XYLENE	NA	NA	0.0003 U	NA	0.00028 U	0.00032 U	0.0076 U	0.0003 U	0.0068 U	0.00031 U	0.00026 U	0.0003 U
SEC-BUTYLBENZENE	NA	NA	0.00016 U	NA	0.00014 U	0.00017 U	0.0042 U	0.00015 U	0.0037 U	0.00016 U	0.00014 U	0.00015 U
STYRENE	1600	NA	0.00013 U	NA	0.00012 U	0.00014 U	0.005 U	0.00013 U	0.0045 U	0.00013 U	0.00011 U	0.00013 U
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	0.00025 U	NA	0.00023 U	0.00027 U	0.0058 U	0.00025 U	0.0052 U	0.00026 U	0.00022 U	0.00025 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0066 UR	NA	0.006 UR	0.007 UR	0.22 UR	0.0064 UR	0.19 UR	0.0068 UR	0.0057 UR	0.0065 UR
TETRACHLOROETHENE	1.2	NA	0.00045 U	NA	0.00041 U	0.00048 U	**0.016 B**	0.00044 U	**0.014 B**	0.00047 U	0.00039 U	0.00044 U
TOLUENE	630	NA	**0.00044 J**	NA	**0.00059 J**	**0.00051 J**	**0.58**	0.00023 U	**0.014 B**	**0.00085 J**	**0.00058 J**	**0.0003 J**
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00058 U	NA	0.00053 U	0.00062 U	0.0073 U	0.00057 U	0.0065 U	0.0006 U	0.0005 U	0.00057 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00035 U	NA	0.00032 U	0.00038 U	0.0083 U	0.00035 U	0.0073 U	0.00037 U	0.00031 U	0.00035 U
TRICHLOROETHENE	1.6	NA	0.00036 U	NA	0.00033 U	0.00039 U	**0.014 B**	0.00036 U	**0.012 B**	0.00038 U	0.00032 U	0.00036 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00029 U	NA	0.00027 U	0.00031 U	0.014 U	0.00029 U	0.013 U	0.0003 U	0.00026 U	0.00029 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00034 U	NA	0.00031 U	0.00036 U	0.016 U	0.00033 U	0.014 U	0.00035 U	0.00029 U	0.00033 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.031 U	NA	0.033 U	0.033 U	**0.33**	0.033 U	0.031 U	0.033 U	0.031 U	0.034 U
2,4-DICHLOROPHENOL	23	NA	0.023 U	NA	0.024 U	0.024 U	0.095 U	0.024 U	0.023 U	0.025 U	0.023 U	0.025 U
2-CHLOROPHENOL	39	NA	0.031 U	NA	0.033 U	0.033 U	0.13 U	0.033 U	0.031 U	0.033 U	0.031 U	0.034 U
2-METHYLNAPHTHALENE	31	NA	0.0038 U	NA	0.004 U	0.004 U	**2.9**	**0.0099**	**0.0057 J**	0.0041 U	0.0038 U	0.0041 U
3&4-METHYLPHENOL	NA	NA	0.023 U	NA	0.024 U	0.024 U	0.095 U	0.024 U	0.023 U	0.025 U	0.023 U	0.025 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-143	GSP-SB-144			GSP-SB-145		GSP-SB-146		GSP-SB-147	
SAMPLE ID			GSP-SB-143-26 GSP-SB-143-26 REC=11	GSP-SB-144-05 GSP-SB-144-05 REC=11	GSP-SB-144-10 GSP-SB-144-10 REC=11	GSP-SB-144-20 GSP-SB-144-20 REC=11	GSP-SB-145-06 GSP-SB-145-06 REC=11	GSP-SB-145-20 GSP-SB-145-20 REC=11	GSP-SB-146-06 GSP-SB-146-06 REC=11	GSP-SB-146-20 GSP-SB-146-20 REC=11	GSP-SB-147-10 GSP-SB-147-10 REC=11	GSP-SB-147-24 GSP-SB-147-24 REC=11
SAMPLE DATE	Maryland	ATCs	20120927	20121002	20120928	20120928	20121001	20121001	20121001	20121001	20120928	20120928
TOP DEPTH	Residential		24	3	8	18	4	18	4	18	8	22
BOTTOM DEPTH	Soil Standard		26	5	10	20	6	20	6	20	10	24
ACENAPHTHENE	470	NA	0.0038 U	NA	0.004 U	0.004 U	**0.73**	0.004 U	**0.0041 J**	0.0041 U	0.0038 U	0.0041 U
ACENAPHTHYLENE	470	NA	0.0038 U	NA	0.004 U	0.004 U	**0.077**	0.004 U	0.0038 U	0.0041 U	0.0038 U	0.0041 U
ANTHRACENE	2300	NA	0.0038 U	NA	0.004 U	0.004 U	**1.1**	**0.0053 J**	**0.011**	0.0041 U	0.0038 U	0.0041 U
BAP EQUIVALENT-HALFND	NA	NA	0.0038 U	NA	0.004 U	0.004 U	**1.2772**	0.004 U	**0.007725**	0.0041 U	0.0038 U	0.0041 U
BAP EQUIVALENT-POS	NA	NA	0.0038 U	NA	0.004 U	0.004 U	**1.2692**	0.004 U	**0.003716**	0.0041 U	0.0038 U	0.0041 U
BENZALDEHYDE	NA	NA	0.014 U	NA	0.015 U	0.015 U	0.057 U	0.014 U	0.014 U	0.015 U	0.014 U	0.015 U
BENZO(A)ANTHRACENE	0.22	NA	0.0038 U	NA	0.004 U	0.004 U	**1.2**	0.004 U	**0.016**	0.0041 U	0.0038 U	0.0041 U
BENZO(A)PYRENE	0.022	NA	0.0038 U	NA	0.004 U	0.004 U	**1**	0.004 U	0.0038 U	0.0041 U	0.0038 U	0.0041 U
BENZO(B)FLUORANTHENE	0.22	NA	0.0038 U	NA	0.004 U	0.004 U	**1.1**	0.004 U	**0.021**	0.0041 U	0.0038 U	0.0041 U
BENZO(G,H,I)PERYLENE	230	NA	0.0038 U	NA	0.004 U	0.004 U	**0.33**	0.004 U	0.0038 U	0.0041 U	0.0038 U	0.0041 U
BENZO(K)FLUORANTHENE	2.2	NA	0.0038 U	NA	0.004 U	0.004 U	**0.49**	0.004 U	0.0038 U	0.0041 U	0.0038 U	0.0041 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.022 U	NA	**0.023 J**	0.023 U	0.09 U	0.023 U	0.022 U	0.023 U	0.022 U	0.024 U
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	NA	0.012 U	0.012 U	0.047 U	0.012 U	0.011 U	0.012 U	0.012 U	0.012 U
CAPROLACTAM	NA	NA	0.043 U	NA	0.045 U	0.045 U	0.17 U	0.045 U	0.042 U	0.046 U	0.043 U	0.046 U
CARBAZOLE	32	NA	0.031 U	NA	0.033 U	0.033 U	**0.16 J**	0.033 U	0.031 U	0.033 U	0.031 U	0.034 U
CHRYSENE	22	NA	0.0013 U	NA	0.0013 U	0.0013 U	**1.3**	0.0013 U	**0.016**	0.0014 U	0.0013 U	0.0014 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0038 U	NA	0.004 U	0.004 U	0.016 U	0.004 U	0.0038 U	0.0041 U	0.0038 U	0.0041 U
DIBENZOFURAN	7.8	NA	0.0038 U	NA	0.004 U	0.004 U	**0.23 J**	0.004 U	0.0038 U	0.0041 U	0.0038 U	0.0041 U
DIETHYL PHTHALATE	6300	NA	0.019 U	NA	0.019 U	0.019 U	0.076 U	0.019 U	0.018 U	0.02 U	0.019 U	0.02 U
DIMETHYL PHTHALATE	NA	NA	0.02 U	NA	0.021 U	0.021 U	0.08 U	0.021 U	0.019 U	0.021 U	0.02 U	0.021 U
DI-N-BUTYL PHTHALATE	780	NA	0.017 U	NA	0.018 U	0.018 U	0.071 U	0.018 U	0.017 U	0.018 U	0.017 U	0.019 U
FLUORANTHENE	310	NA	0.0038 U	NA	**0.012**	0.004 U	**2.3**	**0.013**	**0.039**	0.0041 U	0.0038 U	0.0041 U
FLUORENE	310	NA	0.0038 U	NA	0.004 U	0.004 U	**1.5**	**0.0058 J**	**0.0058 J**	0.0041 U	0.0038 U	0.0041 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	NA	**0.012**	**0.0066**	**8.75**	**0.016**	**0.09**	0 U	**0.0045**	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.01585**	NA	**0.02665**	**0.02125**	**8.758**	**0.03065**	**0.0995**	**0.0171**	**0.01845**	**0.0171**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.0038 U	NA	0.004 U	0.004 U	**0.33**	0.004 U	0.0038 U	0.0041 U	0.0038 U	0.0041 U
ISOPHORONE	670	NA	0.015 U	NA	0.016 U	0.016 U	0.061 U	0.016 U	0.015 U	0.016 U	0.015 U	0.016 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	NA	**0.012**	**0.064**	**17.507**	**0.07**	**0.1156**	0 U	0 U	**0.0065**
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0152**	NA	**0.026**	**0.078**	**17.507**	**0.074**	**0.1175**	**0.0164**	**0.0152**	**0.02085**
NAPHTHALENE	160	NA	0.0038 U	NA	0.004 U	**0.064**	**4.4**	**0.011**	**0.01**	0.0041 U	0.0038 U	**0.0065 J**
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.031 U	NA	0.033 U	0.033 U	0.13 U	0.033 U	0.031 U	0.033 U	0.031 U	0.034 U
PENTACHLOROPHENOL	5.3	NA	0.093 U	NA	0.097 U	0.097 U	0.38 U	0.097 U	0.091 U	0.098 U	0.093 U	0.1 U
PHENANTHRENE	2300	NA	0.0038 U	NA	0.004 U	0.004 U	**4.5**	**0.025**	**0.04**	0.0041 U	0.0038 U	0.0041 U
PHENOL	2300	NA	0.031 U	NA	0.033 U	0.033 U	0.13 U	0.033 U	0.031 U	0.033 U	0.031 U	0.034 U
PYRENE	230	NA	0.0038 U	NA	**0.012**	**0.0066 J**	**3**	**0.016**	**0.037**	0.0041 U	**0.0045 J**	0.0041 U
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1260	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR HALFND	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (MG/KG)												
ANTIMONY	3.1	NA	2.2 U	NA	1.8 UL	2.2 UL	0.36 UL	2 UL	0.44 U	2.1 UL	0.37 UL	2.1 UL
ARSENIC	0.43	3.6	5.9 J	NA	4.7 J	1.7 U	**3.3 J**	4.1 J	**2.4**	**1.9 J**	**1.9**	1.6 U
BARIUM	1600	NA	**12 J**	NA	**13 J**	**19 J**	**30**	**9.8 J**	**15 J**	**16 J**	**8 J**	**12 J**
BERYLLIUM	16	NA	**0.36 J**	NA	**0.13 J**	**0.5 J**	**0.42 J**	**0.28 J**	**0.23 J**	0.24 UL	**0.067 J**	**0.31 J**
CADMIUM	3.9	NA	**0.58 J**	NA	0.16 UL	0.2 UL	**0.065 J**	0.18 U	0.04 U	0.2 UL	0.034 UL	0.2 UL
CHROMIUM	23	28	**14**	NA	**8.4**	**27**	**15 J**	**16 J**	**18**	**21**	**9.7**	**17**
COBALT	NA	NA	**17**	NA	**2.5**	**6.3**	**5.4**	**6.1**	**1.4**	**2.5**	**0.44 J**	**11**
COPPER	310	NA	**21**	NA	**5.8**	**45**	**11**	**69**	**7.1**	**15**	**6.8**	**22**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**15**	NA	**6.4**	**6.6**	**8.7 J**	**3.5 J**	**4.7**	**7.5**	**3**	**2.9 J**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	**0.079 J**	NA	**0.038 J**	0.015 U	**0.17**	**0.027 J**	**0.11**	**0.04 J**	**0.039 J**	**0.025 J**
MOLYBDENUM	NA	NA	1.5 U	NA	1.2 U	1.5 U	**0.27 J**	1.4 U	0.3 U	1.5 U	0.25 U	1.5 U
NICKEL	160	NA	**30**	NA	**3.5 J**	**9.8**	**9.2**	**6.9**	**2.9 J**	**3.9 J**	**2.5 J**	**11**
SELENIUM	39	NA	2.6 U	NA	2.1 U	2.5 U	0.42 U	2.3 U	0.5 U	2.5 U	0.42 U	2.5 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-143	GSP-SB-144			GSP-SB-145		GSP-SB-146		GSP-SB-147	
SAMPLE ID			GSP-SB-143-26	GSP-SB-144-05	GSP-SB-144-10	GSP-SB-144-20	GSP-SB-145-06	GSP-SB-145-20	GSP-SB-146-06	GSP-SB-146-20	GSP-SB-147-10	GSP-SB-147-24
			GSP-SB-143-26	GSP-SB-144-05	GSP-SB-144-10	GSP-SB-144-20	GSP-SB-145-06	GSP-SB-145-20	GSP-SB-146-06	GSP-SB-146-20	GSP-SB-147-10	GSP-SB-147-24
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20120927	20121002	20120928	20120928	20121001	20121001	20121001	20121001	20120928	20120928
TOP DEPTH	Residential		24	3	8	18	4	18	4	18	8	22
BOTTOM DEPTH	Soil Standard		26	5	10	20	6	20	6	20	10	24
SILVER	39	NA	0.11 UL	NA	0.092 UL	0.56 UL	0.093 U	0.1 U	0.11 U	0.55 UL	0.094 UL	0.55 UL
THALLIUM	0.55	3.9	0.62 U	NA	0.5 U	0.62 U	0.51 U	0.56 U	0.62 U	0.6 U	0.52 U	0.6 U
VANADIUM	7.8	30	**28**	NA	**10**	**12**	**26**	**7.5**	45	**14**	**7.9**	**12**
ZINC	2300	NA	**51**	NA	**8.1**	**11**	**31**	**6.6**	**7.1**	**6.3**	**5**	**10**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	230	NA	0.054 U	NA	0.055 U	**0.073 J**	**0.3**	0.056 U	**0.069 J**	0.056 U	**0.069 J**	**0.06 J**
TPH (C10-C32)	230	NA	**71**	NA	11 U	11 U	**230**	11 U	**61**	11 U	11 U	12 U
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	0.0008 U	NA	NA	0.0008 U	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	0.00075 U	NA	NA	**0.0014 J**	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	0.0024 U	NA	NA	0.0024 U	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	0.00035 U	NA	NA	0.00035 U	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	**0.0011 B**	NA	NA	0.00021 U	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	**0.014 J**	NA	NA	**0.024 J**	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	**0.13 J**	NA	NA	**0.16 J**	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	0.00066 U	NA	NA	0.00066 U	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	**0.0045 J**	NA	NA	**0.004 J**	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	**0.023 B**	NA	NA	**0.011 B**	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-148		GSP-SB-149		GSP-SB-150		GSP-SB-151		GSP-SB-152	
SAMPLE ID			GSP-SB-148-02	GSP-SB-148-16	GSP-SB-149-08	GSP-SB-149-28	GSP-SB-150-02	GSP-SB-150-18	GSP-SB-151-10	GSP-SB-151-20	GSP-SB-152-10	GSP-SB-152-28
			GSP-SB-148-02	GSP-SB-148-16	GSP-SB-149-08	GSP-SB-149-28	GSP-SB-150-02	GSP-SB-150-18	GSP-SB-151-10	GSP-SB-151-20	GSP-SB-152-10	GSP-SB-152-28
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20120927	20120927	20120924	20120924	20120924	20120924	20120927	20120927	20120926	20120926
TOP DEPTH	Residential		0	14	6	26	0	16	8	18	8	26
BOTTOM DEPTH	Soil Standard		2	16	8	28	2	18	10	20	10	28
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0011 U	0.0011 U	0.001 U	0.0012 U	0.0013 U	0.0011 U	0.0012 U	0.0011 U	0.0013 U	0.001 U
1,1-DICHLOROETHENE	390	NA	0.00043 U	**0.00047 J**	0.00041 U	0.00047 U	0.00052 U	0.00043 U	0.00048 U	0.00042 U	0.00052 U	0.00041 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00032 U	0.00032 U	0.0003 U	0.00034 U	0.00038 U	0.00032 U	0.00035 U	0.00031 U	0.00038 U	0.0003 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00014 U	0.00014 U	0.00013 U	0.00015 U	0.00017 U	0.00014 U	0.00016 U	0.00014 U	0.00017 U	0.00014 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00023 U	0.00022 U	0.00021 U	0.00024 U	0.00027 U	0.00023 U	0.00025 U	0.00022 U	0.00027 U	0.00021 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00054 U	0.00054 U	0.00052 U	0.00058 U	0.00065 U	0.00054 U	0.0006 U	0.00053 U	0.00065 U	0.00052 U
1,2-DICHLOROBENZENE	700	NA	0.0003 U	0.0003 U	0.00029 U	0.00032 U	0.00036 U	0.0003 U	0.00033 U	0.00029 U	0.00036 U	0.00029 U
1,2-DICHLOROETHANE	7	NA	0.00028 U	0.00028 U	0.00027 U	**0.002 J**	0.00034 U	**0.00077 J**	0.00032 U	**0.0019 J**	0.00034 U	**0.0015 J**
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00029 U	0.00029 U	0.00028 U	0.00031 U	0.00035 U	0.00029 U	0.00032 U	0.00028 U	0.00035 U	0.00028 U
1,4-DICHLOROBENZENE	27	NA	0.00055 U	0.00055 U	0.00052 U	0.00059 U	0.00066 U	0.00055 U	0.00061 U	0.00053 U	0.00066 U	0.00053 U
2-BUTANONE	4700	NA	**0.0085 J**	0.0012 U	**0.0017 B**	0.0013 U	**0.0014 J**	0.0012 U	0.0013 U	0.0011 U	0.0014 U	**0.002 J**
2-HEXANONE	NA	NA	0.00053 U	0.00052 U	0.0005 U	0.00057 U	0.00063 U	0.00053 U	0.00058 U	0.00051 U	0.00063 U	0.0005 U
4-ISOPROPYLTOLUENE	NA	NA	0.00018 U	0.00017 U	0.00017 U	0.00019 U	0.00021 U	0.00018 U	0.00019 U	0.00017 U	0.00021 U	0.00017 U
4-METHYL-2-PENTANONE	NA	NA	0.00045 U	0.00045 U	0.00043 U	0.00049 U	**0.00071 J**	0.00045 U	0.0005 U	0.00044 U	0.00054 U	0.00043 U
ACETONE	7000	NA	**0.049**	**0.009 B**	**0.012 J**	**0.024**	0.0063 U	0.0053 U	**0.03**	0.0051 U	0.0063 U	**0.048**
BENZENE	12	NA	0.00019 U	0.00019 U	0.00018 U	0.00021 U	0.00023 U	0.00019 U	0.00021 U	**0.0002 J**	0.00023 U	0.00018 U
BROMOMETHANE	11	NA	0.00045 U	0.00045 U	0.00043 U	0.00049 U	0.00054 U	0.00045 U	0.0005 U	0.00044 U	0.00054 U	0.00043 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00037 U	0.00037 U	0.00035 U	0.0004 U	0.00044 U	0.00037 U	0.00041 U	0.00036 U	0.00044 U	0.00035 U
CARBON TETRACHLORIDE	4.9	NA	0.00031 U	0.00031 U	0.00029 U	0.00033 U	0.00037 U	0.00031 U	0.00034 U	0.0003 U	0.00037 U	0.00029 U
CHLOROBENZENE	160	NA	0.00028 U	0.00027 U	0.00026 U	0.0003 U	0.00033 U	0.00028 U	0.00031 U	0.00027 U	0.00033 U	0.00026 U
CHLOROETHANE	220	NA	0.00072 U	0.00072 U	0.00068 U	0.00077 U	0.00086 U	0.00072 U	0.0008 U	0.00069 U	0.00086 U	0.00068 U
CHLOROFORM	78	NA	0.00024 U	0.00024 U	0.00023 U	0.00026 U	0.00029 U	**0.00027 J**	0.00027 U	0.00023 U	0.00029 U	0.00023 U
CHLOROMETHANE	NA	NA	0.00034 U	0.00034 U	0.00032 U	0.00037 U	0.00041 U	0.00034 U	0.00038 U	0.00033 U	0.00041 U	0.00033 U
CIS-1,2-DICHLOROETHENE	78	NA	0.0003 U	**0.0012 J**	0.00029 U	**0.011**	0.00036 U	**0.0096**	0.00033 U	**0.0044**	0.00036 U	**0.0012 J**
DIISOPROPYL ETHER	NA	NA	0.0013 U	0.0012 U	0.0012 U	0.0013 U	0.0015 U	0.0013 U	0.0014 U	0.0012 U	0.0015 U	0.0012 U
ETHYLBENZENE	780	NA	0.00022 U	0.00022 U	0.00021 U	0.00023 U	0.00026 U	0.00022 U	0.00024 U	0.00021 U	0.00026 U	0.00021 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00013 U	0.00013 U	0.00013 U	0.00014 U	0.00016 U	0.00013 U	0.00015 U	0.00013 U	0.00016 U	0.00013 U
M+P-XYLENES	NA	NA	0.001 U	0.001 U	0.00095 U	0.0011 U	0.0012 U	0.001 U	0.0011 U	0.00097 U	0.0012 U	0.00095 U
METHYL TERT-BUTYL ETHER	160	NA	0.00036 U	0.00036 U	0.00034 U	0.00039 U	0.00043 U	0.00036 U	0.0004 U	0.00035 U	0.00043 U	0.00034 U
METHYLENE CHLORIDE	85	NA	0.00056 U	0.00056 U	0.00053 U	0.0006 U	0.00067 U	0.00056 U	0.00062 U	0.00054 U	0.00067 U	0.00053 U
NAPHTHALENE	160	NA	0.00016 U	**0.00019 B**	0.00015 U	**0.00094 J**	0.00019 U	**0.00058 J**	0.00018 U	**0.0043**	0.00019 U	0.00015 U
N-BUTYLBENZENE	NA	NA	0.00019 U	0.00019 U	0.00018 U	0.00021 U	0.00023 U	0.00019 U	0.00021 U	0.00019 U	0.00023 U	0.00018 U
N-PROPYLBENZENE	NA	NA	0.00033 U	0.00033 U	0.00032 U	0.00036 U	0.0004 U	0.00033 U	0.00037 U	0.00032 U	0.0004 U	0.00032 U
O-XYLENE	NA	NA	0.00029 U	0.00029 U	0.00028 U	0.00031 U	0.00035 U	0.00029 U	0.00032 U	0.00028 U	0.00035 U	0.00028 U
SEC-BUTYLBENZENE	NA	NA	0.00015 U	0.00015 U	0.00014 U	0.00016 U	0.00018 U	0.00015 U	0.00017 U	0.00015 U	0.00018 U	0.00014 U
STYRENE	1600	NA	0.00013 U	0.00012 U	0.00012 U	0.00013 U	0.00015 U	0.00013 U	0.00014 U	0.00012 U	0.00015 U	0.00012 U
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	0.00024 U	0.00024 U	0.00023 U	0.00026 U	0.00029 U	0.00024 U	0.00027 U	0.00023 U	0.00029 U	0.00023 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0064 UR	0.0063 UR	0.006 UR	0.0068 UR	0.0076 UR	0.0063 UR	0.0071 UR	0.0061 UR	0.0076 UR	0.006 UR
TETRACHLOROETHENE	1.2	NA	0.00043 U	0.00043 U	0.00041 U	0.00047 U	0.00052 U	0.00043 U	0.00048 U	0.00042 U	0.00052 U	0.00041 U
TOLUENE	630	NA	**0.00081 J**	**0.00024 J**	**0.00067 J**	**0.0013 J**	**0.0004 J**	0.00023 U	**0.00076 J**	**0.00052 J**	**0.00091 J**	**0.001 J**
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00056 U	0.00056 U	0.00053 U	0.0006 U	0.00067 U	0.00056 U	0.00062 U	0.00054 U	0.00067 U	0.00053 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00034 U	0.00034 U	0.00032 U	0.00037 U	0.00041 U	0.00034 U	0.00038 U	0.00033 U	0.00041 U	0.00033 U
TRICHLOROETHENE	1.6	NA	0.00035 U	**0.064**	0.00033 U	**0.067**	0.00042 U	**0.052**	**0.00072 J**	**0.021**	0.00042 U	**0.0052**
TRICHLOROFLUOROMETHANE	NA	NA	0.00028 U	0.00028 U	0.00027 U	0.00031 U	0.00034 U	0.00028 U	0.00032 U	0.00027 U	0.00034 U	0.00027 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00033 U	0.00032 U	0.00031 U	**0.0019 J**	0.00039 U	**0.00089 J**	0.00036 U	**0.0019 J**	0.00039 U	0.00031 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.031 U	0.033 U	0.032 U	0.032 U	0.031 U	0.032 U	0.033 U	0.033 U	0.033 U	0.032 U
2,4-DICHLOROPHENOL	23	NA	0.023 U	0.024 U	0.024 U	0.023 U	0.023 U	0.024 U	0.025 U	0.025 U	0.024 U	0.023 U
2-CHLOROPHENOL	39	NA	0.031 U	0.033 U	0.032 U	0.032 U	0.031 U	0.032 U	0.033 U	0.033 U	0.033 U	0.032 U
2-METHYLNAPHTHALENE	31	NA	**0.004 J**	0.004 U	0.0039 U	0.0039 U	0.0037 U	0.0039 U	0.0041 U	0.0041 U	0.004 U	0.0039 U
3&4-METHYLPHENOL	NA	NA	0.023 U	0.024 U	0.024 U	0.023 U	0.023 U	0.024 U	0.025 U	0.025 U	0.024 U	0.023 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-148		GSP-SB-149		GSP-SB-150		GSP-SB-151		GSP-SB-152	
SAMPLE ID			GSP-SB-148-02	GSP-SB-148-16	GSP-SB-149-08	GSP-SB-149-28	GSP-SB-150-02	GSP-SB-150-18	GSP-SB-151-10	GSP-SB-151-20	GSP-SB-152-10	GSP-SB-152-28
			GSP-SB-148-02	GSP-SB-148-16	GSP-SB-149-08	GSP-SB-149-28	GSP-SB-150-02	GSP-SB-150-18	GSP-SB-151-10	GSP-SB-151-20	GSP-SB-152-10	GSP-SB-152-28
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20120927	20120927	20120924	20120924	20120924	20120924	20120927	20120927	20120926	20120926
TOP DEPTH	Residential		0	14	6	26	0	16	8	18	8	26
BOTTOM DEPTH	Soil Standard		2	16	8	28	2	18	10	20	10	28
ACENAPHTHENE	470	NA	**0.023**	0.004 U	0.0039 U	0.0039 U	0.0037 U	0.0039 U	0.0041 U	0.0041 U	0.004 U	0.0039 U
ACENAPHTHYLENE	470	NA	0.0037 U	0.004 U	0.0039 U	0.0039 U	0.0037 U	0.0039 U	0.0041 U	0.0041 U	0.004 U	0.0039 U
ANTHRACENE	2300	NA	**0.062**	0.004 U	0.0039 U	0.0039 U	**0.01**	0.0039 U	0.0041 U	0.0041 U	0.004 U	0.0039 U
BAP EQUIVALENT-HALFND	NA	NA	**0.17202**	0.004 U	0.0039 U	0.0039 U	**0.058423**	0.0039 U	0.0041 U	0.0041 U	0.004 U	0.0039 U
BAP EQUIVALENT-POS	NA	NA	**0.17017**	0.004 U	0.0039 U	0.0039 U	**0.056573**	0.0039 U	0.0041 U	0.0041 U	0.004 U	0.0039 U
BENZALDEHYDE	NA	NA	0.014 U	0.015 U	0.014 U	0.014 U	0.014 U	0.014 U	0.015 U	0.015 U	0.015 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	**0.15**	0.004 U	0.0039 U	0.0039 U	**0.038**	0.0039 U	0.0041 U	0.0041 U	0.004 U	0.0039 U
BENZO(A)PYRENE	0.022	NA	**0.13**	0.004 U	0.0039 U	0.0039 U	**0.044**	0.0039 U	0.0041 U	0.0041 U	0.004 U	0.0039 U
BENZO(B)FLUORANTHENE	0.22	NA	**0.19**	0.004 U	0.0039 U	0.0039 U	**0.057**	0.0039 U	0.0041 U	0.0041 U	0.004 U	0.0039 U
BENZO(G,H,I)PERYLENE	230	NA	**0.045**	0.004 U	0.0039 U	0.0039 U	**0.019 J**	0.0039 U	0.0041 U	0.0041 U	0.004 U	0.0039 U
BENZO(K)FLUORANTHENE	2.2	NA	**0.083**	0.004 U	0.0039 U	0.0039 U	**0.023**	0.0039 U	0.0041 U	0.0041 U	0.004 U	0.0039 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.021 U	0.023 U	0.023 U	0.022 U	0.022 U	0.022 U	0.023 U	0.023 U	0.023 U	0.022 U
BUTYL BENZYL PHTHALATE	NA	NA	0.011 U	0.012 U	0.012 U	0.012 U	0.011 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U
CAPROLACTAM	NA	NA	0.042 U	0.045 U	0.044 U	0.043 U	0.042 U	0.044 U	0.046 U	0.046 U	0.045 U	0.043 U
CARBAZOLE	32	NA	0.031 U	0.033 U	0.032 U	0.032 U	0.031 U	0.032 U	0.033 U	0.033 U	0.033 U	0.032 U
CHRYSENE	22	NA	**0.14**	0.0013 U	0.0013 U	0.0013 U	**0.043**	0.0013 U	0.0014 U	0.0014 U	0.0013 U	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0037 U	0.004 U	0.0039 U	0.0039 U	0.0037 U	0.0039 U	0.0041 U	0.0041 U	0.004 U	0.0039 U
DIBENZOFURAN	7.8	NA	**0.021 J**	0.004 U	0.0039 U	0.0039 U	0.0037 U	0.0039 U	0.0041 U	0.0041 U	0.004 U	0.0039 U
DIETHYL PHTHALATE	6300	NA	0.018 U	0.019 U	0.019 U	0.019 U	0.018 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.019 U	0.021 U	0.02 U	0.02 U	0.019 U	0.02 U	0.021 U	0.021 U	0.021 U	0.02 U
DI-N-BUTYL PHTHALATE	780	NA	0.017 U	0.018 U	0.018 U	0.018 U	0.017 U	0.018 U	0.019 U	0.018 U	0.018 U	0.018 U
FLUORANTHENE	310	NA	**0.35**	0.004 U	0.0039 U	0.0039 U	**0.08**	0.0039 U	0.0041 U	0.0041 U	0.004 U	0.0039 U
FLUORENE	310	NA	**0.022**	0.004 U	0.0039 U	0.0039 U	0.0037 U	0.0039 U	0.0041 U	0.0041 U	0.004 U	0.0039 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	**1.06**	0 U	0 U	0 U	**0.317**	0 U	0 U	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**1.06185**	**0.01665**	**0.01625**	**0.01625**	**0.31885**	**0.01625**	**0.0171**	**0.0171**	**0.01665**	**0.01625**
INDENO(1,2,3-CD)PYRENE	0.22	NA	**0.052**	0.004 U	0.0039 U	0.0039 U	**0.028**	0.0039 U	0.0041 U	0.0041 U	0.004 U	0.0039 U
ISOPHORONE	670	NA	0.015 U	0.016 U	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U	0.016 U	0.016 U	0.015 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	**0.6881**	0 U	0 U	0 U	**0.127**	0 U	0 U	0 U	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.68995**	**0.016**	**0.0156**	**0.0156**	**0.13625**	**0.0156**	**0.0164**	**0.0164**	**0.016**	**0.0156**
NAPHTHALENE	160	NA	**0.0071 J**	0.004 U	0.0039 U	0.0039 U	0.0037 U	0.0039 U	0.0041 U	0.0041 U	0.004 U	0.0039 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.031 U	0.033 U	0.032 U	0.032 U	0.031 U	0.032 U	0.033 U	0.033 U	0.033 U	0.032 U
PENTACHLOROPHENOL	5.3	NA	0.09 U	0.097 U	0.095 U	0.094 U	0.091 U	0.094 U	0.099 U	0.098 U	0.098 U	0.094 U
PHENANTHRENE	2300	NA	**0.22**	0.004 U	0.0039 U	0.0039 U	**0.037**	0.0039 U	0.0041 U	0.0041 U	0.004 U	0.0039 U
PHENOL	2300	NA	0.031 U	0.033 U	0.032 U	0.032 U	0.031 U	0.032 U	0.033 U	0.033 U	0.033 U	0.032 U
PYRENE	230	NA	**0.27**	0.004 U	0.0039 U	0.0039 U	**0.065**	0.0039 U	0.0041 U	0.0041 U	0.004 U	0.0039 U
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1260	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR HALFND	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.4 UL	1.9 U	0.44 U	0.41 U	0.38 U	0.36 U	0.39 UL	0.47 UL	0.47 UL	0.38 UL
ARSENIC	0.43	3.6	**2.9**	**3.3 J**	**0.69 J**	**0.94 J**	**1.6**	**0.45 J**	**0.82 J**	0.36 U	**0.84 J**	**0.66 J**
BARIUM	1600	NA	**16 J**	**10 J**	**9 J**	**4.9 J**	**29**	**2.1 J**	**2.2 J**	**3.7 J**	**2.4 J**	**7.4 J**
BERYLLIUM	16	NA	**0.11 J**	**0.27 J**	0.049 U	0.045 U	**0.27 J**	0.039 U	0.043 UL	0.052 UL	0.052 UL	**0.059 J**
CADMIUM	3.9	NA	0.036 UL	0.17 U	0.041 U	0.038 U	**0.048 J**	0.033 U	0.036 UL	0.043 UL	0.044 U	0.035 U
CHROMIUM	23	28	**11**	**17**	**5.6**	**8.2**	**4.9**	**3.2**	**3.6**	**3.8**	**2.2**	**6.1**
COBALT	NA	NA	**0.64 J**	**9.8**	0.18 U	**1.2**	**0.49 J**	**0.25 J**	**0.21 J**	0.19 U	0.19 U	**0.53 J**
COPPER	310	NA	**7.6**	**32**	**1.9 J**	**2 J**	**3.5**	**3.9**	**1.9 J**	**0.89 J**	**1.1 J**	**3.1**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**6.5**	**9.2**	**2 L**	**1.8 L**	**8.7**	**0.76 J**	**0.63 J**	**1.1 J**	**0.73 J**	**2.3**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	0.016 U	**0.081 J**	0.02 U	0.018 U	0.019 U	0.018 U	0.018 U	0.018 U	0.016 U	**0.038 J**
MOLYBDENUM	NA	NA	0.27 U	1.3 U	0.31 U	0.28 U	0.26 U	**0.25 J**	**0.39 J**	0.32 U	0.33 U	0.26 U
NICKEL	160	NA	**2.3 J**	**14**	**0.38 J**	**0.41 J**	**1.3 J**	**0.86 J**	**0.35 J**	0.32 U	0.33 U	**0.85 J**
SELENIUM	39	NA	0.46 U	2.2 U	0.51 U	0.47 U	0.44 U	0.41 U	0.45 U	0.54 U	0.55 U	0.44 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-148		GSP-SB-149		GSP-SB-150		GSP-SB-151		GSP-SB-152	
SAMPLE ID			GSP-SB-148-02	GSP-SB-148-16	GSP-SB-149-08	GSP-SB-149-28	GSP-SB-150-02	GSP-SB-150-18	GSP-SB-151-10	GSP-SB-151-20	GSP-SB-152-10	GSP-SB-152-28
			GSP-SB-148-02	GSP-SB-148-16	GSP-SB-149-08	GSP-SB-149-28	GSP-SB-150-02	GSP-SB-150-18	GSP-SB-151-10	GSP-SB-151-20	GSP-SB-152-10	GSP-SB-152-28
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20120927	20120927	20120924	20120924	20120924	20120924	20120927	20120927	20120926	20120926
TOP DEPTH	Residential		0	14	6	26	0	16	8	18	8	26
BOTTOM DEPTH	Soil Standard		2	16	8	28	2	18	10	20	10	28
SILVER	39	NA	0.1 UL	0.097 UL	0.11 U	0.11 U	0.097 U	0.091 U	0.1 UL	0.12 UL	0.12 UL	0.097 UL
THALLIUM	0.55	3.9	0.56 U	0.53 U	0.63 U	0.58 U	0.53 U	0.5 U	0.55 U	0.66 U	0.67 U	0.54 U
VANADIUM	7.8	30	**16**	**6.9**	**4.3**	**14**	**7.3**	**7**	**3.1**	**4.9**	**3.3**	**5.2**
ZINC	2300	NA	**9.2**	**7.5**	**1.7 J**	**1.2 J**	**6.3**	**2.4 J**	**1.3 J**	1.2 U	1.2 U	**2.2 J**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	230	NA	**0.056 J**	**0.098 J**	0.054 U	0.054 U	0.052 U	0.054 U	**0.065 J**	**0.07 J**	**0.062 B**	0.053 U
TPH (C10-C32)	230	NA	**72**	11 U	11 U	11 U	10 U	11 U	11 U	12 U	11 U	11 U
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-153		GSP-SB-154		GSP-SB-155		GSP-SB-156			
SAMPLE ID			GSP-SB-153-02	GSP-SB-153-24	GSP-SB-154-02	GSP-SB-154-16	GSP-SB-155-02	GSP-SB-155-10	GSP-SB-156-22-25	GSP-SB-156-2-4	GSP-SB-156-8-10	GSP-SS-SB-156-0-2
			GSP-SB-153-02	GSP-SB-153-24	GSP-SB-154-02	GSP-SB-154-16	GSP-SB-155-02	GSP-SB-155-10	GSP-SB-156-22-25	GSP-SB-156-2-4	GSP-SB-156-8-10	GSP-SS-SB-156-0-2
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=10	REC=10	REC=10	REC=10
SAMPLE DATE	Maryland	ATCs	20120925	20120925	20120925	20120925	20120925	20120925	20140225	20140227	20140225	20140225
TOP DEPTH	Residential		0	22	0	14	0	8	22	2	8	0
BOTTOM DEPTH	Soil Standard		2	24	2	16	2	10	25	4	10	2
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0012 U	0.00098 U	0.001 U	0.0011 U	0.0012 U	0.00098 U	NA	NA	NA	NA
1,1-DICHLOROETHENE	390	NA	0.00049 U	0.00039 U	0.00042 U	0.00043 U	0.00049 U	0.00039 U	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	0.00036 U	0.00029 U	0.00031 U	0.00032 U	0.00036 U	0.00029 U	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00016 U	0.00013 U	0.00014 U	0.00014 U	0.00016 U	0.00013 U	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	78	NA	0.00025 U	0.0002 U	0.00022 U	0.00022 U	0.00025 U	0.0002 U	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00061 U	0.00049 U	0.00052 U	0.00054 U	0.00061 U	0.00049 U	NA	NA	NA	NA
1,2-DICHLOROBENZENE	700	NA	0.00034 U	0.00027 U	0.00029 U	0.0003 U	0.00034 U	0.00027 U	NA	NA	NA	NA
1,2-DICHLOROETHANE	7	NA	0.00032 U	**0.00065 J**	0.00027 U	**0.0014 J**	0.00032 U	0.00026 U	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00033 U	0.00026 U	0.00028 U	0.00029 U	0.00033 U	0.00026 U	NA	NA	NA	NA
1,4-DICHLOROBENZENE	27	NA	0.00062 U	0.0005 U	0.00053 U	0.00055 U	0.00062 U	0.0005 U	NA	NA	NA	NA
2-BUTANONE	4700	NA	0.0013 U	0.0011 U	0.0011 U	0.0012 U	0.0013 U	0.0011 U	NA	NA	NA	NA
2-HEXANONE	NA	NA	0.00059 U	0.00048 U	0.00051 U	0.00052 U	0.00059 U	0.00048 U	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	0.0002 U	0.00016 U	0.00017 U	0.00017 U	0.0002 U	0.00016 U	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	0.00051 U	0.00041 U	0.00044 U	0.00045 U	0.00051 U	0.00041 U	NA	NA	NA	NA
ACETONE	7000	NA	**0.012 B**	**0.023 B**	0.0051 U	**0.0061 B**	0.0059 U	**0.015 B**	NA	NA	NA	NA
BENZENE	12	NA	0.00022 U	0.00017 U	0.00019 U	0.00019 U	0.00022 U	0.00017 U	NA	NA	NA	NA
BROMOMETHANE	11	NA	0.00051 U	0.00041 U	0.00044 U	0.00045 U	0.00051 U	0.00041 U	NA	NA	NA	NA
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00041 U	0.00033 U	0.00036 U	0.00037 U	0.00041 U	0.00033 U	NA	NA	NA	NA
CARBON TETRACHLORIDE	4.9	NA	0.00035 U	0.00028 U	0.0003 U	0.00031 U	0.00035 U	0.00028 U	NA	NA	NA	NA
CHLOROBENZENE	160	NA	0.00031 U	0.00025 U	0.00027 U	0.00027 U	0.00031 U	0.00025 U	NA	NA	NA	NA
CHLOROETHANE	220	NA	0.00081 U	0.00065 U	0.00069 U	0.00072 U	0.00081 U	0.00065 U	NA	NA	NA	NA
CHLOROFORM	78	NA	0.00027 U	0.00022 U	0.00023 U	0.00024 U	0.00027 U	0.00022 U	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	0.00039 U	0.00031 U	0.00033 U	0.00034 U	0.00038 U	0.00031 U	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	78	NA	0.00034 U	**0.0014 J**	0.00029 U	**0.0061**	0.00034 U	0.00027 U	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	0.0014 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0011 U	NA	NA	NA	NA
ETHYLBENZENE	780	NA	0.00024 U	0.0002 U	0.00021 U	0.00022 U	0.00024 U	0.0002 U	NA	NA	NA	NA
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00015 U	0.00012 U	0.00013 U	0.00013 U	0.00015 U	0.00012 U	NA	NA	NA	NA
M+P-XYLENES	NA	NA	0.0011 U	0.00091 U	0.00097 U	0.001 U	0.0011 U	0.00091 U	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	160	NA	0.0004 U	0.00032 U	0.00035 U	0.00036 U	0.0004 U	0.00032 U	NA	NA	NA	NA
METHYLENE CHLORIDE	85	NA	0.00063 U	0.00051 U	0.00054 U	0.00056 U	0.00063 U	0.00051 U	NA	NA	NA	NA
NAPHTHALENE	160	NA	**0.00022 B**	**0.0018 B**	**0.00018 B**	**0.0021 B**	**0.00055 B**	**0.00018 B**	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	0.00022 U	0.00017 U	0.00019 U	0.00019 U	0.00022 U	0.00017 U	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	0.00038 U	0.0003 U	0.00032 U	0.00033 U	0.00037 U	0.0003 U	NA	NA	NA	NA
O-XYLENE	NA	NA	0.00033 U	0.00026 U	0.00028 U	0.00029 U	0.00033 U	0.00026 U	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	0.00017 U	0.00014 U	0.00015 U	0.00015 U	0.00017 U	0.00014 U	NA	NA	NA	NA
STYRENE	1600	NA	0.00014 U	0.00011 U	0.00012 U	0.00012 U	0.00014 U	0.00011 U	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	0.00027 U	0.00022 U	0.00023 U	0.00024 U	0.00027 U	0.00022 U	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0071 UR	0.0057 UR	0.0061 UR	0.0063 UR	0.0071 UR	0.0057 UR	NA	NA	NA	NA
TETRACHLOROETHENE	1.2	NA	0.00049 U	0.00039 U	0.00042 U	0.00043 U	0.00049 U	0.00039 U	NA	NA	NA	NA
TOLUENE	630	NA	**0.0008 J**	**0.00053 J**	**0.0004 J**	**0.00079 J**	**0.00087 J**	**0.00079 J**	NA	NA	NA	NA
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00063 U	0.00051 U	0.00054 U	0.00056 U	0.00063 U	0.00051 U	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	160	NA	0.00039 U	0.00031 U	0.00033 U	0.00034 U	0.00038 U	0.00031 U	NA	NA	NA	NA
TRICHLOROETHENE	1.6	NA	0.00039 U	**0.0038**	0.00034 U	**0.039**	0.00039 U	**0.0004 J**	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	0.00032 U	0.00026 U	0.00027 U	0.00028 U	0.00032 U	0.00026 U	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00037 U	**0.00086 J**	0.00031 U	0.00032 U	0.00037 U	0.00029 U	NA	NA	NA	NA
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.033 U	0.031 U	0.031 U	0.031 U	0.03 U	0.032 U	0.0041 U	NA	0.0039 U	0.0043 U
2,4-DICHLOROPHENOL	23	NA	0.024 U	0.023 U	0.023 U	0.023 U	0.022 U	0.024 U	0.023 U	NA	0.022 U	0.024 U
2-CHLOROPHENOL	39	NA	0.033 U	0.031 U	0.031 U	0.031 U	0.03 U	0.032 U	0.0096 U	NA	0.0091 U	0.01 U
2-METHYLNAPHTHALENE	31	NA	0.004 U	0.0038 U	0.0038 U	0.0037 U	**0.04**	0.0039 U	0.00058 U	NA	0.00055 U	**0.011**
3&4-METHYLPHENOL	NA	NA	0.024 U	0.023 U	0.023 U	0.023 U	0.022 U	0.024 U	0.023 U	NA	0.022 U	0.024 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-153		GSP-SB-154		GSP-SB-155		GSP-SB-156			
SAMPLE ID			GSP-SB-153-02	GSP-SB-153-24	GSP-SB-154-02	GSP-SB-154-16	GSP-SB-155-02	GSP-SB-155-10	GSP-SB-156-22-25	GSP-SB-156-2-4	GSP-SB-156-8-10	GSP-SS-SB-156-0-2
			GSP-SB-153-02	GSP-SB-153-24	GSP-SB-154-02	GSP-SB-154-16	GSP-SB-155-02	GSP-SB-155-10	GSP-SB-156-22-25	GSP-SB-156-2-4	GSP-SB-156-8-10	GSP-SS-SB-156-0-2
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=10	REC=10	REC=10	REC=10
SAMPLE DATE	Maryland	ATCs	20120925	20120925	20120925	20120925	20120925	20120925	20140225	20140227	20140225	20140225
TOP DEPTH	Residential		0	22	0	14	0	8	22	2	8	0
BOTTOM DEPTH	Soil Standard		2	24	2	16	2	10	25	4	10	2
ACENAPHTHENE	470	NA	**0.011**	0.0038 U	0.0038 U	0.0037 U	**0.041**	0.0039 U	0.00089 U	NA	0.00084 U	**0.012**
ACENAPHTHYLENE	470	NA	0.004 U	0.0038 U	0.0038 U	0.0037 U	**0.11**	0.0039 U	0.00041 U	NA	0.00039 U	**0.007 J**
ANTHRACENE	2300	NA	**0.027**	0.0038 U	**0.022**	0.0037 U	**0.23**	0.0039 U	0.00091 U	NA	0.00086 U	**0.03**
BAP EQUIVALENT-HALFND	NA	NA	**0.19756**	0.0038 U	**0.30233**	0.0037 U	**1.02399**	**0.026132**	0.00075 U	NA	**0.006165**	**0.08683**
BAP EQUIVALENT-POS	NA	NA	**0.19556**	0.0038 U	**0.30233**	0.0037 U	**1.02399**	**0.024182**	0.00075 U	NA	**0.005776**	**0.086425**
BENZALDEHYDE	NA	NA	**0.044 J**	0.014 U	**0.019 J**	0.014 U	0.013 U	0.014 U	0.014 U	NA	0.013 U	0.015 U
BENZO(A)ANTHRACENE	0.22	NA	**0.14**	0.0038 U	**0.16**	0.0037 U	**0.65**	**0.018**	0.00074 U	NA	**0.0056 J**	**0.069**
BENZO(A)PYRENE	0.022	NA	**0.15**	0.0038 U	**0.21**	0.0037 U	**0.71**	**0.019**	0.00075 U	NA	**0.0048 J**	**0.069**
BENZO(B)FLUORANTHENE	0.22	NA	**0.22**	0.0038 U	**0.31**	0.0037 U	**0.72**	**0.022**	0.00069 U	NA	**0.0041 J**	**0.067**
BENZO(G,H,I)PERYLENE	230	NA	**0.096**	0.0038 U	**0.16**	0.0037 U	**0.52**	**0.014**	0.00041 U	NA	0.00039 U	**0.051**
BENZO(K)FLUORANTHENE	2.2	NA	**0.089**	0.0038 U	**0.11**	0.0037 U	**0.42**	**0.016**	0.00079 U	NA	0.00075 U	**0.025**
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.043 J**	0.022 U	**0.047 J**	0.022 U	**0.083**	**0.026 J**	0.022 U	NA	0.021 U	0.023 U
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.012 U	0.011 U	0.011 U	0.011 U	0.012 U	0.012 U	NA	0.011 U	0.012 U
CAPROLACTAM	NA	NA	0.045 U	0.043 U	0.042 U	0.042 U	0.04 U	0.044 U	0.043 U	NA	0.041 U	0.045 U
CARBAZOLE	32	NA	0.033 U	0.031 U	0.031 U	0.031 U	0.03 U	0.032 U	0.032 U	NA	0.03 U	0.033 U
CHRYSENE	22	NA	**0.17**	0.0013 U	**0.23**	0.0012 U	**0.79**	**0.022**	0.0013 U	NA	**0.0063 J**	**0.075**
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.004 U	0.0038 U	**0.03**	0.0037 U	**0.13**	0.0039 U	0.00077 U	NA	0.00073 U	0.00081 U
DIBENZOFURAN	7.8	NA	0.004 U	0.0038 U	0.0038 U	0.0037 U	**0.014 J**	0.0039 U	0.00077 U	NA	0.00073 U	0.00081 U
DIETHYL PHTHALATE	6300	NA	0.019 U	0.019 U	0.018 U	0.018 U	0.017 U	0.019 U	0.019 U	NA	0.018 U	0.02 U
DIMETHYL PHTHALATE	NA	NA	0.021 U	0.02 U	0.019 U	0.019 U	0.019 U	0.02 U	0.02 U	NA	0.019 U	0.021 U
DI-N-BUTYL PHTHALATE	780	NA	**0.046 J**	0.017 U	**0.027 J**	0.017 U	0.016 U	0.018 U	0.018 U	NA	0.017 U	0.018 U
FLUORANTHENE	310	NA	**0.27**	0.0038 U	**0.26**	0.0037 U	**1**	**0.03**	0.00064 U	NA	**0.0076**	**0.13**
FLUORENE	310	NA	0.004 U	0.0038 U	0.0038 U	0.0037 U	**0.061**	0.0039 U	0.00062 U	NA	0.00059 U	**0.017**
HIGH MOLECULAR WEIGHT PAHS	NA	NA	**1.19**	0 U	**1.58**	0 U	**5.66**	**0.153**	**0.0059**	NA	**0.0328**	**0.581**
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**1.192**	**0.01585**	**1.58**	**0.0154**	**5.66**	**0.15495**	**0.00883**	NA	**0.03393**	**0.581405**
INDENO(1,2,3-CD)PYRENE	0.22	NA	**0.085**	0.0038 U	**0.14**	0.0037 U	**0.42**	**0.01**	0.00041 U	NA	0.00039 U	**0.035**
ISOPHORONE	670	NA	0.016 U	0.015 U	0.015 U	0.015 U	0.014 U	0.015 U	0.015 U	NA	0.014 U	0.016 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	**0.402**	0 U	**0.366**	0 U	**2.152**	**0.047**	0 U	NA	**0.015**	**0.3552**
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.41**	**0.0152**	**0.3755**	**0.0148**	**2.152**	**0.0587**	**0.00293**	NA	**0.01707**	**0.3552**
NAPHTHALENE	160	NA	0.004 U	0.0038 U	0.0038 U	0.0037 U	**0.06**	0.0039 U	0.00096 U	NA	0.00091 U	**0.0082**
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.033 U	0.031 U	0.031 U	0.031 U	0.03 U	0.032 U	0.0074 U	NA	0.007 U	0.0077 U
PENTACHLOROPHENOL	5.3	NA	0.097 U	0.093 U	0.092 U	0.091 U	0.087 U	0.095 U	0.011 U	NA	0.01 U	0.011 U
PHENANTHRENE	2300	NA	**0.094**	0.0038 U	**0.084**	0.0037 U	**0.61**	**0.017**	0.00085 U	NA	**0.0074**	**0.14**
PHENOL	2300	NA	0.033 U	0.031 U	0.031 U	0.031 U	0.03 U	0.032 U	0.0085 U	NA	0.0081 U	0.0089 U
PYRENE	230	NA	**0.24**	0.0038 U	**0.23**	0.0037 U	**1.3**	**0.032**	**0.0059 J**	NA	**0.012**	**0.19**
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1260	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR HALFND	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.43 U	0.36 U	0.36 U	0.36 U	0.37 U	0.39 U	0.45 UJ	NA	0.38 UJ	0.42 UJ
ARSENIC	0.43	3.6	**3.5**	**0.48 J**	**1 J**	**0.89 J**	**3**	**0.71 J**	0.35 U	NA	**0.46 J**	3.8
BARIUM	1600	NA	**18 J**	**2 J**	**11 J**	**2.9 J**	**100**	**7.7 J**	**3.1 J**	NA	**3.9 J**	**27 J**
BERYLLIUM	16	NA	**0.19 J**	0.039 U	**0.15 J**	**0.045 J**	**1.4**	0.043 U	0.05 U	NA	0.041 U	**0.22 J**
CADMIUM	3.9	NA	**0.084 J**	0.033 U	**0.041 J**	0.033 U	**0.22 J**	0.036 U	0.042 U	NA	0.035 U	0.039 U
CHROMIUM	23	28	**9.6**	**2.8**	**4.7**	**10**	**12**	**6**	**2.1 J**	NA	**3.7 J**	**12 J**
COBALT	NA	NA	**1.2**	0.15 U	**0.62 J**	**0.18 J**	**2.2**	**0.25 J**	0.19 U	NA	0.15 U	**1.5**
COPPER	310	NA	**5.4**	0.67 U	**3.3**	**1.9 J**	**8.7**	**2.3 J**	0.86 U	NA	0.71 U	**4.8**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**9.9**	**0.91 L**	**5.9**	**1.1 L**	**15**	**1.9 L**	**1.3**	NA	**1.9**	**5.7**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	**0.05 J**	0.018 U	**0.065 J**	0.017 U	**0.67**	**0.13 K**	0.02 U	NA	0.018 U	0.017 U
MOLYBDENUM	NA	NA	**0.3 J**	0.25 U	0.25 U	0.25 U	0.25 U	**0.29 J**	0.31 U	NA	0.26 U	**0.35 J**
NICKEL	160	NA	**2.2 J**	0.25 U	**1.5 J**	**0.26 J**	**11**	**0.88 J**	0.63 U	NA	0.52 U	**3.8 J**
SELENIUM	39	NA	0.49 U	0.41 U	0.41 U	0.42 U	**1 J**	0.45 U	0.52 U	NA	0.43 U	0.48 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-153		GSP-SB-154		GSP-SB-155		GSP-SB-156			
SAMPLE ID			GSP-SB-153-02	GSP-SB-153-24	GSP-SB-154-02	GSP-SB-154-16	GSP-SB-155-02	GSP-SB-155-10	GSP-SB-156-22-25	GSP-SB-156-2-4	GSP-SB-156-8-10	GSP-SS-SB-156-0-2
			GSP-SB-153-02	GSP-SB-153-24	GSP-SB-154-02	GSP-SB-154-16	GSP-SB-155-02	GSP-SB-155-10	GSP-SB-156-22-25	GSP-SB-156-2-4	GSP-SB-156-8-10	GSP-SS-SB-156-0-2
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=10	REC=10	REC=10	REC=10
SAMPLE DATE	Maryland	ATCs	20120925	20120925	20120925	20120925	20120925	20120925	20140225	20140227	20140225	20140225
TOP DEPTH	Residential		0	22	0	14	0	8	22	2	8	0
BOTTOM DEPTH	Soil Standard		2	24	2	16	2	10	25	4	10	2
SILVER	39	NA	0.11 U	0.091 U	0.092 U	0.092 U	**0.13 J**	0.1 U	0.12 U	NA	0.096 U	0.11 U
THALLIUM	0.55	3.9	0.6 U	0.5 U	0.51 U	0.51 U	0.52 U	0.55 U	0.64 U	NA	0.53 U	0.59 U
VANADIUM	7.8	30	**25**	**4.3**	**7.5**	**15**	**27**	**5.9**	**3.9 J**	NA	**4.6 J**	**21 J**
ZINC	2300	NA	**25**	0.91 U	**10**	**1.3 J**	**51**	**3.3 J**	1.3 U	NA	0.96 U	**12**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	230	NA	0.056 U	0.054 U	0.052 U	0.053 U	0.05 U	**0.058 B**	0.055 U	NA	0.051 U	0.058 U
TPH (C10-C32)	230	NA	**33**	11 U	**98**	10 U	**88**	**28**	11 U	NA	10 UJ	**22 J**
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00017 U	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0008 U	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00027 U	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00035 U	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00021 U	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.0037 J**	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.16 J**	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00066 U	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0022 U	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.0025 J**	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-157			GSP-SB-158			GSP-SB-159			
SAMPLE ID			GSP-SB-157-18-20	GSP-SB-157-8-10	GSP-SS-157-0-2	GSP-SB-158-12-14	GSP-SB-158-22-25	GSP-SS-158-0-2	GSP-SB-159-12-14	GSP-SB-159-20-22	GSP-SS-159-2-4	GSP-SB-160-20-22
			GSP-SB-157-18-20	GSP-SB-157-8-10	GSP-SS-157-0-2	GSP-SB-158-12-14	GSP-SB-158-22-25	GSP-SS-158-0-2	GSP-SB-159-12-14	GSP-SB-159-20-22	GSP-SS-159-2-4	GSP-SB-160-20-22
			REC=10	REC=10	REC=10	REC=09	REC=09	REC=09	REC=10	REC=10	REC=10	REC=10
SAMPLE DATE	Maryland	ATCs	20140225	20140225	20140225	20140224	20140224	20140224	20140226	20140226	20140226	20140226
TOP DEPTH	Residential		18	8	0	12	22	0	12	20	2	20
BOTTOM DEPTH	Soil Standard		20	10	2	14	25	2	14	22	4	22
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	390	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	4700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	7000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	4.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	780	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	85	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	1600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	630	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.0041 U	0.0039 U	0.0045 U	0.0041 U	0.0041 U	0.0041 U	**0.53 J**	0.0043 U	**0.058 J**	0.0046 U
2,4-DICHLOROPHENOL	23	NA	0.023 U	0.022 U	0.025 U	0.023 U	0.024 U	0.023 U	1 U	0.025 U	0.046 U	0.026 U
2-CHLOROPHENOL	39	NA	0.0096 U	0.0092 U	0.01 U	0.0096 U	0.0097 U	0.0095 U	0.42 U	0.01 U	0.019 U	0.011 U
2-METHYLNAPHTHALENE	31	NA	0.00059 U	0.00056 U	0.00064 U	0.00059 U	0.00059 U	**0.017**	**2.1**	0.00062 U	**0.22**	0.00066 U
3&4-METHYLPHENOL	NA	NA	0.023 U	0.022 U	0.025 U	0.023 U	0.024 U	0.023 U	1 U	0.025 U	0.046 U	0.026 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-157				GSP-SB-158			GSP-SB-159		
SAMPLE ID			GSP-SB-157-18-20	GSP-SB-157-8-10	GSP-SS-157-0-2	GSP-SB-158-12-14	GSP-SB-158-22-25	GSP-SS-158-0-2	GSP-SB-159-12-14	GSP-SB-159-20-22	GSP-SS-159-2-4	GSP-SB-160-20-22
			GSP-SB-157-18-20	GSP-SB-157-8-10	GSP-SS-157-0-2	GSP-SB-158-12-14	GSP-SB-158-22-25	GSP-SS-158-0-2	GSP-SB-159-12-14	GSP-SB-159-20-22	GSP-SS-159-2-4	GSP-SB-160-20-22
			REC=10	REC=10	REC=10	REC=09	REC=09	REC=09	REC=10	REC=10	REC=10	REC=10
SAMPLE DATE	Maryland	ATCs	20140225	20140225	20140225	20140224	20140224	20140224	20140226	20140226	20140226	20140226
TOP DEPTH	Residential		18	8	0	12	22	0	12	20	2	20
BOTTOM DEPTH	Soil Standard		20	10	2	14	25	2	14	22	4	22
ACENAPHTHENE	470	NA	0.00089 U	0.00085 U	0.00097 U	0.00089 U	0.0009 U	**0.021**	**15**	0.00094 U	**0.12**	0.001 U
ACENAPHTHYLENE	470	NA	0.00041 U	0.00039 U	0.00045 U	0.00041 U	0.00041 U	**0.03**	0.018 U	0.00043 U	**0.15**	0.00046 U
ANTHRACENE	2300	NA	0.00091 U	0.00087 U	**0.0065 J**	0.00091 U	0.00092 U	**0.085**	**13**	0.00096 U	**0.44**	0.001 U
BAP EQUIVALENT-HALFND	NA	NA	0.00075 U	**0.012313**	**0.049103**	**0.044909**	0.00075 U	**0.88151**	**29.216**	**0.012959**	**2.106**	**0.008964**
BAP EQUIVALENT-POS	NA	NA	0.00075 U	**0.011939**	**0.048683**	**0.044524**	0.00075 U	**0.88151**	**29.216**	**0.01255**	**2.106**	**0.008507**
BENZALDEHYDE	NA	NA	0.014 U	0.013 U	**0.016 J**	0.014 U	0.014 U	0.014 U	0.62 U	0.015 U	0.028 U	0.016 U
BENZO(A)ANTHRACENE	0.22	NA	0.00074 U	**0.0088**	**0.032**	**0.014**	0.00074 U	**0.48**	**23**	**0.0085**	**1**	**0.0075 J**
BENZO(A)PYRENE	0.022	NA	0.00075 U	**0.0093**	**0.038**	**0.036**	0.00075 U	**0.6**	**20**	**0.01**	**1.5**	**0.007 J**
BENZO(B)FLUORANTHENE	0.22	NA	0.00069 U	**0.012**	**0.044**	**0.043**	0.0007 U	**0.83**	**26**	**0.011**	**1.3**	**0.0075 J**
BENZO(G,H,I)PERYLENE	230	NA	0.00041 U	**0.0089**	**0.033**	**0.031**	0.00041 U	**0.43**	**12**	**0.0082**	**1.3**	0.00046 U
BENZO(K)FLUORANTHENE	2.2	NA	0.0008 U	0.00076 U	**0.024**	**0.02**	0.0008 U	**0.29**	**9.4**	0.00084 U	**0.48**	0.00089 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.025 J**	0.021 U	0.024 U	0.022 U	0.022 U	**0.085**	0.98 U	0.023 U	0.044 U	0.025 U
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.011 U	0.013 U	0.012 U	0.012 U	0.012 U	0.52 U	0.012 U	0.023 U	0.013 U
CAPROLACTAM	NA	NA	0.043 U	0.041 U	0.047 U	0.043 U	0.044 U	0.043 U	1.9 U	0.046 U	0.086 U	0.048 U
CARBAZOLE	32	NA	0.032 U	0.03 U	0.034 U	0.032 U	0.032 U	**0.042 J**	**7.5**	0.033 U	0.062 U	0.035 U
CHRYSENE	22	NA	0.0013 U	**0.0092**	**0.043**	**0.024**	0.0013 U	**0.61**	**22**	**0.0099**	**1.2**	**0.0068 J**
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.00077 U	0.00074 U	0.00084 U	0.00077 U	0.00078 U	**0.11**	**3.1**	0.00081 U	**0.27**	0.00086 U
DIBENZOFURAN	7.8	NA	0.00077 U	0.00074 U	0.00084 U	0.00077 U	0.00078 U	**0.01 J**	**5.1**	0.00081 U	**0.037 J**	0.00086 U
DIETHYL PHTHALATE	6300	NA	0.019 U	0.018 U	0.02 U	0.019 U	0.019 U	0.019 U	0.83 U	0.02 U	0.037 U	0.021 U
DIMETHYL PHTHALATE	NA	NA	0.02 U	0.019 U	0.022 U	0.02 U	0.02 U	0.02 U	0.88 U	0.021 U	0.039 U	0.022 U
DI-N-BUTYL PHTHALATE	780	NA	0.018 U	0.017 U	0.019 U	0.018 U	0.018 U	0.017 U	0.78 U	0.018 U	0.035 U	0.02 U
FLUORANTHENE	310	NA	0.00064 U	**0.014**	**0.057**	**0.019**	0.00065 U	**0.99**	**54**	**0.014**	**1.4**	**0.011**
FLUORENE	310	NA	0.00062 U	0.00059 U	0.00068 U	0.00062 U	0.00062 U	**0.022**	**9.2**	0.00065 U	**0.22**	0.00069 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	**0.0747**	**0.312**	**0.216**	0 U	**4.72**	**169.5**	**0.0715**	**10.05**	**0.0428**
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.003195**	**0.07545**	**0.31242**	**0.216385**	**0.003205**	**4.72**	**169.5**	**0.072325**	**10.05**	**0.044135**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.00041 U	**0.0055 J**	**0.028**	**0.026**	0.00041 U	**0.37**	**11**	**0.0059 J**	**1**	0.00046 U
ISOPHORONE	670	NA	0.015 U	0.015 U	0.017 U	0.015 U	0.015 U	0.015 U	0.67 U	0.016 U	0.03 U	0.017 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	**0.0229**	**0.0845**	**0.019**	0 U	**1.557**	**146.9**	**0.0227**	**4.26**	**0.02**
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.00294**	**0.02499**	**0.08637**	**0.02162**	**0.00296**	**1.557**	**146.909**	**0.025**	**4.26**	**0.022455**
NAPHTHALENE	160	NA	0.00096 U	0.00092 U	0.001 U	0.00096 U	0.00097 U	**0.022**	**5.6**	0.001 U	**0.41**	0.0011 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.0074 U	0.007 U	0.008 U	0.0074 U	0.0074 U	0.0073 U	0.33 U	0.0078 U	0.015 U	0.0083 U
PENTACHLOROPHENOL	5.3	NA	0.011 U	0.01 U	0.012 U	0.011 U	0.011 U	0.011 U	0.47 U	0.011 U	0.021 U	0.012 U
PHENANTHRENE	2300	NA	0.00086 U	**0.0089**	**0.021**	0.00086 U	0.00086 U	**0.37**	**48**	**0.0087**	**1.3**	**0.009**
PHENOL	2300	NA	0.0086 U	0.0082 U	0.0093 U	0.0086 U	0.0086 U	0.0085 U	0.38 U	0.009 U	0.017 U	0.0096 U
PYRENE	230	NA	0.00052 U	**0.021**	**0.07**	**0.022**	0.00052 U	**1**	**43**	**0.018**	**2**	**0.014**
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1260	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR HALFND	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.4 UJ	0.38 UJ	0.39 UJ	0.44 UJ	0.46 UJ	0.31 UJ	**0.53 J**	0.39 U	0.44 U	0.48 U
ARSENIC	0.43	3.6	**1.2 J**	**1.7**	**3.6**	**2**	17	**1.5**	**3.3**	**1.9**	4.3	**1.9**
BARIUM	1600	NA	**4 J**	**4.8 J**	**50 J**	**3.8 J**	**1.6 J**	**25 J**	**53**	**2.3 J**	**35**	**5 J**
BERYLLIUM	16	NA	**0.061 J**	0.042 U	**0.47 J**	0.048 U	**0.28 J**	**0.14 J**	**0.89**	0.043 U	**0.66**	**0.074 J**
CADMIUM	3.9	NA	0.036 U	0.035 U	**0.21 J**	**0.042 J**	0.043 U	**0.059 J**	**0.36 J**	0.036 U	**0.79**	0.044 U
CHROMIUM	23	28	**4.7 J**	**3.9 J**	**11 J**	**4.3 J**	47 J	**9.2 J**	**13**	**5.4**	**22**	**6.5**
COBALT	NA	NA	**0.29 J**	0.16 U	**10**	0.18 U	0.19 U	**1.2**	**4.6**	0.16 U	**10**	**1 J**
COPPER	310	NA	**1.2 J**	**1.1 J**	**11**	**2.1 J**	**23**	**3.9**	**17**	**1.2 J**	**20**	**3.1**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**1.9**	**1.6**	**16**	**1.7**	**1.1 J**	**6.1**	**32**	**0.67 J**	**15**	**1.3**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	0.019 U	0.018 U	**0.028 J**	0.017 U	0.016 U	**0.031 J**	0.099 U	0.018 U	0.015 U	0.034 U
MOLYBDENUM	NA	NA	0.27 U	0.26 U	0.27 U	0.3 U	**0.65 J**	0.22 U	**0.8 J**	0.27 U	**0.34 J**	**0.52 J**
NICKEL	160	NA	**0.56 J**	0.53 U	**8**	0.6 U	0.64 U	**2.1 J**	**12**	0.55 U	**15**	**1.3 J**
SELENIUM	39	NA	0.46 U	0.44 U	**0.47 J**	0.5 U	**0.81 J**	0.36 U	**0.58 J**	0.45 U	0.51 U	0.55 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-157			GSP-SB-158			GSP-SB-159			
SAMPLE ID			GSP-SB-157-18-20	GSP-SB-157-8-10	GSP-SS-157-0-2	GSP-SB-158-12-14	GSP-SB-158-22-25	GSP-SS-158-0-2	GSP-SB-159-12-14	GSP-SB-159-20-22	GSP-SS-159-2-4	GSP-SB-160-20-22
			GSP-SB-157-18-20	GSP-SB-157-8-10	GSP-SS-157-0-2	GSP-SB-158-12-14	GSP-SB-158-22-25	GSP-SS-158-0-2	GSP-SB-159-12-14	GSP-SB-159-20-22	GSP-SS-159-2-4	GSP-SB-160-20-22
			REC=10	REC=10	REC=10	REC=09	REC=09	REC=09	REC=10	REC=10	REC=10	REC=10
SAMPLE DATE	Maryland	ATCs	20140225	20140225	20140225	20140224	20140224	20140224	20140226	20140226	20140226	20140226
TOP DEPTH	Residential		18	8	0	12	22	0	12	20	2	20
BOTTOM DEPTH	Soil Standard		20	10	2	14	25	2	14	22	4	22
SILVER	39	NA	0.1 U	0.098 U	0.099 U	0.11 U	0.12 U	0.08 U	0.11 U	0.1 U	0.11 U	0.12 U
THALLIUM	0.55	3.9	0.56 U	0.54 U	0.55 U	0.61 U	0.65 U	0.44 U	0.63 U	0.56 U	0.62 U	0.68 U
VANADIUM	7.8	30	**6.2 J**	**8.6 J**	**24 J**	**7.2 J**	**38 J**	**11 J**	**25**	**5.6**	**35**	**8.7**
ZINC	2300	NA	1.3 U	0.98 U	**27**	**100**	**11**	**17**	**55**	1 U	**42**	4.9 U
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	230	NA	0.055 U	0.052 U	0.06 U	0.053 U	0.055 U	0.053 U	0.058 U	0.056 U	**0.51**	0.061 U
TPH (C10-C32)	230	NA	11 U	10 U	**59**	**24**	11 U	**320 J**	**3800**	11 U	**75**	12 U
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00017 U	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0008 U	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00027 U	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00035 U	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.00022 J**	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0032 U	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.068 J**	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00066 U	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.0045 J**	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.0039 J**	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-160		GSP-SB-161			GSP-SB-162				
SAMPLE ID			GSP-SB-160-40-42	GSP-SS-160-6-8	GSP-SB-161-18-20	GSP-SB-161-6-8	GSP-SS-161-0-2	GSP-SB-162-10-12	GSP-SB-162-20-22	GSP-SS-162-0-2	GSP-SB-163-0-5	GSP-SB-163-10-15
			GSP-SB-160-40-42	GSP-SS-160-6-8	GSP-SB-161-18-20	GSP-SB-161-6-8	GSP-SS-161-0-2	GSP-SB-162-10-12	GSP-SB-162-20-22	GSP-SS-162-0-2	GSP-SB-163-0-5	GSP-SB-163-10-15
			REC=10	REC=10	REC=10	REC=10	REC=10	REC=10	REC=10	REC=10	REC=09	REC=09
SAMPLE DATE	Maryland	ATCs	20140226	20140226	20140224	20140224	20140224	20140225	20140225	20140225	20140306	20140306
TOP DEPTH	Residential		40	6	18	6	0	10	20	0	0	10
BOTTOM DEPTH	Soil Standard		42	8	20	8	2	12	22	2	5	15
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0011 U	0.0012 U
1,1-DICHLOROETHENE	390	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00044 U	0.00048 U
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00032 U	0.00035 U
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00014 U	0.00016 U
1,2,4-TRICHLOROBENZENE	78	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00023 U	0.00025 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00055 UJ	0.0006 UJ
1,2-DICHLOROBENZENE	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0003 U	0.00033 U
1,2-DICHLOROETHANE	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00029 UJ	0.00031 UJ
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00029 U	0.00032 U
1,4-DICHLOROBENZENE	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00056 U	0.0006 U
2-BUTANONE	4700	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0012 UJ	0.0013 UJ
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00053 UJ	0.00058 UJ
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00018 U	0.00019 U
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00045 UJ	0.00049 UJ
ACETONE	7000	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.022 J**	**0.0088 J**
BENZENE	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00019 U	0.00021 U
BROMOMETHANE	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00045 U	0.00049 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00037 UJ	0.0004 UJ
CARBON TETRACHLORIDE	4.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00031 UJ	0.00034 UJ
CHLOROBENZENE	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00028 U	0.0003 U
CHLOROETHANE	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00072 U	0.00079 U
CHLOROFORM	78	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00024 U	0.00027 U
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00034 U	0.00038 U
CIS-1,2-DICHLOROETHENE	78	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0003 U	0.00033 U
DIISOPROPYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0013 U	0.0014 U
ETHYLBENZENE	780	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00022 U	0.00024 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00013 UJ	0.00015 UJ
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.001 UJ	0.0011 UJ
METHYL TERT-BUTYL ETHER	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00036 U	0.00039 U
METHYLENE CHLORIDE	85	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00056 U	0.00061 U
NAPHTHALENE	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00016 U	0.00017 U
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00019 UJ	0.00021 UJ
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00034 UJ	0.00037 UJ
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00029 UJ	0.00032 UJ
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00015 UJ	0.00016 UJ
STYRENE	1600	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00013 UJ	0.00014 UJ
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00031 UJ	0.00034 UJ
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00024 UJ	0.00027 UJ
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0064 U	0.007 U
TETRACHLOROETHENE	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00044 U	0.00048 U
TOLUENE	630	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00023 U	0.00025 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00029 U	0.00032 U
TRANS-1,2-DICHLOROETHENE	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00034 U	0.00038 U
TRICHLOROETHENE	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00035 U	**0.015**
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00029 U	0.00031 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00033 U	0.00036 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.0044 U	**0.02 J**	0.0044 U	0.0041 U	0.0044 U	0.0042 U	0.0041 U	0.0042 U	0.0038 U	NA
2,4-DICHLOROPHENOL	23	NA	0.025 U	0.045 U	0.025 U	0.023 U	0.025 U	0.024 U	0.024 U	0.024 U	0.022 U	NA
2-CHLOROPHENOL	39	NA	0.01 U	0.019 U	0.01 U	0.0095 U	0.01 U	0.0099 U	0.0097 U	0.0098 U	0.0089 U	NA
2-METHYLNAPHTHALENE	31	NA	**0.012**	**0.14**	0.00063 U	0.00058 U	0.00064 U	0.00061 U	0.00059 U	0.0006 U	0.00055 U	NA
3&4-METHYLPHENOL	NA	NA	0.025 U	**0.34 J**	0.025 U	0.023 U	0.025 U	0.024 U	0.024 U	0.024 U	0.022 U	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-160		GSP-SB-161			GSP-SB-162				
SAMPLE ID			GSP-SB-160-40-42	GSP-SS-160-6-8	GSP-SB-161-18-20	GSP-SB-161-6-8	GSP-SS-161-0-2	GSP-SB-162-10-12	GSP-SB-162-20-22	GSP-SS-162-0-2	GSP-SB-163-0-5	GSP-SB-163-10-15
			GSP-SB-160-40-42	GSP-SS-160-6-8	GSP-SB-161-18-20	GSP-SB-161-6-8	GSP-SS-161-0-2	GSP-SB-162-10-12	GSP-SB-162-20-22	GSP-SS-162-0-2	GSP-SB-163-0-5	GSP-SB-163-10-15
			REC=10	REC=10	REC=10	REC=10	REC=10	REC=10	REC=10	REC=10	REC=09	REC=09
SAMPLE DATE	Maryland	ATCs	20140226	20140226	20140224	20140224	20140224	20140225	20140225	20140225	20140306	20140306
TOP DEPTH	Residential		40	6	18	6	0	10	20	0	0	10
BOTTOM DEPTH	Soil Standard		42	8	20	8	2	12	22	2	5	15
ACENAPHTHENE	470	NA	**0.0057 J**	**0.046**	0.00095 U	0.00088 U	0.00097 U	0.00092 U	0.0009 U	0.00091 U	0.00083 U	NA
ACENAPHTHYLENE	470	NA	0.00044 U	**0.059**	0.00044 U	0.00041 U	0.00044 U	0.00042 U	0.00041 U	0.00042 U	0.00038 U	NA
ANTHRACENE	2300	NA	**0.013**	**0.13**	0.00098 U	0.00091 U	0.00099 U	0.00095 U	0.00092 U	0.00093 U	0.00085 U	NA
BAP EQUIVALENT-HALFND	NA	NA	**0.033153**	**0.9763**	0.0008 U	0.00074 U	**0.007633**	0.00078 U	0.00076 U	0.00076 U	0.0007 U	NA
BAP EQUIVALENT-POS	NA	NA	**0.032738**	**0.9763**	0.0008 U	0.00074 U	**0.007187**	0.00078 U	0.00076 U	0.00076 U	0.0007 U	NA
BENZALDEHYDE	NA	NA	0.015 U	0.027 U	0.015 U	0.014 U	0.015 U	0.015 U	0.014 U	0.014 U	0.013 U	NA
BENZO(A)ANTHRACENE	0.22	NA	**0.025**	**0.51**	0.00079 U	0.00073 U	**0.0066 J**	0.00076 U	0.00075 U	0.00075 U	0.00069 U	NA
BENZO(A)PYRENE	0.022	NA	**0.026**	**0.67**	0.0008 U	0.00074 U	**0.0057 J**	0.00078 U	0.00076 U	0.00076 U	0.0007 U	NA
BENZO(B)FLUORANTHENE	0.22	NA	**0.026**	**0.87**	0.00074 U	0.00069 U	**0.0082 J**	0.00072 U	0.0007 U	0.0007 U	0.00064 U	NA
BENZO(G,H,I)PERYLENE	230	NA	**0.022**	**0.59**	0.00044 U	0.00041 U	0.00044 U	0.00042 U	0.00041 U	0.00042 U	0.00038 U	NA
BENZO(K)FLUORANTHENE	2.2	NA	**0.011**	**0.26**	0.00085 U	0.00079 U	0.00086 U	0.00083 U	0.00081 U	0.00081 U	0.00074 U	NA
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.024 U	**0.043 J**	0.024 U	0.022 U	0.024 U	0.023 U	0.023 U	0.023 U	0.021 U	NA
BUTYL BENZYL PHTHALATE	NA	NA	0.013 U	0.023 U	0.013 U	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.011 U	NA
CAPROLACTAM	NA	NA	0.047 U	0.084 U	0.046 U	0.043 U	0.047 U	0.045 U	0.044 U	0.044 U	0.04 U	NA
CARBAZOLE	32	NA	0.034 U	0.061 U	0.034 U	0.031 U	0.034 U	0.033 U	0.032 U	0.032 U	0.029 U	NA
CHRYSENE	22	NA	**0.028**	**0.7**	0.0014 U	0.0013 U	**0.0065 J**	0.0013 U	0.0013 U	0.0013 U	0.0012 U	NA
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.00083 U	**0.12**	0.00083 U	0.00077 U	0.00084 U	0.0008 U	0.00078 U	0.00079 U	0.00072 U	NA
DIBENZOFURAN	7.8	NA	0.00083 U	**0.016 J**	0.00083 U	0.00077 U	0.00084 U	0.0008 U	0.00078 U	0.00079 U	0.00072 U	NA
DIETHYL PHTHALATE	6300	NA	0.02 U	0.036 U	0.02 U	0.019 U	0.02 U	0.019 U	0.019 U	0.019 U	0.017 U	NA
DIMETHYL PHTHALATE	NA	NA	0.021 U	0.039 U	0.021 U	0.02 U	0.022 U	0.021 U	0.02 U	0.02 U	0.019 U	NA
DI-N-BUTYL PHTHALATE	780	NA	0.019 U	0.034 U	0.019 U	0.017 U	0.019 U	0.018 U	0.018 U	0.018 U	0.016 U	NA
FLUORANTHENE	310	NA	**0.041**	**0.94**	0.00069 U	0.00064 U	**0.0099**	0.00067 U	0.00065 U	0.00066 U	0.0006 U	NA
FLUORENE	310	NA	**0.01**	**0.078**	0.00066 U	0.00062 U	0.00067 U	0.00064 U	0.00063 U	0.00063 U	0.00058 U	NA
HIGH MOLECULAR WEIGHT PAHS	NA	NA	**0.209**	**5.27**	0 U	0 U	**0.037**	0 U	0 U	0 U	0 U	NA
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.209415**	**5.27**	**0.00342**	**0.003175**	**0.03829**	**0.00328**	**0.00322**	**0.00324**	**0.002965**	NA
INDENO(1,2,3-CD)PYRENE	0.22	NA	**0.015**	**0.45**	0.00044 U	0.00041 U	0.00044 U	0.00042 U	0.00041 U	0.00042 U	0.00038 U	NA
ISOPHORONE	670	NA	0.016 U	0.029 U	0.016 U	0.015 U	0.017 U	0.016 U	0.015 U	0.016 U	0.014 U	NA
LOW MOLECULAR WEIGHT PAHS	NA	NA	**0.1497**	**2.493**	0 U	0 U	**0.0152**	0 U	0 U	0 U	0 U	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.14992**	**2.493**	**0.003135**	**0.00292**	**0.017555**	**0.003045**	**0.002965**	**0.003**	**0.00274**	NA
NAPHTHALENE	160	NA	**0.018**	**0.63**	0.001 U	0.00095 U	0.001 U	0.00099 U	0.00097 U	0.00098 U	0.00089 U	NA
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.0079 U	0.014 U	0.0079 U	0.0073 U	0.008 U	0.0076 U	0.0075 U	0.0075 U	0.0069 U	NA
PENTACHLOROPHENOL	5.3	NA	0.011 U	0.021 U	0.011 U	0.011 U	0.012 U	0.011 U	0.011 U	0.011 U	0.0099 U	NA
PHENANTHRENE	2300	NA	**0.05**	**0.47**	0.00092 U	0.00085 U	**0.0053 J**	0.00089 U	0.00086 U	0.00087 U	0.0008 U	NA
PHENOL	2300	NA	0.0092 U	**0.09 J**	0.0092 U	0.0085 U	0.0093 U	0.0089 U	0.0086 U	0.0087 U	0.008 U	NA
PYRENE	230	NA	**0.056**	**1.1**	0.00055 U	0.00051 U	**0.01**	0.00053 U	0.00052 U	0.00053 U	0.00048 U	NA
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1260	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR HALFND	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.43 U	0.4 U	0.44 UJ	0.4 UJ	0.43 UJ	0.41 UJ	0.31 UJ	0.4 UJ	0.42 U	NA
ARSENIC	0.43	3.6	**0.4 J**	**2.3**	**2.8**	**0.57 J**	**2.1**	**0.6 J**	**0.8 J**	**1.1 J**	**1.6**	NA
BARIUM	1600	NA	**4 J**	**46**	**7.1 J**	**3.9 J**	**12 J**	**1.1 J**	**3.8 J**	**16 J**	**10 J**	NA
BERYLLIUM	16	NA	0.047 U	**0.36 J**	0.048 U	0.044 U	**0.1 J**	0.045 U	0.034 U	**0.081 J**	**0.094 J**	NA
CADMIUM	3.9	NA	0.039 U	**0.17 J**	0.04 U	0.037 U	0.039 U	0.038 U	0.029 U	**0.039 J**	0.039 U	NA
CHROMIUM	23	28	**5.8**	**9.9**	**4.9 J**	**3.1 J**	**6.6 J**	**3.2 J**	**4.7 J**	**6.3 J**	**6.5**	NA
COBALT	NA	NA	**0.24 J**	**1.9**	0.18 U	0.16 U	**0.8 J**	0.17 U	0.13 U	**0.35 J**	**0.36 J**	NA
COPPER	310	NA	**1 J**	**9.2**	**1.3 J**	**0.85 J**	**2.6 J**	0.77 U	**0.88 J**	**2.2 J**	**2.9**	NA
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**1.7**	**15**	**1.6**	**1.7**	**3.6**	**0.59 J**	**1.7**	**3**	**1.9**	NA
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	0.02 U	0.075 U	0.02 U	0.015 U	0.018 U	0.016 U	0.016 U	0.017 U	0.015 U	NA
MOLYBDENUM	NA	NA	0.29 U	**1 J**	0.3 U	0.27 U	0.29 U	0.28 U	0.22 U	0.28 U	0.29 U	NA
NICKEL	160	NA	0.59 U	**4.4**	0.61 U	0.55 U	**1.7 J**	0.57 U	0.43 U	**1.9 J**	**0.98 J**	NA
SELENIUM	39	NA	0.49 U	**0.7 J**	0.5 U	0.46 U	**0.49 J**	0.47 U	0.36 U	0.46 U	0.49 U	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-160		GSP-SB-161			GSP-SB-162				
SAMPLE ID			GSP-SB-160-40-42	GSP-SS-160-6-8	GSP-SB-161-18-20	GSP-SB-161-6-8	GSP-SS-161-0-2	GSP-SB-162-10-12	GSP-SB-162-20-22	GSP-SS-162-0-2	GSP-SB-163-0-5	GSP-SB-163-10-15
			GSP-SB-160-40-42	GSP-SS-160-6-8	GSP-SB-161-18-20	GSP-SB-161-6-8	GSP-SS-161-0-2	GSP-SB-162-10-12	GSP-SB-162-20-22	GSP-SS-162-0-2	GSP-SB-163-0-5	GSP-SB-163-10-15
			REC=10	REC=10	REC=10	REC=10	REC=10	REC=10	REC=10	REC=10	REC=09	REC=09
SAMPLE DATE	Maryland	ATCs	20140226	20140226	20140224	20140224	20140224	20140225	20140225	20140225	20140306	20140306
TOP DEPTH	Residential		40	6	18	6	0	10	20	0	0	10
BOTTOM DEPTH	Soil Standard		42	8	20	8	2	12	22	2	5	15
SILVER	39	NA	0.11 U	0.1 U	0.11 U	0.1 U	0.11 U	0.1 U	0.08 U	0.1 U	0.11 U	NA
THALLIUM	0.55	3.9	0.6 U	0.57 U	0.62 U	0.56 U	0.6 U	0.58 U	0.44 U	0.56 U	0.6 U	NA
VANADIUM	7.8	30	**8**	**17**	**8 J**	**3.2 J**	**13 J**	**4.8 J**	**5.8 J**	**6.8 J**	**9.3**	NA
ZINC	2300	NA	**1.6 J**	**26**	1.1 U	1.5 U	**8.6**	1.5 U	1.3 U	5.7 U	**4.4 J**	NA
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	230	NA	0.058 U	0.052 U	0.057 U	0.053 U	0.057 U	0.056 U	0.055 U	0.055 U	NA	NA
TPH (C10-C32)	230	NA	**19 J**	**310**	12 U	11 U	**22**	11 U	11 U	11 U	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	0.00017 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	0.0008 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	0.00027 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	0.00035 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	**0.0014 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	0.0032 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	**0.06 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	0.00066 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	**0.0048 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	**0.0026 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-163										GSP-S
SAMPLE ID			GSP-SB-163-15-20	GSP-SB-163-20-25	GSP-SB-163-25-30	GSP-SB-163-30-35	GSP-SB-163-5-10	GSP-SB-164-0-5	GSP-SB-164-10-15	GSP-SB-164-15-20	GSP-SB-164-20-25	GSP-SB-164-25-30	
			GSP-SB-163-15-20	GSP-SB-163-20-25	GSP-SB-163-25-30	GSP-SB-163-30-35	GSP-SB-163-5-10	GSP-SB-164-0-5	GSP-SB-164-10-15	GSP-SB-164-15-20	GSP-SB-164-20-25	GSP-SB-164-25-30	
			REC=09	REC=09	REC=09	REC=09	REC=09	REC=08	REC=08	REC=08	REC=08	REC=08	
SAMPLE DATE	Maryland	ATCs	20140306	20140306	20140306	20140306	20140306	20140227	20140227	20140227	20140227	20140227	
TOP DEPTH	Residential		15	20	25	30	5	0	10	15	20	25	
BOTTOM DEPTH	Soil Standard		20	25	30	35	10	5	15	20	25	30	
VOLATILES (MG/KG)													
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0011 U	0.045 U	0.0012 U	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.045 U	0.0011 U	
1,1-DICHLOROETHENE	390	NA	0.00045 U	0.021 U	0.00048 U	0.00046 U	0.00044 U	0.00045 U	0.00045 U	0.00045 U	0.021 U	0.00045 U	
1,2,3-TRICHLOROBENZENE	NA	NA	0.00033 U	0.012 U	0.00035 U	0.00034 U	0.00032 U	0.00033 U	0.00033 U	0.00033 U	0.012 UJ	0.00033 U	
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00015 U	0.0002 U	0.00016 U	0.00015 U	0.00014 U	0.00015 U	0.00015 U	0.00015 U	0.0002 U	0.00015 U	
1,2,4-TRICHLOROBENZENE	78	NA	0.00023 U	0.0084 U	0.00025 U	0.00024 U	0.00023 U	0.00023 U	0.00023 U	0.00024 U	0.0084 U	0.00023 U	
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00056 UJ	0.0058 U	0.0006 UJ	0.00058 UJ	0.00055 UJ	0.00057 U	0.00056 U	0.00057 U	0.0058 U	0.00056 U	
1,2-DICHLOROBENZENE	700	NA	0.00031 U	0.0099 U	0.00033 U	0.00032 U	0.0003 U	0.00031 U	0.00031 U	0.00031 U	0.0099 U	0.00031 U	
1,2-DICHLOROETHANE	7	NA	0.0003 UJ	0.012 U	0.00031 UJ	0.0003 UJ	0.00029 UJ	0.0003 U	0.00029 U	0.0003 U	0.012 U	0.00029 U	
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,3-DICHLOROBENZENE	23	NA	0.0003 U	0.0055 U	0.00032 U	0.00031 U	0.00029 U	0.0003 U	0.0003 U	0.0003 U	0.0055 U	0.0003 U	
1,4-DICHLOROBENZENE	27	NA	0.00057 U	0.0092 U	0.00061 U	0.00059 U	0.00055 U	0.00057 U	0.00057 U	0.00057 U	0.0092 U	0.00057 U	
2-BUTANONE	4700	NA	0.0012 UJ	0.049 UJ	0.0013 UJ	0.0012 UJ	0.0012 UJ	**0.0038 J**	0.0012 UJ	0.0012 UJ	0.05 UJ	0.0012 U	
2-HEXANONE	NA	NA	0.00055 UJ	0.023 UJ	0.00058 UJ	0.00056 UJ	0.00053 UJ	0.00055 UJ	0.00054 UJ	0.00055 UJ	0.023 UJ	0.00054 U	
4-ISOPROPYLTOLUENE	NA	NA	0.00018 U	0.0055 U	0.00019 U	0.00019 U	0.00018 U	0.00018 U	0.00018 U	0.00018 U	0.0055 U	0.00018 U	
4-METHYL-2-PENTANONE	NA	NA	0.00047 UJ	0.055 UJ	0.0005 UJ	0.00048 UJ	0.00045 UJ	0.00047 U	0.00046 U	0.00047 U	0.055 UJ	0.00046 U	
ACETONE	7000	NA	**0.019 J**	0.2 UJ	**0.023 J**	0.0056 UJ	**0.0098 J**	**0.48 J**	**0.098 J**	**0.052 J**	0.2 UJ	0.018 U	
BENZENE	12	NA	0.0002 U	0.014 U	0.00021 U	0.0002 U	0.00019 U	0.0002 U	0.0002 U	0.0002 U	0.014 U	**0.0003 J**	
BROMOMETHANE	11	NA	0.00047 U	0.033 U	0.0005 U	0.00048 U	0.00045 U	0.00047 U	0.00046 U	0.00047 U	0.033 U	0.00046 U	
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
CARBON DISULFIDE	780	NA	0.00038 UJ	0.014 U	0.00041 UJ	0.00039 UJ	0.00037 UJ	0.00038 U	0.00038 U	0.00038 U	0.014 U	0.00038 U	
CARBON TETRACHLORIDE	4.9	NA	0.00032 UJ	0.0074 U	0.00034 UJ	0.00033 UJ	0.00031 UJ	0.00032 U	0.00032 U	0.00032 U	0.0074 U	0.00032 U	
CHLOROBENZENE	160	NA	0.00029 U	0.0074 U	0.00031 U	0.00029 U	0.00028 U	0.00029 U	0.00028 U	0.00029 U	0.0074 U	0.00028 U	
CHLOROETHANE	220	NA	0.00075 U	0.07 U	0.0008 U	0.00077 U	0.00072 U	0.00075 U	0.00074 U	0.00075 U	0.07 U	0.00074 UJ	
CHLOROFORM	78	NA	0.00025 U	0.01 U	0.00027 U	0.00026 U	0.00024 U	0.00025 U	0.00025 U	0.00025 U	0.01 U	0.00025 U	
CHLOROMETHANE	NA	NA	0.00036 U	0.016 U	0.00038 U	0.00037 U	0.00034 U	0.00036 U	0.00035 U	0.00036 U	0.016 U	0.00035 U	
CIS-1,2-DICHLOROETHENE	78	NA	0.00031 U	0.0079 U	0.00033 U	0.00032 U	0.0003 U	0.00031 U	0.00031 U	0.00031 U	0.008 U	0.00031 U	
DIISOPROPYL ETHER	NA	NA	0.0013 U	0.058 U	0.0014 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.058 U	0.0013 U	
ETHYLBENZENE	780	NA	0.00023 U	0.0062 U	0.00024 U	0.00023 U	0.00022 U	0.00023 U	0.00022 U	0.00023 U	0.0062 U	0.00022 U	
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ISOPROPYLBENZENE	780	NA	0.00014 UJ	0.0075 U	0.00015 UJ	0.00014 UJ	0.00013 UJ	0.00014 U	0.00014 U	0.00014 U	0.0075 U	0.00014 U	
M+P-XYLENES	NA	NA	0.001 UJ	0.0071 U	0.0011 UJ	0.0011 UJ	0.001 UJ	0.001 U	0.001 U	0.001 U	0.0072 U	0.001 U	
METHYL TERT-BUTYL ETHER	160	NA	0.00037 U	0.0082 U	0.0004 U	0.00038 U	0.00036 U	0.00037 U	0.00037 U	0.00037 U	0.0082 U	0.00037 U	
METHYLENE CHLORIDE	85	NA	0.00058 U	0.089 U	0.00062 U	0.0006 U	0.00056 U	0.00058 U	0.00057 U	0.00058 U	0.089 U	0.00057 U	
NAPHTHALENE	160	NA	0.00016 U	0.011 U	0.00018 U	0.00017 U	0.00016 U	0.00017 U	0.00016 U	0.00017 U	0.0077 UJ	0.00016 U	
N-BUTYLBENZENE	NA	NA	0.0002 UJ	0.0092 U	0.00021 UJ	0.0002 UJ	0.00019 UJ	0.0002 U	0.0002 U	0.0002 U	0.0092 U	0.0002 U	
N-PROPYLBENZENE	NA	NA	0.00035 UJ	0.016 U	0.00037 UJ	0.00036 UJ	0.00034 UJ	0.00035 U	0.00034 U	0.00035 U	0.016 U	0.00034 U	
O-XYLENE	NA	NA	0.0003 UJ	0.0098 U	0.00032 UJ	0.00031 UJ	0.00029 UJ	0.0003 U	0.0003 U	0.0003 U	0.0098 U	0.0003 U	
SEC-BUTYLBENZENE	NA	NA	0.00016 UJ	0.0054 U	0.00017 UJ	0.00016 UJ	0.00015 UJ	0.00016 U	0.00015 U	0.00016 U	0.0054 U	0.00015 U	
STYRENE	1600	NA	0.00013 UJ	0.0064 U	**0.00019 J**	0.00013 UJ	0.00013 UJ	0.00013 U	0.00013 U	0.00013 U	0.0065 U	0.00013 U	
TERT-AMYL METHYL ETHER	NA	NA	0.00032 UJ	0.00043 U	0.00034 UJ	0.00033 UJ	0.00031 UJ	0.00032 U	0.00032 U	0.00032 U	0.00043 U	0.00032 U	
TERT-BUTYLBENZENE	NA	NA	0.00025 UJ	0.0075 U	0.00027 UJ	0.00026 UJ	0.00024 UJ	0.00025 U	0.00025 U	0.00025 U	0.0075 U	0.00025 U	
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0066 U	0.28 UJ	0.007 U	0.0068 U	0.0064 U	**0.013 J**	0.0065 U	0.0066 U	0.28 UJ	0.0065 U	
TETRACHLOROETHENE	1.2	NA	0.00045 U	0.014 U	0.00048 U	0.00046 U	0.00044 U	0.00045 U	0.00045 U	0.00045 U	0.014 U	0.00045 U	
TOLUENE	630	NA	0.00023 U	0.02 U	0.00025 U	0.00024 U	0.00023 U	0.00023 U	0.00023 U	0.00024 U	0.02 U	0.00023 U	
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TOTAL XYLENES	1600	NA	0.0003 U	0.0071 U	0.00032 U	0.00031 U	0.00029 U	0.0003 U	0.0003 U	0.0003 U	0.0072 U	0.0003 U	
TRANS-1,2-DICHLOROETHENE	160	NA	0.00036 U	0.011 U	0.00038 U	0.00037 U	0.00034 U	0.00036 U	0.00035 U	0.00036 U	0.011 U	0.00035 U	
TRICHLOROETHENE	1.6	NA	**0.051**	**0.41**	**0.0075**	**0.014**	**0.0064**	0.00037 U	0.00036 U	0.00037 U	**0.078 J**	**0.026**	
TRICHLOROFLUOROMETHANE	NA	NA	0.0003 U	0.018 U	0.00031 U	0.0003 U	0.00029 U	0.0003 U	0.00029 U	0.0003 U	0.018 U	0.00029 UJ	
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
VINYL CHLORIDE	0.09	NA	0.00034 U	0.021 U	0.00036 U	0.00035 U	0.00033 U	0.00034 U	0.00033 U	0.00034 U	0.021 U	0.00033 U	
SEMIVOLATILES (MG/KG)													
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	0.004 U	0.0039 U	NA	NA	NA	NA	
2,4-DICHLOROPHENOL	23	NA	NA	NA	NA	NA	0.023 U	0.022 U	NA	NA	NA	NA	
2-CHLOROPHENOL	39	NA	NA	NA	NA	NA	0.0093 U	0.0091 U	NA	NA	NA	NA	
2-METHYLNAPHTHALENE	31	NA	NA	NA	NA	NA	0.00057 U	0.00055 U	NA	NA	NA	NA	
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	0.023 U	0.022 U	NA	NA	NA	NA	

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-163										GSP-S
SAMPLE ID			GSP-SB-163-15-20 GSP-SB-163-15-20 REC=09	GSP-SB-163-20-25 GSP-SB-163-20-25 REC=09	GSP-SB-163-25-30 GSP-SB-163-25-30 REC=09	GSP-SB-163-30-35 GSP-SB-163-30-35 REC=09	GSP-SB-163-5-10 GSP-SB-163-5-10 REC=09	GSP-SB-164-0-5 GSP-SB-164-0-5 REC=08	GSP-SB-164-10-15 GSP-SB-164-10-15 REC=08	GSP-SB-164-15-20 GSP-SB-164-15-20 REC=08	GSP-SB-164-20-25 GSP-SB-164-20-25 REC=08	GSP-SB-164-25-30 GSP-SB-164-25-30 REC=08	
SAMPLE DATE	Maryland	ATCs	20140306	20140306	20140306	20140306	20140306	20140227	20140227	20140227	20140227	20140227	
TOP DEPTH	Residential		15	20	25	30	5	0	10	15	20	25	
BOTTOM DEPTH	Soil Standard		20	25	30	35	10	5	15	20	25	30	
ACENAPHTHENE	470	NA	NA	NA	NA	NA	0.00086 U	0.00084 U	NA	NA	NA	NA	
ACENAPHTHYLENE	470	NA	NA	NA	NA	NA	0.0004 U	0.00039 U	NA	NA	NA	NA	
ANTHRACENE	2300	NA	NA	NA	NA	NA	0.00088 U	0.00087 U	NA	NA	NA	NA	
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA	0.00072 U	0.00071 U	NA	NA	NA	NA	
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA	0.00072 U	0.00071 U	NA	NA	NA	NA	
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	0.014 U	0.013 U	NA	NA	NA	NA	
BENZO(A)ANTHRACENE	0.22	NA	NA	NA	NA	NA	0.00071 U	0.0007 U	NA	NA	NA	NA	
BENZO(A)PYRENE	0.022	NA	NA	NA	NA	NA	0.00072 U	0.00071 U	NA	NA	NA	NA	
BENZO(B)FLUORANTHENE	0.22	NA	NA	NA	NA	NA	0.00067 U	0.00065 U	NA	NA	NA	NA	
BENZO(G,H,I)PERYLENE	230	NA	NA	NA	NA	NA	0.0004 U	0.00039 U	NA	NA	NA	NA	
BENZO(K)FLUORANTHENE	2.2	NA	NA	NA	NA	NA	0.00077 U	0.00075 U	NA	NA	NA	NA	
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	NA	NA	NA	NA	**0.022 J**	**0.027 J**	NA	NA	NA	NA	
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	0.011 U	0.011 U	NA	NA	NA	NA	
CAPROLACTAM	NA	NA	NA	NA	NA	NA	0.042 U	0.041 U	NA	NA	NA	NA	
CARBAZOLE	32	NA	NA	NA	NA	NA	0.031 U	0.03 U	NA	NA	NA	NA	
CHRYSENE	22	NA	NA	NA	NA	NA	0.0012 U	0.0012 U	NA	NA	NA	NA	
DIBENZO(A,H)ANTHRACENE	0.022	NA	NA	NA	NA	NA	0.00075 U	0.00073 U	NA	NA	NA	NA	
DIBENZOFURAN	7.8	NA	NA	NA	NA	NA	0.00075 U	0.00073 U	NA	NA	NA	NA	
DIETHYL PHTHALATE	6300	NA	NA	NA	NA	NA	0.018 U	0.018 U	NA	NA	NA	NA	
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	0.019 U	0.019 U	NA	NA	NA	NA	
DI-N-BUTYL PHTHALATE	780	NA	NA	NA	NA	NA	0.017 U	0.017 U	NA	NA	NA	NA	
FLUORANTHENE	310	NA	NA	NA	NA	NA	0.00062 U	0.00061 U	NA	NA	NA	NA	
FLUORENE	310	NA	NA	NA	NA	NA	0.0006 U	0.00059 U	NA	NA	NA	NA	
HIGH MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	0 U	0 U	NA	NA	NA	NA	
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	**0.00306**	**0.003005**	NA	NA	NA	NA	
INDENO(1,2,3-CD)PYRENE	0.22	NA	NA	NA	NA	NA	0.0004 U	0.00039 U	NA	NA	NA	NA	
ISOPHORONE	670	NA	NA	NA	NA	NA	0.015 U	0.014 U	NA	NA	NA	NA	
LOW MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	0 U	0 U	NA	NA	NA	NA	
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	**0.002845**	**0.002785**	NA	NA	NA	NA	
NAPHTHALENE	160	NA	NA	NA	NA	NA	0.00093 U	0.00091 U	NA	NA	NA	NA	
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	NA	NA	NA	NA	0.0071 U	0.007 U	NA	NA	NA	NA	
PENTACHLOROPHENOL	5.3	NA	NA	NA	NA	NA	0.01 U	0.01 U	NA	NA	NA	NA	
PHENANTHRENE	2300	NA	NA	NA	NA	NA	0.00083 U	0.00081 U	NA	NA	NA	NA	
PHENOL	2300	NA	NA	NA	NA	NA	0.0083 U	0.0081 U	NA	NA	NA	NA	
PYRENE	230	NA	NA	NA	NA	NA	0.0005 U	0.00049 U	NA	NA	NA	NA	
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
PCBS (MG/KG)													
AROCLOR-1242	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
AROCLOR-1260	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TOTAL AROCLOR	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TOTAL AROCLOR HALFND	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
METALS (MG/KG)													
ANTIMONY	3.1	NA	NA	NA	NA	NA	0.41 U	**0.7 J**	NA	NA	NA	NA	
ARSENIC	0.43	3.6	NA	NA	NA	NA	**1.8**	**1.9**	NA	NA	NA	NA	
BARIUM	1600	NA	NA	NA	NA	NA	**13 J**	**4.2 J**	NA	NA	NA	NA	
BERYLLIUM	16	NA	NA	NA	NA	NA	**0.1 J**	**0.065 J**	NA	NA	NA	NA	
CADMIUM	3.9	NA	NA	NA	NA	NA	0.038 U	0.035 U	NA	NA	NA	NA	
CHROMIUM	23	28	NA	NA	NA	NA	**12**	**3**	NA	NA	NA	NA	
COBALT	NA	NA	NA	NA	NA	NA	**1.3**	**1.5**	NA	NA	NA	NA	
COPPER	310	NA	NA	NA	NA	NA	**4**	**2.2 J**	NA	NA	NA	NA	
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
LEAD	400	NA	NA	NA	NA	NA	**2.2**	**2**	NA	NA	NA	NA	
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MERCURY	2.3	NA	NA	NA	NA	NA	**0.043 J**	0.017 U	NA	NA	NA	NA	
MOLYBDENUM	NA	NA	NA	NA	NA	NA	**1 J**	**0.42 J**	NA	NA	NA	NA	
NICKEL	160	NA	NA	NA	NA	NA	**2.2 J**	**4.6**	NA	NA	NA	NA	
SELENIUM	39	NA	NA	NA	NA	NA	0.48 U	0.43 U	NA	NA	NA	NA	

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-163										GSP-S
SAMPLE ID			GSP-SB-163-15-20 GSP-SB-163-15-20 REC=09	GSP-SB-163-20-25 GSP-SB-163-20-25 REC=09	GSP-SB-163-25-30 GSP-SB-163-25-30 REC=09	GSP-SB-163-30-35 GSP-SB-163-30-35 REC=09	GSP-SB-163-5-10 GSP-SB-163-5-10 REC=09	GSP-SB-164-0-5 GSP-SB-164-0-5 REC=08	GSP-SB-164-10-15 GSP-SB-164-10-15 REC=08	GSP-SB-164-15-20 GSP-SB-164-15-20 REC=08	GSP-SB-164-20-25 GSP-SB-164-20-25 REC=08	GSP-SB-164-25-30 GSP-SB-164-25-30 REC=08	
SAMPLE DATE	Maryland	ATCs	20140306	20140306	20140306	20140306	20140306	20140227	20140227	20140227	20140227	20140227	
TOP DEPTH	Residential		15	20	25	30	5	0	10	15	20	25	
BOTTOM DEPTH	Soil Standard		20	25	30	35	10	5	15	20	25	30	
SILVER	39	NA	NA	NA	NA	NA	0.11 U	0.097 U	NA	NA	NA	NA	
THALLIUM	0.55	3.9	NA	NA	NA	NA	0.59 U	0.53 U	NA	NA	NA	NA	
VANADIUM	7.8	30	NA	NA	NA	NA	**11**	**2.4**	NA	NA	NA	NA	
ZINC	2300	NA	NA	NA	NA	NA	**5.6**	**7.1**	NA	NA	NA	NA	
PETROLEUM HYDROCARBONS (MG/KG)													
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TCLP SEMIVOLATILES (MG/L)													
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TCLP HERBICIDES (MG/L)													
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TCLP METALS (MG/L)													
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MISCELLANEOUS PARAMETERS (%)													
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-164										
SAMPLE ID			GSP-SB-164-30-35 GSP-SB-164-30-35 REC=08	GSP-SB-164-35-40 GSP-SB-164-35-40 REC=08	GSP-SB-164-40-45 GSP-SB-164-40-45 REC=08	GSP-SB-164-45-50 GSP-SB-164-45-50 REC=08	GSP-SB-164-5-10 GSP-SB-164-5-10 REC=08	GSP-SB-165-0-5 GSP-SB-165-0-5 REC=08	GSP-SB-165-10-15 GSP-SB-165-10-15 REC=08	GSP-SB-165-15-20 GSP-SB-165-15-20 REC=08	GSP-SB-165-20-25 GSP-SB-165-20-25 REC=08	GSP-SB-165-25-30 GSP-SB-165-25-30 REC=08
SAMPLE DATE	Maryland	ATCs	20140227	20140228	20140228	20140228	20140227	20140228	20140228	20140228	20140228	20140228
TOP DEPTH	Residential		30	35	40	45	5	0	10	15	20	25
BOTTOM DEPTH	Soil Standard		35	40	45	50	10	5	15	20	25	30
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0012 U	0.0012 U	0.0012 UJ	0.0013 U	0.0011 U	0.034 U	0.068 U	0.001 U	0.0012 U	0.0011 U
1,1-DICHLOROETHENE	390	NA	0.00048 U	0.0005 U	0.00049 UJ	0.00051 U	0.00044 U	0.016 U	0.031 U	0.00041 U	0.00048 U	0.00045 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00035 U	0.00036 U	0.00036 UJ	0.00037 U	0.00032 U	0.0088 U	0.017 U	0.0003 U	0.00035 U	0.00033 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00016 U	0.00016 U	0.00016 UJ	0.00017 U	0.00014 U	0.00015 U	0.0003 U	0.00013 U	0.00016 U	0.00015 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00025 U	0.00026 U	0.00026 UJ	0.00026 U	0.00023 U	0.0064 U	0.013 U	0.00021 U	0.00025 U	0.00023 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00059 U	0.00062 U	0.00062 UJ	0.00063 U	0.00055 U	0.0044 U	**0.013 J**	0.00051 U	0.0006 U	0.00056 U
1,2-DICHLOROBENZENE	700	NA	0.00033 U	0.00034 U	0.00034 UJ	0.00035 U	0.00031 U	0.0076 U	0.015 U	0.00028 U	0.00033 U	0.00031 U
1,2-DICHLOROETHANE	7	NA	0.00031 U	0.00032 U	0.00032 UJ	0.00033 U	0.00029 U	0.0088 UJ	0.017 U	0.00027 U	0.00031 U	0.0003 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00032 U	0.00033 U	0.00033 UJ	0.00034 U	0.0003 U	0.0042 U	0.0084 U	0.00028 U	0.00032 U	0.0003 U
1,4-DICHLOROBENZENE	27	NA	0.0006 U	0.00063 U	0.00063 UJ	0.00064 U	0.00056 U	0.007 U	0.014 U	0.00052 U	0.00061 U	0.00057 U
2-BUTANONE	4700	NA	0.0013 U	0.0013 U	0.0013 UJ	0.0014 U	0.0012 UJ	**0.044 J**	**0.081 J**	0.0011 U	0.0013 U	0.0012 U
2-HEXANONE	NA	NA	0.00058 U	0.0006 U	0.0006 UJ	0.00061 U	0.00054 UJ	0.018 UJ	0.035 UJ	0.0005 U	0.00058 U	0.00055 U
4-ISOPROPYLTOLUENE	NA	NA	0.00019 U	0.0002 U	0.0002 UJ	0.0002 U	0.00018 U	0.0042 U	0.0084 U	0.00017 U	0.00019 U	0.00018 U
4-METHYL-2-PENTANONE	NA	NA	0.00049 U	0.00052 U	0.00051 UJ	0.00053 U	0.00046 U	0.042 UJ	0.084 UJ	0.00043 U	0.0005 U	0.00047 U
ACETONE	7000	NA	0.018 U	0.006 U	**0.022 J**	0.0061 U	**0.026 J**	0.15 UJ	**0.37 J**	0.005 U	0.0058 U	**0.0083 J**
BENZENE	12	NA	0.00021 U	0.00022 U	0.00022 UJ	0.00022 U	0.0002 U	0.011 U	0.021 U	0.00018 U	0.00021 U	0.0002 U
BROMOMETHANE	11	NA	0.00049 U	0.00052 U	0.00051 UJ	0.00053 U	0.00046 U	0.026 U	0.05 U	0.00043 U	0.0005 U	0.00047 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.0004 U	0.00042 U	0.00042 UJ	0.00043 U	0.00037 U	0.011 U	0.021 U	0.00035 U	0.0004 U	0.00038 U
CARBON TETRACHLORIDE	4.9	NA	0.00034 U	0.00035 U	0.00035 UJ	**0.0033 J**	0.00031 U	0.0056 U	0.011 U	0.00029 U	0.00034 U	0.00032 U
CHLOROBENZENE	160	NA	0.0003 U	0.00031 U	0.00031 UJ	0.00032 U	0.00028 U	0.0056 U	0.011 U	0.00026 U	0.0003 U	0.00029 U
CHLOROETHANE	220	NA	0.00079 UJ	0.00082 U	0.00082 UJ	0.00084 U	0.00073 U	0.054 UJ	0.11 UJ	0.00068 U	0.00079 U	0.00075 U
CHLOROFORM	78	NA	0.00027 U	0.00028 U	0.00028 UJ	0.00028 U	0.00025 U	0.0077 U	0.015 U	0.00023 U	0.00027 U	0.00025 U
CHLOROMETHANE	NA	NA	0.00037 U	0.00039 U	0.00039 UJ	0.0004 U	0.00035 U	0.012 U	0.024 U	0.00032 U	0.00038 U	0.00036 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00033 U	**0.004 J**	**0.0034 J**	**0.0032 J**	0.00031 U	0.0061 U	0.012 U	0.00028 U	0.00033 U	0.00031 U
DIISOPROPYL ETHER	NA	NA	0.0014 U	0.0014 U	0.0014 UJ	0.0015 U	0.0013 U	0.044 U	0.087 U	0.0012 U	0.0014 U	0.0013 U
ETHYLBENZENE	780	NA	0.00024 U	0.00025 U	0.00025 UJ	0.00025 U	0.00022 U	0.0048 U	**0.015 J**	0.00021 U	0.00024 U	0.00023 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00015 U	0.00015 U	0.00015 UJ	0.00016 U	0.00014 U	0.0057 U	0.011 U	0.00013 U	0.00015 U	0.00014 U
M+P-XYLENES	NA	NA	0.0011 U	0.0011 U	0.0011 UJ	0.0012 U	0.001 U	0.008 U	0.052 U	0.00095 U	0.0011 U	0.001 U
METHYL TERT-BUTYL ETHER	160	NA	0.00039 U	0.00041 U	0.00041 UJ	0.00042 U	0.00037 U	0.0062 U	0.012 U	0.00034 U	0.0004 U	0.00037 U
METHYLENE CHLORIDE	85	NA	0.00061 U	0.00064 U	0.00064 UJ	0.00065 U	0.00057 U	0.068 U	0.13 U	0.00053 U	0.00062 U	0.00058 U
NAPHTHALENE	160	NA	0.00017 U	0.00018 UJ	0.00018 UJ	0.00018 UJ	0.00016 U	0.0059 U	0.012 U	0.00015 UJ	0.00017 UJ	0.00017 UJ
N-BUTYLBENZENE	NA	NA	0.00021 U	0.00022 U	0.00022 UJ	0.00022 U	0.0002 U	0.007 U	0.014 U	0.00018 U	0.00021 U	0.0002 U
N-PROPYLBENZENE	NA	NA	0.00037 U	0.00038 U	0.00038 UJ	0.00039 U	0.00034 U	0.012 U	0.024 U	0.00032 U	0.00037 U	0.00035 U
O-XYLENE	NA	NA	0.00032 U	0.00033 U	0.00033 UJ	0.00034 U	0.0003 U	0.0075 U	0.015 U	0.00028 U	0.00032 U	0.0003 U
SEC-BUTYLBENZENE	NA	NA	0.00016 U	0.00017 U	0.00017 UJ	0.00018 U	0.00015 U	0.0041 U	0.0082 U	0.00014 U	0.00017 U	0.00016 U
STYRENE	1600	NA	0.00014 U	0.00014 U	0.00014 UJ	0.00015 U	0.00013 U	**0.0059 J**	**0.088 J**	0.00012 U	0.00014 U	0.00013 U
TERT-AMYL METHYL ETHER	NA	NA	0.00034 U	0.00035 U	0.00035 UJ	0.00036 U	0.00031 U	0.00033 UJ	0.00064 UJ	0.00029 U	0.00034 U	0.00032 U
TERT-BUTYLBENZENE	NA	NA	0.00027 U	0.00028 U	0.00028 UJ	0.00028 U	0.00025 U	0.0057 U	0.011 U	0.00023 U	0.00027 U	0.00025 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.007 U	0.0073 U	0.0072 U	0.0074 U	0.0065 U	0.21 UJ	**0.6 J**	0.006 U	0.007 U	0.0066 U
TETRACHLOROETHENE	1.2	NA	0.00048 U	0.0005 U	0.00049 UJ	0.00051 U	0.00044 U	0.011 U	0.021 U	0.00041 U	0.00048 U	0.00045 U
TOLUENE	630	NA	0.00025 U	0.00026 U	0.00026 UJ	0.00026 U	0.00023 U	0.015 U	0.03 U	0.00021 U	0.00025 U	0.00023 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00032 U	0.00033 U	0.00033 UJ	0.00034 U	0.0003 U	0.008 U	0.052 U	0.00028 U	0.00032 U	0.0003 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00037 U	0.00039 U	0.00039 UJ	0.0004 U	0.00035 U	0.0081 U	0.016 U	0.00032 U	0.00038 U	0.00036 U
TRICHLOROETHENE	1.6	NA	**0.0027 J**	**0.0037 J**	**0.0031 J**	**0.0064**	0.00036 U	0.0085 U	0.017 U	0.00033 U	0.00039 U	0.00037 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00031 UJ	0.00032 UJ	0.00032 UJ	0.00033 UJ	0.00029 U	0.014 U	0.028 U	0.00027 UJ	0.00031 UJ	0.0003 UJ
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00036 U	0.00037 U	0.00037 UJ	0.00038 U	0.00033 U	0.016 U	0.031 U	0.00031 U	0.00036 U	0.00034 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	0.0041 U	0.0039 U	NA	NA	NA	NA
2,4-DICHLOROPHENOL	23	NA	NA	NA	NA	NA	0.024 U	0.022 U	NA	NA	NA	NA
2-CHLOROPHENOL	39	NA	NA	NA	NA	NA	0.0097 U	0.0092 U	NA	NA	NA	NA
2-METHYLNAPHTHALENE	31	NA	NA	NA	NA	NA	0.00059 U	0.00056 U	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	0.024 U	0.022 U	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-164										
SAMPLE ID			GSP-SB-164-30-35 GSP-SB-164-30-35 REC=08	GSP-SB-164-35-40 GSP-SB-164-35-40 REC=08	GSP-SB-164-40-45 GSP-SB-164-40-45 REC=08	GSP-SB-164-45-50 GSP-SB-164-45-50 REC=08	GSP-SB-164-5-10 GSP-SB-164-5-10 REC=08	GSP-SB-165-0-5 GSP-SB-165-0-5 REC=08	GSP-SB-165-10-15 GSP-SB-165-10-15 REC=08	GSP-SB-165-15-20 GSP-SB-165-15-20 REC=08	GSP-SB-165-20-25 GSP-SB-165-20-25 REC=08	GSP-SB-165-25-30 GSP-SB-165-25-30 REC=08
SAMPLE DATE	Maryland	ATCs	20140227	20140228	20140228	20140228	20140227	20140228	20140228	20140228	20140228	20140228
TOP DEPTH	Residential		30	35	40	45	5	0	10	15	20	25
BOTTOM DEPTH	Soil Standard		35	40	45	50	10	5	15	20	25	30
ACENAPHTHENE	470	NA	NA	NA	NA	NA	0.0009 U	0.00085 U	NA	NA	NA	NA
ACENAPHTHYLENE	470	NA	NA	NA	NA	NA	0.00041 U	0.00039 U	NA	NA	NA	NA
ANTHRACENE	2300	NA	NA	NA	NA	NA	0.00092 U	0.00088 U	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA	0.00076 U	**0.001269**	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA	0.00076 U	**0.00048**	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	0.014 U	0.013 U	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.22	NA	NA	NA	NA	NA	0.00074 U	0.00071 U	NA	NA	NA	NA
BENZO(A)PYRENE	0.022	NA	NA	NA	NA	NA	0.00076 U	0.00072 U	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.22	NA	NA	NA	NA	NA	0.0007 U	**0.0048 J**	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	230	NA	NA	NA	NA	NA	0.00041 U	0.00039 U	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	2.2	NA	NA	NA	NA	NA	0.0008 U	0.00076 U	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	NA	NA	NA	NA	**0.042 J**	**0.023 J**	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	0.012 U	0.011 U	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	0.044 U	0.042 U	NA	NA	NA	NA
CARBAZOLE	32	NA	NA	NA	NA	NA	0.032 U	0.03 U	NA	NA	NA	NA
CHRYSENE	22	NA	NA	NA	NA	NA	0.0013 U	0.0012 U	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.022	NA	NA	NA	NA	NA	0.00078 U	0.00074 U	NA	NA	NA	NA
DIBENZOFURAN	7.8	NA	NA	NA	NA	NA	0.00078 U	0.00074 U	NA	NA	NA	NA
DIETHYL PHTHALATE	6300	NA	NA	NA	NA	NA	0.019 U	0.018 U	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	0.02 U	0.019 U	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	780	NA	NA	NA	NA	NA	0.018 U	**0.019 J**	NA	NA	NA	NA
FLUORANTHENE	310	NA	NA	NA	NA	NA	**0.0043 J**	**0.0057 J**	NA	NA	NA	NA
FLUORENE	310	NA	NA	NA	NA	NA	0.00063 U	0.0006 U	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	**0.0061**	**0.0101**	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	**0.00905**	**0.012555**	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.22	NA	NA	NA	NA	NA	0.00041 U	0.00039 U	NA	NA	NA	NA
ISOPHORONE	670	NA	NA	NA	NA	NA	0.015 U	0.015 U	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	**0.0043**	**0.0057**	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	**0.00694**	**0.00821**	NA	NA	NA	NA
NAPHTHALENE	160	NA	NA	NA	NA	NA	0.00097 U	0.00092 U	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	NA	NA	NA	NA	0.0074 U	0.0071 U	NA	NA	NA	NA
PENTACHLOROPHENOL	5.3	NA	NA	NA	NA	NA	0.011 U	0.01 U	NA	NA	NA	NA
PHENANTHRENE	2300	NA	NA	NA	NA	NA	0.00086 U	0.00082 U	NA	NA	NA	NA
PHENOL	2300	NA	NA	NA	NA	NA	0.0086 U	0.0082 U	NA	NA	NA	NA
PYRENE	230	NA	NA	NA	NA	NA	**0.0061 J**	**0.0053 J**	NA	NA	NA	NA
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1260	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR HALFND	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (MG/KG)												
ANTIMONY	3.1	NA	NA	NA	NA	NA	0.4 U	0.75 U	NA	NA	NA	NA
ARSENIC	0.43	3.6	NA	NA	NA	NA	13	0.32 U	NA	NA	NA	NA
BARIUM	1600	NA	NA	NA	NA	NA	**24**	**2.5 J**	NA	NA	NA	NA
BERYLLIUM	16	NA	NA	NA	NA	NA	**0.38 J**	0.046 U	NA	NA	NA	NA
CADMIUM	3.9	NA	NA	NA	NA	NA	**0.075 J**	0.039 U	NA	NA	NA	NA
CHROMIUM	23	28	NA	NA	NA	NA	**24**	**2.8**	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	**10**	0.17 U	NA	NA	NA	NA
COPPER	310	NA	NA	NA	NA	NA	**23**	0.79 U	NA	NA	NA	NA
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	NA	NA	NA	NA	**12**	**0.78 J**	NA	NA	NA	NA
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	NA	NA	NA	NA	0.017 U	0.018 U	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	**5.1**	0.3 U	NA	NA	NA	NA
NICKEL	160	NA	NA	NA	NA	NA	**27**	0.58 U	NA	NA	NA	NA
SELENIUM	39	NA	NA	NA	NA	NA	0.47 U	0.48 U	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			B-164										
SAMPLE ID			GSP-SB-164-30-35 GSP-SB-164-30-35 REC=08	GSP-SB-164-35-40 GSP-SB-164-35-40 REC=08	GSP-SB-164-40-45 GSP-SB-164-40-45 REC=08	GSP-SB-164-45-50 GSP-SB-164-45-50 REC=08	GSP-SB-164-5-10 GSP-SB-164-5-10 REC=08	GSP-SB-165-0-5 GSP-SB-165-0-5 REC=08	GSP-SB-165-10-15 GSP-SB-165-10-15 REC=08	GSP-SB-165-15-20 GSP-SB-165-15-20 REC=08	GSP-SB-165-20-25 GSP-SB-165-20-25 REC=08	GSP-SB-165-25-30 GSP-SB-165-25-30 REC=08
SAMPLE DATE	Maryland	ATCs	20140227	20140228	20140228	20140228	20140227	20140228	20140228	20140228	20140228	20140228
TOP DEPTH	Residential		30	35	40	45	5	0	10	15	20	25
BOTTOM DEPTH	Soil Standard		35	40	45	50	10	5	15	20	25	30
SILVER	39	NA	NA	NA	NA	NA	0.1 U	0.11 U	NA	NA	NA	NA
THALLIUM	0.55	3.9	NA	NA	NA	NA	0.57 U	0.59 U	NA	NA	NA	NA
VANADIUM	7.8	30	NA	NA	NA	NA	**13**	**2.2**	NA	NA	NA	NA
ZINC	2300	NA	NA	NA	NA	NA	**68**	**1.6 J**	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-165							GSP-SB-166		
SAMPLE ID			GSP-SB-165-30-35	GSP-SB-165-35-40	GSP-SB-165-40-45	GSP-SB-165-45-50	GSP-SB-165-50-55	GSP-SB-165-5-10	GSP-SB-165-55-60	GSP-SB-166-10-12	GSP-SB-166-4-6	GSP-SB-166-6-8
			GSP-SB-165-30-35	GSP-SB-165-35-40	GSP-SB-165-40-45	GSP-SB-165-45-50	GSP-SB-165-50-55	GSP-SB-165-5-10	GSP-SB-165-55-60	GSP-SB-166-10-12	GSP-SB-166-4-6	GSP-SB-166-6-8
			REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=08	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20140228	20140305	20140305	20140305	20140305	20140228	20140305	20160112	20160112	20160112
TOP DEPTH	Residential		30	35	40	45	50	5	55	10	4	6
BOTTOM DEPTH	Soil Standard		35	40	45	50	55	10	60	12	6	8
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0012 U	0.04 U	0.0011 U	0.0012 U	0.0011 U	0.0011 U	0.0012 U	NA	NA	NA
1,1-DICHLOROETHENE	390	NA	0.00048 U	0.018 U	0.00042 U	0.00047 U	0.00046 U	0.00045 U	0.00049 U	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	0.00035 U	0.01 U	0.00031 U	0.00035 U	0.00033 U	0.00033 U	0.00036 U	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00016 U	0.00017 U	0.00014 U	0.00015 U	0.00015 U	0.00015 U	0.00016 U	NA	NA	NA
1,2,4-TRICHLOROBENZENE	78	NA	0.00025 U	**0.008 J**	0.00022 U	0.00025 U	0.00024 U	0.00023 U	0.00026 U	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	0.0006 U	0.013 U	0.00053 UJ	0.00059 UJ	0.00057 UJ	0.00056 U	0.00061 UJ	NA	NA	NA
1,2-DICHLOROBENZENE	700	NA	0.00033 U	0.0088 U	0.00029 U	0.00033 U	0.00032 U	0.00031 U	0.00034 U	NA	NA	NA
1,2-DICHLOROETHANE	7	NA	0.00031 U	0.01 U	0.00028 UJ	0.00031 UJ	0.0003 UJ	0.00029 U	0.00032 UJ	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00032 U	0.0049 U	0.00029 U	0.00032 U	0.00031 U	0.0003 U	0.00033 U	NA	NA	NA
1,4-DICHLOROBENZENE	27	NA	0.00061 U	0.0082 U	0.00054 U	0.0006 U	0.00058 U	0.00057 U	0.00062 U	NA	NA	NA
2-BUTANONE	4700	NA	0.0013 U	**0.064 J**	0.0011 UJ	0.0013 UJ	0.0012 UJ	0.0012 U	0.0013 UJ	NA	NA	NA
2-HEXANONE	NA	NA	0.00058 U	0.02 UJ	0.00051 UJ	0.00057 UJ	0.00055 UJ	0.00055 U	0.0006 UJ	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	0.00019 U	0.0049 U	0.00017 U	0.00019 U	0.00018 U	0.00018 U	0.0002 U	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	0.0005 U	0.049 UJ	0.00044 UJ	0.00049 UJ	0.00047 UJ	0.00047 U	0.00051 UJ	NA	NA	NA
ACETONE	7000	NA	0.0058 U	0.17 UJ	**0.013 J**	**0.018 J**	**0.019 J**	**0.016 J**	**0.0081 J**	NA	NA	NA
BENZENE	12	NA	0.00021 U	0.012 U	0.00019 U	0.00021 U	0.0002 U	0.0002 U	0.00022 U	NA	NA	NA
BROMOMETHANE	11	NA	0.0005 U	0.03 U	0.00044 U	0.00049 U	0.00047 U	0.00047 U	0.00051 U	NA	NA	NA
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00041 U	0.012 U	0.00036 UJ	0.0004 UJ	0.00039 UJ	0.00038 U	0.00042 UJ	NA	NA	NA
CARBON TETRACHLORIDE	4.9	NA	0.00034 U	0.0066 U	0.0003 UJ	0.00034 UJ	0.00033 UJ	0.00032 U	0.00035 UJ	NA	NA	NA
CHLOROBENZENE	160	NA	0.0003 U	0.0066 U	0.00027 U	0.0003 U	0.00029 U	0.00029 U	0.00031 U	NA	NA	NA
CHLOROETHANE	220	NA	0.00079 U	0.062 U	0.0007 U	0.00078 U	0.00076 U	0.00074 U	0.00081 U	NA	NA	NA
CHLOROFORM	78	NA	0.00027 U	0.009 U	0.00024 U	0.00026 U	0.00025 U	0.00025 U	0.00027 U	NA	NA	NA
CHLOROMETHANE	NA	NA	0.00038 U	0.014 U	0.00033 U	0.00037 U	0.00036 U	0.00036 U	0.00039 U	NA	NA	NA
CIS-1,2-DICHLOROETHENE	78	NA	0.00033 U	0.0071 U	0.00029 U	0.00033 U	0.00032 U	0.00031 U	0.00034 U	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	0.0014 U	0.051 U	0.0012 U	0.0014 U	0.0013 U	0.0013 U	0.0014 U	NA	NA	NA
ETHYLBENZENE	780	NA	0.00024 U	0.0055 U	0.00021 U	0.00024 U	0.00023 U	0.00023 U	0.00025 U	NA	NA	NA
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00015 U	0.0067 U	0.00013 UJ	0.00015 UJ	0.00014 UJ	0.00014 U	0.00015 UJ	NA	NA	NA
M+P-XYLENES	NA	NA	0.0011 U	**0.059 J**	0.00098 UJ	0.0011 UJ	0.0011 UJ	0.001 U	0.0011 UJ	NA	NA	NA
METHYL TERT-BUTYL ETHER	160	NA	0.0004 U	0.0073 U	0.00035 U	0.00039 U	0.00038 U	0.00037 U	0.00041 U	NA	NA	NA
METHYLENE CHLORIDE	85	NA	0.00062 U	0.079 U	0.00055 U	0.00061 U	0.00059 U	0.00058 U	0.00063 U	NA	NA	NA
NAPHTHALENE	160	NA	0.00018 UJ	0.028 U	0.00016 U	0.00017 U	0.00017 U	0.00016 UJ	0.00018 U	NA	NA	NA
N-BUTYLBENZENE	NA	NA	0.00021 U	0.0082 U	0.00019 UJ	0.00021 UJ	0.0002 UJ	0.0002 U	0.00022 UJ	NA	NA	NA
N-PROPYLBENZENE	NA	NA	0.00037 U	0.014 U	0.00033 UJ	0.00036 UJ	0.00035 UJ	0.00035 U	0.00038 UJ	NA	NA	NA
O-XYLENE	NA	NA	0.00032 U	0.0087 U	0.00029 UJ	0.00032 UJ	0.00031 UJ	0.0003 U	0.00033 UJ	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	0.00017 U	0.0048 U	0.00015 UJ	0.00016 UJ	0.00016 UJ	0.00016 U	0.00017 UJ	NA	NA	NA
STYRENE	1600	NA	0.00014 U	0.0057 U	0.00012 UJ	0.00014 UJ	0.00013 UJ	0.00013 U	0.00014 UJ	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	0.00034 U	0.00038 U	0.0003 UJ	0.00034 UJ	0.00033 UJ	0.00032 U	0.00035 UJ	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	0.00027 U	0.0067 U	0.00024 UJ	0.00026 UJ	0.00025 UJ	0.00025 U	0.00027 UJ	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	0.007 U	0.25 U	0.0062 U	0.0069 U	0.0067 U	0.0066 U	0.0072 U	NA	NA	NA
TETRACHLOROETHENE	1.2	NA	0.00048 U	0.012 U	0.00042 U	0.00047 U	0.00046 U	0.00045 U	0.00049 U	NA	NA	NA
TOLUENE	630	NA	0.00025 U	**0.023 J**	0.00022 U	0.00025 U	0.00024 U	0.00023 U	0.00026 U	NA	NA	NA
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00032 U	**0.059 J**	0.00029 U	0.00032 U	0.00031 U	0.0003 U	0.00033 U	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	160	NA	0.00038 U	0.0094 U	0.00033 U	0.00037 U	0.00036 U	0.00036 U	0.00039 U	NA	NA	NA
TRICHLOROETHENE	1.6	NA	0.00039 U	0.0099 U	0.00034 U	0.00038 U	0.00037 U	0.00036 U	0.0004 U	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	0.00031 UJ	0.016 U	0.00028 U	0.00031 U	0.0003 U	0.00029 UJ	0.00032 U	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00036 U	0.018 U	0.00032 U	0.00036 U	0.00034 U	0.00034 U	0.00037 U	NA	NA	NA
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	0.0041 U	NA	NA	NA	NA
2,4-DICHLOROPHENOL	23	NA	NA	NA	NA	NA	NA	0.023 U	NA	NA	NA	NA
2-CHLOROPHENOL	39	NA	NA	NA	NA	NA	NA	0.0096 U	NA	NA	NA	NA
2-METHYLNAPHTHALENE	31	NA	NA	NA	NA	NA	NA	0.00059 U	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	0.023 U	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-165							GSP-SB-166		
SAMPLE ID			GSP-SB-165-30-35 GSP-SB-165-30-35 REC=08	GSP-SB-165-35-40 GSP-SB-165-35-40 REC=08	GSP-SB-165-40-45 GSP-SB-165-40-45 REC=08	GSP-SB-165-45-50 GSP-SB-165-45-50 REC=08	GSP-SB-165-50-55 GSP-SB-165-50-55 REC=08	GSP-SB-165-5-10 GSP-SB-165-5-10 REC=08	GSP-SB-165-55-60 GSP-SB-165-55-60 REC=08	GSP-SB-166-10-12 GSP-SB-166-10-12 REC=11	GSP-SB-166-4-6 GSP-SB-166-4-6 REC=11	GSP-SB-166-6-8 GSP-SB-166-6-8 REC=11
SAMPLE DATE	Maryland	ATCs	20140228	20140305	20140305	20140305	20140305	20140228	20140305	20160112	20160112	20160112
TOP DEPTH	Residential		30	35	40	45	50	5	55	10	4	6
BOTTOM DEPTH	Soil Standard		35	40	45	50	55	10	60	12	6	8
ACENAPHTHENE	470	NA	NA	NA	NA	NA	NA	0.00089 U	NA	NA	NA	NA
ACENAPHTHYLENE	470	NA	NA	NA	NA	NA	NA	0.00041 U	NA	NA	NA	NA
ANTHRACENE	2300	NA	NA	NA	NA	NA	NA	0.00092 U	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA	NA	0.00075 U	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA	NA	0.00075 U	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	0.014 U	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.22	NA	NA	NA	NA	NA	NA	0.00074 U	NA	NA	NA	NA
BENZO(A)PYRENE	0.022	NA	NA	NA	NA	NA	NA	0.00075 U	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.22	NA	NA	NA	NA	NA	NA	0.00069 U	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	230	NA	NA	NA	NA	NA	NA	0.00041 U	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	2.2	NA	NA	NA	NA	NA	NA	0.0008 U	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	NA	NA	NA	NA	NA	**0.028 J**	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	0.012 U	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	0.043 U	NA	NA	NA	NA
CARBAZOLE	32	NA	NA	NA	NA	NA	NA	0.032 U	NA	NA	NA	NA
CHRYSENE	22	NA	NA	NA	NA	NA	NA	0.0013 U	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.022	NA	NA	NA	NA	NA	NA	0.00077 U	NA	NA	NA	NA
DIBENZOFURAN	7.8	NA	NA	NA	NA	NA	NA	0.00077 U	NA	NA	NA	NA
DIETHYL PHTHALATE	6300	NA	NA	NA	NA	NA	NA	0.019 U	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	0.02 U	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	780	NA	NA	NA	NA	NA	NA	0.018 U	NA	NA	NA	NA
FLUORANTHENE	310	NA	NA	NA	NA	NA	NA	**0.0041 J**	NA	NA	NA	NA
FLUORENE	310	NA	NA	NA	NA	NA	NA	0.00062 U	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	0 U	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	**0.003195**	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.22	NA	NA	NA	NA	NA	NA	0.00041 U	NA	NA	NA	NA
ISOPHORONE	670	NA	NA	NA	NA	NA	NA	0.015 U	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	**0.0041**	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	**0.006725**	NA	NA	NA	NA
NAPHTHALENE	160	NA	NA	NA	NA	NA	NA	0.00096 U	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	NA	NA	NA	NA	NA	0.0074 U	NA	NA	NA	NA
PENTACHLOROPHENOL	5.3	NA	NA	NA	NA	NA	NA	0.011 U	NA	NA	NA	NA
PHENANTHRENE	2300	NA	NA	NA	NA	NA	NA	0.00086 U	NA	NA	NA	NA
PHENOL	2300	NA	NA	NA	NA	NA	NA	0.0086 U	NA	NA	NA	NA
PYRENE	230	NA	NA	NA	NA	NA	NA	0.00052 U	NA	NA	NA	NA
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1260	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR HALFND	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (MG/KG)												
ANTIMONY	3.1	NA	NA	NA	NA	NA	NA	1 U	NA	0.5 UJ	0.5 UJ	0.53 UJ
ARSENIC	0.43	3.6	NA	NA	NA	NA	NA	**1.7**	NA	**2.3**	**3.3**	**0.86 J**
BARIUM	1600	NA	NA	NA	NA	NA	NA	**2.7 J**	NA	**19 J**	**6.9 J**	**18 J**
BERYLLIUM	16	NA	NA	NA	NA	NA	NA	0.042 U	NA	0.34 U	0.12 U	0.39 U
CADMIUM	3.9	NA	NA	NA	NA	NA	NA	0.035 U	NA	0.029 U	0.038 U	0.028 U
CHROMIUM	23	28	NA	NA	NA	NA	NA	**3.4**	NA	**16**	**9.5**	**15**
COBALT	NA	NA	NA	NA	NA	NA	NA	**0.25 J**	NA	**3.3**	**0.62 J**	**2.9**
COPPER	310	NA	NA	NA	NA	NA	NA	**2.3 J**	NA	**13**	**6.4**	**20**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	NA	NA	NA	NA	NA	**0.6 J**	NA	**2.3**	**2.2**	**2.5**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	NA	NA	NA	NA	NA	0.018 U	NA	0.016 U	0.016 U	0.019 U
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	0.32 U	NA	0.2 U	0.36 U	0.63 U
NICKEL	160	NA	NA	NA	NA	NA	NA	0.53 U	NA	**12**	2.1 U	**11**
SELENIUM	39	NA	NA	NA	NA	NA	NA	0.44 U	NA	0.36 U	**0.38 J**	0.37 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-165							GSP-SB-166		
SAMPLE ID			GSP-SB-165-30-35 GSP-SB-165-30-35 REC=08	GSP-SB-165-35-40 GSP-SB-165-35-40 REC=08	GSP-SB-165-40-45 GSP-SB-165-40-45 REC=08	GSP-SB-165-45-50 GSP-SB-165-45-50 REC=08	GSP-SB-165-50-55 GSP-SB-165-50-55 REC=08	GSP-SB-165-5-10 GSP-SB-165-5-10 REC=08	GSP-SB-165-55-60 GSP-SB-165-55-60 REC=08	GSP-SB-166-10-12 GSP-SB-166-10-12 REC=11	GSP-SB-166-4-6 GSP-SB-166-4-6 REC=11	GSP-SB-166-6-8 GSP-SB-166-6-8 REC=11
SAMPLE DATE	Maryland	ATCs	20140228	20140305	20140305	20140305	20140305	20140228	20140305	20160112	20160112	20160112
TOP DEPTH	Residential		30	35	40	45	50	5	55	10	4	6
BOTTOM DEPTH	Soil Standard		35	40	45	50	55	10	60	12	6	8
SILVER	39	NA	NA	NA	NA	NA	NA	0.098 U	NA	**0.14 J**	**0.085 J**	**0.1 J**
THALLIUM	0.55	3.9	NA	NA	NA	NA	NA	0.54 U	NA	0.14 U	0.16 U	0.14 U
VANADIUM	7.8	30	NA	NA	NA	NA	NA	**6.1**	NA	**45**	**20**	**18**
ZINC	2300	NA	NA	NA	NA	NA	NA	**2.1 J**	NA	**10**	**5.7**	**9**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-167					GSP-SB-168				
SAMPLE ID			GSP-SB-166-8-10 GSP-SB-166-8-10 REC=11	GSP-SB-167-10-12 GSP-SB-167-10-12 REC=11	GSP-SB-167-4-6 GSP-SB-167-4-6 REC=11	GSP-SB-167-6-8 GSP-SB-167-6-8 REC=11	GSP-SB-167-8-10 GSP-SB-167-8-10 REC=11	GSP-SB-168-10-12 GSP-SB-168-10-12 REC=11	GSP-SB-168-4-6 GSP-SB-168-4-6 REC=11	GSP-SB-168-6-8 GSP-SB-168-6-8 REC=11	GSP-SB-168-8-10 GSP-SB-168-8-10 REC=11	GSP-SB-169-10-12 GSP-SB-169-10-12 REC=11
SAMPLE DATE	Maryland	ATCs	20160112	20160112	20160112	20160112	20160112	20160112	20160112	20160112	20160112	20160112
TOP DEPTH	Residential		8	10	4	6	8	10	4	6	8	10
BOTTOM DEPTH	Soil Standard		10	12	6	8	10	12	6	8	10	12
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	390	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	4700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	7000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	4.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	780	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	85	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	1600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	630	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	39	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-167					GSP-SB-168				
SAMPLE ID			GSP-SB-166-8-10 GSP-SB-166-8-10 REC=11	GSP-SB-167-10-12 GSP-SB-167-10-12 REC=11	GSP-SB-167-4-6 GSP-SB-167-4-6 REC=11	GSP-SB-167-6-8 GSP-SB-167-6-8 REC=11	GSP-SB-167-8-10 GSP-SB-167-8-10 REC=11	GSP-SB-168-10-12 GSP-SB-168-10-12 REC=11	GSP-SB-168-4-6 GSP-SB-168-4-6 REC=11	GSP-SB-168-6-8 GSP-SB-168-6-8 REC=11	GSP-SB-168-8-10 GSP-SB-168-8-10 REC=11	GSP-SB-169-10-12 GSP-SB-169-10-12 REC=11
SAMPLE DATE	Maryland	ATCs	20160112	20160112	20160112	20160112	20160112	20160112	20160112	20160112	20160112	20160112
TOP DEPTH	Residential		8	10	4	6	8	10	4	6	8	10
BOTTOM DEPTH	Soil Standard		10	12	6	8	10	12	6	8	10	12
ACENAPHTHENE	470	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	470	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	0.022	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	0.022	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	7.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	6300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	780	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	310	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	310	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	670	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	5.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1260	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR HALFND	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.41 UJ	0.45 UJ	0.45 UJ	0.44 UJ	0.48 UJ	0.51 UJ	0.4 UJ	0.48 UJ	0.49 UJ	0.53 UJ
ARSENIC	0.43	3.6	**1 J**	**3.8**	**1.9**	**2.1**	**8**	**0.72 J**	**4.8**	**1.7**	**1.4 J**	**0.86 J**
BARIUM	1600	NA	**17**	**19**	**9.1 J**	**9.4 J**	**27**	**24**	**21**	**23**	**23**	**22**
BERYLLIUM	16	NA	0.33 U	0.38 U	0.082 U	0.095 U	0.25 U	0.33 U	0.19 U	0.24 U	0.34 U	0.36 U
CADMIUM	3.9	NA	0.03 U	0.035 U	0.031 U	0.02 U	0.028 U	0.06 U	0.028 U	0.021 U	0.031 U	**0.03 J**
CHROMIUM	23	28	**16**	**17**	**5.5**	**9.4**	**18**	**18**	**17**	**18**	**17**	**18**
COBALT	NA	NA	**3**	**4.3**	**0.41 J**	**0.67 J**	**2.1**	**4**	**1**	**1.3**	**2.6**	**3.2**
COPPER	310	NA	**15**	**23**	**3.5**	**5.6**	**19**	**44**	**21**	**23**	**55**	**23**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**2.3**	**4.7**	**3.2**	**2.5**	**5**	**5.9**	**5.1**	**5.3**	**6.6**	**3**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	0.015 U	**0.021 J**	0.017 U	0.015 U	0.016 U	**0.027 J**	0.019 U	0.015 U	**0.034 J**	**0.036 J**
MOLYBDENUM	NA	NA	0.3 U	0.25 U	0.15 U	0.24 U	0.12 U	0.18 U	0.21 U	0.12 U	0.27 U	0.29 U
NICKEL	160	NA	**12**	**15**	1.4 U	2.3 U	**7.2**	**10**	2.9 U	3.3 U	**6.7**	**11**
SELENIUM	39	NA	0.29 U	**0.32 J**	**0.4 J**	0.31 U	0.34 U	0.36 U	**0.41 J**	0.34 U	**0.61 J**	0.37 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-167					GSP-SB-168					
SAMPLE ID			GSP-SB-166-8-10 GSP-SB-166-8-10 REC=11	GSP-SB-167-10-12 GSP-SB-167-10-12 REC=11	GSP-SB-167-4-6 GSP-SB-167-4-6 REC=11	GSP-SB-167-6-8 GSP-SB-167-6-8 REC=11	GSP-SB-167-8-10 GSP-SB-167-8-10 REC=11	GSP-SB-168-10-12 GSP-SB-168-10-12 REC=11	GSP-SB-168-4-6 GSP-SB-168-4-6 REC=11	GSP-SB-168-6-8 GSP-SB-168-6-8 REC=11	GSP-SB-168-8-10 GSP-SB-168-8-10 REC=11	GSP-SB-169-10-12 GSP-SB-169-10-12 REC=11
SAMPLE DATE	Maryland	ATCs	20160112	20160112	20160112	20160112	20160112	20160112	20160112	20160112	20160112	20160112
TOP DEPTH	Residential		8	10	4	6	8	10	4	6	8	10
BOTTOM DEPTH	Soil Standard		10	12	6	8	10	12	6	8	10	12
SILVER	39	NA	**0.075 J**	**0.07 J**	**0.067 J**	0.057 U	**0.064 J**	0.066 U	0.053 U	0.063 U	0.064 U	0.069 U
THALLIUM	0.55	3.9	0.11 U	0.12 U	0.12 U	0.12 U	0.13 U	0.14 U	0.11 U	0.13 U	0.13 U	0.14 U
VANADIUM	7.8	30	**17**	**22**	**9.5**	**13**	**24**	**8.4**	34	**9.4**	**21**	**20**
ZINC	2300	NA	**9.1**	**17**	**6.5**	**7.1**	**9.3**	**17**	**11**	**7.5**	**12**	**11**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-169			GSP-SB-170				GSP-SB-171		
SAMPLE ID			GSP-SB-169-4-6 GSP-SB-169-4-6 REC=11	GSP-SB-169-6-8 GSP-SB-169-6-8 REC=11	GSP-SB-169-8-10 GSP-SB-169-8-10 REC=11	GSP-SB-170-12-14 GSP-SB-170-12-14 REC=11	GSP-SB-170-4-6 GSP-SB-170-4-6 REC=11	GSP-SB-170-8-10 GSP-SB-170-8-10 REC=11	GSP-SB-170-SS GSP-SB-170-SS REC=11	GSP-SB-171-12-14 GSP-SB-171-12-14 REC=11	GSP-SB-171-4-6 GSP-SB-171-4-6 REC=11	GSP-SB-171-8-10 GSP-SB-171-8-10 REC=11
SAMPLE DATE	Maryland	ATCs	20160112	20160112	20160112	20160112	20160112	20160112	20160112	20160113	20160113	20160113
TOP DEPTH	Residential		4	6	8	12	4	8	0	12	4	8
BOTTOM DEPTH	Soil Standard		6	8	10	14	6	10	2	14	6	10
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	0.00036 U	0.0004 U	0.00036 U	0.00032 U	0.00033 U	0.00033 U	0.00036 U
1,1-DICHLOROETHENE	390	NA	NA	NA	NA	0.00069 U	0.00076 U	0.00068 U	0.00062 U	0.00062 U	0.00063 U	0.00069 U
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	0.00043 U	0.00048 U	0.00042 U	0.00039 U	0.00039 U	0.0004 U	0.00043 U
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	0.0004 U	0.00044 U	0.00039 U	0.00035 U	0.00036 U	0.00036 U	0.0004 U
1,2,4-TRICHLOROBENZENE	78	NA	NA	NA	NA	0.00033 U	0.00036 U	0.00032 U	0.00029 U	0.0003 U	0.0003 U	0.00033 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	0.0005 U	0.00055 U	0.00049 U	0.00045 U	0.00045 U	0.00046 U	0.0005 U
1,2-DICHLOROBENZENE	700	NA	NA	NA	NA	0.00029 U	0.00032 U	0.00029 U	0.00026 U	0.00026 U	0.00027 U	0.00029 U
1,2-DICHLOROETHANE	7	NA	NA	NA	NA	0.0004 U	0.00044 U	0.00039 U	0.00035 U	0.00036 U	0.00036 U	0.0004 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	NA	NA	NA	0.00059 U	0.00066 U	0.00058 U	0.00053 U	0.00054 U	0.00055 U	0.0006 U
1,4-DICHLOROBENZENE	27	NA	NA	NA	NA	0.00024 U	0.00027 U	0.00024 U	0.00022 U	0.00022 U	0.00022 U	0.00024 U
2-BUTANONE	4700	NA	NA	NA	NA	0.00096 U	0.013 U	0.0013 U	0.00086 U	0.00087 U	0.00098 U	0.00097 U
2-HEXANONE	NA	NA	NA	NA	NA	0.00058 U	0.00065 U	0.00057 U	0.00052 U	0.00053 U	0.00054 U	0.00059 U
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	0.00035 U	0.00039 U	0.00035 U	0.00032 U	0.00032 U	0.00032 U	0.00036 U
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	0.001 U	0.0012 U	0.001 U	0.00094 U	0.00095 U	0.00097 U	0.0011 U
ACETONE	7000	NA	NA	NA	NA	0.0049 U	0.042 U	0.0053 U	0.0044 U	0.0044 U	0.0091 U	0.0049 U
BENZENE	12	NA	NA	NA	NA	0.00077 U	0.00086 U	0.00076 U	0.00069 U	0.0007 U	0.00071 U	0.00078 U
BROMOMETHANE	11	NA	NA	NA	NA	0.00036 U	0.0004 U	0.00036 U	0.00032 U	0.00033 U	0.00033 U	0.00036 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	NA	NA	NA	0.00051 U	0.00056 U	0.0005 U	0.00046 U	0.00046 U	0.00047 U	0.00051 U
CARBON TETRACHLORIDE	4.9	NA	NA	NA	NA	0.00056 UJ	0.00062 UJ	0.00055 UJ	0.0005 UJ	0.00051 UJ	0.00051 UJ	0.00056 UJ
CHLOROBENZENE	160	NA	NA	NA	NA	0.00046 U	0.00051 U	0.00045 U	0.00041 U	0.00041 U	0.00042 U	0.00046 U
CHLOROETHANE	220	NA	NA	NA	NA	0.00038 U	0.00042 U	0.00037 U	0.00034 U	0.00034 U	0.00035 U	0.00038 U
CHLOROFORM	78	NA	NA	NA	NA	0.00031 U	0.00034 U	0.0003 U	0.00028 U	0.00028 U	0.00029 U	0.00031 U
CHLOROMETHANE	NA	NA	NA	NA	NA	0.00068 U	0.00075 U	0.00067 U	0.00061 U	0.00061 U	0.00063 U	0.00068 U
CIS-1,2-DICHLOROETHENE	78	NA	NA	NA	NA	**0.00048 J**	0.00027 U	0.00024 U	0.00022 U	0.00022 U	0.00022 U	0.00024 U
DIISOPROPYL ETHER	NA	NA	NA	NA	NA	0.00051 U	0.00056 U	0.0005 U	0.00046 U	0.00046 U	0.00047 U	0.00051 U
ETHYLBENZENE	780	NA	NA	NA	NA	0.00028 U	**0.024**	0.00027 U	0.00025 U	0.00025 U	0.00025 U	0.00028 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	NA	NA	NA	0.00017 U	0.00019 U	0.00017 U	0.00015 U	0.00016 U	0.00016 U	0.00017 U
M+P-XYLENES	NA	NA	NA	NA	NA	0.00036 U	**0.00059 J**	0.00036 U	0.00032 U	0.00033 U	0.00033 U	0.00036 U
METHYL TERT-BUTYL ETHER	160	NA	NA	NA	NA	0.00037 U	0.00041 U	0.00036 U	0.00033 U	0.00033 U	0.00034 U	0.00037 U
METHYLENE CHLORIDE	85	NA	NA	NA	NA	0.00064 U	0.00071 U	0.00063 U	0.00057 U	0.00058 U	0.00059 U	0.00064 U
NAPHTHALENE	160	NA	NA	NA	NA	0.0003 U	**0.015**	0.0003 U	0.00033 U	0.00027 U	0.00028 U	0.0003 U
N-BUTYLBENZENE	NA	NA	NA	NA	NA	0.00051 U	0.00056 U	0.0005 U	0.00046 U	0.00046 U	0.00047 U	0.00051 U
N-PROPYLBENZENE	NA	NA	NA	NA	NA	0.00052 U	0.00057 U	0.00051 U	0.00046 U	0.00047 U	0.00048 U	0.00052 U
O-XYLENE	NA	NA	NA	NA	NA	0.00049 U	0.00054 U	0.00048 U	0.00044 U	0.00044 U	0.00045 U	0.00049 U
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	0.00078 U	0.00087 U	0.00077 U	0.0007 U	0.00071 U	0.00072 U	0.00079 U
STYRENE	1600	NA	NA	NA	NA	0.00034 U	0.00038 U	0.00034 U	0.00031 U	0.00031 U	0.00032 U	0.00035 U
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA	0.00037 U	0.00041 U	0.00036 U	0.00033 U	0.00033 U	0.00034 U	0.00037 U
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	0.00058 U	0.00064 U	0.00057 U	0.00052 U	0.00052 U	0.00053 U	0.00058 U
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA	0.0049 U	0.0054 U	0.0048 U	0.0044 U	0.0044 U	0.0045 U	0.0049 U
TETRACHLOROETHENE	1.2	NA	NA	NA	NA	0.00069 U	0.00076 U	0.00068 U	0.00062 U	0.00062 U	0.00063 U	0.00069 U
TOLUENE	630	NA	NA	NA	NA	0.00023 U	**0.00092 J**	0.00023 U	0.00021 U	0.00021 U	0.00021 U	0.00023 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	NA	NA	NA	0.00046 U	**0.00059 J**	0.00046 U	0.00042 U	0.00042 U	0.00043 U	0.00047 U
TRANS-1,2-DICHLOROETHENE	160	NA	NA	NA	NA	0.00028 U	0.00031 U	0.00027 U	0.00025 U	0.00025 U	0.00025 U	0.00028 U
TRICHLOROETHENE	1.6	NA	NA	NA	NA	**0.0067**	0.00036 U	0.00032 U	0.00029 U	0.0003 U	0.0003 U	0.00033 U
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	0.00025 U	0.00028 U	0.00025 U	0.00022 U	0.00023 U	0.00023 U	0.00025 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	NA	NA	NA	0.00026 U	0.00029 U	0.00025 U	0.00023 U	0.00023 U	0.00024 U	0.00026 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	NA	NA	NA	0.0042 U	0.004 U	0.0042 U	**0.0059 J**	0.0041 U	0.004 U	0.0041 U
2,4-DICHLOROPHENOL	23	NA	NA	NA	NA	0.024 U	0.023 U	0.024 U	0.022 U	0.024 U	0.023 U	0.023 U
2-CHLOROPHENOL	39	NA	NA	NA	NA	0.01 U	0.0095 U	0.0098 U	0.009 U	0.0097 U	0.0094 U	0.0096 U
2-METHYLNAPHTHALENE	31	NA	NA	NA	NA	0.00061 U	0.00058 U	0.0006 U	**0.023**	0.00059 U	0.00057 U	0.00059 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	0.024 U	0.023 U	0.024 U	0.022 U	0.024 U	0.023 U	0.023 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-169			GSP-SB-170				GSP-SB-171		
SAMPLE ID			GSP-SB-169-4-6 GSP-SB-169-4-6 REC=11	GSP-SB-169-6-8 GSP-SB-169-6-8 REC=11	GSP-SB-169-8-10 GSP-SB-169-8-10 REC=11	GSP-SB-170-12-14 GSP-SB-170-12-14 REC=11	GSP-SB-170-4-6 GSP-SB-170-4-6 REC=11	GSP-SB-170-8-10 GSP-SB-170-8-10 REC=11	GSP-SB-170-SS GSP-SB-170-SS REC=11	GSP-SB-171-12-14 GSP-SB-171-12-14 REC=11	GSP-SB-171-4-6 GSP-SB-171-4-6 REC=11	GSP-SB-171-8-10 GSP-SB-171-8-10 REC=11
SAMPLE DATE	Maryland	ATCs	20160112	20160112	20160112	20160112	20160112	20160112	20160112	20160113	20160113	20160113
TOP DEPTH	Residential		4	6	8	12	4	8	0	12	4	8
BOTTOM DEPTH	Soil Standard		6	8	10	14	6	10	2	14	6	10
ACENAPHTHENE	470	NA	NA	NA	NA	0.00092 U	0.00088 U	0.00091 U	**0.039**	0.0009 U	0.00087 U	0.00089 U
ACENAPHTHYLENE	470	NA	NA	NA	NA	0.00042 U	0.0004 U	0.00042 U	**0.03**	0.00041 U	0.0004 U	0.00041 U
ANTHRACENE	2300	NA	NA	NA	NA	0.00095 U	**0.0039 J**	**0.0056 J**	**0.13**	0.00092 U	0.00089 U	0.00091 U
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	0.00078 U	**0.01822**	**0.018216**	**0.79198**	0.00076 U	0.00073 U	0.00075 U
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	0.00078 U	**0.017816**	**0.0178**	**0.79198**	0.00076 U	0.00073 U	0.00075 U
BENZALDEHYDE	NA	NA	NA	NA	NA	0.015 U	0.014 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	NA	NA	NA	0.00076 U	**0.013**	**0.015**	**0.52**	0.00074 U	0.00072 U	0.00074 U
BENZO(A)PYRENE	0.022	NA	NA	NA	NA	0.00078 U	**0.015**	**0.014**	**0.57**	0.00076 U	0.00073 U	0.00075 U
BENZO(B)FLUORANTHENE	0.22	NA	NA	NA	NA	0.00072 U	**0.015**	**0.022**	**0.78**	0.0007 U	0.00068 U	0.00069 U
BENZO(G,H,I)PERYLENE	230	NA	NA	NA	NA	0.00042 U	0.0004 U	0.00042 U	**0.22**	0.00041 U	0.0004 U	0.00041 UJ
BENZO(K)FLUORANTHENE	2.2	NA	NA	NA	NA	0.00083 U	0.00079 U	**0.0083**	**0.24**	0.0008 U	0.00078 U	0.0008 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	NA	NA	NA	0.023 U	0.022 U	0.023 U	0.021 U	0.022 U	**0.026 J**	0.022 U
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	0.012 U	0.012 U	0.012 U	0.011 U	0.012 U	0.011 U	0.012 U
CAPROLACTAM	NA	NA	NA	NA	NA	0.045 U	0.043 U	0.044 U	0.041 U	0.044 U	0.042 U	0.043 U
CARBAZOLE	32	NA	NA	NA	NA	0.033 U	0.031 U	0.032 U	0.03 U	0.032 U	0.031 U	0.032 U
CHRYSENE	22	NA	NA	NA	NA	0.0013 U	**0.016**	**0.017**	**0.58**	0.0013 U	0.0013 U	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	NA	NA	NA	0.0008 U	0.00076 U	0.00079 U	**0.067**	0.00078 U	0.00076 U	0.00077 UJ
DIBENZOFURAN	7.8	NA	NA	NA	NA	0.0008 U	0.00076 U	0.00079 U	**0.012 J**	0.00078 U	0.00076 U	0.00077 U
DIETHYL PHTHALATE	6300	NA	NA	NA	NA	0.019 U	0.019 U	0.019 U	0.018 U	0.019 U	0.018 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	0.021 U	0.02 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U
DI-N-BUTYL PHTHALATE	780	NA	NA	NA	NA	0.018 U	0.017 U	0.018 U	0.017 U	0.018 U	0.017 U	0.018 U
FLUORANTHENE	310	NA	NA	NA	NA	0.00067 U	**0.019**	**0.026**	**0.89**	0.00065 U	0.00063 U	0.00064 U
FLUORENE	310	NA	NA	NA	NA	0.00064 U	0.00061 U	0.00064 U	**0.042**	0.00063 U	0.00061 U	0.00062 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	0 U	**0.084**	**0.1053**	**4.157**	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	**0.00328**	**0.085175**	**0.106115**	**4.157**	**0.00321**	**0.003135**	**0.003195**
INDENO(1,2,3-CD)PYRENE	0.22	NA	NA	NA	NA	0.00042 U	0.0004 U	0.00042 U	**0.22**	0.00041 U	0.0004 U	0.00041 UJ
ISOPHORONE	670	NA	NA	NA	NA	0.016 U	0.015 U	0.016 U	0.014 U	0.015 U	0.024 U	0.015 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	0 U	**0.0349**	**0.0466**	**1.613**	0 U	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	**0.00305**	**0.03661**	**0.048375**	**1.613**	**0.002965**	**0.002875**	**0.00294**
NAPHTHALENE	160	NA	NA	NA	NA	0.001 U	0.00095 U	0.00098 U	**0.039**	0.00097 U	0.00094 U	0.00096 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	NA	NA	NA	0.0076 U	0.0073 U	0.0076 U	0.007 U	0.0074 U	0.0072 U	0.0074 U
PENTACHLOROPHENOL	5.3	NA	NA	NA	NA	0.011 U	0.011 U	0.011 U	0.01 U	0.011 U	0.01 U	0.011 UJ
PHENANTHRENE	2300	NA	NA	NA	NA	0.00089 U	**0.012**	**0.015**	**0.42**	0.00086 U	0.00084 U	0.00086 U
PHENOL	2300	NA	NA	NA	NA	0.0089 U	0.0084 U	0.0088 U	0.0081 U	0.0086 U	0.0084 U	0.0086 U
PYRENE	230	NA	NA	NA	NA	0.00053 U	**0.025**	**0.029**	**0.96**	0.00052 U	0.0005 U	0.00052 U
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	NA	NA	NA	0.013 U	0.013 U	0.013 U	0.061 U	0.013 U	0.012 U	0.013 U
AROCLOR-1260	0.32	NA	NA	NA	NA	0.011 U	0.01 U	**0.012 J**	**0.58**	0.011 U	0.01 U	0.011 U
TOTAL AROCLOR	0.32	NA	NA	NA	NA	0 U	0 U	**0.012**	**0.58**	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	NA	NA	NA	**0.0549**	**0.0516**	**0.06025**	**0.8045**	**0.0538**	**0.05105**	**0.0527**
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.53 UJ	**1 J**	0.44 UJ	0.57 UJ	0.48 UJ	0.48 UJ	0.52 UJ	2.4 U	0.44 U	0.47 U
ARSENIC	0.43	3.6	**0.97 J**	**0.74 J**	**0.85 J**	**3.6**	**2.3**	3.7	**3**	4 J	12	**2.1**
BARIUM	1600	NA	**23**	**18 J**	**18**	**6.7 J**	**34**	**12 J**	**29**	**8.2 J**	**13 J**	**5.4 J**
BERYLLIUM	16	NA	0.22 U	0.11 U	0.28 U	0.068 U	0.15 U	0.1 U	0.45 U	0.13 U	0.33 U	0.032 U
CADMIUM	3.9	NA	0.023 U	0.024 U	**0.027 J**	**0.025 J**	**0.14 J**	**0.042 J**	**0.19 J**	0.1 U	0.019 U	0.021 U
CHROMIUM	23	28	**21**	**3.8**	**16**	**13**	**7.7**	**13**	**14**	**9.4**	**21**	**7.1**
COBALT	NA	NA	**0.46 J**	**0.72 J**	**1.6**	**0.38 J**	**1.3**	**0.33 J**	**3.3**	**2.1**	**1.5**	**0.21 J**
COPPER	310	NA	**55**	**4.2**	**23**	**19**	**11**	**7.9**	**11**	**46**	**27**	**3.9**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**6**	**59**	**4.2**	**3.5**	**18**	**3.8**	**15**	**13**	**4**	**2.7**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	**0.028 J**	0.015 U	0.018 U	0.015 U	**0.037 J**	0.017 U	**0.059 J**	0.015 U	0.018 U	0.018 U
MOLYBDENUM	NA	NA	0.27 U	0.067 U	0.3 U	0.34 U	0.29 U	0.33 U	0.38 U	0.32 U	0.28 U	0.46 U
NICKEL	160	NA	**1.5 J**	**1.8 J**	**5.9**	**0.6 J**	**3.7 J**	**0.93 J**	**6**	2.5 U	3.4 U	0.25 U
SELENIUM	39	NA	0.38 U	0.39 U	0.31 U	**0.43 J**	**0.52 J**	0.34 U	0.37 U	1.7 U	**0.47 J**	0.33 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-169			GSP-SB-170				GSP-SB-171		
SAMPLE ID			GSP-SB-169-4-6	GSP-SB-169-6-8	GSP-SB-169-8-10	GSP-SB-170-12-14	GSP-SB-170-4-6	GSP-SB-170-8-10	GSP-SB-170-SS	GSP-SB-171-12-14	GSP-SB-171-4-6	GSP-SB-171-8-10
			GSP-SB-169-4-6	GSP-SB-169-6-8	GSP-SB-169-8-10	GSP-SB-170-12-14	GSP-SB-170-4-6	GSP-SB-170-8-10	GSP-SB-170-SS	GSP-SB-171-12-14	GSP-SB-171-4-6	GSP-SB-171-8-10
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20160112	20160112	20160112	20160112	20160112	20160112	20160112	20160113	20160113	20160113
TOP DEPTH	Residential		4	6	8	12	4	8	0	12	4	8
BOTTOM DEPTH	Soil Standard		6	8	10	14	6	10	2	14	6	10
SILVER	39	NA	0.07 U	0.072 U	0.058 U	0.075 U	0.063 U	0.063 U	**0.085 J**	0.31 U	0.057 U	0.062 U
THALLIUM	0.55	3.9	0.14 U	0.15 U	0.12 U	0.15 U	0.13 U	0.13 U	0.14 U	0.13 U	0.16 U	0.13 U
VANADIUM	7.8	30	**9**	**7.9**	**14**	**28**	**15**	**19**	**22**	**7**	39	**16**
ZINC	2300	NA	**3.6 J**	**5.2 J**	**6.7**	**4.4 J**	**97**	**4 J**	**31**	**3.4 J**	**16**	**1.1 J**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	230	NA	NA	NA	NA	0.055 U	**0.054 J**	0.053 U	0.051 U	0.054 U	0.052 U	0.053 U
TPH (C10-C32)	230	NA	NA	NA	NA	11 U	9.3 U	10 U	53 U	7.5 U	7.2 U	7.6 U
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-172					GSP-SB-173				
SAMPLE ID			GSP-SB-171-SS GSP-SB-171-SS REC=11	GSP-SB-172-12-14 GSP-SB-172-12-14 REC=11	GSP-SB-172-4-6 GSP-SB-172-4-6 REC=11	GSP-SB-172-8-10 GSP-SB-172-8-10 REC=11	GSP-SB-172-SS GSP-SB-172-SS REC=11	GSP-SB-173-12-14 GSP-SB-173-12-14 REC=11	GSP-SB-173-2-4 GSP-SB-173-2-4 REC=11	GSP-SB-173-4-6 GSP-SB-173-4-6 REC=11	GSP-SB-173-8-10 GSP-SB-173-8-10 REC=11	GSP-SB-174-10-12 GSP-SB-174-10-12 REC=11
SAMPLE DATE	Maryland	ATCs	20160113	20160113	20160113	20160113	20160113	20160113	20160113	20160113	20160113	20160112
TOP DEPTH	Residential		0	12	4	8	0	12	2	4	8	10
BOTTOM DEPTH	Soil Standard		2	14	6	10	2	14	4	6	10	12
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0006 U	0.00038 U	0.033 U	0.035 U	0.00043 U	0.00036 UJ	0.00033 U	0.00031 U	0.00034 U	0.0004 U
1,1-DICHLOROETHENE	390	NA	0.0011 U	0.00072 U	0.024 U	0.025 U	0.00083 U	0.00069 UJ	0.00062 U	0.00059 U	0.00065 U	0.00075 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00071 U	0.00045 U	0.031 U	0.032 U	0.00052 U	0.00043 UJ	0.00039 U	0.00037 U	0.0004 U	0.00047 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00065 U	0.00042 U	0.01 U	0.011 U	0.00048 U	0.00039 UJ	0.00036 U	0.00034 U	0.00037 U	0.00043 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00054 U	0.00034 U	0.024 U	0.025 U	0.00039 U	0.00033 UJ	0.0003 U	0.00028 U	0.00031 U	0.00036 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00082 U	0.00052 U	0.01 U	0.011 U	0.0006 U	0.0005 UJ	0.00045 U	0.00043 U	0.00047 U	0.00055 U
1,2-DICHLOROBENZENE	700	NA	0.00048 U	0.00031 U	0.015 U	0.016 U	0.00035 U	0.00029 UJ	0.00027 U	0.00025 U	0.00028 U	0.00032 U
1,2-DICHLOROETHANE	7	NA	0.00065 U	0.00042 U	0.008 U	0.0082 U	0.00048 U	0.00039 UJ	0.00036 U	0.00034 U	0.00037 U	0.00043 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00098 U	0.00062 U	0.024 U	0.025 U	0.00071 U	0.00059 UJ	0.00054 U	0.00051 U	0.00056 U	0.00065 U
1,4-DICHLOROBENZENE	27	NA	0.0004 U	0.00025 U	0.033 U	0.034 U	0.00029 U	0.00024 UJ	0.00022 U	0.00021 U	0.00023 U	0.00026 U
2-BUTANONE	4700	NA	0.0016 U	0.001 U	0.058 U	0.06 U	0.0012 U	0.00096 UJ	0.015 U	0.0019 U	0.00091 U	0.0065 U
2-HEXANONE	NA	NA	0.00097 U	0.00061 U	0.067 U	0.069 U	0.0007 U	0.00058 UJ	0.00053 U	0.00051 U	0.00055 U	0.00064 U
4-ISOPROPYLTOLUENE	NA	NA	0.00058 U	0.00037 U	0.02 U	0.021 U	0.00042 U	0.00035 UJ	0.00032 U	0.0003 U	0.00033 U	**0.0013 J**
4-METHYL-2-PENTANONE	NA	NA	0.0017 U	0.0011 U	0.045 U	0.046 U	0.0013 U	0.001 UJ	0.00095 U	0.00091 U	0.00099 U	0.0011 U
ACETONE	7000	NA	0.0081 U	0.0051 U	0.18 U	0.19 U	0.0059 U	0.0049 UJ	0.068 U	0.032 U	0.0046 U	0.026 U
BENZENE	12	NA	0.0013 U	0.00081 U	0.0072 U	0.0074 U	0.00093 U	0.00077 UJ	0.0007 U	0.00067 U	0.00073 U	0.00085 U
BROMOMETHANE	11	NA	0.0006 U	0.00038 U	0.041 U	0.042 U	0.00043 U	0.00036 UJ	0.00033 U	0.00031 U	0.00034 U	0.0004 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00084 U	0.00053 U	0.045 U	0.046 U	0.00061 U	0.00051 UJ	**0.00091 J**	0.00044 U	0.00048 U	0.00055 U
CARBON TETRACHLORIDE	4.9	NA	0.00092 UJ	0.00059 U	0.014 U	0.015 U	0.00067 UJ	0.00056 UJ	0.00051 UJ	0.00048 UJ	0.00053 U	0.00061 UJ
CHLOROBENZENE	160	NA	0.00075 U	0.00048 U	0.01 U	0.011 U	0.00055 U	0.00045 UJ	0.00041 U	0.00039 U	0.00043 U	0.0005 U
CHLOROETHANE	220	NA	0.00063 U	0.0004 U	0.041 U	0.042 U	0.00045 U	0.00038 UJ	0.00034 U	0.00033 U	0.00036 U	0.00041 U
CHLOROFORM	78	NA	0.00051 U	0.00032 U	0.029 U	0.03 U	0.00037 U	0.00031 UJ	0.00028 U	0.00027 U	0.00029 U	0.00034 U
CHLOROMETHANE	NA	NA	0.0011 U	0.00071 U	0.038 U	0.04 U	0.00082 U	0.00068 UJ	0.00062 U	0.00059 U	0.00064 U	0.00074 U
CIS-1,2-DICHLOROETHENE	78	NA	0.0004 U	0.00025 U	0.03 U	0.031 U	0.00029 U	0.00024 UJ	0.00022 U	0.00021 U	0.00023 U	**0.00031 J**
DIISOPROPYL ETHER	NA	NA	0.00084 U	0.00053 U	0.041 U	0.043 U	0.00061 U	0.00051 UJ	0.00046 U	0.00044 U	0.00048 U	0.00055 U
ETHYLBENZENE	780	NA	0.00045 U	0.00029 U	0.028 U	0.029 U	0.00033 U	0.00027 UJ	0.00025 U	0.00024 U	0.00026 U	**0.0014 J**
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00028 U	0.00018 U	0.01 U	0.011 U	0.00021 U	0.00017 UJ	0.00016 U	0.00015 U	0.00016 U	0.00019 U
M+P-XYLENES	NA	NA	**0.00086 J**	0.00038 U	0.016 U	0.016 U	0.00043 U	0.00036 UJ	0.00033 U	0.00031 U	0.00034 U	**0.00072 J**
METHYL TERT-BUTYL ETHER	160	NA	0.00061 U	0.00039 U	0.024 U	0.025 U	0.00044 U	0.00037 UJ	0.00034 U	0.00032 U	0.00035 U	**0.00045 J**
METHYLENE CHLORIDE	85	NA	0.0011 U	0.00067 U	0.068 U	0.07 U	0.00077 U	0.00063 UJ	0.00058 U	0.00055 U	0.0006 U	0.0007 U
NAPHTHALENE	160	NA	0.0005 U	0.00032 U	0.021 U	0.021 U	0.00036 U	0.0003 UJ	0.00027 U	0.00026 U	0.00028 U	**0.023**
N-BUTYLBENZENE	NA	NA	0.00084 U	0.00053 U	0.017 U	0.017 U	0.00061 U	0.00051 UJ	0.00046 U	0.00044 U	0.00048 U	0.00055 U
N-PROPYLBENZENE	NA	NA	0.00085 U	0.00054 U	0.049 U	0.05 U	0.00062 U	0.00051 UJ	0.00047 U	0.00045 U	0.00049 U	0.00056 U
O-XYLENE	NA	NA	0.00081 U	0.00051 U	0.014 U	0.014 U	0.00059 U	0.00049 UJ	0.00044 U	0.00042 U	0.00046 U	0.00054 U
SEC-BUTYLBENZENE	NA	NA	0.0013 U	0.00082 U	0.013 U	0.013 U	0.00094 U	0.00078 UJ	0.00071 U	0.00068 U	0.00074 U	0.00086 U
STYRENE	1600	NA	0.00057 U	0.00036 U	0.022 U	0.022 U	0.00041 U	0.00034 UJ	0.00031 U	0.0003 U	0.00032 U	0.00038 U
TERT-AMYL METHYL ETHER	NA	NA	0.00061 U	0.00039 U	0.033 U	0.035 U	0.00044 U	0.00037 UJ	0.00034 U	0.00032 U	0.00035 U	0.0004 U
TERT-BUTYLBENZENE	NA	NA	0.00095 U	0.0006 U	0.027 U	0.028 U	0.00069 U	0.00057 UJ	0.00052 U	0.0005 U	0.00054 U	0.00063 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0081 U	0.0052 U	0.67 U	0.69 U	0.0059 U	0.0049 UJ	0.0045 U	0.0042 U	0.0046 U	0.0054 U
TETRACHLOROETHENE	1.2	NA	0.0011 U	0.00072 U	0.022 U	0.022 U	0.00083 U	0.00069 UJ	0.00062 U	0.00059 U	0.00065 U	0.00075 U
TOLUENE	630	NA	0.00038 U	0.00024 U	0.008 U	0.0082 U	0.00028 U	0.00023 UJ	0.00021 U	0.0002 U	0.00022 U	**0.00069 J**
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	**0.00086 J**	0.00049 U	0.026 U	0.026 U	0.00056 U	0.00046 UJ	0.00042 U	0.0004 U	0.00044 U	**0.00072 J**
TRANS-1,2-DICHLOROETHENE	160	NA	0.00045 U	0.00029 U	0.021 U	0.021 U	0.00033 U	0.00027 UJ	0.00025 U	0.00024 U	0.00026 U	0.0003 U
TRICHLOROETHENE	1.6	NA	0.00054 U	0.00034 U	0.031 U	0.032 U	0.00039 U	0.00033 UJ	0.0003 U	0.00028 U	0.00031 U	0.00036 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00041 UJ	0.00026 U	0.028 U	0.029 U	0.0003 U	0.00025 UJ	0.00023 U	0.00022 UJ	0.00023 U	0.00027 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00043 U	0.00027 U	0.014 U	0.014 U	0.00031 U	0.00026 UJ	0.00023 U	0.00022 U	0.00024 U	**0.00096 J**
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.0039 U	0.0046 U	0.0039 U	0.0041 U	0.0086 U	0.0041 U	0.004 U	0.004 U	0.0042 U	**0.014 J**
2,4-DICHLOROPHENOL	23	NA	0.022 U	0.026 U	0.022 U	0.024 U	0.049 U	0.024 U	0.023 U	0.023 U	**0.025 J**	0.024 U
2-CHLOROPHENOL	39	NA	0.0091 U	0.011 U	0.0091 U	0.0096 U	0.02 U	0.0097 U	0.0093 U	0.0093 U	**0.017 J**	0.0099 U
2-METHYLNAPHTHALENE	31	NA	0.00056 U	0.00065 U	0.00056 U	0.00059 U	**0.055**	0.00059 U	0.00056 U	0.00057 U	0.0006 U	**0.052**
3&4-METHYLPHENOL	NA	NA	0.022 U	0.026 U	0.022 U	0.024 U	0.049 U	0.024 U	0.023 U	0.023 U	0.024 U	0.024 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-172					GSP-SB-173				
SAMPLE ID			GSP-SB-171-SS GSP-SB-171-SS REC=11	GSP-SB-172-12-14 GSP-SB-172-12-14 REC=11	GSP-SB-172-4-6 GSP-SB-172-4-6 REC=11	GSP-SB-172-8-10 GSP-SB-172-8-10 REC=11	GSP-SB-172-SS GSP-SB-172-SS REC=11	GSP-SB-173-12-14 GSP-SB-173-12-14 REC=11	GSP-SB-173-2-4 GSP-SB-173-2-4 REC=11	GSP-SB-173-4-6 GSP-SB-173-4-6 REC=11	GSP-SB-173-8-10 GSP-SB-173-8-10 REC=11	GSP-SB-174-10-12 GSP-SB-174-10-12 REC=11
SAMPLE DATE	Maryland	ATCs	20160113	20160113	20160113	20160113	20160113	20160113	20160113	20160113	20160113	20160112
TOP DEPTH	Residential		0	12	4	8	0	12	2	4	8	10
BOTTOM DEPTH	Soil Standard		2	14	6	10	2	14	4	6	10	12
ACENAPHTHENE	470	NA	0.00085 U	0.00099 U	**0.0038 J**	0.00089 U	**0.084**	0.0009 U	0.00086 U	0.00086 U	0.00092 U	**0.19**
ACENAPHTHYLENE	470	NA	0.00039 U	0.00046 U	0.00039 U	0.00041 U	**0.027**	0.00041 U	0.0004 U	0.0004 U	0.00042 U	0.00042 U
ANTHRACENE	2300	NA	**0.005 J**	0.001 U	**0.0095**	0.00092 U	**0.27**	0.00092 U	0.00088 U	0.00088 U	0.00094 U	**0.094**
BAP EQUIVALENT-HALFND	NA	NA	**0.020682**	0.00083 U	**0.07957**	0.00075 U	**1.5364**	0.00076 U	0.00072 U	0.00073 U	0.00077 U	**0.2305**
BAP EQUIVALENT-POS	NA	NA	**0.020312**	0.00083 U	**0.079205**	0.00075 U	**1.5364**	0.00076 U	0.00072 U	0.00073 U	0.00077 U	**0.2301**
BENZALDEHYDE	NA	NA	0.013 U	0.016 U	0.013 U	0.014 U	0.029 U	0.014 U	0.014 U	0.014 U	0.015 U	0.015 U
BENZO(A)ANTHRACENE	0.22	NA	**0.016**	0.00082 U	**0.059**	0.00074 U	**1.2**	0.00074 U	0.00071 U	0.00071 U	0.00076 U	**0.18**
BENZO(A)PYRENE	0.022	NA	**0.015**	0.00083 U	**0.06**	0.00075 U	**1.1**	0.00076 U	0.00072 U	0.00073 U	0.00077 U	**0.18**
BENZO(B)FLUORANTHENE	0.22	NA	**0.025**	0.00077 U	**0.098**	0.00069 U	**1.4**	0.0007 U	0.00067 U	0.00067 U	0.00071 U	**0.24**
BENZO(G,H,I)PERYLENE	230	NA	**0.019**	0.00046 UJ	**0.038**	0.00041 UJ	**0.4**	0.00041 U	0.0004 UJ	0.0004 UJ	0.00042 U	**0.06**
BENZO(K)FLUORANTHENE	2.2	NA	**0.0088**	0.00089 U	**0.044**	0.0008 U	**0.71**	0.0008 U	0.00077 U	0.00077 U	0.00082 U	**0.061**
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.032 J**	0.025 U	0.021 U	0.022 U	0.047 U	0.022 U	0.021 U	0.022 U	0.023 U	0.023 U
BUTYL BENZYL PHTHALATE	NA	NA	0.011 U	0.013 U	0.011 U	0.012 U	0.025 U	0.012 U	0.011 U	0.011 U	0.012 U	0.012 U
CAPROLACTAM	NA	NA	0.041 U	0.048 U	0.041 U	0.044 U	0.091 U	0.044 U	0.042 U	0.042 U	0.045 U	0.045 U
CARBAZOLE	32	NA	0.03 U	0.035 U	0.03 U	0.032 U	**0.11 J**	0.032 U	0.03 U	0.031 U	0.033 U	**0.14**
CHRYSENE	22	NA	**0.024**	0.0014 U	**0.065**	0.0013 U	**1.3**	0.0013 U	0.0012 U	0.0012 U	0.0013 U	**0.19**
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.00074 U	0.00086 UJ	0.00073 U	0.00078 UJ	**0.13**	0.00078 U	0.00075 UJ	0.00075 UJ	0.0008 U	0.0008 U
DIBENZOFURAN	7.8	NA	0.00074 U	0.00086 U	0.00073 U	0.00078 U	**0.037 J**	0.00078 U	0.00075 U	0.00075 U	0.0008 U	**0.069**
DIETHYL PHTHALATE	6300	NA	0.018 U	0.021 U	0.018 U	0.019 U	0.039 U	0.019 U	0.018 U	0.018 U	0.019 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.019 U	0.022 U	0.019 U	0.02 U	0.042 U	0.02 U	0.019 U	0.019 U	0.021 U	0.021 U
DI-N-BUTYL PHTHALATE	780	NA	0.017 U	0.02 U	0.017 U	0.018 U	0.037 U	0.018 U	0.017 U	0.017 U	0.018 U	0.018 U
FLUORANTHENE	310	NA	**0.036**	0.00072 U	**0.12**	0.00065 U	**2**	0.00065 U	0.00062 U	0.00062 U	0.00066 U	**0.43**
FLUORENE	310	NA	0.00059 U	0.00069 U	0.00059 U	0.00062 U	**0.12**	0.00063 U	0.0006 U	0.0006 U	0.00064 U	**0.11**
HIGH MOLECULAR WEIGHT PAHS	NA	NA	**0.1538**	0 U	**0.504**	0 U	**8.72**	0 U	0 U	0 U	0 U	**1.324**
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.15417**	**0.00353**	**0.504365**	**0.0032**	**8.72**	**0.00321**	**0.00306**	**0.003065**	**0.003265**	**1.3244**
INDENO(1,2,3-CD)PYRENE	0.22	NA	**0.011**	0.00046 UJ	**0.03**	0.00041 UJ	**0.38**	0.00041 U	0.0004 UJ	0.0004 UJ	0.00042 U	**0.073**
ISOPHORONE	670	NA	0.061 U	0.017 U	0.014 U	0.015 U	0.032 U	0.015 U	0.015 U	0.015 U	0.016 U	0.019 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	**0.059**	0 U	**0.1744**	0 U	**3.914**	0 U	0 U	0 U	0 U	**1.496**
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.06065**	**0.00328**	**0.17517**	**0.00295**	**3.914**	**0.002965**	**0.002835**	**0.002845**	**0.003025**	**1.49621**
NAPHTHALENE	160	NA	0.00091 U	0.0011 U	**0.0051 J**	0.00096 U	**0.058**	0.00097 U	0.00093 U	0.00093 U	0.00099 U	**0.21**
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.007 U	0.0082 U	0.007 U	0.0074 U	0.015 U	0.0074 U	0.0071 U	0.0071 U	0.0076 U	0.0076 U
PENTACHLOROPHENOL	5.3	NA	0.01 U	0.012 UJ	0.01 U	0.011 UJ	0.022 U	0.011 U	0.01 UJ	0.01 UJ	0.011 U	0.011 U
PHENANTHRENE	2300	NA	**0.018**	0.00095 U	**0.036**	0.00086 U	**1.3**	0.00086 U	0.00082 U	0.00083 U	0.00088 U	**0.41**
PHENOL	2300	NA	0.0081 U	0.0095 U	0.0081 U	0.0086 U	0.018 U	0.0086 U	0.0082 U	0.0083 U	**0.019 J**	**0.059 J**
PYRENE	230	NA	**0.035**	0.00057 U	**0.11**	0.00052 U	**2.1**	0.00052 U	0.0005 U	0.0005 U	0.00053 U	**0.34**
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.012 U	0.014 U	0.012 U	0.013 U	0.013 U	0.013 U	0.012 U	0.012 U	0.013 U	0.013 U
AROCLOR-1260	0.32	NA	**0.046**	0.012 U	**0.13**	0.011 U	**0.17**	0.011 U	0.01 U	0.01 U	0.011 U	**0.033 J**
TOTAL AROCLOR	0.32	NA	**0.046**	0 U	**0.13**	0 U	**0.17**	0 U	0 U	0 U	0 U	**0.033**
TOTAL AROCLOR HALFND	0.32	NA	**0.09095**	**0.0585**	**0.175**	**0.0527**	**0.21885**	**0.0537**	**0.05105**	**0.05105**	**0.0537**	**0.0813**
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.44 U	0.44 U	0.48 U	0.5 U	0.45 U	0.45 U	0.42 U	0.51 U	0.42 U	0.5 UJ
ARSENIC	0.43	3.6	**3**	**0.47 J**	**2**	**1.4 J**	**3.4**	**0.59 J**	**1.8**	**0.75 J**	**0.51 J**	**1.8**
BARIUM	1600	NA	**39**	**2 J**	**14 J**	**4.8 J**	**27**	**3.7 J**	**20**	**9.1 J**	**4.5 J**	**11 J**
BERYLLIUM	16	NA	0.24 U	0.024 U	0.14 U	0.051 U	0.41 U	0.028 U	0.18 U	0.088 U	0.042 U	0.13 U
CADMIUM	3.9	NA	**2.8**	0.019 U	0.021 U	0.022 U	**0.3 J**	0.019 U	**0.091 J**	0.022 U	0.018 U	**0.1 J**
CHROMIUM	23	28	**13**	**1.6**	**6.8**	**2.3**	44	**2.5**	**6**	**3.9**	**3.4**	**15**
COBALT	NA	NA	**1.8**	**0.045 J**	**1.8**	**0.27 J**	**4.7**	**0.047 J**	**1.9**	**0.31 J**	**0.096 J**	**0.79 J**
COPPER	310	NA	**12**	**0.79 J**	**3.9**	**2.2 J**	**12**	**1.1 J**	**5.3**	**1.6 J**	**1 J**	**11**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**23**	**0.46 J**	**3.7**	**1.1**	**13**	0.65 U	**5.2**	**1.6**	**1.2**	**4.6**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	**0.027 J**	0.017 U	0.017 U	0.016 U	**0.048 J**	0.015 U	0.016 U	0.016 U	0.017 U	**0.016 J**
MOLYBDENUM	NA	NA	0.34 U	0.054 U	0.36 U	0.15 U	0.37 U	0.2 U	0.24 U	0.083 U	0.051 U	1.2 U
NICKEL	160	NA	**4.5**	0.21 U	2.9 U	0.86 U	**7.6**	**0.25 J**	2.8 U	0.74 U	0.11 U	**2.4 J**
SELENIUM	39	NA	**0.81 J**	0.31 U	0.34 U	0.36 U	**0.38 J**	0.32 U	0.3 U	**0.39 J**	0.3 U	0.36 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-172					GSP-SB-173				
SAMPLE ID			GSP-SB-171-SS GSP-SB-171-SS REC=11	GSP-SB-172-12-14 GSP-SB-172-12-14 REC=11	GSP-SB-172-4-6 GSP-SB-172-4-6 REC=11	GSP-SB-172-8-10 GSP-SB-172-8-10 REC=11	GSP-SB-172-SS GSP-SB-172-SS REC=11	GSP-SB-173-12-14 GSP-SB-173-12-14 REC=11	GSP-SB-173-2-4 GSP-SB-173-2-4 REC=11	GSP-SB-173-4-6 GSP-SB-173-4-6 REC=11	GSP-SB-173-8-10 GSP-SB-173-8-10 REC=11	GSP-SB-174-10-12 GSP-SB-174-10-12 REC=11
SAMPLE DATE	Maryland	ATCs	20160113	20160113	20160113	20160113	20160113	20160113	20160113	20160113	20160113	20160112
TOP DEPTH	Residential		0	12	4	8	0	12	2	4	8	10
BOTTOM DEPTH	Soil Standard		2	14	6	10	2	14	4	6	10	12
SILVER	39	NA	0.087 U	0.057 U	0.062 U	0.066 U	0.21 U	0.058 U	0.055 U	0.067 U	0.055 U	0.066 U
THALLIUM	0.55	3.9	0.12 U	0.12 U	0.13 U	0.14 U	0.12 U	0.12 U	0.11 U	0.14 U	0.11 U	0.14 U
VANADIUM	7.8	30	**22**	**3**	**11**	**5.4**	41	**7**	**12**	**6**	**10**	**12**
ZINC	2300	NA	**50**	**0.81 J**	**8.4**	**2.2 J**	**32**	**1.6 J**	**17**	**2.5 J**	**0.78 J**	**13**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	230	NA	0.052 U	0.059 U	0.052 U	0.054 U	0.055 U	0.055 UJ	0.052 U	0.052 U	0.055 U	0.054 U
TPH (C10-C32)	230	NA	**450**	8.3 U	7.2 U	7.4 U	**130**	**14 J**	**34**	7.3 U	7.7 U	24 U
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	0.00017 U	NA	NA	0.00017 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	0.0008 U	NA	NA	0.0008 U
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	0.00027 U	NA	NA	0.00027 U
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	0.00035 U	NA	NA	0.00035 U
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	0.0019 U	NA	NA	0.0019 U
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	0.0077 U	NA	NA	0.011 U
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	0.46 U	NA	NA	0.11 U
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	**0.011 J**	NA	NA	**0.0018 J**
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	0.0036 U	NA	NA	0.012 U
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	0.072 U	NA	NA	0.0081 U
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-174			GSP-SB-175				GSP-SB-176		
SAMPLE ID			GSP-SB-174-12-14 GSP-SB-174-12-14 REC=11	GSP-SB-174-4-6 GSP-SB-174-4-6 REC=11	GSP-SB-174-SS GSP-SB-174-SS REC=11	GSP-SB-175-12-14 GSP-SB-175-12-14 REC=11	GSP-SB-175-4-6 GSP-SB-175-4-6 REC=11	GSP-SB-175-8-10 GSP-SB-175-8-10 REC=11	GSP-SB-175-SS GSP-SB-175-SS REC=11	GSP-SB-176-12-14 GSP-SB-176-12-14 REC=11	GSP-SB-176-4-6 GSP-SB-176-4-6 REC=11	GSP-SB-176-8-10 GSP-SB-176-8-10 REC=11
SAMPLE DATE	Maryland	ATCs	20160112	20160112	20160112	20160113	20160113	20160113	20160113	20160113	20160113	20160113
TOP DEPTH	Residential		12	4	0	12	4	8	0	12	4	8
BOTTOM DEPTH	Soil Standard		14	6	2	14	6	10	2	14	6	10
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.00039 U	0.035 U	0.00031 U	0.00039 U	0.00035 U	0.00038 U	0.00045 U	0.00037 U	0.00032 U	0.00036 U
1,1-DICHLOROETHENE	390	NA	0.00074 U	0.025 U	0.00058 U	0.00074 U	0.00066 U	0.00072 U	0.00086 U	0.00071 U	0.00061 U	0.00068 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00046 U	0.033 U	0.00037 U	0.00046 U	0.00041 U	0.00045 U	0.00054 U	0.00044 U	0.00038 U	0.00043 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00042 U	0.011 U	0.00034 U	0.00042 U	0.00038 U	0.00042 U	0.00049 U	0.00041 U	0.00035 U	0.00039 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00035 U	0.025 U	0.00028 U	0.00035 U	0.00031 U	0.00034 U	0.00041 U	0.00034 U	0.00029 U	0.00033 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00053 U	**0.018 J**	0.00042 U	0.00053 U	0.00048 U	0.00052 U	0.00062 U	0.00052 U	0.00044 U	0.0005 U
1,2-DICHLOROBENZENE	700	NA	0.00031 U	0.016 U	0.00025 U	0.00031 U	0.00028 U	0.00031 U	0.00037 U	0.0003 U	0.00026 U	0.00029 U
1,2-DICHLOROETHANE	7	NA	0.00042 U	0.0084 U	0.00034 U	0.00042 U	0.00038 U	0.00042 U	0.00049 U	0.00041 U	0.00035 U	0.00039 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00064 U	0.025 U	0.0005 U	0.00064 U	0.00057 U	0.00062 U	0.00074 U	0.00061 U	0.00053 U	0.00059 U
1,4-DICHLOROBENZENE	27	NA	0.00026 U	0.034 U	0.0002 U	0.00026 U	0.00023 U	0.00025 U	0.0003 U	0.00025 U	0.00021 U	0.00024 U
2-BUTANONE	4700	NA	0.0054 U	**0.083 J**	0.00082 U	0.0012 U	0.0037 U	0.0018 U	0.0012 U	0.001 U	0.00086 U	0.0011 U
2-HEXANONE	NA	NA	0.00063 U	0.07 U	0.0005 U	0.00063 U	0.00056 U	0.00061 U	0.00073 U	0.0006 U	0.00052 U	0.00058 U
4-ISOPROPYLTOLUENE	NA	NA	**0.0004 J**	0.021 U	0.0003 U	0.00038 U	0.00034 U	0.00037 U	0.00044 U	0.00036 U	0.00031 U	0.00035 U
4-METHYL-2-PENTANONE	NA	NA	0.0011 U	0.047 U	0.00089 U	0.0011 U	0.001 U	0.0011 U	0.0013 U	0.0011 U	0.00093 U	0.001 U
ACETONE	7000	NA	0.019 U	0.19 U	0.0042 U	0.006 U	0.025 U	0.012 U	0.0061 U	0.0051 U	0.0044 U	0.0064 U
BENZENE	12	NA	0.00083 U	0.0075 U	0.00066 U	0.00083 U	0.00075 U	0.00081 U	0.00097 U	0.0008 U	0.00069 U	0.00077 U
BROMOMETHANE	11	NA	0.00039 U	0.043 U	0.00031 U	0.00039 U	0.00035 U	0.00038 U	0.00045 U	0.00037 U	0.00032 U	0.00036 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00054 U	0.047 U	0.00043 U	0.00054 U	0.00049 U	0.00053 U	0.00063 U	0.00052 U	0.00045 U	0.00051 U
CARBON TETRACHLORIDE	4.9	NA	0.0006 UJ	0.015 U	0.00048 UJ	0.0006 UJ	0.00054 U	0.00059 U	0.0007 UJ	0.00058 UJ	0.0005 U	0.00056 UJ
CHLOROBENZENE	160	NA	0.00049 U	0.011 U	0.00039 U	0.00049 U	0.00044 U	0.00048 U	0.00057 U	0.00047 U	0.0004 U	0.00045 U
CHLOROETHANE	220	NA	0.00041 U	0.043 U	0.00032 U	0.00041 U	0.00036 U	0.0004 U	0.00047 U	0.00039 U	0.00034 U	0.00038 U
CHLOROFORM	78	NA	0.00033 U	0.03 U	0.00026 U	0.00033 U	0.0003 U	0.00033 U	0.00039 U	0.00032 U	0.00027 U	0.00031 U
CHLOROMETHANE	NA	NA	0.00073 U	0.04 U	0.00058 U	0.00073 U	0.00065 U	0.00071 U	0.00085 U	0.0007 U	0.0006 U	0.00068 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00026 U	0.032 U	0.0002 U	0.00026 U	0.00023 U	0.00025 U	0.0003 U	0.00025 U	0.00021 U	0.00024 U
DIISOPROPYL ETHER	NA	NA	0.00054 U	0.043 U	0.00043 U	0.00054 U	0.00049 U	0.00053 U	0.00063 U	0.00052 U	0.00045 U	0.00051 U
ETHYLBENZENE	780	NA	**0.00049 J**	0.029 U	0.00023 U	0.00029 U	0.00027 U	0.00029 U	0.00034 U	0.00028 U	0.00024 U	0.00027 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00018 U	0.011 U	0.00015 U	0.00018 U	0.00017 U	0.00018 U	0.00021 U	0.00018 U	0.00015 U	0.00017 U
M+P-XYLENES	NA	NA	0.00039 U	**0.019 J**	0.00031 U	**0.00048 J**	0.00035 U	0.00038 U	0.00045 U	0.00037 U	0.00032 U	0.00036 U
METHYL TERT-BUTYL ETHER	160	NA	0.0004 U	0.025 U	0.00031 U	0.0004 U	0.00036 U	0.00039 U	0.00046 U	0.00038 U	0.00033 U	0.00037 U
METHYLENE CHLORIDE	85	NA	0.00068 U	0.071 U	0.00054 U	0.00068 U	0.00061 U	0.00067 U	0.00079 U	0.00066 U	0.00057 U	0.00063 U
NAPHTHALENE	160	NA	**0.0077**	**3.3**	0.00026 U	0.00032 U	0.0004 U	0.00032 U	0.00038 U	0.00031 U	0.00027 U	0.0003 U
N-BUTYLBENZENE	NA	NA	0.00054 U	0.018 U	0.00043 U	0.00054 U	0.00049 U	0.00053 U	0.00063 U	0.00052 U	0.00045 U	0.00051 U
N-PROPYLBENZENE	NA	NA	0.00055 U	0.051 U	0.00044 U	0.00055 U	0.0005 U	0.00054 U	0.00064 U	0.00053 U	0.00046 U	0.00051 U
O-XYLENE	NA	NA	0.00053 U	0.014 U	0.00042 U	0.00053 U	0.00047 U	0.00052 U	0.00061 U	0.00051 U	0.00044 U	0.00049 U
SEC-BUTYLBENZENE	NA	NA	0.00084 U	0.013 U	0.00067 U	0.00084 U	0.00075 U	0.00082 U	0.00098 U	0.00081 U	0.00069 U	0.00078 U
STYRENE	1600	NA	0.00037 U	0.023 U	0.00029 U	0.00037 U	0.00033 U	0.00036 U	0.00043 U	0.00036 U	0.00031 U	0.00034 U
TERT-AMYL METHYL ETHER	NA	NA	0.0004 U	0.035 U	0.00031 U	0.0004 U	0.00036 U	0.00039 U	0.00046 U	0.00038 U	0.00033 U	0.00037 U
TERT-BUTYLBENZENE	NA	NA	0.00062 U	0.028 U	0.00049 U	0.00062 U	0.00055 U	0.00061 U	0.00072 U	0.0006 U	0.00051 U	0.00057 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0053 U	0.7 U	0.0042 U	0.0053 U	0.0047 U	0.0052 U	0.0061 U	0.0051 U	0.0044 U	0.0049 U
TETRACHLOROETHENE	1.2	NA	0.00074 U	0.023 U	0.00058 U	0.00074 U	0.00066 U	0.00072 U	0.00086 U	0.00071 U	0.00061 U	0.00068 U
TOLUENE	630	NA	**0.00027 J**	0.0084 U	0.0002 U	**0.00025 J**	0.00022 U	0.00024 U	0.00029 U	0.00024 U	0.00021 U	0.00023 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.0005 U	0.027 U	0.00039 U	0.0005 U	0.00045 U	0.00049 U	0.00058 U	0.00048 U	0.00041 U	0.00046 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00029 U	0.022 U	0.00023 U	0.00029 U	0.00027 U	0.00029 U	0.00034 U	0.00028 U	0.00024 U	0.00027 U
TRICHLOROETHENE	1.6	NA	0.00035 U	0.033 U	0.00028 U	0.00035 U	0.00031 U	0.00034 U	0.00041 U	0.00034 U	0.00029 U	0.00033 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00027 U	0.029 U	0.00021 U	0.00027 U	0.00024 U	0.00026 U	0.00031 U	0.00026 U	0.00022 U	0.00025 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00028 U	0.014 U	0.00022 U	0.00028 U	0.00025 U	0.00027 U	0.00032 U	0.00027 U	0.00023 U	0.00026 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.0042 U	**0.074 J**	0.004 U	0.0043 U	0.0081 U	0.0043 U	0.0041 U	0.0043 U	0.0041 U	0.0042 U
2,4-DICHLOROPHENOL	23	NA	0.024 U	0.11 U	0.023 U	0.025 U	0.046 U	0.024 U	0.023 U	0.025 UJ	0.024 U	0.024 U
2-CHLOROPHENOL	39	NA	0.0099 U	0.045 U	0.0093 U	0.01 U	0.019 U	0.01 U	0.0096 U	0.01 UJ	0.0097 U	0.01 U
2-METHYLNAPHTHALENE	31	NA	0.0006 U	**0.25**	**0.023**	0.00061 U	**0.023**	0.00061 U	**0.015**	0.00062 U	**0.0068 J**	0.00061 U
3&4-METHYLPHENOL	NA	NA	0.024 U	0.11 U	0.023 U	0.025 U	0.046 U	0.024 U	0.023 U	0.025 UJ	0.024 U	0.024 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-174			GSP-SB-175				GSP-SB-176		
SAMPLE ID			GSP-SB-174-12-14	GSP-SB-174-4-6	GSP-SB-174-SS	GSP-SB-175-12-14	GSP-SB-175-4-6	GSP-SB-175-8-10	GSP-SB-175-SS	GSP-SB-176-12-14	GSP-SB-176-4-6	GSP-SB-176-8-10
			GSP-SB-174-12-14	GSP-SB-174-4-6	GSP-SB-174-SS	GSP-SB-175-12-14	GSP-SB-175-4-6	GSP-SB-175-8-10	GSP-SB-175-SS	GSP-SB-176-12-14	GSP-SB-176-4-6	GSP-SB-176-8-10
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20160112	20160112	20160112	20160113	20160113	20160113	20160113	20160113	20160113	20160113
TOP DEPTH	Residential		12	4	0	12	4	8	0	12	4	8
BOTTOM DEPTH	Soil Standard		14	6	2	14	6	10	2	14	6	10
ACENAPHTHENE	470	NA	0.00092 U	**0.98**	**0.044**	0.00093 U	**0.13**	0.00093 U	**0.025**	0.00094 U	**0.0093**	0.00092 U
ACENAPHTHYLENE	470	NA	0.00042 U	**0.029 J**	**0.03**	0.00043 U	**0.014 J**	0.00043 U	**0.013**	0.00043 U	**0.012**	0.00042 U
ANTHRACENE	2300	NA	0.00094 U	**1.3**	**0.14**	0.00096 U	**0.25**	0.00095 U	**0.083**	0.00097 U	**0.036**	0.00095 U
BAP EQUIVALENT-HALFND	NA	NA	0.00077 U	**3.0165**	**0.77144**	0.00078 U	**1.12409**	0.00078 U	**0.692525**	0.00079 U	**0.4442**	0.00078 U
BAP EQUIVALENT-POS	NA	NA	0.00077 U	**3.0165**	**0.77144**	0.00078 U	**1.12409**	0.00078 U	**0.69214**	0.00079 U	**0.4442**	0.00078 U
BENZALDEHYDE	NA	NA	0.015 U	0.066 U	0.014 U	0.015 U	0.028 U	0.015 U	0.014 U	0.015 U	0.014 U	0.015 U
BENZO(A)ANTHRACENE	0.22	NA	0.00076 U	**2.3**	**0.49**	0.00077 U	**0.77**	0.00077 U	**0.55**	0.00078 U	**0.29**	0.00076 U
BENZO(A)PYRENE	0.022	NA	0.00077 U	**2.1**	**0.54**	0.00078 U	**0.81**	0.00078 U	**0.54**	0.00079 U	**0.33**	0.00078 U
BENZO(B)FLUORANTHENE	0.22	NA	0.00071 U	**3.3**	**0.81**	0.00072 U	**1.2**	0.00072 U	**0.74**	0.00073 U	**0.44**	0.00072 U
BENZO(G,H,I)PERYLENE	230	NA	0.00042 U	**0.9**	**0.21**	0.00043 U	**0.28**	0.00043 U	**0.19**	0.00043 U	**0.11**	0.00042 U
BENZO(K)FLUORANTHENE	2.2	NA	0.00082 U	**1.1**	**0.29**	0.00083 U	**0.63**	0.00083 U	**0.36**	0.00084 U	**0.23**	0.00083 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.03 J**	0.11 U	0.022 U	0.023 U	0.044 U	0.023 UJ	**0.024 J**	0.024 UJ	0.022 U	0.023 UJ
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.055 U	0.011 U	0.012 U	0.023 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U
CAPROLACTAM	NA	NA	0.045 U	0.2 U	0.042 U	0.045 U	0.085 U	0.045 U	0.043 U	0.046 U	0.044 U	0.045 U
CARBAZOLE	32	NA	0.033 U	**0.88**	**0.048 J**	0.033 U	**0.13**	0.033 U	**0.04 J**	0.033 U	0.032 U	0.033 U
CHRYSENE	22	NA	0.0013 U	**2.5**	**0.54**	0.0013 U	**0.79**	0.0013 U	**0.54**	0.0014 U	**0.3**	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.0008 U	**0.26**	**0.079**	0.00081 U	**0.085**	0.0008 UJ	0.00077 U	0.00082 UJ	**0.029**	0.0008 UJ
DIBENZOFURAN	7.8	NA	0.0008 U	**0.57**	**0.019 J**	0.00081 U	**0.059 J**	0.0008 U	**0.014 J**	0.00082 U	0.00078 U	0.0008 U
DIETHYL PHTHALATE	6300	NA	0.019 U	0.089 U	0.018 U	0.02 U	0.037 U	0.019 U	0.019 U	0.02 U	0.019 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.021 U	0.094 U	0.019 U	0.021 U	0.039 U	0.021 U	0.02 U	0.021 U	0.02 U	0.021 U
DI-N-BUTYL PHTHALATE	780	NA	0.018 U	0.083 U	0.017 U	0.018 U	0.035 U	0.018 U	0.018 U	0.019 U	0.018 U	0.018 U
FLUORANTHENE	310	NA	**0.006 J**	**6.1**	**0.92**	0.00067 U	**1.7**	0.00067 U	**0.98**	0.00068 U	**0.42**	0.00067 U
FLUORENE	310	NA	0.00064 U	**0.81**	**0.041**	0.00065 U	**0.11**	0.00065 U	**0.022**	0.00066 U	**0.01**	0.00064 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	**0.0051**	**18.19**	**4.049**	0 U	**6.415**	0 U	**4.1**	0 U	**2.395**	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0081**	**18.19**	**4.049**	**0.003305**	**6.415**	**0.0033**	**4.100385**	**0.00338**	**2.395**	**0.00328**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.00042 U	**0.83**	**0.19**	0.00043 U	**0.25**	0.00043 UJ	**0.19**	0.00043 UJ	**0.096**	0.00042 UJ
ISOPHORONE	670	NA	0.021 U	0.072 U	0.015 U	0.016 U	0.03 U	0.016 U	0.015 U	0.016 U	0.015 U	0.016 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	**0.0119**	**15.669**	**1.675**	0 U	**3.221**	0 U	**1.482**	0 U	**0.6391**	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.014155**	**15.669**	**1.675**	**0.00307**	**3.221**	**0.003065**	**1.482**	**0.0031**	**0.6391**	**0.00305**
NAPHTHALENE	160	NA	0.00099 U	**0.7**	**0.047**	0.001 U	**0.054**	0.001 U	**0.024**	0.001 U	**0.015**	0.001 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.0076 U	0.035 U	0.0071 U	0.0077 U	0.015 U	0.0077 U	0.0074 U	0.0078 U	0.0074 U	0.0076 U
PENTACHLOROPHENOL	5.3	NA	0.011 U	0.05 U	0.01 U	0.011 U	0.021 U	0.011 U	0.011 U	0.011 UJ	0.011 U	0.011 U
PHENANTHRENE	2300	NA	**0.0059 J**	**5.5**	**0.43**	0.00089 U	**0.94**	0.00089 U	**0.32**	0.0009 U	**0.13**	0.00089 U
PHENOL	2300	NA	0.0088 U	**0.062 J**	0.0083 U	0.0089 U	0.017 U	0.0089 U	0.0086 U	0.009 UJ	0.0086 U	0.0089 U
PYRENE	230	NA	**0.0051 J**	**4.9**	**0.9**	0.00054 U	**1.6**	0.00054 U	**0.99**	0.00054 U	**0.57**	0.00053 U
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.013 U	**0.028 J**	0.063 U	0.013 U	0.063 U	0.014 U	0.25 U	0.013 U	0.013 U	0.013 U
AROCLOR-1260	0.32	NA	0.011 U	**0.16 J**	**0.7 J**	0.011 U	**0.38**	0.011 U	**6.2**	0.011 U	**0.063**	0.011 U
TOTAL AROCLOR	0.32	NA	0 U	**0.188**	**0.7**	0 U	**0.38**	0 U	**6.2**	0 U	**0.063**	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.05435**	**0.2264**	**0.93**	**0.0538**	**0.609**	**0.05595**	**7.135**	**0.0549**	**0.11015**	**0.0537**
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.41 UJ	0.48 UJ	0.53 UJ	0.49 U	0.4 U	0.46 U	0.55 U	0.52 U	0.54 U	0.39 U
ARSENIC	0.43	3.6	**0.88 J**	**2.6**	**3.2**	5.4	**3.2**	**0.74 J**	**3.1**	**1.3 J**	**2.8**	**1.4**
BARIUM	1600	NA	**1.9 J**	**24**	**28**	**3.5 J**	**27**	**1.8 J**	**15 J**	**1.4 J**	**18 J**	**2.2 J**
BERYLLIUM	16	NA	0.025 U	0.21 U	0.36 U	0.05 U	0.33 U	0.025 U	0.39 U	0.028 U	0.2 U	0.021 U
CADMIUM	3.9	NA	0.018 U	**0.083 J**	**0.26 J**	0.022 U	**0.1 J**	0.02 U	**0.047 J**	0.023 U	**0.035 J**	0.017 U
CHROMIUM	23	28	**0.96**	**11**	**15**	**2.7**	**10**	**1.1**	**9.3**	**1.6**	**9.4**	**1.5**
COBALT	NA	NA	**0.16 J**	**1.9**	**3.9**	**0.22 J**	**2.3**	**0.057 J**	**2.5**	**0.064 J**	**1.7**	**0.06 J**
COPPER	310	NA	**1.3 J**	**8**	**11**	**6.4**	**7.5**	**1.1 J**	**7.5**	**1 J**	**5.5**	**1.1 J**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**0.36 J**	**6.5**	**21**	0.67 U	**9.1**	**0.33 J**	**8.6**	**0.35 J**	**5.6**	**0.3 J**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	0.019 U	**0.039 J**	**0.13**	0.015 U	**0.057 J**	0.016 U	**0.028 J**	0.019 U	0.015 U	0.019 U
MOLYBDENUM	NA	NA	0.099 U	0.51 U	0.32 U	0.16 U	0.35 U	0.057 U	0.44 U	0.078 U	0.35 U	0.11 U
NICKEL	160	NA	**0.22 J**	**4.3**	**22**	0.57 U	**4.7**	0.15 U	**4.5**	0.18 U	3.5 U	0.17 U
SELENIUM	39	NA	0.29 U	0.34 U	**0.44 J**	0.35 U	**0.51 J**	0.33 U	0.39 U	0.37 U	0.38 U	0.27 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-174			GSP-SB-175				GSP-SB-176		
SAMPLE ID			GSP-SB-174-12-14	GSP-SB-174-4-6	GSP-SB-174-SS	GSP-SB-175-12-14	GSP-SB-175-4-6	GSP-SB-175-8-10	GSP-SB-175-SS	GSP-SB-176-12-14	GSP-SB-176-4-6	GSP-SB-176-8-10
			GSP-SB-174-12-14	GSP-SB-174-4-6	GSP-SB-174-SS	GSP-SB-175-12-14	GSP-SB-175-4-6	GSP-SB-175-8-10	GSP-SB-175-SS	GSP-SB-176-12-14	GSP-SB-176-4-6	GSP-SB-176-8-10
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20160112	20160112	20160112	20160113	20160113	20160113	20160113	20160113	20160113	20160113
TOP DEPTH	Residential		12	4	0	12	4	8	0	12	4	8
BOTTOM DEPTH	Soil Standard		14	6	2	14	6	10	2	14	6	10
SILVER	39	NA	0.054 U	0.063 U	**0.13 J**	0.065 U	0.052 U	0.061 U	0.072 U	0.069 U	0.07 U	0.051 U
THALLIUM	0.55	3.9	0.11 U	0.13 U	0.14 U	0.13 U	0.27 U	0.13 U	0.15 U	0.14 U	0.15 U	0.11 U
VANADIUM	7.8	30	**3.7**	**16**	**19**	**9.3**	**17**	**2.1**	**16**	**2.9**	**14**	**3.1**
ZINC	2300	NA	**0.9 J**	**25**	**35**	**2 J**	**23**	**0.77 J**	**19**	**0.7 J**	**15**	**0.8 J**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	230	NA	0.056 U	**0.051 J**	0.052 U	0.056 U	0.052 U	0.057 U	0.054 U	0.056 U	0.054 U	0.055 U
TPH (C10-C32)	230	NA	15 U	**120**	48 U	7.7 U	**93**	7.9 U	**160**	15 U	16 U	15 U
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-177					GSP-SB-178					
SAMPLE ID			GSP-SB-176-SS GSP-SB-176-SS REC=11	GSP-SB-177-12-14 GSP-SB-177-12-14 REC=11	GSP-SB-177-4-6 GSP-SB-177-4-6 REC=11	GSP-SB-177-8-10 GSP-SB-177-8-10 REC=11	GSP-SB-177-SS GSP-SB-177-SS REC=11	GSP-SB-178-12-14 GSP-SB-178-12-14 REC=11	GSP-SB-178-4-6 GSP-SB-178-4-6 REC=11	GSP-SB-178-8-10 GSP-SB-178-8-10 REC=11	GSP-SB-178-SS GSP-SB-178-SS REC=11	GSP-SB-179-10-12 GSP-SB-179-10-12 REC=11
SAMPLE DATE	Maryland	ATCs	20160113	20160114	20160114	20160114	20160114	20160114	20160114	20160114	20160114	20160113
TOP DEPTH	Residential		0	12	4	8	0	12	4	8	0	10
BOTTOM DEPTH	Soil Standard		2	14	6	10	2	14	6	10	2	12
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.00033 U	0.00038 U	0.00033 U	0.039 U	0.00038 U	0.00036 U	0.0003 U	0.00037 U	0.00041 U	0.00036 U
1,1-DICHLOROETHENE	390	NA	0.00062 U	0.00073 U	0.00063 U	0.028 U	0.00072 U	0.00069 U	0.00056 U	0.0007 U	0.00078 U	0.00069 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00039 U	0.00046 U	0.00039 U	0.036 U	0.00045 U	0.00043 U	0.00035 U	0.00044 U	0.00049 U	0.00043 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00036 U	0.00042 U	0.00036 U	0.012 U	0.00041 U	0.0004 U	**0.00052 J**	0.0004 U	0.00045 U	0.0004 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00029 U	0.00035 U	0.0003 U	0.028 U	0.00034 U	0.00033 U	0.00027 U	0.00033 U	0.00037 U	0.00033 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00045 U	0.00053 U	0.00046 U	0.012 U	0.00052 U	0.0005 U	**0.00044 J**	0.00051 U	0.00057 U	0.0005 U
1,2-DICHLOROBENZENE	700	NA	0.00026 U	0.00031 U	0.00027 U	0.018 U	0.00031 U	0.00029 U	0.00024 U	0.0003 U	0.00033 U	0.0003 U
1,2-DICHLOROETHANE	7	NA	0.00036 U	0.00042 U	0.00036 U	0.0092 U	0.00041 U	0.0004 U	0.00032 U	0.0004 U	0.00045 U	0.0004 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00053 U	0.00063 U	0.00054 U	0.028 U	0.00062 U	0.00059 U	0.00048 U	0.00061 U	0.00067 U	0.0006 U
1,4-DICHLOROBENZENE	27	NA	0.00022 U	0.00026 U	0.00022 U	0.038 U	0.00025 U	0.00024 U	0.0002 U	0.00025 U	0.00027 U	0.00024 U
2-BUTANONE	4700	NA	0.00087 U	0.001 U	**0.014 J**	0.067 U	0.001 U	0.00096 U	**0.0042 J**	0.00098 U	0.0011 U	0.0029 U
2-HEXANONE	NA	NA	0.00053 U	0.00062 U	0.00054 U	0.078 U	0.00061 U	0.00058 U	0.00048 U	0.0006 U	0.00066 U	0.00059 U
4-ISOPROPYLTOLUENE	NA	NA	0.00032 U	0.00037 U	0.00032 U	0.023 U	0.00037 U	0.00035 U	0.00029 U	0.00036 U	0.0004 U	0.00036 U
4-METHYL-2-PENTANONE	NA	NA	0.00094 U	0.0011 U	0.00096 U	0.052 U	0.0011 U	0.001 U	0.00086 U	0.0011 U	0.0012 U	0.0011 U
ACETONE	7000	NA	0.0044 U	0.0052 U	**0.05**	0.21 U	0.0051 U	0.0062 U	**0.018**	**0.0092 J**	0.0056 U	0.02 U
BENZENE	12	NA	0.0007 U	0.00082 U	0.00071 U	0.0083 U	0.00081 U	0.00077 U	0.00063 U	0.00079 U	0.00088 U	0.00078 U
BROMOMETHANE	11	NA	0.00033 U	0.00038 U	0.00033 U	0.047 U	0.00038 U	0.00036 U	0.0003 U	0.00037 U	0.00041 U	0.00036 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00046 U	0.00054 U	**0.00069 J**	0.052 U	0.00053 U	0.00051 U	**0.00046 J**	0.00052 U	0.00058 U	0.00051 U
CARBON TETRACHLORIDE	4.9	NA	0.0005 U	0.00059 UJ	0.00051 UJ	0.017 U	0.00059 UJ	0.00056 UJ	0.00046 U	0.00057 UJ	0.00063 UJ	0.00056 U
CHLOROBENZENE	160	NA	0.00041 U	0.00048 U	0.00042 U	0.012 U	0.00048 U	0.00046 U	0.00037 U	0.00047 U	0.00052 U	0.00046 U
CHLOROETHANE	220	NA	0.00034 U	0.0004 U	0.00035 U	0.047 U	0.0004 U	0.00038 U	0.00031 U	0.00039 U	0.00043 U	0.00038 U
CHLOROFORM	78	NA	0.00028 U	0.00033 U	0.00028 U	0.033 U	0.00032 U	0.00031 U	0.00025 U	0.00032 U	0.00035 U	0.00031 U
CHLOROMETHANE	NA	NA	0.00061 U	0.00072 U	0.00062 U	0.044 U	0.00071 U	0.00068 U	0.00056 U	0.00069 U	0.00077 U	0.00069 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00022 U	**0.0049**	**0.00035 J**	0.035 U	0.00025 U	**0.00033 J**	0.0002 U	0.00025 U	0.00027 U	0.00024 U
DIISOPROPYL ETHER	NA	NA	0.00046 U	0.00054 U	0.00046 U	0.048 U	0.00053 U	0.00051 U	0.00041 U	0.00052 U	0.00058 U	0.00051 U
ETHYLBENZENE	780	NA	0.00025 U	0.00029 U	0.00025 U	0.032 U	0.00029 U	0.00028 U	0.00022 U	0.00028 U	0.00031 U	0.00028 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00015 U	0.00018 U	0.00016 U	0.012 U	0.00018 U	0.00017 U	0.00014 U	0.00018 U	0.0002 U	0.00017 U
M+P-XYLENES	NA	NA	0.00033 U	0.00038 U	0.00033 U	0.018 U	**0.00079 J**	0.00036 U	0.0003 U	0.00037 U	0.00041 U	0.00036 U
METHYL TERT-BUTYL ETHER	160	NA	0.00033 U	0.00039 U	0.00034 U	0.028 U	0.00039 U	0.00037 U	0.0003 U	0.00038 U	0.00042 U	0.00037 U
METHYLENE CHLORIDE	85	NA	0.00057 U	0.00068 U	0.00058 U	**0.16 J**	0.00067 U	0.00064 U	0.00052 U	0.00065 U	0.00072 U	0.00064 U
NAPHTHALENE	160	NA	0.00027 U	0.00032 U	0.0016 U	0.024 U	0.00032 U	0.0003 U	**0.008**	0.00031 U	0.00034 U	0.0003 U
N-BUTYLBENZENE	NA	NA	0.00046 U	0.00054 U	0.00046 U	0.019 U	0.00053 U	0.00051 U	0.00041 U	0.00052 U	0.00058 U	0.00051 U
N-PROPYLBENZENE	NA	NA	0.00046 U	0.00055 U	0.00047 U	0.056 U	0.00054 U	0.00052 U	0.00042 U	0.00053 U	0.00059 U	0.00052 U
O-XYLENE	NA	NA	0.00044 U	0.00052 U	0.00045 U	0.016 U	0.00051 U	0.00049 U	0.0004 U	0.0005 U	0.00056 U	0.00049 U
SEC-BUTYLBENZENE	NA	NA	0.0007 U	0.00083 U	0.00072 U	0.015 U	0.00082 U	0.00078 U	0.00064 U	0.0008 U	0.00089 U	0.00079 U
STYRENE	1600	NA	0.00031 U	0.00037 U	0.00032 U	0.025 U	0.00036 U	0.00034 U	0.00028 U	0.00035 U	0.00039 U	0.00035 U
TERT-AMYL METHYL ETHER	NA	NA	0.00033 U	0.00039 U	0.00034 U	0.039 U	0.00039 U	0.00037 U	0.0003 U	0.00038 U	0.00042 U	0.00037 U
TERT-BUTYLBENZENE	NA	NA	0.00052 U	0.00061 U	0.00053 U	0.031 U	0.0006 U	0.00058 U	0.00047 U	0.00059 U	0.00065 U	0.00058 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0044 U	0.0052 U	0.0045 U	0.77 U	0.0051 U	0.0049 U	0.004 U	0.005 U	0.0056 U	0.005 U
TETRACHLOROETHENE	1.2	NA	0.00062 U	0.00073 U	0.00063 U	0.025 U	0.00072 U	0.00069 U	0.00056 U	0.0007 U	0.00078 U	0.00069 U
TOLUENE	630	NA	0.00021 U	0.00025 U	0.00021 U	**0.023 J**	0.00024 U	0.00023 U	0.00019 U	0.00024 U	0.00026 U	0.00023 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00042 U	0.00049 U	0.00043 U	0.03 U	**0.00079 J**	0.00046 U	0.00038 U	0.00047 U	0.00053 U	0.00047 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00025 U	0.00029 U	0.00025 U	0.024 U	0.00029 U	0.00028 U	0.00022 U	0.00028 U	0.00031 U	0.00028 U
TRICHLOROETHENE	1.6	NA	0.00029 U	**0.025**	0.0003 U	0.036 U	0.00034 U	**0.00055 J**	0.00027 U	0.00033 U	0.00037 U	0.00033 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00022 U	0.00027 U	0.00023 U	0.032 U	0.00026 U	0.00025 UJ	0.0002 U	0.00025 UJ	0.00028 UJ	0.00025 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00023 U	**0.00092 J**	0.00024 U	0.016 U	0.00027 U	0.00026 U	0.00021 U	0.00026 U	0.00029 U	0.00026 U
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.004 U	0.0042 U	0.01 U	0.004 U	**0.013 J**	0.0042 U	**0.012 J**	0.0041 U	0.0082 U	0.0042 U
2,4-DICHLOROPHENOL	23	NA	0.023 U	0.024 U	0.059 U	0.023 U	0.046 U	0.024 U	0.022 U	0.023 U	0.047 U	0.024 U
2-CHLOROPHENOL	39	NA	0.0093 U	0.0098 U	0.024 U	0.0094 U	0.019 U	0.0099 U	0.0091 U	0.0096 U	0.019 U	0.0099 U
2-METHYLNAPHTHALENE	31	NA	0.00056 U	0.0006 U	**0.028**	0.00057 U	**0.072**	0.0006 U	**0.05**	0.00059 U	**0.055**	0.00061 U
3&4-METHYLPHENOL	NA	NA	0.023 U	0.024 U	0.059 U	0.023 U	0.046 U	0.024 U	0.022 U	0.023 U	0.047 U	0.024 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-177					GSP-SB-178					
SAMPLE ID			GSP-SB-176-SS GSP-SB-176-SS REC=11	GSP-SB-177-12-14 GSP-SB-177-12-14 REC=11	GSP-SB-177-4-6 GSP-SB-177-4-6 REC=11	GSP-SB-177-8-10 GSP-SB-177-8-10 REC=11	GSP-SB-177-SS GSP-SB-177-SS REC=11	GSP-SB-178-12-14 GSP-SB-178-12-14 REC=11	GSP-SB-178-4-6 GSP-SB-178-4-6 REC=11	GSP-SB-178-8-10 GSP-SB-178-8-10 REC=11	GSP-SB-178-SS GSP-SB-178-SS REC=11	GSP-SB-179-10-12 GSP-SB-179-10-12 REC=11
SAMPLE DATE	Maryland	ATCs	20160113	20160114	20160114	20160114	20160114	20160114	20160114	20160114	20160114	20160113
TOP DEPTH	Residential		0	12	4	8	0	12	4	8	0	10
BOTTOM DEPTH	Soil Standard		2	14	6	10	2	14	6	10	2	12
ACENAPHTHENE	470	NA	**0.013**	0.00091 U	**0.21**	0.00087 U	**0.1**	0.00092 U	**0.24**	0.00089 U	**0.071**	0.00092 U
ACENAPHTHYLENE	470	NA	**0.0083**	0.00042 U	**0.037**	0.0004 U	**0.018**	0.00042 U	**0.0091**	0.00041 U	**0.039**	0.00042 U
ANTHRACENE	2300	NA	**0.042**	0.00093 U	**0.4**	0.00089 U	**0.3**	0.00094 U	**0.27**	0.00092 U	**0.21**	0.00094 U
BAP EQUIVALENT-HALFND	NA	NA	**0.49785**	0.00076 U	**1.7118**	0.00073 U	**1.26597**	0.00077 U	**0.87195**	0.00075 U	**1.64055**	0.00078 U
BAP EQUIVALENT-POS	NA	NA	**0.49785**	0.00076 U	**1.7118**	0.00073 U	**1.26597**	0.00077 U	**0.87195**	0.00075 U	**1.6398**	0.00078 U
BENZALDEHYDE	NA	NA	0.014 U	0.014 U	0.035 U	0.014 U	0.028 U	0.015 U	0.013 U	0.014 U	0.028 U	0.015 U
BENZO(A)ANTHRACENE	0.22	NA	**0.34**	0.00075 U	**1.2**	0.00072 U	**0.99**	0.00076 U	**0.63**	0.00074 U	**1.2**	0.00076 U
BENZO(A)PYRENE	0.022	NA	**0.36**	0.00076 U	**1.2**	0.00073 U	**0.92**	0.00077 U	**0.61**	0.00075 U	**1.3**	0.00078 U
BENZO(B)FLUORANTHENE	0.22	NA	**0.51**	0.0007 U	**1.7**	0.00068 U	**1.4**	0.00071 U	**0.97**	0.00069 U	**1.7**	0.00071 U
BENZO(G,H,I)PERYLENE	230	NA	**0.11**	0.00042 U	**0.58**	0.0004 U	**0.29**	0.00042 UJ	**0.23**	0.00041 UJ	**0.44**	0.00042 U
BENZO(K)FLUORANTHENE	2.2	NA	**0.25**	0.00081 U	**0.45**	0.00078 U	**0.5**	0.00082 U	**0.43**	0.0008 U	**0.85**	0.00082 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.021 J**	0.023 U	0.056 U	**0.023 J**	0.044 U	0.023 U	**0.035 J**	0.022 U	0.044 U	0.023 U
BUTYL BENZYL PHTHALATE	NA	NA	0.011 U	0.012 U	0.03 U	0.011 U	0.023 U	0.012 U	0.011 U	0.012 U	0.023 U	0.012 U
CAPROLACTAM	NA	NA	0.042 U	0.044 U	0.11 U	0.042 U	0.085 U	0.045 U	0.041 U	0.043 U	0.086 U	0.045 U
CARBAZOLE	32	NA	0.031 U	0.032 U	**0.16**	0.031 U	**0.074 J**	0.033 U	**0.17**	0.032 U	**0.072 J**	0.033 U
CHRYSENE	22	NA	**0.35**	0.0013 U	**1.3**	0.0013 U	**0.97**	0.0013 U	**0.65**	0.0013 U	**1.3**	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	**0.039**	0.00079 U	**0.16**	0.00076 U	**0.075**	0.0008 UJ	**0.074**	0.00078 UJ	0.0015 U	0.0008 U
DIBENZOFURAN	7.8	NA	0.00075 U	0.00079 U	**0.069 J**	0.00076 U	**0.037 J**	0.0008 U	**0.12**	0.00078 U	**0.018 J**	0.0008 U
DIETHYL PHTHALATE	6300	NA	0.018 U	0.019 U	0.047 U	0.018 U	0.037 U	0.019 U	0.018 U	0.019 U	0.037 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.019 U	0.02 U	0.05 U	0.019 U	0.039 U	0.021 U	0.019 U	0.02 U	0.04 U	0.021 U
DI-N-BUTYL PHTHALATE	780	NA	0.017 U	0.018 U	0.044 U	0.017 U	0.035 U	0.018 U	0.017 U	0.018 U	0.035 U	0.018 U
FLUORANTHENE	310	NA	**0.56**	0.00066 U	**2.4**	0.00063 U	**1.9**	0.00067 U	**1.4**	0.00065 U	**2**	0.00067 U
FLUORENE	310	NA	**0.011**	0.00063 U	**0.15**	0.00061 U	**0.13**	0.00064 U	**0.2**	0.00062 U	**0.087**	0.00064 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	**2.639**	0 U	**9.35**	0 U	**7.305**	0 U	**5.124**	0 U	**9.59**	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**2.639**	**0.00324**	**9.35**	**0.003135**	**7.305**	**0.003265**	**5.124**	**0.0032**	**9.59075**	**0.00327**
INDENO(1,2,3-CD)PYRENE	0.22	NA	**0.11**	0.00042 U	**0.56**	0.0004 U	**0.26**	0.00042 UJ	**0.23**	0.00041 UJ	**0.4**	0.00042 U
ISOPHORONE	670	NA	0.015 U	**0.053 J**	0.038 U	**0.045 J**	0.03 U	0.016 U	0.014 U	0.015 U	0.03 U	0.016 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	**0.7927**	0 U	**4.673**	0 U	**3.7**	0 U	**3.2891**	0 U	**3.482**	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.79298**	**0.003**	**4.673**	**0.002875**	**3.7**	**0.00303**	**3.2891**	**0.00295**	**3.482**	**0.003035**
NAPHTHALENE	160	NA	**0.0084**	0.00098 U	**0.048**	0.00094 U	**0.08**	0.00099 U	**0.12**	0.00096 U	**0.1**	0.00099 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.0071 U	0.0075 U	0.019 U	0.0072 U	0.015 U	0.0076 U	0.007 U	0.0074 U	0.015 U	0.0076 U
PENTACHLOROPHENOL	5.3	NA	0.01 U	0.011 U	0.027 U	0.01 U	0.021 U	0.011 UJ	0.01 U	0.011 UJ	0.021 U	0.011 U
PHENANTHRENE	2300	NA	**0.15**	0.00087 U	**1.4**	0.00084 U	**1.1**	0.00088 U	**1**	0.00086 U	**0.92**	0.00088 U
PHENOL	2300	NA	0.0082 U	0.0087 U	0.022 U	0.0084 U	0.017 U	0.0088 U	0.0081 U	0.0086 U	0.017 U	0.0088 U
PYRENE	230	NA	**0.57**	0.00053 U	**2.2**	0.0005 U	**1.9**	0.00053 U	**1.3**	0.00052 U	**2.4**	0.00053 U
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.012 U	0.013 U	0.064 U	0.013 U	0.062 U	0.013 U	0.012 U	0.013 U	0.013 U	0.013 U
AROCLOR-1260	0.32	NA	**0.064**	0.011 U	**0.53**	0.01 U	**1.3**	0.011 U	**0.062 J**	0.011 U	**0.12**	0.011 U
TOTAL AROCLOR	0.32	NA	**0.064**	0 U	**0.53**	0 U	**1.3**	0 U	**0.062**	0 U	**0.12**	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.10895**	**0.0538**	**0.768**	**0.05155**	**1.5275**	**0.05385**	**0.1064**	**0.0538**	**0.16825**	**0.0538**
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.41 U	0.43 U	**1.1 J**	0.46 U	0.45 U	0.57 U	0.52 U	0.51 U	0.42 U	0.53 U
ARSENIC	0.43	3.6	**3.2**	**2.9**	**4.2**	**14**	**3.4**	**4.1**	**1.9**	**3.7**	**3.1**	0.45 U
BARIUM	1600	NA	**23**	14 U	**39**	16 U	**27**	2.7 U	18 U	5.5 U	**24**	**4.9 J**
BERYLLIUM	16	NA	0.29 U	0.12 U	**0.57**	0.19 U	0.34 U	0.044 U	0.15 U	0.1 U	0.34 U	0.062 U
CADMIUM	3.9	NA	**0.077 J**	0.025 U	**0.72**	0.02 U	0.18 U	0.025 U	0.053 U	0.022 U	0.13 U	0.023 U
CHROMIUM	23	28	**11**	**11**	**16**	**20**	**12**	**2.8**	**6.6**	**3.4**	**22**	**8.4**
COBALT	NA	NA	**2.7**	**0.28 J**	**4.3**	**1.2**	**2.9**	**0.26 J**	**1.3**	**0.62 J**	**2.6**	**0.34 J**
COPPER	310	NA	**6.8**	**11**	**14**	**8.2**	**9.3**	**2.8 J**	**6.7**	**5.8**	**81**	**2.6 J**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**9.5**	**5.6**	**41**	**2.8**	**14**	**1.1 J**	**10**	**1.2**	**15**	**1.2**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	**0.032 J**	**0.057 J**	**0.19**	**0.018 J**	**0.17**	0.02 U	**0.04 J**	0.017 U	**0.14**	0.016 U
MOLYBDENUM	NA	NA	0.3 U	0.11 U	0.44 U	0.37 U	0.32 U	0.3 U	0.28 U	0.26 U	0.42 U	1.2 U
NICKEL	160	NA	**4.6**	0.75 U	**8.8**	2.9 U	**5.1**	0.68 U	3.4 U	0.96 U	**9.8**	**1.7 J**
SELENIUM	39	NA	**0.32 J**	0.3 U	0.29 U	0.32 U	0.32 U	0.4 U	0.37 U	0.36 U	0.3 U	0.38 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-177					GSP-SB-178					
SAMPLE ID			GSP-SB-176-SS GSP-SB-176-SS REC=11	GSP-SB-177-12-14 GSP-SB-177-12-14 REC=11	GSP-SB-177-4-6 GSP-SB-177-4-6 REC=11	GSP-SB-177-8-10 GSP-SB-177-8-10 REC=11	GSP-SB-177-SS GSP-SB-177-SS REC=11	GSP-SB-178-12-14 GSP-SB-178-12-14 REC=11	GSP-SB-178-4-6 GSP-SB-178-4-6 REC=11	GSP-SB-178-8-10 GSP-SB-178-8-10 REC=11	GSP-SB-178-SS GSP-SB-178-SS REC=11	GSP-SB-179-10-12 GSP-SB-179-10-12 REC=11
SAMPLE DATE	Maryland	ATCs	20160113	20160114	20160114	20160114	20160114	20160114	20160114	20160114	20160114	20160113
TOP DEPTH	Residential		0	12	4	8	0	12	4	8	0	10
BOTTOM DEPTH	Soil Standard		2	14	6	10	2	14	6	10	2	12
SILVER	39	NA	0.054 U	0.056 U	0.054 U	0.06 U	**0.12 J**	0.074 U	0.069 U	0.066 U	**0.083 J**	0.07 U
THALLIUM	0.55	3.9	0.11 U	0.12 U	0.11 U	0.12 U	0.12 U	0.15 U	0.14 U	0.14 U	0.11 U	0.14 U
VANADIUM	7.8	30	**18**	**18**	**22**	**33**	**19**	**13**	**11**	**13**	**21**	**3.3**
ZINC	2300	NA	**25**	**1.9 J**	**73**	**7.3**	**28**	**1.8 J**	**13**	**3.9 J**	**26**	**2.3 J**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	230	NA	0.052 U	0.055 U	0.054 U	0.053 U	0.053 U	0.055 U	0.051 U	0.055 U	0.054 U	0.055 U
TPH (C10-C32)	230	NA	33 U	7.9 U	**1500**	**8.1 J**	**45**	**15 J**	**69**	7.7 U	**150**	11 U
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	0.00017 U	NA	NA	0.00017 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	0.0008 U	NA	NA	0.0008 U
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	0.00027 U	NA	NA	0.00027 U
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	**0.0018 J**	NA	NA	0.00035 U
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	0.0019 UJ	NA	NA	0.0019 U
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	0.012 U	NA	NA	0.0051 U
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	0.27 U	NA	NA	0.072 U
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	**0.0049 J**	NA	NA	**0.00071 J**
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	0.0033 U	NA	NA	0.02 U
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	0.013 U	NA	NA	0.003 U
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-179			GSP-SB-180				GSP-SB-181		
SAMPLE ID			GSP-SB-179-12-14	GSP-SB-179-4-6	GSP-SB-179-SS	GSP-SB-180-12-14	GSP-SB-180-4-6	GSP-SB-180-8-10	GSP-SB-180-SS	GSP-SB-181-12-14	GSP-SB-181-4-6	GSP-SB-181-8-10
			GSP-SB-179-12-14	GSP-SB-179-4-6	GSP-SB-179-SS	GSP-SB-180-12-14	GSP-SB-180-4-6	GSP-SB-180-8-10	GSP-SB-180-SS	GSP-SB-181-12-14	GSP-SB-181-4-6	GSP-SB-181-8-10
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20160113	20160113	20160113	20160114	20160114	20160114	20160114	20160114	20160114	20160114
TOP DEPTH	Residential		12	4	0	12	4	8	0	12	4	8
BOTTOM DEPTH	Soil Standard		14	6	2	14	6	10	2	14	6	10
VOLATILES (MG/KG)												
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.00035 U	0.038 U	0.00053 U	0.037 U	0.00032 U	0.00034 U	0.00033 U	0.00039 U	0.033 U	0.00029 U
1,1-DICHLOROETHENE	390	NA	0.00066 U	0.027 U	0.001 U	0.027 U	**0.0015 J**	0.00064 U	0.00064 U	0.00074 U	0.024 U	0.00055 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00041 U	0.035 U	0.00063 U	0.035 U	0.00038 U	0.0004 U	0.0004 U	0.00046 U	0.031 U	0.00034 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00038 U	0.012 U	0.00058 U	0.012 U	0.00035 U	0.00037 U	**0.0018 J**	0.00042 U	0.01 U	0.00031 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00031 U	0.027 U	0.00048 U	0.027 U	0.00029 U	0.0003 U	0.0003 U	0.00035 U	0.024 U	0.00026 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00048 U	0.012 U	0.00073 U	0.012 U	0.00044 U	0.00046 U	**0.0017 J**	0.00054 U	0.01 U	0.0004 U
1,2-DICHLOROBENZENE	700	NA	0.00028 U	0.017 U	0.00043 U	0.017 U	0.00026 U	0.00027 U	0.00027 U	0.00031 U	0.015 U	0.00023 U
1,2-DICHLOROETHANE	7	NA	0.00038 U	0.0091 U	0.00058 U	0.0089 U	**0.00075 J**	**0.0034 J**	0.00037 U	**0.036**	0.0079 U	**0.011**
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00057 U	0.027 U	0.00087 U	0.027 U	0.00052 U	0.00055 U	0.00055 U	0.00064 U	0.024 U	0.00047 U
1,4-DICHLOROBENZENE	27	NA	0.00023 U	0.037 U	0.00035 U	0.036 U	0.00021 U	0.00022 U	0.00022 U	0.00026 U	0.032 U	0.00019 U
2-BUTANONE	4700	NA	0.00093 U	0.066 U	0.0014 U	0.065 U	**0.0018 J**	0.00089 U	**0.0024 J**	0.001 U	0.058 U	0.00076 U
2-HEXANONE	NA	NA	0.00056 U	0.076 U	0.00086 U	0.075 U	0.00051 U	0.00054 U	0.00054 U	0.00063 U	0.066 U	0.00046 U
4-ISOPROPYLTOLUENE	NA	NA	0.00034 U	0.023 U	0.00052 U	0.022 U	0.00031 U	0.00033 U	**0.00042 J**	0.00038 U	0.02 U	0.00028 U
4-METHYL-2-PENTANONE	NA	NA	0.001 U	0.051 U	0.0015 U	0.05 U	0.00092 U	0.00097 U	0.00097 U	0.0011 U	0.044 U	0.00083 U
ACETONE	7000	NA	0.0047 U	0.21 U	0.0072 U	0.2 U	**0.037**	0.0045 U	**0.018**	0.0053 U	0.18 U	0.0039 U
BENZENE	12	NA	0.00075 U	0.0082 U	0.0011 U	0.008 U	0.00068 U	0.00072 U	0.00071 U	0.00083 U	0.0071 U	0.00061 U
BROMOMETHANE	11	NA	0.00035 U	0.046 U	0.00053 U	0.045 U	0.00032 U	0.00034 U	0.00033 U	0.00039 U	0.04 U	0.00029 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	**0.04 NJ**	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00049 U	0.051 U	0.00074 U	0.05 U	0.00044 U	0.00047 U	**0.0032 J**	0.00054 U	0.044 U	0.0004 U
CARBON TETRACHLORIDE	4.9	NA	0.00054 U	**0.06 J**	0.00082 UJ	0.016 U	0.00049 UJ	0.00052 UJ	0.00052 UJ	0.0006 UJ	0.014 UJ	0.00044 UJ
CHLOROBENZENE	160	NA	0.00044 U	0.012 U	0.00067 U	0.012 U	0.0004 U	0.00042 U	0.00042 U	0.00049 U	0.01 U	0.00036 U
CHLOROETHANE	220	NA	0.00036 U	0.046 U	0.00055 U	0.045 U	0.00033 U	0.00035 U	0.00035 U	0.00041 U	0.04 U	0.0003 U
CHLOROFORM	78	NA	0.0003 U	0.033 U	0.00045 U	0.032 U	0.00027 U	0.00029 U	0.00029 U	0.00033 U	0.028 U	0.00025 U
CHLOROMETHANE	NA	NA	0.00065 U	0.044 U	0.001 U	0.043 U	0.00059 U	0.00063 U	0.00063 U	0.00073 U	0.038 U	0.00054 U
CIS-1,2-DICHLOROETHENE	78	NA	**0.0004 J**	0.035 U	0.00035 U	0.034 U	**0.061**	**0.011**	**0.0052**	**0.069**	0.03 U	**0.03**
DIISOPROPYL ETHER	NA	NA	0.00049 U	0.047 U	0.00074 U	0.046 U	0.00044 U	0.00047 U	0.00047 U	0.00054 U	0.041 U	0.0004 U
ETHYLBENZENE	780	NA	0.00027 U	0.032 U	0.0004 U	0.031 U	0.00024 U	**0.0016 J**	**0.00092 J**	0.0003 U	0.028 U	0.00022 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00017 U	0.012 U	0.00025 U	0.012 U	0.00015 U	0.00016 U	0.00016 U	0.00018 U	0.01 U	0.00014 U
M+P-XYLENES	NA	NA	0.00035 U	0.018 U	0.00053 U	0.018 U	0.00032 U	**0.0028 J**	**0.0025 J**	0.00039 U	0.016 U	0.00029 U
METHYL TERT-BUTYL ETHER	160	NA	0.00036 U	0.027 U	0.00054 U	0.027 U	0.00032 U	0.00034 U	0.00034 U	0.0004 U	0.024 U	0.00029 U
METHYLENE CHLORIDE	85	NA	0.00061 U	0.077 U	0.00093 U	**0.16 J**	0.00056 U	0.00059 U	0.00059 U	0.00068 U	0.067 U	0.00051 U
NAPHTHALENE	160	NA	0.00029 U	0.024 U	0.00044 U	0.023 U	0.00026 U	0.00032 U	0.0024 U	0.00032 U	0.02 U	0.00024 U
N-BUTYLBENZENE	NA	NA	0.00049 U	0.019 U	0.00074 U	0.019 U	0.00044 U	0.00047 U	0.00047 U	0.00054 U	**0.058 J**	0.0004 U
N-PROPYLBENZENE	NA	NA	0.0005 U	0.055 U	0.00076 U	0.054 U	0.00045 U	0.00048 U	0.00048 U	0.00055 U	0.048 U	0.00041 U
O-XYLENE	NA	NA	0.00047 U	0.015 U	0.00072 U	0.015 U	0.00043 U	**0.0012 J**	**0.00096 J**	**0.00061 J**	0.013 U	0.00039 U
SEC-BUTYLBENZENE	NA	NA	0.00075 U	0.015 U	0.0011 U	0.014 U	0.00068 U	0.00073 U	0.00072 U	0.00084 U	**0.026 J**	0.00062 U
STYRENE	1600	NA	0.00033 U	0.025 U	0.0005 U	0.024 U	0.0003 U	0.00032 U	0.00032 U	0.00037 U	0.021 U	0.00027 U
TERT-AMYL METHYL ETHER	NA	NA	0.00036 U	0.038 U	0.00054 U	0.037 U	0.00032 U	0.00034 U	0.00034 U	0.0004 U	0.033 U	0.00029 U
TERT-BUTYLBENZENE	NA	NA	0.00056 U	0.031 U	0.00084 U	0.03 U	0.0005 U	0.00053 U	0.00053 U	0.00062 U	0.027 U	0.00046 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0047 U	0.76 U	0.0072 U	0.74 U	0.0043 U	0.0046 U	0.0045 U	0.0053 U	0.66 U	0.0039 U
TETRACHLOROETHENE	1.2	NA	0.00066 U	0.025 U	0.001 U	0.024 U	0.0006 U	0.00064 U	0.00064 U	0.00074 U	0.021 U	0.00055 U
TOLUENE	630	NA	0.00022 U	0.0091 U	0.00034 U	**0.02 J**	0.0002 U	0.00022 U	**0.0031 J**	0.00025 U	0.0079 U	0.00018 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00045 U	0.029 U	0.00068 U	0.028 U	0.00041 U	**0.004 J**	**0.0035 J**	**0.00061 J**	0.025 U	0.00037 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00027 U	0.024 U	0.0004 U	0.023 U	**0.002 J**	**0.00092 J**	**0.0005 J**	**0.0008 J**	0.02 U	**0.00041 J**
TRICHLOROETHENE	1.6	NA	**0.00033 J**	0.035 U	0.00048 U	0.035 U	0.00029 U	**0.012**	**0.00033 J**	**0.014**	0.031 U	**0.0067**
TRICHLOROFLUOROMETHANE	NA	NA	0.00024 U	0.032 UJ	0.00037 U	0.031 U	0.00022 UJ	0.00023 U	0.00023 U	0.00027 U	0.028 U	0.0002 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**3.5 NJ**	NA
VINYL CHLORIDE	0.09	NA	0.00025 U	0.015 U	0.00038 U	0.015 U	**0.041**	**0.0066**	**0.00073 J**	**0.049**	0.013 U	**0.028**
SEMIVOLATILES (MG/KG)												
1,1-BIPHENYL	NA	NA	0.0044 U	0.004 U	0.004 U	0.0042 U	0.004 U	0.0041 U	0.026 U	0.0043 U	0.008 U	0.0041 U
2,4-DICHLOROPHENOL	23	NA	0.025 U	0.023 U	0.023 U	0.024 U	0.023 U	0.024 U	0.15 U	0.024 U	0.046 U	0.023 U
2-CHLOROPHENOL	39	NA	0.01 U	0.0095 U	0.0093 U	0.0098 U	0.0095 U	0.0097 U	0.061 U	0.01 U	0.019 U	0.0095 U
2-METHYLNAPHTHALENE	31	NA	0.00063 U	0.00058 U	0.00057 U	0.0006 U	0.00058 U	0.00059 U	**0.081**	0.00061 U	0.0011 U	0.00058 U
3&4-METHYLPHENOL	NA	NA	0.025 U	0.023 U	0.023 U	0.024 U	0.023 U	0.024 U	0.15 U	0.024 U	0.046 U	0.023 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-179			GSP-SB-180				GSP-SB-181		
SAMPLE ID			GSP-SB-179-12-14	GSP-SB-179-4-6	GSP-SB-179-SS	GSP-SB-180-12-14	GSP-SB-180-4-6	GSP-SB-180-8-10	GSP-SB-180-SS	GSP-SB-181-12-14	GSP-SB-181-4-6	GSP-SB-181-8-10
			GSP-SB-179-12-14	GSP-SB-179-4-6	GSP-SB-179-SS	GSP-SB-180-12-14	GSP-SB-180-4-6	GSP-SB-180-8-10	GSP-SB-180-SS	GSP-SB-181-12-14	GSP-SB-181-4-6	GSP-SB-181-8-10
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20160113	20160113	20160113	20160114	20160114	20160114	20160114	20160114	20160114	20160114
TOP DEPTH	Residential		12	4	0	12	4	8	0	12	4	8
BOTTOM DEPTH	Soil Standard		14	6	2	14	6	10	2	14	6	10
ACENAPHTHENE	470	NA	0.00096 U	0.00088 U	0.00086 U	0.00091 U	0.00088 U	0.0009 U	**0.25**	0.00092 U	0.0017 U	0.00088 U
ACENAPHTHYLENE	470	NA	0.00044 U	0.0004 U	0.0004 U	0.00042 U	**0.015**	0.00041 U	0.0026 U	0.00043 U	0.0008 U	0.00041 U
ANTHRACENE	2300	NA	0.00098 U	0.0009 U	**0.0066 J**	0.00093 U	**0.026**	0.00092 U	**0.8**	0.00095 U	0.0018 U	0.0009 U
BAP EQUIVALENT-HALFND	NA	NA	0.00081 U	0.00074 U	**0.076237**	0.00076 U	**0.18179**	0.00076 U	**4.8014**	0.00078 U	**0.050328**	0.00074 U
BAP EQUIVALENT-POS	NA	NA	0.00081 U	0.00074 U	**0.075862**	0.00076 U	**0.18141**	0.00076 U	**4.8014**	0.00078 U	**0.049578**	0.00074 U
BENZALDEHYDE	NA	NA	0.015 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.09 U	0.015 U	0.028 U	0.014 U
BENZO(A)ANTHRACENE	0.22	NA	0.00079 U	0.00073 U	**0.057**	0.00075 U	**0.16**	0.00075 U	**3.2**	0.00077 U	**0.034**	0.00073 U
BENZO(A)PYRENE	0.022	NA	0.00081 U	0.00074 U	**0.059**	0.00076 U	**0.14 J**	0.00076 U	**3.2**	0.00078 U	**0.039**	0.00074 U
BENZO(B)FLUORANTHENE	0.22	NA	0.00074 U	0.00068 U	**0.08**	0.0007 U	**0.17 J**	0.0007 U	**4.4**	0.00072 U	**0.056**	0.00068 U
BENZO(G,H,I)PERYLENE	230	NA	0.00044 U	0.0004 UJ	**0.032**	0.00042 UJ	**0.072 J**	0.00041 UJ	**1.6**	0.00043 UJ	0.0008 U	0.00041 UJ
BENZO(K)FLUORANTHENE	2.2	NA	0.00086 U	0.00079 U	**0.04**	0.00081 U	**0.085 J**	0.0008 U	**1.8**	0.00083 U	**0.024**	0.00079 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.024 U	0.022 U	**0.023 J**	0.023 U	0.022 U	**0.04 J**	0.14 U	**0.023 J**	0.044 U	0.022 U
BUTYL BENZYL PHTHALATE	NA	NA	0.013 U	0.012 U	0.011 U	0.012 U	0.012 U	0.012 U	0.075 U	0.012 U	0.023 U	0.012 U
CAPROLACTAM	NA	NA	0.047 U	0.043 U	0.042 U	0.044 U	0.043 U	0.044 U	0.28 U	0.045 U	0.085 U	0.043 U
CARBAZOLE	32	NA	0.034 U	0.031 U	0.031 U	0.032 U	0.031 U	0.032 U	**0.3 J**	0.033 U	0.062 U	0.031 U
CHRYSENE	22	NA	0.0014 U	0.0013 U	**0.062**	0.0013 U	**0.16**	0.0013 U	**3.4**	0.0013 U	**0.038**	0.0013 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.00083 U	0.00076 UJ	0.00075 U	0.00079 UJ	0.00076 UJ	0.00078 UJ	**0.65**	0.0008 UJ	0.0015 U	0.00077 UJ
DIBENZOFURAN	7.8	NA	0.00083 U	0.00076 U	0.00075 U	0.00079 U	0.00076 U	0.00078 U	**0.094 J**	0.0008 U	**0.03 J**	0.00077 U
DIETHYL PHTHALATE	6300	NA	0.02 U	0.018 U	0.018 U	0.019 U	0.018 U	0.019 U	0.12 U	0.019 U	0.037 U	0.019 U
DIMETHYL PHTHALATE	NA	NA	0.021 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.13 U	0.021 U	0.039 U	0.02 U
DI-N-BUTYL PHTHALATE	780	NA	0.019 U	0.017 U	0.017 U	0.018 U	0.017 U	0.018 U	0.11 U	0.018 U	0.034 U	0.017 U
FLUORANTHENE	310	NA	0.00069 U	0.00064 U	**0.1**	0.00066 U	**0.31**	0.00065 U	**6.9**	0.00067 U	**0.073**	0.00064 U
FLUORENE	310	NA	0.00067 U	0.00061 U	0.0006 U	0.00063 U	**0.005 J**	0.00063 U	**0.28**	0.00064 U	**0.06**	0.00061 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	**0.455**	0 U	**1.141**	0 U	**26.45**	0 U	**0.294**	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.00343**	**0.003155**	**0.455375**	**0.003235**	**1.14138**	**0.003215**	**26.45**	**0.003295**	**0.29515**	**0.00317**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.00044 U	0.0004 UJ	**0.027**	0.00042 UJ	**0.074 J**	0.00041 UJ	**1.7**	0.00043 UJ	**0.013 J**	0.00041 UJ
ISOPHORONE	670	NA	0.016 U	0.015 U	0.015 U	0.015 U	**0.031 J**	0.015 U	0.097 U	0.016 U	0.03 U	0.015 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	**0.1346**	**0.0066**	**0.4408**	0 U	**10.672**	0 U	**0.185**	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.003145**	**0.0029**	**0.13628**	**0.00911**	**0.44153**	**0.002965**	**10.6733**	**0.003055**	**0.18865**	**0.00291**
NAPHTHALENE	160	NA	0.001 U	0.00095 U	0.00093 U	**0.0066 J**	**0.0058 J**	0.00097 U	**0.061**	0.001 U	0.0019 U	0.00095 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.0079 U	0.0073 U	0.0071 U	0.0075 U	0.0073 U	0.0075 U	0.047 U	0.0077 U	0.014 U	0.0073 U
PENTACHLOROPHENOL	5.3	NA	0.011 U	0.011 UJ	0.01 U	0.011 UJ	0.011 U	0.011 UJ	0.068 U	0.011 UJ	0.021 U	0.011 UJ
PHENANTHRENE	2300	NA	0.00092 U	0.00084 U	**0.028**	0.00087 U	**0.079**	0.00086 U	**2.3**	0.00089 U	**0.052**	0.00085 U
PHENOL	2300	NA	0.0092 U	0.0084 U	0.0083 U	0.0087 U	0.0084 U	0.0086 U	0.055 U	0.0089 U	0.017 U	0.0085 U
PYRENE	230	NA	0.00055 U	0.00051 U	**0.098**	0.00052 U	**0.28**	0.00052 U	**6.5**	0.00053 U	**0.09**	0.00051 U
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (MG/KG)												
AROCLOR-1242	0.32	NA	0.014 U	0.013 U	0.012 U	0.013 U	0.013 U	0.013 U	0.025 U	0.013 U	0.013 U	0.013 U
AROCLOR-1260	0.32	NA	0.011 U	0.01 U	**0.023 J**	0.011 U	0.01 U	0.011 U	**0.14 J**	0.011 U	**0.07**	0.011 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	**0.023**	0 U	0 U	0 U	**0.14**	0 U	**0.07**	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.0565**	**0.05215**	**0.06795**	**0.0538**	**0.0516**	**0.0527**	**0.2315**	**0.05435**	**0.11715**	**0.05265**
METALS (MG/KG)												
ANTIMONY	3.1	NA	0.4 U	0.51 U	0.52 U	0.53 U	0.4 U	0.5 U	0.41 U	0.49 U	0.4 U	0.46 U
ARSENIC	0.43	3.6	4.6	**1.9**	8.2	**1.2 J**	**1.8**	**0.93 J**	**2.6 J**	**1.4 J**	**1.9**	**0.99 J**
BARIUM	1600	NA	**7.5 J**	**9.5 J**	**10 J**	12 U	11 U	13 U	**300**	8.1 U	8.1 U	8.4 U
BERYLLIUM	16	NA	0.13 U	0.083 U	0.11 U	0.13 U	0.17 U	0.11 U	**2.2**	0.087 U	0.1 U	0.075 U
CADMIUM	3.9	NA	0.018 U	0.022 U	0.023 U	0.023 U	0.018 U	0.022 U	0.15 U	0.021 U	0.017 U	0.033 U
CHROMIUM	23	28	**15**	**9.5**	**13**	**6.1**	**7.2**	**8**	**24**	**15**	**5.7**	**9.9**
COBALT	NA	NA	**0.19 J**	**0.32 J**	**0.28 J**	**0.45 J**	**0.88**	**0.28 J**	**1.8**	**0.39 J**	**0.61 J**	**0.28 J**
COPPER	310	NA	**13**	**2.8**	**10**	**3.8**	**2.8**	**5.7**	**10**	**2.2 J**	**2.7**	**3.9**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**3.2**	**2.9**	**4**	**2.4**	**2.8**	**2.3**	**5.9**	**1.9**	**2**	**1.5**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	0.016 U	0.016 U	0.014 U	**0.027 J**	**0.021 J**	**0.021 J**	**0.017 J**	0.016 U	**0.029 J**	**0.032 J**
MOLYBDENUM	NA	NA	0.29 U	0.21 U	0.33 U	0.12 U	0.18 U	0.34 U	0.22 U	0.16 U	0.27 U	0.057 U
NICKEL	160	NA	**0.57 J**	**1 J**	**1 J**	1.7 U	2 U	1.2 U	**4.1**	0.72 U	1.2 U	0.48 U
SELENIUM	39	NA	**0.45 J**	0.36 U	**0.63 J**	0.37 U	0.28 U	0.35 U	1.2 U	0.35 U	0.28 U	0.33 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-SB-179			GSP-SB-180				GSP-SB-181		
SAMPLE ID			GSP-SB-179-12-14	GSP-SB-179-4-6	GSP-SB-179-SS	GSP-SB-180-12-14	GSP-SB-180-4-6	GSP-SB-180-8-10	GSP-SB-180-SS	GSP-SB-181-12-14	GSP-SB-181-4-6	GSP-SB-181-8-10
			GSP-SB-179-12-14	GSP-SB-179-4-6	GSP-SB-179-SS	GSP-SB-180-12-14	GSP-SB-180-4-6	GSP-SB-180-8-10	GSP-SB-180-SS	GSP-SB-181-12-14	GSP-SB-181-4-6	GSP-SB-181-8-10
			REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20160113	20160113	20160113	20160114	20160114	20160114	20160114	20160114	20160114	20160114
TOP DEPTH	Residential		12	4	0	12	4	8	0	12	4	8
BOTTOM DEPTH	Soil Standard		14	6	2	14	6	10	2	14	6	10
SILVER	39	NA	0.053 U	0.066 U	0.068 U	0.069 U	0.053 U	0.066 U	**0.67 J**	0.064 U	0.052 U	0.061 U
THALLIUM	0.55	3.9	0.11 U	0.14 U	0.14 U	0.14 U	0.11 U	0.14 U	0.44 U	0.13 U	0.11 U	0.13 U
VANADIUM	7.8	30	**27**	**29**	72	**7.1**	**13**	**9.9**	**17**	**13**	**9.7**	**14**
ZINC	2300	NA	**1.6 J**	**5.2 J**	**6.7**	**3.9 J**	**6.1**	**2.6 J**	**20**	**2.1 J**	**4.4**	**1.4 J**
PETROLEUM HYDROCARBONS (MG/KG)												
DIESEL RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	230	NA	0.057 U	0.053 U	0.052 U	**0.17**	0.053 U	**0.088 J**	**0.45**	0.056 U	**0.94**	0.054 U
TPH (C10-C32)	230	NA	15 U	7.4 U	**60**	7.5 U	**20**	7.5 U	**1700**	7.9 U	**3000**	7.3 U
TCLP SEMIVOLATILES (MG/L)												
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	**0.00082 J**	NA	NA	NA	0.00017 U	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	**0.0012 J**	NA	NA	NA	0.0008 U	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	0.00027 U	NA	NA	NA	0.00027 U	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	0.00035 U	NA	NA	NA	**0.0017 J**	NA
TCLP HERBICIDES (MG/L)												
2,4-D	NA	NA	NA	NA	NA	NA	0.0019 UJ	NA	NA	NA	0.0019 UJ	NA
TCLP METALS (MG/L)												
ARSENIC	NA	NA	NA	NA	NA	NA	0.0086 U	NA	NA	NA	0.0072 U	NA
BARIUM	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	0.15 U	NA
CADMIUM	NA	NA	NA	NA	NA	NA	0.00014 U	NA	NA	NA	0.00014 U	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	0.0039 U	NA	NA	NA	0.0049 U	NA
LEAD	NA	NA	NA	NA	NA	NA	0.015 U	NA	NA	NA	0.0077 U	NA
MISCELLANEOUS PARAMETERS (%)												
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION				GSP-TP-01	GSP-TP-02	GSP-TP-03	GSP-TP-04	GSP-TP-05		GSP-TP-06	GSP-TP-07
SAMPLE ID			GSP-SB-181-SS	GSP-TP-1-10-12	GSP-TP-2-10-12	GSP-TP-3-5-7	GSP-TP-4-3-5	GSP-TP-5E-10-12	GSP-TP-5W-10-12	GSP-TP-6-4-6	GSP-TP-7-9-10
			GSP-SB-181-SS	GSP-TP-1-10-12	GSP-TP-2-10-12	GSP-TP-3-5-7	GSP-TP-4-3-5	GSP-TP-5E-10-12	GSP-TP-5W-10-12	GSP-TP-6-4-6	GSP-TP-7-9-10
			REC=11	REC=10	REC=10	REC=10	REC=10	REC=10	REC=10	REC=09	REC=09
SAMPLE DATE	Maryland	ATCs	20160114	20110607	20110607	20110608	20110608	20110608	20110608	20110609	20110609
TOP DEPTH	Residential		0	10	10	5	3	10	10	4	9
BOTTOM DEPTH	Soil Standard		2	12	12	7	5	12	12	6	10
VOLATILES (MG/KG)											
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.00036 U	0.0011 U	0.0012 U	0.0012 U	0.0012 U	0.24 U	0.035 U	0.0012 U	0.0013 U
1,1-DICHLOROETHENE	390	NA	0.00069 U	0.00045 U	0.00047 U	0.00047 U	0.00047 U	0.11 U	0.016 U	0.00048 U	0.00051 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00043 U	0.00033 U	0.00034 U	0.00035 U	0.00034 U	0.063 U	0.0091 U	0.00035 U	0.00037 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.0004 U	0.00015 U	0.00015 U	0.00016 U	0.00015 U	**0.62 J**	**0.076 J**	**0.0014 J**	0.00017 U
1,2,4-TRICHLOROBENZENE	78	NA	0.00033 U	0.00024 U	0.00024 U	0.00025 U	0.00024 U	0.046 U	0.0066 U	0.00025 U	0.00026 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.0005 U	0.00057 U	0.00058 U	0.00059 U	0.00058 U	**0.94 J**	**0.21 J**	**0.0018 J**	0.00064 U
1,2-DICHLOROBENZENE	700	NA	0.00029 U	0.00031 U	0.00032 U	0.00033 U	0.00032 U	0.054 U	0.0078 U	0.00033 U	0.00035 U
1,2-DICHLOROETHANE	7	NA	0.0004 U	0.0003 U	0.0003 U	0.00031 U	0.00031 U	0.063 U	0.0091 U	0.00031 U	0.00033 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00059 U	0.0003 U	0.00031 U	0.00032 U	0.00031 U	0.03 U	0.0044 U	0.00032 U	0.00034 U
1,4-DICHLOROBENZENE	27	NA	0.00024 U	0.00057 U	0.00059 U	0.0006 U	0.00059 U	0.05 U	0.0073 U	0.0006 U	0.00065 U
2-BUTANONE	4700	NA	0.00096 U	0.0012 U	0.0013 U	0.0013 U	0.0013 U	0.27 U	**0.097 J**	**0.013 J**	0.0014 U
2-HEXANONE	NA	NA	0.00059 U	0.00055 U	0.00056 U	0.00057 U	0.00057 U	0.13 U	0.018 U	**0.0011 J**	0.00062 U
4-ISOPROPYLTOLUENE	NA	NA	0.00035 U	0.00018 U	0.00019 U	0.00019 U	0.00019 U	**0.19 J**	0.0044 U	**0.00025 J**	0.00021 U
4-METHYL-2-PENTANONE	NA	NA	0.0011 U	0.00047 U	0.00048 U	0.00049 U	0.00049 U	0.3 U	0.044 U	0.00049 U	0.00053 U
ACETONE	7000	NA	0.0049 U	**0.0062 B**	**0.0098 B**	**0.027 B**	0.0057 U	1.1 U	0.15 U	**0.082 B**	0.0062 U
BENZENE	12	NA	0.00078 U	0.0002 U	0.00021 U	0.00021 U	0.00021 U	0.075 U	0.011 U	0.00021 U	0.00023 U
BROMOMETHANE	11	NA	0.00036 U	0.00047 U	0.00048 U	0.00049 U	0.00049 U	0.18 U	0.026 U	0.00049 U	0.00053 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00051 U	0.00038 U	0.00039 U	0.0004 U	0.0004 U	0.075 U	**0.012 J**	**0.0013 J**	0.00043 U
CARBON TETRACHLORIDE	4.9	NA	0.00056 UJ	0.00032 U	0.00033 U	0.00034 U	0.00033 U	0.04 U	0.0058 U	0.00034 U	0.00036 U
CHLOROBENZENE	160	NA	0.00046 U	0.00029 U	0.0003 U	0.0003 U	0.0003 U	0.04 U	0.0058 U	0.0003 U	0.00032 U
CHLOROETHANE	220	NA	0.00038 U	0.00075 UJ	0.00077 UJ	0.00078 UJ	0.00077 UJ	0.38 U	0.056 U	0.00079 UJ	0.00084 UJ
CHLOROFORM	78	NA	0.00031 U	0.00025 U	0.00026 U	0.00026 U	0.00026 U	0.055 U	0.008 U	0.00027 U	0.00028 U
CHLOROMETHANE	NA	NA	0.00068 U	0.00036 U	0.00037 U	0.00037 U	0.00037 U	0.088 U	0.013 U	0.00038 U	0.0004 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00024 U	0.00031 U	0.00032 U	0.00033 U	0.00032 U	0.043 U	0.0063 U	0.00033 U	0.00035 U
DIISOPROPYL ETHER	NA	NA	0.00051 U	0.0013 U	0.0013 U	0.0014 U	0.0013 U	0.31 U	0.045 U	0.0014 U	0.0015 U
ETHYLBENZENE	780	NA	0.00028 U	0.00023 U	0.00023 U	0.00024 U	0.00023 U	**0.27 J**	**0.068 J**	**0.00041 J**	0.00025 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00017 U	0.00014 U	0.00014 U	0.00015 U	0.00014 U	0.041 U	**0.058 J**	0.00015 U	0.00016 U
M+P-XYLENES	NA	NA	0.00036 U	0.001 U	0.0011 U	0.0011 U	0.0011 U	**0.31 J**	0.0056 U	**0.0019 J**	0.0012 U
METHYL TERT-BUTYL ETHER	160	NA	0.00037 U	0.00037 U	0.00038 U	0.00039 U	0.00039 U	0.045 U	0.0065 U	0.00039 U	0.00042 U
METHYLENE CHLORIDE	85	NA	0.00064 U	**0.0035 B**	**0.003 B**	**0.0083 B**	**0.0045 B**	**0.51 B**	0.07 U	**0.0051 B**	**0.0056 B**
NAPHTHALENE	160	NA	0.0003 U	0.00017 U	0.00017 U	0.00017 U	**0.00022 B**	**42**	**8.6**	**0.021**	0.00019 U
N-BUTYLBENZENE	NA	NA	0.00051 U	0.0002 U	0.00021 U	0.00021 U	0.00021 U	**0.27 J**	**0.11 J**	0.00021 U	0.00023 U
N-PROPYLBENZENE	NA	NA	0.00052 U	0.00035 U	0.00036 U	0.00037 U	0.00036 U	**0.2 J**	**0.085 J**	0.00037 U	0.00039 U
O-XYLENE	NA	NA	0.00049 U	0.0003 U	0.00031 U	0.00032 U	0.00031 U	**0.23 J**	0.0077 U	**0.0012 J**	0.00034 U
SEC-BUTYLBENZENE	NA	NA	0.00078 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U	**0.15 J**	**0.075 J**	0.00016 U	0.00018 U
STYRENE	1600	NA	0.00034 U	0.00013 UJ	0.00013 UJ	0.00014 U	0.00013 U	0.035 U	0.0051 U	0.00014 U	0.00015 U
TERT-AMYL METHYL ETHER	NA	NA	0.00037 U	0.00032 U	0.00033 U	0.00034 U	0.00033 U	0.0023 U	0.00034 U	0.00034 U	0.00036 U
TERT-BUTYLBENZENE	NA	NA	0.00058 U	0.00025 U	0.00026 U	0.00026 U	0.00026 U	0.041 U	0.0059 U	0.00027 U	0.00028 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0049 U	0.0066 UR	0.0068 UR	0.0069 UR	0.0068 UR	1.5 UR	0.22 UR	0.007 UR	0.0074 UR
TETRACHLOROETHENE	1.2	NA	0.00069 U	0.00045 U	0.00047 U	0.00047 U	0.00047 U	0.075 U	0.011 U	0.00048 U	0.00051 U
TOLUENE	630	NA	0.00023 U	**0.00024 J**	**0.00029 J**	**0.00027 J**	**0.00031 J**	0.11 U	0.015 U	**0.00079 J**	0.00026 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00047 U	0.00058 U	0.0006 U	0.00061 U	0.0006 U	**0.54 J**	0.0074 U	**0.0031 J**	0.00066 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00028 U	0.00036 U	0.00037 U	0.00037 U	0.00037 U	0.058 U	0.0084 U	0.00038 U	0.0004 U
TRICHLOROETHENE	1.6	NA	0.00033 U	0.00037 U	0.00038 U	0.00038 U	0.00038 U	0.061 U	0.0088 U	0.00038 U	0.00041 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00025 UJ	0.0003 U	0.0003 U	0.00031 U	0.00031 U	0.1 U	0.015 U	0.00031 U	0.00033 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00026 U	0.00034 U	0.00035 U	0.00036 U	0.00035 U	0.11 U	0.016 U	0.00036 U	0.00038 U
SEMIVOLATILES (MG/KG)											
1,1-BIPHENYL	NA	NA	0.0043 U	0.031 U	0.032 U	0.03 UJ	0.13 UJ	**1.1 J**	0.16 UJ	0.15 UJ	0.034 UJ
2,4-DICHLOROPHENOL	23	NA	0.025 U	0.023 U	0.024 U	0.022 U	0.094 U	0.3 U	0.12 U	0.11 U	0.025 U
2-CHLOROPHENOL	39	NA	0.01 U	0.031 U	0.032 U	0.03 U	0.13 U	0.4 U	0.16 U	0.15 U	0.034 U
2-METHYLNAPHTHALENE	31	NA	**0.033**	0.0038 U	0.0039 U	0.0036 U	**0.044**	**13**	**1.3**	**0.074**	0.0041 U
3&4-METHYLPHENOL	NA	NA	0.025 U	0.023 U	0.024 U	0.022 U	0.094 U	0.3 U	0.12 U	0.11 U	0.025 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION				GSP-TP-01	GSP-TP-02	GSP-TP-03	GSP-TP-04	GSP-TP-05		GSP-TP-06	GSP-TP-07
SAMPLE ID			GSP-SB-181-SS	GSP-TP-1-10-12	GSP-TP-2-10-12	GSP-TP-3-5-7	GSP-TP-4-3-5	GSP-TP-5E-10-12	GSP-TP-5W-10-12	GSP-TP-6-4-6	GSP-TP-7-9-10
			GSP-SB-181-SS	GSP-TP-1-10-12	GSP-TP-2-10-12	GSP-TP-3-5-7	GSP-TP-4-3-5	GSP-TP-5E-10-12	GSP-TP-5W-10-12	GSP-TP-6-4-6	GSP-TP-7-9-10
			REC=11	REC=10	REC=10	REC=10	REC=10	REC=10	REC=10	REC=09	REC=09
SAMPLE DATE	Maryland	ATCs	20160114	20110607	20110607	20110608	20110608	20110608	20110608	20110609	20110609
TOP DEPTH	Residential		0	10	10	5	3	10	10	4	9
BOTTOM DEPTH	Soil Standard		2	12	12	7	5	12	12	6	10
ACENAPHTHENE	470	NA	**0.04**	0.0038 U	0.0039 U	0.0036 U	**0.048**	**2**	**0.85**	**0.045**	0.0041 U
ACENAPHTHYLENE	470	NA	**0.011**	0.0038 U	0.0039 U	0.0036 U	**0.19**	**0.23**	**0.14**	**0.054**	0.0041 U
ANTHRACENE	2300	NA	**0.14**	0.0038 U	0.0039 U	0.0036 U	**0.29**	**3**	**1.5**	**0.14**	0.0041 U
BAP EQUIVALENT-HALFND	NA	NA	**0.95277**	0.0038 U	0.0039 U	0.0036 U	**2.1318**	**2.389**	**2.6869**	**0.68672**	0.0041 U
BAP EQUIVALENT-POS	NA	NA	**0.95277**	0.0038 U	0.0039 U	0.0036 U	**2.1318**	**2.389**	**2.6869**	**0.68672**	0.0041 U
BENZALDEHYDE	NA	NA	0.015 U	0.014 U	0.014 U	0.013 U	0.057 U	0.18 U	0.069 U	0.067 U	0.015 U
BENZO(A)ANTHRACENE	0.22	NA	**0.72**	0.0038 U	0.0039 U	0.0036 U	**1.1**	**2.5**	**1.9**	**0.42**	0.0041 U
BENZO(A)PYRENE	0.022	NA	**0.67**	0.0038 U	0.0039 U	0.0036 U	**1.5**	**1.7**	**1.8**	**0.47**	0.0041 U
BENZO(B)FLUORANTHENE	0.22	NA	**0.87**	0.0038 U	0.0039 U	0.0036 U	**1.8**	**1.5**	**2**	**0.57**	0.0041 U
BENZO(G,H,I)PERYLENE	230	NA	**0.28**	0.0038 U	0.0039 U	0.0036 U	**1.2**	**0.88**	**1.2**	**0.35**	0.0041 U
BENZO(K)FLUORANTHENE	2.2	NA	**0.5**	0.0038 U	0.0039 U	0.0036 U	**0.75**	**0.76**	**0.59**	**0.22**	0.0041 U
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	0.023 U	0.022 U	0.023 U	**0.028 J**	0.09 U	0.28 U	**0.14 J**	0.11 U	0.024 U
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.012 U	0.012 U	0.011 U	0.047 U	0.15 U	0.058 U	0.056 U	0.013 U
CAPROLACTAM	NA	NA	0.046 U	0.043 U	0.044 U	0.041 U	0.17 U	0.55 U	0.21 U	0.21 U	0.046 U
CARBAZOLE	32	NA	**0.046 J**	0.031 U	0.032 U	0.03 U	0.13 U	0.4 U	0.16 U	0.15 U	0.034 U
CHRYSENE	22	NA	**0.77**	0.0013 U	0.0013 U	0.0012 U	**1.3**	**2.4**	**2**	**0.52**	0.0014 U
DIBENZO(A,H)ANTHRACENE	0.022	NA	**0.09**	0.0038 U	0.0039 U	0.0036 U	**0.24**	**0.21**	**0.39**	**0.088**	0.0041 U
DIBENZOFURAN	7.8	NA	**0.014 J**	0.0038 U	**0.022 J**	0.0036 U	0.016 U	**0.61 J**	**0.28 J**	0.019 U	0.0041 U
DIETHYL PHTHALATE	6300	NA	0.02 U	0.019 U	0.019 U	0.018 U	0.075 U	0.24 U	0.092 U	0.09 U	0.02 U
DIMETHYL PHTHALATE	NA	NA	0.021 U	0.02 U	0.02 U	0.019 U	0.08 U	0.25 U	0.098 U	0.095 U	0.021 U
DI-N-BUTYL PHTHALATE	780	NA	0.018 U	0.017 U	0.018 U	**0.018 J**	0.071 U	0.22 U	0.087 U	0.084 U	0.019 U
FLUORANTHENE	310	NA	**1.3**	0.0038 U	0.0039 U	0.0036 U	**2.1**	**5.1**	**3.5**	**0.82**	0.0041 U
FLUORENE	310	NA	**0.039**	0.0038 U	0.0039 U	0.0036 U	**0.067**	**3.9**	**1.7**	**0.062**	0.0041 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	**5.38**	0 U	**0.011**	0 U	**10.72**	**17.24**	**15.27**	**3.768**	0 U
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	0.01775 U	**0.02725**	0.0168 U	**12.82**	**22.34**	**18.77**	**4.588**	0.01915 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**5.38**	**0.01585**	**0.0253**	**0.015**	**10.72**	**17.24**	**15.27**	**3.768**	**0.0171**
INDENO(1,2,3-CD)PYRENE	0.22	NA	**0.28**	0.0038 U	0.0039 U	0.0036 U	**0.93**	**0.69**	**0.99**	**0.27**	0.0041 U
ISOPHORONE	670	NA	0.016 U	0.015 U	0.016 U	0.014 U	0.061 U	0.19 U	0.075 U	0.073 U	0.016 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	**2.283**	0 U	**0.018**	0 U	**3.456**	**57.23**	**18.29**	**1.729**	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	0.0133 U	**0.0297**	0.0126 U	**1.356**	**52.13**	**14.79**	**0.909**	0.01435 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**2.283**	**0.0152**	**0.03165**	**0.0144**	**3.456**	**57.23**	**18.29**	**1.729**	**0.0164**
NAPHTHALENE	160	NA	**0.17**	0.0038 U	0.0039 U	0.0036 U	**0.057**	**17**	**3.1**	**0.074**	0.0041 U
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.0078 U	0.031 U	0.032 U	0.03 U	0.13 U	0.4 U	0.16 U	0.15 U	0.034 U
PENTACHLOROPHENOL	5.3	NA	0.011 U	0.093 U	0.096 U	0.088 U	0.38 U	1.2 U	0.46 U	0.45 U	0.1 U
PHENANTHRENE	2300	NA	**0.55**	0.0038 U	**0.018**	0.0036 U	**0.66**	**13**	**6.2**	**0.46**	0.0041 U
PHENOL	2300	NA	0.009 U	0.031 U	0.032 U	0.03 U	0.13 U	0.4 U	0.16 U	0.15 U	0.034 U
PYRENE	230	NA	**1.2**	0.0038 U	**0.011**	0.0036 U	**1.9**	**6.6**	**4.4**	**0.86**	0.0041 U
TOTAL PAHS	NA	NA	NA	0 U	**0.029**	0 U	**14.176**	**74.47**	**33.56**	**5.497**	0 U
TOTAL PAHS ECO HALFND	NA	NA	NA	0.03105 U	**0.05695**	0.0294 U	**14.176**	**74.47**	**33.56**	**5.497**	0.0335 U
TOTAL PAHS HALFND	NA	NA	NA	0.03105 U	**0.05695**	0.0294 U	**14.176**	**74.47**	**33.56**	**5.497**	0.0335 U
PCBS (MG/KG)											
AROCLOR-1242	0.32	NA	0.013 U	0.015 U	0.016 U	0.014 U	0.077 U	0.016 U	0.015 U	0.015 U	0.016 U
AROCLOR-1260	0.32	NA	**0.015 J**	0.02 U	0.02 U	0.019 U	0.1 U	0.02 U	0.02 U	0.019 U	0.021 U
TOTAL AROCLOR	0.32	NA	**0.015**	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.0649**	**0.0675**	**0.0685**	**0.0635**	**0.337**	**0.0685**	**0.0665**	**0.065**	**0.0715**
METALS (MG/KG)											
ANTIMONY	3.1	NA	0.46 U	0.45 UL	0.43 UL	0.43 UL	**0.77 J**	**0.7 J**	**0.79 J**	0.43 UL	0.49 UL
ARSENIC	0.43	3.6	**3.1**	**0.4 J**	**0.52 J**	**1.9**	**3.1**	**1.5**	**3.1**	**2.6**	**0.5 J**
BARIUM	1600	NA	**38**	**12 J**	**13 J**	**3.9 J**	**50**	**120**	**110**	**46**	**6.6 J**
BERYLLIUM	16	NA	0.44 U	0.05 U	**0.33 J**	0.047 U	**0.5**	0.039 U	0.047 U	**0.14 J**	0.054 U
CADMIUM	3.9	NA	**0.64**	0.042 U	0.039 U	0.039 U	**0.85**	0.033 U	0.039 U	0.04 U	0.045 U
CHROMIUM	23	28	**26**	**6.9**	**20**	**5.6 K**	**15**	**28 K**	**23 K**	**9 K**	**6.2 K**
COBALT	NA	NA	**3.8**	**3.1**	**2.6**	**0.21 J**	**3.4**	**7.3**	**8.8**	**2.8**	0.2 U
COPPER	310	NA	**15**	**4.7 L**	**170**	**1.5 J**	**12**	**26**	**20**	**7.4**	0.93 U
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**27**	**2.5**	**4.3**	**2.1 K**	**41**	**7.2**	**18**	**11**	**2.5 K**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	**0.24**	0.016 U	0.013 U	0.014 U	**0.064 J**	**0.074 J**	**0.093**	**0.048 J**	0.013 U
MOLYBDENUM	NA	NA	0.47 U	0.31 U	**0.66 B**	**0.5 B**	0.27 U	0.25 U	**0.98 B**	**0.46 B**	0.34 U
NICKEL	160	NA	**9**	**0.79 J**	**3.4 J**	0.3 U	**9.4**	**9.8**	**12**	**4.8**	0.34 U
SELENIUM	39	NA	0.33 U	0.52 U	0.49 U	0.49 U	0.45 U	0.41 U	0.49 U	0.49 U	0.57 U

Table D-1
Soil Chemical Detection Summy Table
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LOCATION			GSP-SB-181-SS	GSP-TP-01	GSP-TP-02	GSP-TP-03	GSP-TP-04	GSP-TP-05		GSP-TP-06	GSP-TP-07
SAMPLE ID			GSP-SB-181-SS	GSP-TP-1-10-12	GSP-TP-2-10-12	GSP-TP-3-5-7	GSP-TP-4-3-5	GSP-TP-5E-10-12	GSP-TP-5W-10-12	GSP-TP-6-4-6	GSP-TP-7-9-10
			REC=11	REC=10	REC=10	REC=10	REC=10	REC=10	REC=10	REC=09	REC=09
SAMPLE DATE	Maryland	ATCs	20160114	20110607	20110607	20110608	20110608	20110608	20110608	20110609	20110609
TOP DEPTH	Residential		0	10	10	5	3	10	10	4	9
BOTTOM DEPTH	Soil Standard		2	12	12	7	5	12	12	6	10
SILVER	39	NA	**0.42 J**	0.12 U	0.11 U	0.11 U	**0.17 J**	0.091 U	0.11 U	0.11 U	0.13 U
THALLIUM	0.55	3.9	0.13 U	0.64 UL	0.6 UL	0.6 U	**0.92 J**	**1.3 J**	**1.1 J**	**0.69 J**	0.69 U
VANADIUM	7.8	30	**26**	**7.1**	**15**	**12**	**27**	34	36	**18**	**3.3**
ZINC	2300	NA	**55**	**2.9 J**	**2.3 J**	**1.8 J**	**47**	**50**	**57**	**23**	**1.8 J**
PETROLEUM HYDROCARBONS (MG/KG)											
DIESEL RANGE ORGANICS	230	NA	NA	11 U	11 U	10 U	**1100 J**	**700**	**480**	**190**	12 U
GASOLINE RANGE ORGANICS	230	NA	NA	0.029 U	0.03 U	0.028 U	0.03 U	**88**	**41**	0.028 U	0.031 U
TPH (C06-C10)	230	NA	0.057 U	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	230	NA	**78**	NA	NA	NA	NA	NA	NA	NA	NA
TCLP SEMIVOLATILES (MG/L)											
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP HERBICIDES (MG/L)											
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP METALS (MG/L)											
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)											
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-1
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LOCATION			GSP-TP-08	GSP-TP-09	GSP-TP-10	GSP-TP-11	GSP-TP-12	GSP-TP-15_Blue	GSP-TP-15_Concrete	GSP-TP-15_Green
SAMPLE ID			GSP-TP-8-6-7	GSP-TP-9-8-10	GSP-TP-10-10-12	GSP-TP-11-7-8	GSP-TP-12-8-9	GSP-TP-15-W-3-4-B	GSP-TP-15-W-CG	GSP-TP-15-W-3-4-G
			GSP-TP-8-6-7	GSP-TP-9-8-10	GSP-TP-10-10-12	GSP-TP-11-7-8	GSP-TP-12-8-9	GSP-TP-15-W-3-4-B	GSP-TP-15-W-CG	GSP-TP-15-W-3-4-G
			REC=09	REC=09	REC=08	REC=08	REC=08	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20110608	20110609	20110609	20110609	20110609	20160107	20160107	20160107
TOP DEPTH	Residential		6	8	10	7	8	3	3	3
BOTTOM DEPTH	Soil Standard		7	10	12	8	9	4	4	4
VOLATILES (MG/KG)										
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.0014 U	0.0012 U	0.0014 U	0.001 U	0.0014 U	0.00043 U	NA	0.00045 U
1,1-DICHLOROETHENE	390	NA	0.00057 U	0.00048 U	0.00056 U	0.0004 U	0.00056 U	0.00082 U	NA	0.00086 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.00041 U	0.00035 U	0.00041 U	0.00029 U	0.00041 U	0.00051 U	NA	0.00054 U
1,2,3-TRIMETHYLBENZENE	NA	NA	0.00019 U	0.00016 U	0.00018 U	0.00013 U	0.00018 U	**0.00053 J**	NA	**0.0011 J**
1,2,4-TRICHLOROBENZENE	78	NA	0.00029 U	0.00025 U	0.00029 U	0.00021 U	0.00029 U	0.00039 U	NA	0.00041 U
1,2,4-TRIMETHYLBENZENE	NA	NA	0.00071 U	0.0006 U	0.0007 U	0.0005 U	0.0007 U	**0.0021 J**	NA	**0.0013 J**
1,2-DICHLOROBENZENE	700	NA	0.00039 U	0.00033 U	0.00039 U	0.00028 U	0.00039 U	0.00035 U	NA	0.00037 U
1,2-DICHLOROETHANE	7	NA	0.00037 U	0.00031 U	0.00037 U	0.00026 U	0.00037 U	0.00047 U	NA	0.0005 U
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	23	NA	0.00038 U	0.00032 U	0.00038 U	0.00027 U	0.00038 U	0.00071 U	NA	0.00075 U
1,4-DICHLOROBENZENE	27	NA	0.00072 U	0.00061 U	0.00071 U	0.00051 U	0.00071 U	0.00029 U	NA	0.0003 U
2-BUTANONE	4700	NA	0.0015 U	0.0013 U	0.0015 U	0.0011 U	0.0015 U	**0.0067 J**	NA	**0.0038 J**
2-HEXANONE	NA	NA	0.00069 U	0.00058 U	0.00068 U	0.00049 U	0.00068 U	0.0007 U	NA	0.00073 U
4-ISOPROPYLTOLUENE	NA	NA	0.00023 U	0.00019 U	0.00023 U	0.00016 U	0.00023 U	**0.001 J**	NA	0.00044 U
4-METHYL-2-PENTANONE	NA	NA	0.00059 U	0.0005 U	**0.00082 J**	0.00042 U	0.00058 U	0.0013 U	NA	0.0013 U
ACETONE	7000	NA	0.0069 U	**0.017 B**	**0.037 B**	0.0049 U	0.0068 U	0.037 U	NA	0.023 U
BENZENE	12	NA	0.00025 U	0.00021 U	0.00025 U	0.00018 U	0.00025 U	0.00092 U	NA	0.00097 U
BROMOMETHANE	11	NA	0.00059 U	0.0005 U	0.00058 U	0.00042 U	0.00058 U	0.00043 U	NA	0.00045 U
BTEX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (1/2 ND)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BTEX (POS)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAMPHOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	780	NA	0.00048 U	0.00041 U	0.00047 U	0.00034 U	0.00047 U	**0.0007 J**	NA	**0.00065 J**
CARBON TETRACHLORIDE	4.9	NA	0.0004 U	0.00034 U	0.0004 U	0.00029 U	0.0004 U	0.00067 U	NA	0.0007 U
CHLOROBENZENE	160	NA	0.00036 U	0.0003 U	0.00036 U	0.00026 U	0.00036 U	0.00054 U	NA	0.00057 U
CHLOROETHANE	220	NA	0.00094 U	0.00079 UJ	0.00093 UJ	0.00067 UJ	0.00093 UJ	0.00045 U	NA	0.00048 U
CHLOROFORM	78	NA	0.00032 U	0.00027 U	0.00031 U	0.00022 U	0.00031 U	0.00037 U	NA	0.00039 U
CHLOROMETHANE	NA	NA	0.00045 U	0.00038 U	0.00044 U	0.00032 U	0.00044 U	0.00081 U	NA	0.00085 U
CIS-1,2-DICHLOROETHENE	78	NA	0.00039 U	0.00033 U	0.00039 U	0.00028 U	0.00039 U	0.00029 U	NA	0.0003 U
DIISOPROPYL ETHER	NA	NA	0.0016 U	0.0014 U	0.0016 U	0.0012 U	0.0016 U	0.0006 U	NA	0.00064 U
ETHYLBENZENE	780	NA	0.00028 U	0.00024 U	0.00028 U	0.0002 U	0.00028 U	0.00033 U	NA	0.00035 U
FLUORODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	780	NA	0.00017 U	0.00015 U	0.00017 U	0.00012 U	0.00017 U	0.00021 U	NA	0.00022 U
M+P-XYLENES	NA	NA	0.0013 U	0.0011 U	0.0013 U	0.00093 U	0.0013 U	0.00043 U	NA	0.00045 U
METHYL TERT-BUTYL ETHER	160	NA	0.00047 U	0.0004 U	0.00046 U	0.00033 U	0.00046 U	0.00044 U	NA	0.00046 U
METHYLENE CHLORIDE	85	NA	0.00073 U	**0.0039 B**	**0.0089 B**	**0.0031 B**	**0.0073 B**	0.0041 U	NA	0.0048 U
NAPHTHALENE	160	NA	**0.0018 B**	**0.0003 B**	**0.0006 B**	**0.00019 B**	**0.0002 B**	**0.00085 J**	NA	**0.0013 J**
N-BUTYLBENZENE	NA	NA	0.00025 U	0.00021 U	0.00025 U	0.00018 U	0.00025 U	**0.0016 J**	NA	**0.00066 J**
N-PROPYLBENZENE	NA	NA	0.00044 U	0.00037 U	0.00043 U	0.00031 U	0.00043 U	0.00062 U	NA	0.00065 U
O-XYLENE	NA	NA	0.00038 U	0.00032 U	0.00038 U	0.00027 U	0.00038 U	0.00058 U	NA	0.00062 U
SEC-BUTYLBENZENE	NA	NA	0.0002 U	0.00017 U	0.00019 U	0.00014 U	0.00019 U	**0.00097 J**	NA	0.00098 U
STYRENE	1600	NA	0.00016 U	0.00014 U	0.00016 U	0.00012 U	0.00016 U	0.00041 U	NA	0.00043 U
TERT-AMYL METHYL ETHER	NA	NA	0.0004 U	0.00034 U	0.0004 U	0.00029 U	0.0004 U	0.00044 U	NA	0.00046 U
TERT-BUTYLBENZENE	NA	NA	0.00032 U	0.00027 U	0.00031 U	0.00022 U	0.00031 U	0.00069 U	NA	0.00072 U
TERTIARY-BUTYL ALCOHOL	NA	NA	0.0083 UR	0.007 UR	0.0082 UR	0.0059 UR	0.0082 UR	0.0059 U	NA	0.0062 U
TETRACHLOROETHENE	1.2	NA	0.00057 U	0.00048 U	0.00056 U	0.0004 U	0.00056 U	0.00082 U	NA	0.00086 U
TOLUENE	630	NA	0.00029 U	0.00025 U	**0.00038 J**	0.00021 U	0.00029 U	0.00028 U	NA	0.00029 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1600	NA	0.00073 U	0.00062 U	0.00072 U	0.00052 U	0.00072 U	0.00055 U	NA	0.00058 U
TRANS-1,2-DICHLOROETHENE	160	NA	0.00045 U	0.00038 U	0.00044 U	0.00032 U	0.00044 U	0.00033 U	NA	0.00035 U
TRICHLOROETHENE	1.6	NA	0.00046 U	0.00039 U	0.00045 U	0.00033 U	0.00045 U	0.00039 U	NA	0.00041 U
TRICHLOROFLUOROMETHANE	NA	NA	0.00037 U	0.00031 U	0.00037 U	0.00026 U	0.00037 U	0.0003 U	NA	0.00031 U
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.09	NA	0.00043 U	0.00036 U	0.00042 U	0.0003 U	0.00042 U	0.00031 U	NA	0.00032 U
SEMIVOLATILES (MG/KG)										
1,1-BIPHENYL	NA	NA	0.032 UJ	0.033 UJ	0.031 UJ	0.031 UJ	0.033 UJ	0.0041 U	NA	0.0039 U
2,4-DICHLOROPHENOL	23	NA	0.024 U	0.024 U	0.023 U	0.023 U	0.024 U	0.023 U	NA	0.022 U
2-CHLOROPHENOL	39	NA	0.032 U	0.033 U	0.031 U	0.031 U	0.033 U	0.0095 U	NA	0.0092 U
2-METHYLNAPHTHALENE	31	NA	0.004 U	0.004 U	0.0038 U	0.0037 U	0.004 U	0.00058 U	NA	**0.024**
3&4-METHYLPHENOL	NA	NA	0.024 U	0.024 U	0.023 U	0.023 U	0.024 U	0.023 U	NA	0.022 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-TP-08	GSP-TP-09	GSP-TP-10	GSP-TP-11	GSP-TP-12	GSP-TP-15_Blue	GSP-TP-15_Concrete	GSP-TP-15_Green
SAMPLE ID			GSP-TP-8-6-7	GSP-TP-9-8-10	GSP-TP-10-10-12	GSP-TP-11-7-8	GSP-TP-12-8-9	GSP-TP-15-W-3-4-B	GSP-TP-15-W-CG	GSP-TP-15-W-3-4-G
			GSP-TP-8-6-7	GSP-TP-9-8-10	GSP-TP-10-10-12	GSP-TP-11-7-8	GSP-TP-12-8-9	GSP-TP-15-W-3-4-B	GSP-TP-15-W-CG	GSP-TP-15-W-3-4-G
			REC=09	REC=09	REC=08	REC=08	REC=08	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20110608	20110609	20110609	20110609	20110609	20160107	20160107	20160107
TOP DEPTH	Residential		6	8	10	7	8	3	3	3
BOTTOM DEPTH	Soil Standard		7	10	12	8	9	4	4	4
ACENAPHTHENE	470	NA	0.004 U	0.004 U	0.0038 U	0.0037 U	0.004 U	**0.0062 J**	NA	**0.013**
ACENAPHTHYLENE	470	NA	0.004 U	0.004 U	0.0038 U	0.0037 U	0.004 U	0.00041 U	NA	0.00039 U
ANTHRACENE	2300	NA	0.004 U	0.004 U	0.0038 U	0.0037 U	0.004 U	**0.013**	NA	**0.012**
BAP EQUIVALENT-HALFND	NA	NA	**0.004941**	0.004 U	0.0038 U	0.0037 U	0.004 U	**0.073226**	NA	**0.024517**
BAP EQUIVALENT-POS	NA	NA	**0.00052**	0.004 U	0.0038 U	0.0037 U	0.004 U	**0.073226**	NA	**0.024147**
BENZALDEHYDE	NA	NA	0.014 U	0.015 U	0.014 U	0.014 U	0.014 U	0.014 U	NA	0.013 U
BENZO(A)ANTHRACENE	0.22	NA	0.004 U	0.004 U	0.0038 U	0.0037 U	0.004 U	**0.049**	NA	**0.021**
BENZO(A)PYRENE	0.022	NA	0.004 U	0.004 U	0.0038 U	0.0037 U	0.004 U	**0.048**	NA	**0.018**
BENZO(B)FLUORANTHENE	0.22	NA	**0.0052 J**	0.004 U	0.0038 U	0.0037 U	0.004 U	**0.069**	NA	**0.026**
BENZO(G,H,I)PERYLENE	230	NA	0.004 U	0.004 U	0.0038 U	0.0037 U	0.004 U	**0.046**	NA	**0.018**
BENZO(K)FLUORANTHENE	2.2	NA	0.004 U	0.004 U	0.0038 U	0.0037 U	0.004 U	**0.027**	NA	**0.012**
BIS(2-ETHYLHEXYL)PHTHALATE	46	NA	**0.025 J**	0.023 U	0.022 U	0.022 U	0.023 U	0.07 U	NA	0.046 U
BUTYL BENZYL PHTHALATE	NA	NA	0.012 U	0.012 U	0.012 U	0.011 U	0.012 U	0.012 U	NA	0.011 U
CAPROLACTAM	NA	NA	0.044 UJ	0.045 U	0.043 U	0.042 U	0.045 U	**0.077 J**	NA	0.042 U
CARBAZOLE	32	NA	0.032 U	0.033 U	0.031 U	0.031 U	0.033 U	0.031 U	NA	**0.03 J**
CHRYSENE	22	NA	0.0013 U	0.0013 U	0.0013 U	0.0012 U	0.0013 U	**0.056**	NA	**0.027**
DIBENZO(A,H)ANTHRACENE	0.022	NA	0.004 U	0.004 U	0.0038 U	0.0037 U	0.004 U	**0.01**	NA	0.00074 U
DIBENZOFURAN	7.8	NA	0.004 U	0.004 U	0.0038 U	0.0037 U	0.004 U	0.00077 U	NA	**0.011 J**
DIETHYL PHTHALATE	6300	NA	0.019 U	0.019 U	0.019 U	0.018 U	0.019 U	0.019 U	NA	0.018 U
DIMETHYL PHTHALATE	NA	NA	0.02 U	0.021 U	0.02 U	0.019 U	0.021 U	0.02 U	NA	0.019 U
DI-N-BUTYL PHTHALATE	780	NA	0.018 U	**0.02 J**	0.017 U	0.017 U	0.018 U	0.017 U	NA	0.017 U
FLUORANTHENE	310	NA	**0.0083**	0.004 U	0.0038 U	0.0037 U	0.004 U	**0.1**	NA	**0.053**
FLUORENE	310	NA	0.004 U	0.004 U	0.0038 U	0.0037 U	0.004 U	**0.0063 J**	NA	**0.015**
HIGH MOLECULAR WEIGHT PAHS	NA	NA	**0.0118**	0 U	0 U	0 U	0 U	**0.433**	NA	**0.187**
HIGH MOLECULAR WEIGHT PAHS ECOSD	NA	NA	**0.03275**	0.01865 U	0.01775 U	0.01725 U	0.01865 U	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.02445**	**0.01665**	**0.01585**	**0.0154**	**0.01665**	**0.433**	NA	**0.18737**
INDENO(1,2,3-CD)PYRENE	0.22	NA	0.004 U	0.004 U	0.0038 U	0.0037 U	0.004 U	**0.031**	NA	**0.013**
ISOPHORONE	670	NA	0.016 U	0.016 U	0.015 U	0.015 U	0.016 U	0.025 U	NA	0.027 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	**0.0083**	0 U	0 U	0 U	0 U	**0.1845**	NA	**0.198**
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	0.014 U	0.014 U	0.0133 U	0.01295 U	0.014 U	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.0223**	**0.016**	**0.0152**	**0.0148**	**0.016**	**0.18547**	NA	**0.198195**
NAPHTHALENE	160	NA	0.004 U	0.004 U	0.0038 U	0.0037 U	0.004 U	0.00095 U	NA	**0.011**
N-NITROSO-DI-N-PROPYLAMINE	0.091	NA	0.032 U	0.033 U	0.031 U	0.031 U	0.033 U	0.0073 U	NA	0.0071 U
PENTACHLOROPHENOL	5.3	NA	0.096 U	0.097 U	0.093 U	0.091 U	0.097 U	**0.016 J**	NA	**0.015 J**
PHENANTHRENE	2300	NA	0.004 U	0.004 U	0.0038 U	0.0037 U	0.004 U	**0.059**	NA	**0.07**
PHENOL	2300	NA	0.032 U	0.033 U	0.031 U	0.031 U	0.033 U	0.0085 U	NA	**0.02 J**
PYRENE	230	NA	**0.0066 J**	0.004 U	0.0038 U	0.0037 U	0.004 U	**0.097**	NA	**0.052**
TOTAL PAHS	NA	NA	**0.0201**	0 U	0 U	0 U	0 U	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	**0.04675**	0.03265 U	0.03105 U	0.0302 U	0.03265 U	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	**0.04675**	0.03265 U	0.03105 U	0.0302 U	0.03265 U	NA	NA	NA
PCBS (MG/KG)										
AROCLOR-1242	0.32	NA	0.016 U	0.016 U	0.015 U	0.015 U	0.016 U	0.013 U	NA	0.013 U
AROCLOR-1260	0.32	NA	0.02 U	0.021 U	0.02 U	0.019 U	0.021 U	0.01 U	NA	0.01 U
TOTAL AROCLOR	0.32	NA	0 U	0 U	0 U	0 U	0 U	0 U	NA	0 U
TOTAL AROCLOR HALFND	0.32	NA	**0.0685**	**0.07**	**0.067**	**0.065**	**0.07**	**0.05215**	NA	**0.05155**
METALS (MG/KG)										
ANTIMONY	3.1	NA	0.46 UL	0.46 UL	0.36 UL	0.44 UL	0.46 UL	0.49 U	NA	0.48 U
ARSENIC	0.43	3.6	**2.2**	**0.68 J**	**1.9**	0.34 U	0.35 U	**1.8**	NA	**2.1**
BARIUM	1600	NA	**4.3 J**	**3.7 J**	**5.6 J**	**3.8 J**	**6 J**	**21**	NA	**25**
BERYLLIUM	16	NA	0.051 U	0.05 U	0.04 U	0.049 U	0.051 U	0.16 U	NA	0.24 U
CADMIUM	3.9	NA	0.042 U	0.042 U	0.033 U	0.041 U	0.043 U	**0.11 J**	NA	**0.1 J**
CHROMIUM	23	28	**3.2 K**	**2.4 K**	**5.3 K**	**2.4 K**	**14 K**	**11**	NA	**11**
COBALT	NA	NA	**0.27 J**	0.19 U	**0.34 J**	0.18 U	**0.44 J**	**0.83 J**	NA	**0.91 J**
COPPER	310	NA	**2.6 J**	0.87 U	**2.9**	0.84 U	**1.4 J**	**6.8**	NA	**5.1**
IRON	5500	15000	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	400	NA	**1.3 K**	**1.1 B**	**1.8 K**	**1.4 K**	**2.6**	**6.6**	NA	**4.9**
MANGANESE	160	480	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	2.3	NA	0.014 U	0.017 U	0.017 U	0.015 U	0.012 U	**0.018 J**	NA	0.018 U
MOLYBDENUM	NA	NA	0.32 U	0.32 U	0.25 U	0.31 U	0.32 U	0.29 U	NA	0.25 U
NICKEL	160	NA	**0.73 J**	**0.44 J**	**0.85 J**	0.31 U	**0.56 J**	**5.8**	NA	2.6 U
SELENIUM	39	NA	0.53 U	0.53 U	0.42 U	0.51 U	0.53 U	0.35 U	NA	0.34 U

Table D-1
Soil Chemical Detection Summy Table
Greater Strawberry Point

LOCATION			GSP-TP-08	GSP-TP-09	GSP-TP-10	GSP-TP-11	GSP-TP-12	GSP-TP-15_Blue	GSP-TP-15_Concrete	GSP-TP-15_Green
SAMPLE ID			GSP-TP-8-6-7	GSP-TP-9-8-10	GSP-TP-10-10-12	GSP-TP-11-7-8	GSP-TP-12-8-9	GSP-TP-15-W-3-4-B	GSP-TP-15-W-CG	GSP-TP-15-W-3-4-G
			GSP-TP-8-6-7	GSP-TP-9-8-10	GSP-TP-10-10-12	GSP-TP-11-7-8	GSP-TP-12-8-9	GSP-TP-15-W-3-4-B	GSP-TP-15-W-CG	GSP-TP-15-W-3-4-G
			REC=09	REC=09	REC=08	REC=08	REC=08	REC=11	REC=11	REC=11
SAMPLE DATE	Maryland	ATCs	20110608	20110609	20110609	20110609	20110609	20160107	20160107	20160107
TOP DEPTH	Residential		6	8	10	7	8	3	3	3
BOTTOM DEPTH	Soil Standard		7	10	12	8	9	4	4	4
SILVER	39	NA	0.12 U	0.12 U	0.092 U	0.11 U	0.12 U	0.064 U	NA	0.063 U
THALLIUM	0.55	3.9	0.65 U	0.64 U	0.51 U	0.62 U	0.65 U	0.13 U	NA	0.13 U
VANADIUM	7.8	30	**5.1**	**3.8**	**10**	**2.5**	**11**	**28**	NA	**14**
ZINC	2300	NA	**3.2 J**	**2.1 J**	**3.8 J**	**1.7 J**	**2.7 J**	**37**	NA	**25**
PETROLEUM HYDROCARBONS (MG/KG)										
DIESEL RANGE ORGANICS	230	NA	11 U	11 U	11 U	10 U	11 U	NA	NA	NA
GASOLINE RANGE ORGANICS	230	NA	0.03 U	0.03 U	0.029 U	0.028 U	0.03 U	NA	NA	NA
TPH (C06-C10)	230	NA	NA	NA	NA	NA	NA	**0.056 J**	NA	**0.069 J**
TPH (C10-C32)	230	NA	NA	NA	NA	NA	NA	51 U	NA	37 U
TCLP SEMIVOLATILES (MG/L)										
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	0.00017 U	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	0.0008 U	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	**0.0028 J**	NA
PYRIDINE	NA	NA	NA	NA	NA	NA	NA	NA	0.00035 U	NA
TCLP HERBICIDES (MG/L)										
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	0.0019 U	NA
TCLP METALS (MG/L)										
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	0.0071 U	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	0.12 U	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	0.00014 U	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	0.003 U	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	0.0019 U	NA
MISCELLANEOUS PARAMETERS (%)										
PERCENT MOISTURE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Positive results bolded.

Value exceeds MDE Residential Cleanup Standards

Value exceeds Anticipated Typical Concentration (ATC) Eastern Maryland

ATC - Maryland Anticipated Typical Concentration for Eastern Maryland Soils.

B - Laboratory blank contamination.

L - Positive result is considered biased low as a result of technical noncompliance.

K - Positive result is considered biased high as a result of technical noncompliance.

J - Positive result is considered estimated as a result of technical noncompliance.

ug/kg - microgram per kilogram

mg/kg - milligrams per kilogram

NA-Not Applicable/Analyzed

U – Nondetected

Positive Results bolded

Black shaded values exceed MDE residential criteria.

Black shaded w/ red font values exceed ATC criteria.

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION		GSP-SB-002	GSP-SB-011	GSP-SB-013	GSP-SB-021	GSP-SB-022	GSP-SB-030	GSP-SB-033	
SAMPLE ID		GSP-SB/WP-2-20100525	GSP-SB/WP-11-20100525	GSP-SB/WP-13-20100525	GSP-SB-21-W	GSP-SB-22-W	GSP-SB-30-W	GSP-SB/WP-33-20100527	GSP-SB/WP-33-20100528
SAMPLE DATE		20100525	20100525	20100525	20100504	20100517	20100513	20100527	20100528
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		GW02	GW03	GW03	GW04	GW04	GW06	GW06	GW06
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	GW	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	CRIT	20	9	9	10	10	10	20	20
BOTTOM DEPTH		20	9	9	10	10	10	20	20
VOLATILES (UG/L)									
1,1-DICHLOROETHANE	5	0.6 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.5 U	NA
1,1-DICHLOROETHENE	7	0.76 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.63 U	NA
1,2,4-TRIMETHYLBENZENE	NC	0.48 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.4 U	NA
1,2-DIBROMO-3-CHLOROPROPANE	0.2	2.7 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	2.2 U	NA
1,2-DICHLOROBENZENE	600	0.52 U	0.13 U	0.13 U	0.13 U	0.13 U	**1.2**	0.43 U	NA
1,2-DICHLOROETHANE	5	0.88 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.73 U	NA
1,2-DICHLOROPROPANE	5	0.72 U	0.18 U	0.18 U	0.18 U	0.18 U	**0.23 J**	0.6 U	NA
1,3-DICHLOROBENZENE	1.8	0.56 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.47 U	NA
1,4-DICHLOROBENZENE	75	0.52 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.43 U	NA
2-BUTANONE	700	2.3 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	**7.5 J**	NA
2-HEXANONE	NC	1.6 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	1.4 U	NA
4-METHYL-2-PENTANONE	630	1.3 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	**1.6 J**	NA
ACETAMIDE, 2-CHLORO-	NC	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	550	**5 J**	8.6 B	1.1 U	**12**	1.1 B	**8.7**	**160 J**	NA
BENZENE	5	0.52 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.43 U	NA
BROMOMETHANE	0.85	1.6 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	1.4 U	NA
CARBON DISULFIDE	100	0.52 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.43 U	NA
CARBON TETRACHLORIDE	5	0.52 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.43 U	NA
CHLOROBENZENE	100	0.6 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.5 U	NA
CHLOROFORM	80	0.64 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.53 U	NA
CHLOROMETHANE	19	1.2 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1 U	NA
CIS-1,2-DICHLOROETHENE	70	0.68 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.57 U	NA
ETHYLBENZENE	700	0.68 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.57 U	NA
M+P-XYLENES	10000	0.96 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.8 U	NA
METHYL TERT-BUTYL ETHER	20	**100 J**	0.17 UJ	0.17 UJ	0.17 U	0.17 U	0.17 U	0.57 U	NA
METHYLENE CHLORIDE	5	1.3 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	1.3 B	NA
NAPHTHALENE	0.65	0.96 U	0.24 U	0.24 U	0.24 U	0.24 U	0.94 B	0.8 U	NA
O-XYLENE	10000	0.56 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.47 U	NA
STYRENE	100	0.44 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.37 U	NA
TERT-AMYL METHYL ETHER	NC	0.27 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.22 U	NA
TERTIARY-BUTYL ALCOHOL	NC	16 UR	3.9 UR	3.9 UR	3.9 UR	3.9 UR	3.9 UR	13 UR	NA
TOLUENE	1000	0.52 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.43 U	NA
TOTAL CHLORINATED VOCS	NC	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS HALFND	NC	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	470	1.1 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.93 U	NA
TOTAL XYLENES DETECTED	470	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	100	0.76 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.63 U	NA
TRICHLOROETHENE	5	0.68 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.57 U	NA
TRICHLOROFLUOROMETHANE	NC	0.84 U	0.21 U	0.21 U	0.21 U	**0.35 J**	0.21 U	0.7 U	NA
VINYL CHLORIDE	2	0.88 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.73 U	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION		GSP-SB-002	GSP-SB-011	GSP-SB-013	GSP-SB-021	GSP-SB-022	GSP-SB-030	GSP-SB-033	
SAMPLE ID		GSP-SB/WP-2-20100525	GSP-SB/WP-11-20100525	GSP-SB/WP-13-20100525	GSP-SB-21-W	GSP-SB-22-W	GSP-SB-30-W	GSP-SB/WP-33-20100527	GSP-SB/WP-33-20100528
SAMPLE DATE		20100525	20100525	20100525	20100504	20100517	20100513	20100527	20100528
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		GW02	GW03	GW03	GW04	GW04	GW06	GW06	GW06
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	GW	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	CRIT	20	9	9	10	10	10	20	20
BOTTOM DEPTH		20	9	9	10	10	10	20	20
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)									
1-BUTENE	NC	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NC	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NC	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NC	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NC	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NC	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NC	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NC	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NC	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NC	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NC	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NC	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NC	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NC	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NC	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NC	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NC	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NC	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NC	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NC	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NC	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NC	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NC	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NC	NA	NA	NA	NA	NA	NA	NA	NA

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LOCATION		GSP-SB-002	GSP-SB-011	GSP-SB-013	GSP-SB-021	GSP-SB-022	GSP-SB-030	GSP-SB-033	
SAMPLE ID		GSP-SB/WP-2-20100525	GSP-SB/WP-11-20100525	GSP-SB/WP-13-20100525	GSP-SB-21-W	GSP-SB-22-W	GSP-SB-30-W	GSP-SB/WP-33-20100527	GSP-SB/WP-33-20100528
SAMPLE DATE		20100525	20100525	20100525	20100504	20100517	20100513	20100527	20100528
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		GW02	GW03	GW03	GW04	GW04	GW06	GW06	GW06
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	GW	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	CRIT	20	9	9	10	10	10	20	20
BOTTOM DEPTH		20	9	9	10	10	10	20	20
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NC	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NC	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NC	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NC	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)									
2,4-DIMETHYLPHENOL	73	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	NA
2,4-DINITROTOLUENE	7.3	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	NA
2,6-DINITROTOLUENE	3.7	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	NA
2-METHYLNAPHTHALENE	2.4	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
2-METHYLPHENOL	180	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	NA
2-NITROPHENOL	NC	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	**1.2 J**	NA
4-METHYLPHENOL	18	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	NA
ACENAPHTHENE	37	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
ACETOPHENONE	NC	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	**4.5**	NA
ANTHRACENE	180	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
BIS(2-ETHYLHEXYL)PHTHALATE	6	2.6 B	1.4 B	1.3 B	**1.1 J**	0.8 U	0.8 U	0.8 U	NA
BUTYL BENZYL PHTHALATE	NC	0.8 U	**2.5**	0.8 U	0.8 U	0.8 U	0.8 U	**0.81 J**	NA
CAPROLACTAM	NC	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	NA
CARBAZOLE	3.3	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	NA
DIBENZOFURAN	3.7	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**2**	NA
DIETHYL PHTHALATE	2900	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	**0.97 J**	NA
DI-N-BUTYL PHTHALATE	370	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	**1.1**	NA
FLUORANTHENE	150	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
FLUORENE	24	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
HIGH MOLECULAR WEIGHT PAHS	NC	0 U	0 U	0 U	0 U	0 U	0 U	0 U	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NC	**0.45**	**0.45**	**0.45**	**0.45**	**0.45**	**0.45**	**0.45**	NA
ISOPHORONE	70	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	**0.75 J**	NA
LOW MOLECULAR WEIGHT PAHS	NC	0 U	0 U	0 U	0 U	0 U	**0.27**	0 U	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	NC	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	**0.57**	0.35 U	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NC	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.62**	**0.4**	NA
NAPHTHALENE	0.65	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.27**	0.1 U	NA
N-NITROSODIMETHYLAMINE	NC	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	**0.55 J**	NA
PHENANTHRENE	180	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
PHENOL	1100	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	**2.4**	NA
PYRENE	18	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
TOTAL PAHS	NC	0 U	0 U	0 U	0 U	0 U	**0.27**	0 U	NA
TOTAL PAHS ECO HALFND	NC	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	**1.07**	0.85 U	NA
TOTAL PAHS HALFND	NC	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	**1.07**	0.85 U	NA

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LOCATION		GSP-SB-002	GSP-SB-011	GSP-SB-013	GSP-SB-021	GSP-SB-022	GSP-SB-030	GSP-SB-033	
SAMPLE ID		GSP-SB/WP-2-20100525	GSP-SB/WP-11-20100525	GSP-SB/WP-13-20100525	GSP-SB-21-W	GSP-SB-22-W	GSP-SB-30-W	GSP-SB/WP-33-20100527	GSP-SB/WP-33-20100528
SAMPLE DATE		20100525	20100525	20100525	20100504	20100517	20100513	20100527	20100528
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		GW02	GW03	GW03	GW04	GW04	GW06	GW06	GW06
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	GW	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	CRIT	20	9	9	10	10	10	20	20
BOTTOM DEPTH		20	9	9	10	10	10	20	20
PCBS (UG/L)									
TOTAL AROCLOR HALFND	NC	**0.555**	**0.555**	**0.555**	NA	**0.555**	**0.555**	NA	**0.555**
DISSOLVED METALS (UG/L)									
ANTIMONY	6	0.35 B	0.089 B	0.54 B	0.067 B	0.077 B	0.14 B	0.092 B	NA
ARSENIC	10	**3.8 J**	**6.4**	**0.95 J**	**14**	**3 J**	**0.91 J**	**1.2 J**	NA
BARIUM	2000	**100**	**27.7**	**20.4**	**94.2**	**98.8**	**75.9**	**38.6**	NA
BERYLLIUM	4	0.0059 UL	**0.32 J**	0.0059 U	**2.8**	**60.2**	**6.5**	**8.6 J**	NA
CADMIUM	5	0.025 UL	0.15 B	0.025 B	0.21 B	0.19 B	0.12 B	**0.33 J**	NA
CHROMIUM	100	0.29 B	0.71 B	0.61 B	**2.8 K**	**7.9 K**	**2.8**	**3.7**	NA
COBALT	6	**6.3**	**15.4**	**0.078 J**	**209**	**1670**	**1300**	**532**	NA
COPPER	1300	0.22 B	0.48 B	0.21 B	0.059 B	0.48 B	0.26 B	**49.6**	NA
IRON	300	**17500**	**18900**	**268**	**150000**	**112000**	**13700**	**24400**	NA
LEAD	15	0.13 B	0.19 B	0.14 B	**1.1 K**	**2.3 K**	0.042 B	0.27 B	NA
MANGANESE	50	**84.9**	**406**	**107**	**4180**	**6560**	**4110**	**3110**	NA
MERCURY	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
MOLYBDENUM	NC	0.82 B	0.27 U	1.2 B	1.4 B	**1.4 J**	**1 J**	0.55 B	NA
NICKEL	73	**2.2**	**16.4**	0.45 B	**138**	**2260**	**1610**	**654**	NA
SELENIUM	50	0.31 B	0.22 B	0.29 B	**12.5**	**8.4**	**2.1 J**	**3 J**	NA
THALLIUM	2	0.28 B	0.13 U	0.28 B	0.35 B	1 B	0.13 U	0.36 B	NA
VANADIUM	3.7	0.43 U	**1 J**	**1.2 J**	**6.3 J**	**2.2 J**	**0.62 J**	0.43 UL	NA
ZINC	5000	4 B	**37.7**	4 B	**448**	**5550**	**1920**	**1050**	NA
METALS (UG/L)									
ANTIMONY	6	0.5 B	0.062 B	0.2 B	0.24 B	**0.76 J**	0.16 B	0.22 B	NA
ARSENIC	10	**14.6**	**6.6**	**1 J**	**18.4**	**33.7**	**1.2 J**	**3.9 J**	NA
BARIUM	2000	**144**	**28.7**	**22.8**	**136**	**221**	**78.5**	**137**	NA
BERYLLIUM	4	**0.69 J**	**0.25 J**	0.0059 U	**3.4**	**62.1**	**6.4**	**12.8 J**	NA
CADMIUM	5	0.025 UL	0.19 B	0.081 B	0.27 B	0.22 B	0.12 B	**0.47 J**	NA
CHROMIUM	100	**39**	**0.95 J**	**3.5**	**38.9**	**78.9**	**3.4**	**23**	NA
COBALT	6	**10.2**	**16.3**	**0.33 J**	**192**	**1500**	**1300**	**706**	NA
COPPER	1300	**22.8**	0.81 B	1.8 B	**16.3 K**	**65.3**	0.66 B	**144**	NA
IRON	300	**54300**	**19100**	**468**	**152000**	**126000**	**14600**	**33400**	NA
LEAD	15	**12.7**	0.34 B	**1.1**	**24.4**	**32.4**	0.098 B	**6.8 J**	NA
MANGANESE	50	**93.2**	**393**	**102**	**4190**	**6010**	**4100**	**3790**	NA
MERCURY	2	0.1 U	0.1 U	0.27 B	**0.14 J**	0.1 U	0.1 U	**0.22**	NA
MOLYBDENUM	NC	1.2 B	0.27 U	0.92 B	**3.7**	**5.8**	**1.1 J**	1.4 B	NA
NICKEL	73	**8.9**	**17.5**	0.69 B	**134**	**2040**	**1580**	**888**	NA
SELENIUM	50	**1.3 J**	0.26 B	0.13 U	**13.7**	**13**	**1.6 J**	**6.7**	NA
SILVER	100	0.032 B	0.015 U	0.015 U	0.025 B	0.19 B	0.015 U	0.036 B	NA
THALLIUM	2	0.36 B	0.13 U	0.13 U	0.66 B	**1.8 K**	0.13 U	0.69 B	NA

Table D-2
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LOCATION		GSP-SB-002	GSP-SB-011	GSP-SB-013	GSP-SB-021	GSP-SB-022	GSP-SB-030	GSP-SB-033	
SAMPLE ID		GSP-SB/WP-2-20100525	GSP-SB/WP-11-20100525	GSP-SB/WP-13-20100525	GSP-SB-21-W	GSP-SB-22-W	GSP-SB-30-W	GSP-SB/WP-33-20100527	GSP-SB/WP-33-20100528
SAMPLE DATE		20100525	20100525	20100525	20100504	20100517	20100513	20100527	20100528
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX		GW02	GW03	GW03	GW04	GW04	GW06	GW06	GW06
SAMPLE TYPE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	GW	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	CRIT	20	9	9	10	10	10	20	20
BOTTOM DEPTH		20	9	9	10	10	10	20	20
VANADIUM	3.7	**68.9**	**1.9 J**	**2.4 J**	**62.8**	**112**	**0.71 J**	**23.5**	NA
ZINC	5000	28.8 B	**41.8**	8 B	**464**	**5020**	**1880**	**1470**	NA
MISCELLANEOUS PARAMETERS (UG/L)									
HEXAVALENT CHROMIUM	100	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	2.6	NA	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)									
HEXAVALENT CHROMIUM	100	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)									
DIESEL RANGE ORGANICS	47	**82 J**	30 U	**63 J**	NA	**72 J**	**64 J**	NA	**380**
GASOLINE RANGE ORGANICS	47	**60 J**	28 U	**31 J**	28 U	28 U	34 B	NA	**38 J**
TPH (C06-C10)	47	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	47	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-039		GSP-SB-040	GSP-DPT-46					
SAMPLE ID	GSP-SB/WP-39-20100527	GSP-SB/WP-39-20100528	GSP-SB/WP-40-20100527	GSP-DPT-46-10	GSP-DPT-46-15	GSP-DPT-46-20	GSP-DPT-46-25	GSP-DPT-46-35	GSP-DPT-46-40
SAMPLE DATE	20100527	20100528	20100527	20140310	20140310	20140310	20140310	20140310	20140311
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW06	GW06	GW06	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	15	15	14.5	5	10	15	20	30	35
BOTTOM DEPTH	15	15	14.5	10	15	20	25	35	40
VOLATILES (UG/L)									
1,1-DICHLOROETHANE	0.15 U	NA	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,1-DICHLOROETHENE	0.19 U	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,2,4-TRIMETHYLBENZENE	0.12 U	NA	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	NA	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
1,2-DICHLOROBENZENE	0.13 U	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2-DICHLOROETHANE	0.22 U	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROPROPANE	0.18 U	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	NA	0.14 U	0.14 U	**0.16 J**	0.14 U	0.14 U	0.14 U	0.14 U
1,4-DICHLOROBENZENE	0.13 U	NA	0.13 U	0.13 U	**0.83 J**	0.13 U	0.13 U	0.13 U	0.13 U
2-BUTANONE	0.57 U	NA	0.57 U	0.57 UJ	0.57 UJ	**1.2 J**	**1.6 J**	**1 J**	**0.92 J**
2-HEXANONE	0.41 U	NA	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
4-METHYL-2-PENTANONE	0.32 U	NA	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	20 B	NA	7.7 B	**1.7 J**	**1.9 J**	**6.2 J**	**6.2 J**	**3.3 J**	**19**
BENZENE	0.13 U	NA	0.13 U	0.13 U	0.13 U	**0.71 J**	**0.29 J**	0.13 U	0.13 U
BROMOMETHANE	0.41 U	NA	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
CARBON DISULFIDE	0.13 U	NA	0.13 U	**0.21 J**	**0.35 J**	**0.18 J**	**0.62 J**	**2.2**	**0.19 J**
CARBON TETRACHLORIDE	0.13 U	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROBENZENE	0.15 U	NA	0.15 U	**0.26 J**	**2.6**	**0.71 J**	0.15 U	0.15 U	0.15 U
CHLOROFORM	0.16 U	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
CHLOROMETHANE	0.3 U	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CIS-1,2-DICHLOROETHENE	0.17 U	NA	0.17 U	0.17 U	0.17 U	0.17 U	**0.4 J**	0.17 U	0.17 U
ETHYLBENZENE	0.17 U	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
M+P-XYLENES	0.24 U	NA	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.17 U	NA	0.17 U	0.17 U	0.17 U	**0.22 J**	0.17 U	0.17 U	0.17 U
METHYLENE CHLORIDE	0.33 U	NA	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.24 U	NA	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
O-XYLENE	0.14 U	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
STYRENE	0.11 U	NA	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	0.067 U	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
TERTIARY-BUTYL ALCOHOL	3.9 UR	NA	3.9 UR	3.9 UJ	3.9 UJ	3.9 UJ	3.9 UJ	3.9 UJ	3.9 UJ
TOLUENE	0.13 U	NA	0.13 U	0.13 U	0.13 U	**0.14 J**	0.13 U	**0.14 J**	**0.21 J**
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS HALFND	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	0.28 U	NA	0.28 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
TOTAL XYLENES DETECTED	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	**0.2 J**	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
TRICHLOROETHENE	0.17 U	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
TRICHLOROFLUOROMETHANE	0.21 U	NA	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
VINYL CHLORIDE	0.22 U	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U

Table D-2
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Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-039		GSP-SB-040	GSP-DPT-46					
SAMPLE ID	GSP-SB/WP-39-20100527	GSP-SB/WP-39-20100528	GSP-SB/WP-40-20100527	GSP-DPT-46-10	GSP-DPT-46-15	GSP-DPT-46-20	GSP-DPT-46-25	GSP-DPT-46-35	GSP-DPT-46-40
SAMPLE DATE	20100527	20100528	20100527	20140310	20140310	20140310	20140310	20140310	20140311
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW06	GW06	GW06	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	15	15	14.5	5	10	15	20	30	35
BOTTOM DEPTH	15	15	14.5	10	15	20	25	35	40
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)									
1-BUTENE	NA	NA	NA	**1.1 NJ**	NA	NA	NA	**2.2 NJ**	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA	**1.1 NJ**
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	**2.5 NJ**	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-039		GSP-SB-040	GSP-DPT-46					
SAMPLE ID	GSP-SB/WP-39-20100527	GSP-SB/WP-39-20100528	GSP-SB/WP-40-20100527	GSP-DPT-46-10	GSP-DPT-46-15	GSP-DPT-46-20	GSP-DPT-46-25	GSP-DPT-46-35	GSP-DPT-46-40
SAMPLE DATE	20100527	20100528	20100527	20140310	20140310	20140310	20140310	20140310	20140311
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW06	GW06	GW06	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	15	15	14.5	5	10	15	20	30	35
BOTTOM DEPTH	15	15	14.5	10	15	20	25	35	40
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	3.9 R
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)									
2,4-DIMETHYLPHENOL	0.8 U	NA	0.8 U	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	0.27 U	NA	0.27 U	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	0.8 U	NA	0.8 U	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	0.8 U	NA	0.8 U	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	0.28 U	NA	0.28 U	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	0.8 U	NA	0.8 U	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA
ACETOPHENONE	0.34 U	NA	0.34 U	NA	NA	NA	NA	NA	NA
ANTHRACENE	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	**2.8**	NA	**0.98 J**	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	0.8 U	NA	0.8 U	NA	NA	NA	NA	NA	NA
CAPROLACTAM	0.8 U	NA	0.8 U	NA	NA	NA	NA	NA	NA
CARBAZOLE	0.28 U	NA	0.28 U	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	0.6 U	NA	0.6 U	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	0.67 U	NA	0.67 U	NA	NA	NA	NA	NA	NA
FLUORANTHENE	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA
FLUORENE	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS	0 U	NA	0 U	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	**0.45**	NA	**0.45**	NA	NA	NA	NA	NA	NA
ISOPHORONE	0.27 U	NA	0.27 U	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS	0 U	NA	0 U	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	0.35 U	NA	0.35 U	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	**0.4**	NA	**0.4**	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	0.31 U	NA	0.31 U	NA	NA	NA	NA	NA	NA
PHENANTHRENE	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA
PHENOL	**1.6**	NA	0.6 U	NA	NA	NA	NA	NA	NA
PYRENE	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA
TOTAL PAHS	0 U	NA	0 U	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	0.85 U	NA	0.85 U	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	0.85 U	NA	0.85 U	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-039		GSP-SB-040	GSP-DPT-46					
SAMPLE ID	GSP-SB/WP-39-20100527	GSP-SB/WP-39-20100528	GSP-SB/WP-40-20100527	GSP-DPT-46-10	GSP-DPT-46-15	GSP-DPT-46-20	GSP-DPT-46-25	GSP-DPT-46-35	GSP-DPT-46-40
SAMPLE DATE	20100527	20100528	20100527	20140310	20140310	20140310	20140310	20140310	20140311
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW06	GW06	GW06	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	15	15	14.5	5	10	15	20	30	35
BOTTOM DEPTH	15	15	14.5	10	15	20	25	35	40
PCBS (UG/L)									
TOTAL AROCLOR HALFND	**0.555**	NA	**0.555**	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)									
ANTIMONY	**1.4 J**	NA	0.11 B	NA	NA	NA	NA	NA	NA
ARSENIC	**4.3 J**	NA	**3.4 J**	NA	NA	NA	NA	NA	NA
BARIUM	**22.9**	NA	**57.4**	NA	NA	NA	NA	NA	NA
BERYLLIUM	0.12 B	NA	**6.7 J**	NA	NA	NA	NA	NA	NA
CADMIUM	0.025 U	NA	**0.9 J**	NA	NA	NA	NA	NA	NA
CHROMIUM	**1.4 J**	NA	**1.7 J**	NA	NA	NA	NA	NA	NA
COBALT	**24.3**	NA	**233**	NA	NA	NA	NA	NA	NA
COPPER	1.9 B	NA	**34.9**	NA	NA	NA	NA	NA	NA
IRON	41.4 B	NA	**6710**	NA	NA	NA	NA	NA	NA
LEAD	0.041 B	NA	**1.9 J**	NA	NA	NA	NA	NA	NA
MANGANESE	**49.1**	NA	**365**	NA	NA	NA	NA	NA	NA
MERCURY	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA
MOLYBDENUM	**14.1**	NA	0.27 B	NA	NA	NA	NA	NA	NA
NICKEL	**40.3**	NA	**390**	NA	NA	NA	NA	NA	NA
SELENIUM	**1.1 J**	NA	**0.98 J**	NA	NA	NA	NA	NA	NA
THALLIUM	0.13 U	NA	**1.3**	NA	NA	NA	NA	NA	NA
VANADIUM	**46.6**	NA	**3.4 J**	NA	NA	NA	NA	NA	NA
ZINC	43.3 B	NA	**1030**	NA	NA	NA	NA	NA	NA
METALS (UG/L)									
ANTIMONY	0.82 B	NA	0.18 B	NA	NA	NA	NA	NA	NA
ARSENIC	**2.6 J**	NA	**4.5 J**	NA	NA	NA	NA	NA	NA
BARIUM	**87.8**	NA	**69**	NA	NA	NA	NA	NA	NA
BERYLLIUM	**3 J**	NA	**6.1 J**	NA	NA	NA	NA	NA	NA
CADMIUM	**1**	NA	**0.9 J**	NA	NA	NA	NA	NA	NA
CHROMIUM	**4.6**	NA	**6.8**	NA	NA	NA	NA	NA	NA
COBALT	**250**	NA	**226**	NA	NA	NA	NA	NA	NA
COPPER	**17.1**	NA	**40.4**	NA	NA	NA	NA	NA	NA
IRON	**1100**	NA	**7230**	NA	NA	NA	NA	NA	NA
LEAD	**2.2 J**	NA	**4 J**	NA	NA	NA	NA	NA	NA
MANGANESE	**416**	NA	**362**	NA	NA	NA	NA	NA	NA
MERCURY	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA
MOLYBDENUM	**6.1**	NA	0.61 B	NA	NA	NA	NA	NA	NA
NICKEL	**383**	NA	**370**	NA	NA	NA	NA	NA	NA
SELENIUM	0.84 B	NA	**1.7 J**	NA	NA	NA	NA	NA	NA
SILVER	0.015 U	NA	0.017 B	NA	NA	NA	NA	NA	NA
THALLIUM	0.66 B	NA	**1.3**	NA	NA	NA	NA	NA	NA

Table D-2
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Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-039		GSP-SB-040	GSP-DPT-46					
SAMPLE ID	GSP-SB/WP-39-20100527	GSP-SB/WP-39-20100528	GSP-SB/WP-40-20100527	GSP-DPT-46-10	GSP-DPT-46-15	GSP-DPT-46-20	GSP-DPT-46-25	GSP-DPT-46-35	GSP-DPT-46-40
SAMPLE DATE	20100527	20100528	20100527	20140310	20140310	20140310	20140310	20140310	20140311
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW06	GW06	GW06	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	15	15	14.5	5	10	15	20	30	35
BOTTOM DEPTH	15	15	14.5	10	15	20	25	35	40
VANADIUM	23.8	NA	11.9 J	NA	NA	NA	NA	NA	NA
ZINC	750	NA	978	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)									
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)									
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)									
DIESEL RANGE ORGANICS	NA	170	99 J	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	25 U	25 J	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-47						GSP-DPT-48	
SAMPLE ID	GSP-DPT-47-10	GSP-DPT-47-15	GSP-DPT-47-20	GSP-DPT-47-25	GSP-DPT-47-30	GSP-DPT-47-35	GSP-DPT-48-15	GSP-DPT-48-20
SAMPLE DATE	20140314	20140314	20140314	20140314	20140314	20140314	20140313	20140313
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	5	10	15	20	25	30	10	15
BOTTOM DEPTH	10	15	20	25	30	35	15	20
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.25 U	0.15 U	0.15 U	0.15 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.32 U	0.19 U	0.19 U	0.19 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	0.2 U	0.12 U	0.12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 U	0.67 U	1.1 U	0.67 UJ	0.67 U	0.67 U
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.22 U	0.13 U	0.13 U	0.13 U
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	0.37 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U	0.18 U	0.3 U	0.18 U	0.18 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.23 U	0.14 U	0.14 U	0.14 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.22 U	0.13 U	0.13 U	0.13 U
2-BUTANONE	**1.1 J**	**1.2 J**	**1.5 J**	**1.4 J**	**2 J**	**11 J**	**1.5 J**	**1.4 J**
2-HEXANONE	0.41 U	0.41 U	0.41 U	0.41 U	0.68 U	**0.76 J**	0.41 U	0.41 U
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.32 U	0.32 U	0.53 U	0.32 U	0.32 U	0.32 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	**6.8 J**	**5.5 J**	**7.1 J**	**5.4 J**	**7.6 J**	**44**	9.2 U	11 U
BENZENE	**0.14 J**	**0.13 J**	**0.15 J**	0.13 U	**0.26 J**	**0.89 J**	**0.22 J**	**0.21 J**
BROMOMETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.68 U	0.41 U	0.41 U	0.41 U
CARBON DISULFIDE	**0.47 J**	**0.44 J**	**0.3 J**	**0.29 J**	**0.22 J**	**0.17 J**	**0.22 J**	0.13 U
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U	0.13 U	0.22 U	0.13 U	0.13 U	0.13 U
CHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	0.25 U	0.15 U	0.15 U	0.15 U
CHLOROFORM	**0.61 J**	0.16 U	0.16 U	0.16 U	**0.78 J**	0.16 U	0.16 U	0.16 U
CHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U	0.5 U	0.3 U	0.3 U	0.3 U
CIS-1,2-DICHLOROETHENE	**1.2**	**0.69 J**	**3.9**	**0.84 J**	**5.6**	**0.56 J**	**1.5**	**1.2**
ETHYLBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.28 U	**0.19 J**	0.17 U	0.17 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	0.4 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	**0.18 J**	**0.33 J**	**0.56 J**	**0.47 J**	0.28 U	**0.23 J**	**1.3**	**1.9**
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U	0.55 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.24 U	0.24 U	0.24 U	0.24 U	0.4 U	0.24 U	0.24 U	0.24 U
O-XYLENE	0.14 U	0.14 U	0.14 U	0.14 U	0.23 U	0.14 U	0.14 U	0.14 U
STYRENE	0.11 U	0.11 U	0.11 U	0.11 U	0.18 U	0.11 U	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.067 U	0.067 U	0.11 U	0.067 U	**0.11 J**	**0.16 J**
TERTIARY-BUTYL ALCOHOL	**8.1 J**	**7.6 J**	**8.8 J**	3.9 U	**13 J**	3.9 UJ	9.5 U	3.9 U
TOLUENE	**0.13 J**	**0.13 J**	**0.14 J**	**0.13 J**	**0.23 J**	**0.82 J**	0.13 U	**0.17 J**
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	0.14 U	0.14 U	0.14 U	0.14 U	0.23 U	0.14 U	0.14 U	0.14 U
TOTAL XYLENES DETECTED	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.32 U	0.19 U	0.19 U	0.19 U
TRICHLOROETHENE	**0.42 J**	**1.1**	**4.7**	**1.7**	**49**	**2.5**	**2**	**5.4**
TRICHLOROFLUOROMETHANE	0.21 U	0.21 U	0.21 U	0.21 U	0.35 U	0.21 U	0.21 U	0.21 U
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	0.22 U	0.37 U	0.22 U	0.22 U	0.22 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-47						GSP-DPT-48	
SAMPLE ID	GSP-DPT-47-10	GSP-DPT-47-15	GSP-DPT-47-20	GSP-DPT-47-25	GSP-DPT-47-30	GSP-DPT-47-35	GSP-DPT-48-15	GSP-DPT-48-20
SAMPLE DATE	20140314	20140314	20140314	20140314	20140314	20140314	20140313	20140313
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	5	10	15	20	25	30	10	15
BOTTOM DEPTH	10	15	20	25	30	35	15	20
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	**5.3 NJ**	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	**1.9 NJ**	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	**4.8 NJ**	NA	NA
1-PENTENE	**1.2 NJ**	**1.1 NJ**	**1.2 NJ**	**1.4 NJ**	**2.6 NJ**	NA	NA	**1.6 NJ**
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	**5.4 NJ**	**4.5 NJ**	**4.2 NJ**	**5 NJ**	**2.5 NJ**	**28 NJ**	NA	**6.3 NJ**
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	**1.7 NJ**	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	**9.1 NJ**	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	**2 NJ**
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	**1.3 NJ**	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	**4 NJ**	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	**6.8 NJ**	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	**2 NJ**	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	**2.4 NJ**	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	**49 NJ**	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-47						GSP-DPT-48	
SAMPLE ID	GSP-DPT-47-10	GSP-DPT-47-15	GSP-DPT-47-20	GSP-DPT-47-25	GSP-DPT-47-30	GSP-DPT-47-35	GSP-DPT-48-15	GSP-DPT-48-20
SAMPLE DATE	20140314	20140314	20140314	20140314	20140314	20140314	20140313	20140313
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	5	10	15	20	25	30	10	15
BOTTOM DEPTH	10	15	20	25	30	35	15	20
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	2.7 R	NA
SILANOL, TRIMETHYL-	NA	NA	3.8 R	2.2 R	NA	3.3 R	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-47						GSP-DPT-48	
SAMPLE ID	GSP-DPT-47-10	GSP-DPT-47-15	GSP-DPT-47-20	GSP-DPT-47-25	GSP-DPT-47-30	GSP-DPT-47-35	GSP-DPT-48-15	GSP-DPT-48-20
SAMPLE DATE	20140314	20140314	20140314	20140314	20140314	20140314	20140313	20140313
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	5	10	15	20	25	30	10	15
BOTTOM DEPTH	10	15	20	25	30	35	15	20
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-47						GSP-DPT-48	
SAMPLE ID	GSP-DPT-47-10	GSP-DPT-47-15	GSP-DPT-47-20	GSP-DPT-47-25	GSP-DPT-47-30	GSP-DPT-47-35	GSP-DPT-48-15	GSP-DPT-48-20
SAMPLE DATE	20140314	20140314	20140314	20140314	20140314	20140314	20140313	20140313
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	5	10	15	20	25	30	10	15
BOTTOM DEPTH	10	15	20	25	30	35	15	20
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GPS-DPT-48			GSP-DPT-49				
SAMPLE ID	GSP-DPT-48-25	GSP-DPT-48-30	GSP-DPT-48-5	GSP-DPT-49-10	GSP-DPT-49-15	GSP-DPT-49-20	GSP-DPT-49-25	GSP-DPT-49-30
SAMPLE DATE	20140313	20140313	20140313	20140312	20140312	20140312	20140312	20140312
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	20	25	0	5	10	15	20	25
BOTTOM DEPTH	25	30	5	10	15	20	25	30
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2-BUTANONE	**2.1 J**	**1.5 J**	**0.84 J**	0.57 U	**2.7 J**	**1.4 J**	**1.2 J**	**0.78 J**
2-HEXANONE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	12 U	12 U	6.9 U	6.7 U	**34**	10 U	8.2 U	4.9 U
BENZENE	**0.31 J**	**0.23 J**	**0.17 J**	0.13 U	**0.13 J**	0.13 U	**0.17 J**	0.13 U
BROMOMETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
CARBON DISULFIDE	0.13 U	0.13 U	0.13 U	**0.19 J**	**0.18 J**	**0.39 J**	**0.65 J**	0.13 U
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
CHLOROFORM	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
CHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CIS-1,2-DICHLOROETHENE	0.17 U	0.17 U	0.17 U	**2.2**	**4.1**	**0.9 J**	0.17 U	0.17 U
ETHYLBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.17 U	**0.18 J**	0.17 U	**0.32 J**	**0.97 J**	**0.25 J**	0.17 U	0.17 U
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
O-XYLENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
STYRENE	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
TERTIARY-BUTYL ALCOHOL	14 U	3.9 U	3.9 U	**8.3 J**	3.9 U	3.9 U	**10 J**	3.9 U
TOLUENE	**0.34 J**	**0.23 J**	0.13 U	0.13 U	0.13 U	0.13 U	**0.18 J**	0.13 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
TOTAL XYLENES DETECTED	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
TRICHLOROETHENE	**1.3**	**8.2**	0.17 U	**1.2**	**2.6**	**0.79 J**	**5.9**	**19**
TRICHLOROFLUOROMETHANE	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GPS-DPT-48			GSP-DPT-49				
SAMPLE ID	GSP-DPT-48-25	GSP-DPT-48-30	GSP-DPT-48-5	GSP-DPT-49-10	GSP-DPT-49-15	GSP-DPT-49-20	GSP-DPT-49-25	GSP-DPT-49-30
SAMPLE DATE	20140313	20140313	20140313	20140312	20140312	20140312	20140312	20140312
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	20	25	0	5	10	15	20	25
BOTTOM DEPTH	25	30	5	10	15	20	25	30
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	**3.3 NJ**	**1.8 NJ**	NA	NA	NA	NA	**2.1 NJ**	NA
1-BUTENE, 2-METHYL-	**1.9 NJ**	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	**1.3 NJ**	NA	NA	NA	NA	**1.5 NJ**	NA
1-PENTENE	**3.8 NJ**	**2.4 NJ**	NA	NA	NA	NA	**3 NJ**	NA
1-PENTENE, 2-METHYL-	**2.1 NJ**	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	**16 NJ**	**9.6 NJ**	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	**1.4 NJ**	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	**2.2 NJ**	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	**1.2 NJ**	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	**1.6 NJ**	**1.1 NJ**	NA	NA	NA	NA	**2.2 NJ**	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	**1.4 NJ**	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	**1.1 NJ**	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	**1.3 NJ**	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	**1.1 NJ**	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GPS-DPT-48			GSP-DPT-49				
SAMPLE ID	GSP-DPT-48-25	GSP-DPT-48-30	GSP-DPT-48-5	GSP-DPT-49-10	GSP-DPT-49-15	GSP-DPT-49-20	GSP-DPT-49-25	GSP-DPT-49-30
SAMPLE DATE	20140313	20140313	20140313	20140312	20140312	20140312	20140312	20140312
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	20	25	0	5	10	15	20	25
BOTTOM DEPTH	25	30	5	10	15	20	25	30
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	4.4 R	4.8 R	4.3 R	NA	NA
SILANOL, TRIMETHYL-	**6.3 NJ**	NA	5.4 R	NA	NA	NA	4.4 R	5.1 R
TERT-BUTYLDIMETHYLSILANOL	NA	6.6 R	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GPS-DPT-48			GSP-DPT-49				
SAMPLE ID	GSP-DPT-48-25	GSP-DPT-48-30	GSP-DPT-48-5	GSP-DPT-49-10	GSP-DPT-49-15	GSP-DPT-49-20	GSP-DPT-49-25	GSP-DPT-49-30
SAMPLE DATE	20140313	20140313	20140313	20140312	20140312	20140312	20140312	20140312
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	20	25	0	5	10	15	20	25
BOTTOM DEPTH	25	30	5	10	15	20	25	30
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GPS-DPT-48			GSP-DPT-49				
SAMPLE ID	GSP-DPT-48-25	GSP-DPT-48-30	GSP-DPT-48-5	GSP-DPT-49-10	GSP-DPT-49-15	GSP-DPT-49-20	GSP-DPT-49-25	GSP-DPT-49-30
SAMPLE DATE	20140313	20140313	20140313	20140312	20140312	20140312	20140312	20140312
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	20	25	0	5	10	15	20	25
BOTTOM DEPTH	25	30	5	10	15	20	25	30
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GPS-DPT-49			GSP-MW/SB-021I	GSP-MW-13		GSP-MW-14	
SAMPLE ID	GSP-DPT-49-40	GSP-DPT-49-45	GSP-DPT-49-5	GSP-MW-21I-031816	GSP-MW13-022614	GSP-MW13-100812	GSP-MW14-022114	GSP-MW-14-032116
SAMPLE DATE	20140312	20140313	20140312	20160318	20140226	20121008	20140221	20160321
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	35	40	0	50	13	13	7	7
BOTTOM DEPTH	40	45	5	60	23	23	12	12
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.15 U	0.3 U	0.15 U	0.15 U	0.15 U	0.3 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.45 U	0.19 U	0.19 U	0.19 U	0.45 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U	0.12 U	0.41 U	0.12 U	0.12 U	0.12 U	0.41 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 U	0.82 UJ	0.67 UJ	0.67 U	0.67 U	0.82 UJ
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.25 U	0.13 U	0.13 U	0.13 U	0.25 U
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.23 U	0.22 U	0.22 U	0.22 U	0.23 U
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U	0.25 U	0.18 U	0.18 U	0.18 U	0.25 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.19 U	0.14 U	0.14 U	0.14 U	0.19 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.27 U	0.13 U	0.13 U	0.13 U	0.27 U
2-BUTANONE	**3.7 J**	**3.4 J**	0.57 U	0.53 UJ	0.57 U	0.57 U	0.57 U	0.53 UJ
2-HEXANONE	0.41 U	0.41 U	0.41 U	0.48 UJ	0.41 UJ	0.41 U	0.41 U	0.48 U
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.32 U	0.99 UJ	0.32 U	0.32 U	0.32 U	0.99 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	14 U	**28**	5.3 U	**15 J**	2.5 U	1.1 U	1.1 UJ	0.94 UJ
BENZENE	**0.37 J**	0.13 U	0.13 U	0.35 U	0.13 U	0.13 U	0.13 U	0.35 U
BROMOMETHANE	0.41 U	0.41 U	0.41 U	0.44 U	0.41 UJ	0.41 U	0.41 UJ	0.44 U
CARBON DISULFIDE	**0.95 J**	**0.36 J**	0.13 U	**2.5**	0.13 U	0.13 U	0.13 UJ	0.38 UJ
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U	0.43 U	0.13 U	0.13 U	0.13 U	0.43 U
CHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.25 U	0.15 U	0.15 U	0.15 U	0.25 U
CHLOROFORM	0.16 U	0.16 U	0.16 U	0.25 U	0.16 U	0.16 U	0.16 U	0.25 U
CHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.44 U	0.3 U	0.3 U	0.3 UJ	0.44 UJ
CIS-1,2-DICHLOROETHENE	0.17 U	0.17 U	0.17 U	0.26 U	0.17 U	0.17 U	0.17 U	0.26 U
ETHYLBENZENE	0.17 UJ	0.17 U	0.17 U	0.25 U	0.17 U	0.17 U	0.17 U	0.25 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.17 U	0.17 U	0.17 U	0.2 UJ	0.17 U	0.17 U	0.17 U	0.2 U
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.24 UJ	**0.24 J**	0.24 U	0.45 UJ	0.24 U	0.24 U	0.24 UJ	0.45 U
O-XYLENE	0.14 UJ	0.14 U	0.14 U	0.25 U	0.14 U	0.14 U	0.14 U	0.25 U
STYRENE	0.11 UJ	0.11 U	0.11 U	0.45 U	0.11 U	0.11 U	0.11 U	0.45 U
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.067 U	0.3 UJ	0.067 U	NA	0.067 U	0.3 U
TERTIARY-BUTYL ALCOHOL	**10 J**	9.4 U	3.9 U	4.9 UJ	3.9 U	3.9 UR	3.9 U	4.9 UJ
TOLUENE	**0.41 J**	**0.16 J**	0.13 U	0.23 U	0.13 U	0.13 U	0.13 U	0.23 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	0.14 UJ	0.14 U	0.14 U	0.52 U	0.14 U	0.28 U	0.14 U	0.52 U
TOTAL XYLENES DETECTED	NA	NA	NA	0 U	NA	NA	NA	0 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.3 U	0.19 U	0.19 U	0.19 U	0.3 U
TRICHLOROETHENE	**1.2**	0.17 U	0.17 U	0.22 U	0.17 U	0.17 U	0.17 U	0.22 U
TRICHLOROFLUOROMETHANE	0.21 U	0.21 U	0.21 U	0.49 U	0.21 UJ	0.21 U	0.21 U	0.49 UJ
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	0.29 U	0.22 U	0.22 U	0.22 U	0.29 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GPS-DPT-49			GSP-MW/SB-021I	GSP-MW-13		GSP-MW-14	
SAMPLE ID	GSP-DPT-49-40	GSP-DPT-49-45	GSP-DPT-49-5	GSP-MW-21I-031816	GSP-MW13-022614	GSP-MW13-100812	GSP-MW14-022114	GSP-MW-14-032116
SAMPLE DATE	20140312	20140313	20140312	20160318	20140226	20121008	20140221	20160321
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	35	40	0	50	13	13	7	7
BOTTOM DEPTH	40	45	5	60	23	23	12	12
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	**4.4 NJ**	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	**2.3 NJ**	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	**3 NJ**	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	**1.6 NJ**	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	**2.5 NJ**	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	**1.6 NJ**	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	**1.2 NJ**	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GPS-DPT-49			GSP-MW/SB-021I	GSP-MW-13		GSP-MW-14	
SAMPLE ID	GSP-DPT-49-40	GSP-DPT-49-45	GSP-DPT-49-5	GSP-MW-21I-031816	GSP-MW13-022614	GSP-MW13-100812	GSP-MW14-022114	GSP-MW-14-032116
SAMPLE DATE	20140312	20140313	20140312	20160318	20140226	20121008	20140221	20160321
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	35	40	0	50	13	13	7	7
BOTTOM DEPTH	40	45	5	60	23	23	12	12
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	3.5 R	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	3.4 R	4.9 R	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	NA	NA	NA	0.25 U	0.3 U	0.78 U	0.3 U	0.25 U
2,4-DINITROTOLUENE	NA	NA	NA	0.25 U	0.3 U	0.26 U	0.3 U	0.25 U
2,6-DINITROTOLUENE	NA	NA	NA	0.78 U	0.95 U	0.78 U	0.98 U	0.79 U
2-METHYLNAPHTHALENE	NA	NA	NA	0.089 U	0.11 U	0.098 U	0.11 U	0.09 U
2-METHYLPHENOL	NA	NA	NA	0.17 U	0.2 U	0.78 U	0.21 U	0.17 U
2-NITROPHENOL	NA	NA	NA	0.27 U	0.33 U	0.27 U	0.34 U	0.28 U
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	0.043 U	0.053 U	0.098 U	0.054 U	0.044 U
ACETOPHENONE	NA	NA	NA	0.33 U	0.4 U	0.33 U	0.41 U	0.34 U
ANTHRACENE	NA	NA	NA	0.086 U	0.1 U	0.098 U	0.11 U	0.087 U
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	1.7 U	2 U	0.78 U	2.1 U	1.7 U
BUTYL BENZYL PHTHALATE	NA	NA	NA	0.25 U	0.31 U	0.78 U	0.32 U	0.26 U
CAPROLACTAM	NA	NA	NA	0.2 UJ	0.24 U	0.78 U	0.24 U	0.2 U
CARBAZOLE	NA	NA	NA	0.27 U	0.33 U	0.27 U	0.34 U	0.28 U
DIBENZOFURAN	NA	NA	NA	0.02 U	0.024 U	0.098 U	0.024 U	0.02 U
DIETHYL PHTHALATE	NA	NA	NA	0.59 U	0.71 U	0.59 U	0.73 U	0.59 U
DI-N-BUTYL PHTHALATE	NA	NA	NA	1.7 U	2 U	0.66 U	2.1 U	1.7 U
FLUORANTHENE	NA	NA	NA	0.044 U	0.053 U	0.098 U	0.054 U	0.044 U
FLUORENE	NA	NA	NA	0.04 U	0.048 U	0.098 U	0.049 U	0.04 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	NA	0 U	0 U	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	**0.1915**	**0.233**	**0.441**	**0.239**	**0.194**
ISOPHORONE	NA	NA	NA	0.26 U	0.32 U	0.26 U	0.33 U	0.27 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	NA	0 U	0 U	0 U	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	**0.2355**	**0.285**	**0.392**	**0.2935**	**0.238**
NAPHTHALENE	NA	NA	NA	0.061 U	0.075 U	0.098 U	0.076 U	0.062 U
N-NITROSODIMETHYLAMINE	NA	NA	NA	0.3 U	0.37 U	0.3 U	0.38 U	0.31 U
PHENANTHRENE	NA	NA	NA	0.061 U	0.074 U	0.098 U	0.075 U	0.061 U
PHENOL	NA	NA	NA	0.59 U	0.71 U	0.59 U	0.73 U	0.59 U
PYRENE	NA	NA	NA	0.041 U	0.05 U	0.098 U	0.051 U	0.042 U
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GPS-DPT-49			GSP-MW/SB-021I	GSP-MW-13		GSP-MW-14	
SAMPLE ID	GSP-DPT-49-40	GSP-DPT-49-45	GSP-DPT-49-5	GSP-MW-21I-031816	GSP-MW13-022614	GSP-MW13-100812	GSP-MW14-022114	GSP-MW-14-032116
SAMPLE DATE	20140312	20140313	20140312	20160318	20140226	20121008	20140221	20160321
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	35	40	0	50	13	13	7	7
BOTTOM DEPTH	40	45	5	60	23	23	12	12
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	NA	**0.1935**	NA	NA	NA	**0.191**
DISSOLVED METALS (UG/L)								
ANTIMONY	NA	NA	NA	2.4 U	2.1 U	0.6 B	2.1 U	2.4 U
ARSENIC	NA	NA	NA	**4 J**	**3.2 J**	**1.2 J**	3.2 U	2.9 U
BARIUM	NA	NA	NA	14 U	**10 J**	4.1 B	**27 J**	40 U
BERYLLIUM	NA	NA	NA	0.13 U	0.46 U	0.2 U	0.46 U	0.19 U
CADMIUM	NA	NA	NA	0.14 U	0.66 U	0.13 U	0.66 U	0.14 U
CHROMIUM	NA	NA	NA	**0.58 J**	2.2 U	0.71 UL	2.2 U	0.55 U
COBALT	NA	NA	NA	**8.9 J**	1.7 U	0.072 B	**2.1 J**	**6.8 J**
COPPER	NA	NA	NA	**1.9 J**	4.5 U	1.2 B	4.5 U	1.9 U
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	1.9 U	1.9 U	0.18 U	1.9 U	1.9 U
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	0.09 U	0.12 U	0.12 U	**0.18 J**	0.09 U
MOLYBDENUM	NA	NA	NA	0.53 U	**6.2 J**	**5.9 J**	1.3 U	0.53 U
NICKEL	NA	NA	NA	**13 J**	3.2 U	1.3 B	3.2 U	**8.9 J**
SELENIUM	NA	NA	NA	4 U	4.1 U	**2.6 J**	4.1 U	4 U
THALLIUM	NA	NA	NA	1.7 U	4.7 U	0.14 B	4.7 U	**1.7 J**
VANADIUM	NA	NA	NA	2.4 U	2.4 U	**0.83 J**	2.4 U	2.4 U
ZINC	NA	NA	NA	18 U	5 U	2.6 B	6.2 U	19 U
METALS (UG/L)								
ANTIMONY	NA	NA	NA	2.4 U	2.8 U	**0.73 J**	2.1 U	2.4 U
ARSENIC	NA	NA	NA	**18**	**5 J**	**5.4 L**	3.2 U	2.9 U
BARIUM	NA	NA	NA	23 U	**20 J**	33 B	**25 J**	46 U
BERYLLIUM	NA	NA	NA	0.32 U	0.46 U	**0.26 J**	0.46 U	0.19 U
CADMIUM	NA	NA	NA	0.14 U	0.66 U	0.13 U	0.66 U	0.14 U
CHROMIUM	NA	NA	NA	**9.3 J**	**6.6 J**	**17**	2.2 U	0.55 U
COBALT	NA	NA	NA	**11**	1.7 U	**1.9**	**1.8 J**	**7.9 J**
COPPER	NA	NA	NA	**34**	**4.6 J**	**6.7**	4.5 U	1.9 U
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	1.9 U	1.9 U	**7.4**	1.9 U	1.9 U
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	**0.29**	0.12 U	0.15 B	0.12 U	0.09 U
MOLYBDENUM	NA	NA	NA	1.7 U	**6.4 J**	**5.8 J**	1.3 U	1.7 U
NICKEL	NA	NA	NA	**14 J**	3.2 U	**5.6**	3.2 U	**8.3 J**
SELENIUM	NA	NA	NA	4 U	4.1 U	**2.6 J**	4.1 U	4 U
SILVER	NA	NA	NA	0.92 U	2.2 U	0.08 U	2.2 U	0.92 U
THALLIUM	NA	NA	NA	1.7 U	4.7 U	0.28 B	4.7 U	1.7 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GPS-DPT-49			GSP-MW/SB-021I	GSP-MW-13		GSP-MW-14	
SAMPLE ID	GSP-DPT-49-40	GSP-DPT-49-45	GSP-DPT-49-5	GSP-MW-21I-031816	GSP-MW13-022614	GSP-MW13-100812	GSP-MW14-022114	GSP-MW-14-032116
SAMPLE DATE	20140312	20140313	20140312	20160318	20140226	20121008	20140221	20160321
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	35	40	0	50	13	13	7	7
BOTTOM DEPTH	40	45	5	60	23	23	12	12
VANADIUM	NA	NA	NA	**67**	**9.3 J**	**23 L**	2.4 U	2.4 U
ZINC	NA	NA	NA	35 U	27 U	29 B	5 U	19 U
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	0.051 U	NA	NA	NA	0.051 UJ
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	25 U	25 U	61 B	**30 J**	**38 J**
TPH (C10-C32)	NA	NA	NA	240 U	260 U	230 U	260 UJ	250 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GPS-NW-14	GSP-MW-15		GSP-MW-16				
SAMPLE ID	GSP-MW14-101112	GSP-MW15-022114	GSP-MW15-100812	GSP-MW16-022114	GSP-MW-16-032116	GSP-MW-16-032116-AVG	GSP-MW-16-032116-D	GSP-MW16-101012
SAMPLE DATE	20121011	20140221	20121008	20140221	20160321	20160321	20160321	20121010
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	7	10	10	20	20	20	20	20
BOTTOM DEPTH	12	20	20	30	30	30	30	30
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.3 U	0.3 U	0.3 U	0.15 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.45 U	0.45 U	0.45 U	0.19 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	0.41 U	0.41 U	0.41 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 U	0.67 U	0.82 UJ	0.82 U	0.82 UJ	0.67 U
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.25 U	0.25 U	0.25 U	0.13 U
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.22 U
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U	0.18 U	0.25 U	0.25 U	0.25 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.14 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.27 U	0.27 U	0.27 U	0.13 U
2-BUTANONE	**0.68 J**	0.57 U	0.57 U	0.57 U	0.53 UJ	0.53 U	0.53 UJ	0.57 U
2-HEXANONE	0.41 U	0.41 U	0.41 U	0.41 U	0.48 U	0.48 U	0.48 U	0.41 U
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.32 U	0.32 U	0.99 U	0.99 U	0.99 U	0.32 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	**1.9 J**	1.1 UJ	**2.5 J**	**2.8 J**	0.94 UJ	0.94 U	0.94 UJ	1.1 U
BENZENE	**0.14 J**	0.13 U	0.13 U	0.13 U	0.35 U	0.35 U	0.35 U	**0.19 J**
BROMOMETHANE	**0.48 J**	0.41 UJ	0.41 U	0.41 UJ	0.44 U	0.44 U	0.44 U	0.41 U
CARBON DISULFIDE	**0.26 J**	0.13 UJ	0.13 U	0.13 UJ	0.38 UJ	0.38 U	0.38 UJ	0.13 U
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U	**0.45 J**	0.43 U	0.43 U	0.43 U	**0.71 J**
CHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	0.25 U	0.25 U	0.25 U	0.15 U
CHLOROFORM	**0.36 J**	0.16 U	0.16 U	0.16 U	0.25 U	0.25 U	0.25 U	0.16 U
CHLOROMETHANE	**0.54 J**	0.3 UJ	0.3 U	0.3 UJ	0.44 UJ	0.44 U	0.44 UJ	0.3 U
CIS-1,2-DICHLOROETHENE	0.17 U	0.17 U	0.17 U	**6.1**	**4.6**	**4.45**	**4.3**	**6**
ETHYLBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.17 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.17 U	0.17 U	0.17 U	**2**	**1.6**	**1.6**	**1.6**	**3 J**
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.24 U	0.24 UJ	0.24 U	0.24 UJ	0.45 U	0.45 U	0.45 U	**0.47 J**
O-XYLENE	0.14 U	0.14 U	0.14 U	0.14 U	0.25 U	0.25 U	0.25 U	0.14 U
STYRENE	0.11 U	0.11 U	0.11 U	0.11 U	0.45 U	0.45 U	0.45 U	0.11 U
TERT-AMYL METHYL ETHER	NA	0.067 U	NA	**0.19 J**	0.3 U	0.3 U	0.3 U	NA
TERTIARY-BUTYL ALCOHOL	3.9 UR	3.9 U	3.9 UR	3.9 U	4.9 UJ	4.9 U	4.9 UJ	3.9 UR
TOLUENE	**0.14 J**	0.13 U	**0.28 J**	0.13 U	0.23 U	0.23 U	0.23 U	0.13 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	0.28 U	0.14 U	0.28 U	0.14 U	0.52 U	0.52 U	0.52 U	0.28 U
TOTAL XYLENES DETECTED	NA	NA	NA	NA	0 U	0 U	0 U	NA
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.3 U	0.3 U	0.3 U	0.19 U
TRICHLOROETHENE	**0.3 J**	0.17 U	0.17 U	**13**	**12**	**12**	**12**	**17**
TRICHLOROFLUOROMETHANE	0.21 U	0.21 U	0.21 U	0.21 U	0.49 UJ	0.49 U	0.49 UJ	0.21 U
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	0.22 U	0.29 U	0.29 U	0.29 U	0.22 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GPS-NW-14	GSP-MW-15		GSP-MW-16				
SAMPLE ID	GSP-MW14-101112	GSP-MW15-022114	GSP-MW15-100812	GSP-MW16-022114	GSP-MW-16-032116	GSP-MW-16-032116-AVG	GSP-MW-16-032116-D	GSP-MW16-101012
SAMPLE DATE	20121011	20140221	20121008	20140221	20160321	20160321	20160321	20121010
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	7	10	10	20	20	20	20	20
BOTTOM DEPTH	12	20	20	30	30	30	30	30
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	**6.3 NJ**	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	**27 NJ**	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GPS-NW-14	GSP-MW-15		GSP-MW-16				
SAMPLE ID	GSP-MW14-101112	GSP-MW15-022114	GSP-MW15-100812	GSP-MW16-022114	GSP-MW-16-032116	GSP-MW-16-032116-AVG	GSP-MW-16-032116-D	GSP-MW16-101012
SAMPLE DATE	20121011	20140221	20121008	20140221	20160321	20160321	20160321	20121010
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	7	10	10	20	20	20	20	20
BOTTOM DEPTH	12	20	20	30	30	30	30	30
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	1.2 U	0.28 U	0.77 U	0.27 U	0.25 U	0.245 U	0.24 U	0.78 U
2,4-DINITROTOLUENE	0.41 U	0.28 U	0.26 U	0.27 U	0.25 U	0.245 U	0.24 U	0.26 U
2,6-DINITROTOLUENE	1.2 U	0.89 U	0.77 U	0.87 U	0.78 U	0.77 U	0.76 U	0.78 U
2-METHYLNAPHTHALENE	0.15 U	0.1 U	0.096 U	0.098 U	0.089 U	0.0875 U	0.086 U	0.097 U
2-METHYLPHENOL	1.2 U	0.19 U	0.77 U	0.18 U	0.17 U	0.165 U	0.16 U	0.78 U
2-NITROPHENOL	0.42 U	0.31 U	0.27 U	0.3 U	0.27 U	0.27 U	0.27 U	0.27 U
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	0.15 U	0.049 U	0.096 U	0.048 U	0.043 U	0.0425 U	0.042 U	0.097 U
ACETOPHENONE	0.52 U	0.38 U	0.33 U	0.37 U	0.33 U	0.325 U	0.32 U	0.33 U
ANTHRACENE	0.15 U	0.098 U	0.096 U	0.096 U	0.086 U	0.085 U	0.084 U	0.097 U
BIS(2-ETHYLHEXYL)PHTHALATE	**2.5 J**	1.9 U	0.77 U	1.8 U	**1.8 J**	**1.75**	**1.7 J**	0.78 U
BUTYL BENZYL PHTHALATE	1.2 U	0.29 U	0.77 U	0.28 U	0.25 U	0.25 U	0.25 U	0.78 U
CAPROLACTAM	1.2 U	0.22 U	0.77 U	**0.8 J**	0.2 U	0.195 U	0.19 U	0.78 U
CARBAZOLE	0.42 U	0.31 U	0.27 U	0.3 U	0.27 U	0.27 U	0.27 U	0.27 U
DIBENZOFURAN	0.15 U	0.022 U	0.096 U	0.022 U	0.02 U	0.0195 U	0.019 U	0.097 U
DIETHYL PHTHALATE	0.91 U	0.67 U	0.58 U	0.65 U	0.59 U	0.58 U	0.57 U	0.58 U
DI-N-BUTYL PHTHALATE	1 U	1.9 U	0.64 U	1.8 U	1.7 U	1.65 U	1.6 U	0.65 U
FLUORANTHENE	0.15 U	0.05 U	0.096 U	0.048 U	0.044 U	0.043 U	0.042 U	0.097 U
FLUORENE	0.15 U	0.045 U	0.096 U	0.044 U	0.04 U	0.0395 U	0.039 U	0.097 U
HIGH MOLECULAR WEIGHT PAHS	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	**0.675**	**0.2185**	**0.432**	**0.213**	**0.1915**	**0.189**	**0.1865**	**0.4365**
ISOPHORONE	0.41 U	0.3 U	0.26 U	0.29 U	0.26 U	0.26 U	0.26 U	0.26 U
LOW MOLECULAR WEIGHT PAHS	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	**0.6**	**0.267**	**0.384**	**0.2605**	**0.2355**	**0.23225**	**0.229**	**0.388**
NAPHTHALENE	0.15 U	0.07 U	0.096 U	0.068 U	0.061 U	0.0605 U	0.06 U	0.097 U
N-NITROSODIMETHYLAMINE	0.47 U	0.34 U	0.3 U	0.34 U	0.3 U	0.3 U	0.3 U	0.3 U
PHENANTHRENE	0.15 U	0.069 U	0.096 U	0.067 U	0.061 U	0.06 U	0.059 U	0.097 U
PHENOL	0.91 U	0.67 U	0.58 U	0.65 U	0.59 U	0.58 U	0.57 U	0.58 U
PYRENE	0.15 U	0.047 U	0.096 U	0.046 U	0.041 U	0.0405 U	0.04 U	0.097 U
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GPS-NW-14	GSP-MW-15		GSP-MW-16				
SAMPLE ID	GSP-MW14-101112	GSP-MW15-022114	GSP-MW15-100812	GSP-MW16-022114	GSP-MW-16-032116	GSP-MW-16-032116-AVG	GSP-MW-16-032116-D	GSP-MW16-101012
SAMPLE DATE	20121011	20140221	20121008	20140221	20160321	20160321	20160321	20121010
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	7	10	10	20	20	20	20	20
BOTTOM DEPTH	12	20	20	30	30	30	30	30
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	NA	NA	**0.1865**	**0.187**	**0.1875**	NA
DISSOLVED METALS (UG/L)								
ANTIMONY	**0.59 J**	2.1 U	0.13 U	5.7 U	2.4 U	2.4 U	2.4 U	0.13 U
ARSENIC	**1.3 J**	3.2 U	0.4 U	3.2 U	2.9 U	2.9 U	2.9 U	**0.73 J**
BARIUM	**77**	**34 J**	**43**	**120 J**	100 U	100 U	100 U	**170**
BERYLLIUM	0.2 U	0.46 U	0.2 U	**2.2 J**	2.2 U	2.25 U	2.3 U	**1.7**
CADMIUM	0.13 U	0.66 U	0.13 U	**0.74 J**	**0.7 J**	**0.695**	**0.69 J**	0.43 B
CHROMIUM	0.71 UL	2.2 U	0.71 UL	2.2 U	**1 J**	**0.88**	**0.76 J**	**0.8 J**
COBALT	0.31 B	**5.5 J**	**4.8**	**38**	**41**	**41**	**41**	**30**
COPPER	0.75 B	4.5 U	1.1 B	**42**	**39**	**38.5**	**38**	**30 K**
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	0.18 U	1.9 U	0.18 U	1.9 U	1.9 U	1.9 U	1.9 U	**0.24 J**
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	**0.12 J**	0.12 U	0.12 U	0.12 U	0.09 U	0.09 U	0.09 U	0.12 U
MOLYBDENUM	**6.2 J**	1.3 U	0.093 UL	1.3 U	0.53 U	0.53 U	0.53 U	0.093 U
NICKEL	**0.8 J**	**6 J**	**6.1**	**21 J**	**23 J**	**23.5**	**24 J**	**19**
SELENIUM	0.57 U	4.1 U	**2.3 J**	4.1 U	4 U	4 U	4 U	**1.6 J**
THALLIUM	0.16 B	4.7 U	0.15 B	4.7 U	**2.8 J**	**2.3**	**1.8 J**	0.19 B
VANADIUM	0.44 UL	2.4 U	0.44 UL	4.2 U	**3.3 J**	**3.05**	**2.8 J**	**0.99 J**
ZINC	6.2 B	8.3 U	7.4 B	**48 J**	**50**	**50.5**	**51**	41 B
METALS (UG/L)								
ANTIMONY	**0.36 J**	2.1 U	0.13 U	5.3 U	**4.1 J**	**2.65**	2.4 U	0.13 U
ARSENIC	**0.44 J**	3.2 U	0.4 UL	3.2 U	2.9 U	2.9 U	2.9 U	**0.57 J**
BARIUM	**80**	**35 J**	**43**	**120 J**	100 U	100 U	100 U	**170**
BERYLLIUM	0.2 U	0.46 U	0.2 U	**2.2 J**	2.3 U	2.3 U	2.3 U	**1.7**
CADMIUM	0.13 U	0.66 U	**0.13 J**	**0.68 J**	**0.71 J**	**0.76**	**0.81 J**	0.45 B
CHROMIUM	0.71 UL	2.2 U	0.71 UL	2.2 U	**0.73 J**	**0.81**	**0.89 J**	0.71 UL
COBALT	0.21 B	**5.7 J**	**4.9**	**38**	**41**	**41**	**41**	**30**
COPPER	0.81 B	4.5 U	0.5 B	**38**	**39**	**39**	**39**	**32 K**
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	0.18 U	1.9 U	0.18 U	1.9 U	1.9 U	1.9 U	1.9 U	**0.26 J**
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.12 U	0.12 U	0.17 B	0.12 U	0.09 U	0.09 U	0.09 U	0.12 U
MOLYBDENUM	**4.8 J**	1.3 U	0.093 UL	1.3 U	1.6 U	1.065 U	0.53 U	0.093 U
NICKEL	**0.54 J**	**5 J**	**5.6**	**21 J**	**23 J**	**23**	**23 J**	**19**
SELENIUM	**0.65 J**	4.1 U	**2.4 J**	4.1 U	4 U	4 U	4 U	**1.5 J**
SILVER	0.08 U	2.2 U	0.08 U	2.2 U	0.92 U	0.92 U	0.92 U	0.08 U
THALLIUM	0.23 B	4.7 U	0.16 B	4.7 U	**4.2 J**	**3.05**	**1.9 J**	0.22 B

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GPS-NW-14	GSP-MW-15		GSP-MW-16				
SAMPLE ID	GSP-MW14-101112	GSP-MW15-022114	GSP-MW15-100812	GSP-MW16-022114	GSP-MW-16-032116	GSP-MW-16-032116-AVG	GSP-MW-16-032116-D	GSP-MW16-101012
SAMPLE DATE	20121011	20140221	20121008	20140221	20160321	20160321	20160321	20121010
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	GW07	GW07	GW07	GW07	GW07	GW07	GW07	GW07
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	7	10	10	20	20	20	20	20
BOTTOM DEPTH	12	20	20	30	30	30	30	30
VANADIUM	0.44 UL	2.4 U	0.44 UL	4.7 U	2.4 U	2.4 U	2.4 U	**0.87 J**
ZINC	3.9 B	6.3 U	5.4 B	**45 J**	**50**	**50**	**50**	40 B
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	0.051 UJ	0.051 U	0.051 UJ	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	30 B	25 U	53 B	**34 J**	**47 J**	**43.5**	**40 J**	43 B
TPH (C10-C32)	**270 J**	260 UJ	230 U	260 UJ	**320 J**	**220**	240 U	230 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-044	GSP-SB-048	GSP-DPT-45					
SAMPLE ID	GSP-SB/WP-44-20100524	GSP-SB/WP-48-20100427	GSP-DPT-45-15	GSP-DPT-45-20	GSP-DPT-45-25	GSP-DPT-45-30	GSP-DPT-45-35	GSP-DPT-45-40
SAMPLE DATE	20100524	20100427	20140307	20140307	20140307	20140307	20140307	20140310
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW08	GW08	GW08	GW08	GW08	GW08
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	7	6	10	15	20	25	30	35
BOTTOM DEPTH	7	6	15	20	25	30	35	40
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.15 U	0.15 U	15 U	2.5 U	0.3 U	0.15 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	19 U	3.2 U	0.38 U	0.19 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	12 U	2 U	0.24 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 U	0.67 U	67 U	11 U	1.3 U	0.67 U
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	13 U	2.2 U	0.26 U	0.13 U
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	22 U	3.7 U	0.44 U	0.22 U
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U	0.18 U	18 U	3 U	0.36 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	14 U	2.3 U	0.28 U	0.14 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	13 U	2.2 U	0.26 U	0.13 U
2-BUTANONE	0.57 U	0.57 U	0.57 U	**1.8 J**	57 U	9.5 U	**2.4 J**	0.57 U
2-HEXANONE	0.41 U	0.41 U	0.41 U	0.41 U	41 U	6.8 U	0.82 U	0.41 U
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.32 U	0.32 U	32 U	5.3 U	0.64 U	0.32 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	**1.5 J**	1.1 U	**3.4 J**	**7 J**	110 U	18 U	**11 J**	**3.5 J**
BENZENE	0.13 U	0.13 U	0.13 U	**0.21 J**	13 U	2.2 U	**0.85 J**	**0.58 J**
BROMOMETHANE	0.41 U	0.41 U	0.41 U	0.41 U	41 U	6.8 U	0.82 U	0.41 U
CARBON DISULFIDE	0.13 U	0.13 U	**0.16 J**	**0.15 J**	13 U	2.2 U	0.26 U	0.13 U
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U	0.13 U	13 U	2.2 U	0.26 U	0.13 U
CHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	15 U	**3.9 J**	**0.94 J**	**0.65 J**
CHLOROFORM	0.16 U	0.16 U	0.16 U	0.16 U	16 U	2.7 U	0.32 U	**1.2**
CHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U	30 U	5 U	0.6 U	0.3 U
CIS-1,2-DICHLOROETHENE	0.17 U	0.17 U	0.17 U	0.17 U	17 U	2.8 U	**2.3**	**9.4**
ETHYLBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	17 U	2.8 U	0.34 U	0.17 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	24 U	4 U	0.48 U	0.24 U
METHYL TERT-BUTYL ETHER	**3 J**	0.17 U	0.17 U	0.17 U	17 U	2.8 U	0.34 U	**0.55 J**
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U	33 U	5.5 U	0.66 U	0.33 U
NAPHTHALENE	0.24 U	0.24 U	0.24 U	0.24 U	24 U	4 U	0.48 U	0.24 U
O-XYLENE	0.14 U	0.14 U	0.14 U	0.14 U	14 U	2.3 U	0.28 U	0.14 U
STYRENE	0.11 U	0.11 U	0.11 U	0.11 U	11 U	1.8 U	0.22 U	0.11 U
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.067 U	0.067 U	6.7 U	1.1 U	0.13 U	0.067 U
TERTIARY-BUTYL ALCOHOL	3.9 UR	3.9 UR	3.9 U	3.9 U	390 U	65 U	7.8 U	3.9 UJ
TOLUENE	0.13 U	0.13 U	0.13 U	**0.2 J**	13 U	2.2 U	**0.35 J**	0.13 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	0.28 U	0.28 U	0.14 U	0.14 U	14 U	2.3 U	0.28 U	0.14 U
TOTAL XYLENES DETECTED	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	19 U	3.2 U	0.38 U	0.19 U
TRICHLOROETHENE	0.17 U	0.17 U	0.17 U	**3.2**	**2200**	**580**	**52**	**20**
TRICHLOROFLUOROMETHANE	0.21 U	**0.59 J**	0.21 U	0.21 U	21 U	3.5 U	0.42 U	0.21 U
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	0.22 U	22 U	3.7 U	0.44 U	0.22 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-044	GSP-SB-048	GSP-DPT-45					
SAMPLE ID	GSP-SB/WP-44-20100524	GSP-SB/WP-48-20100427	GSP-DPT-45-15	GSP-DPT-45-20	GSP-DPT-45-25	GSP-DPT-45-30	GSP-DPT-45-35	GSP-DPT-45-40
SAMPLE DATE	20100524	20100427	20140307	20140307	20140307	20140307	20140307	20140310
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW08	GW08	GW08	GW08	GW08	GW08
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	7	6	10	15	20	25	30	35
BOTTOM DEPTH	7	6	15	20	25	30	35	40
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	**2.4 NJ**	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	**2.3 NJ**	NA
1-PENTENE	NA	NA	NA	**1.4 NJ**	NA	NA	**3.2 NJ**	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	**1.4 NJ**	**5.9 NJ**	NA	NA	**14 NJ**	**3.5 NJ**
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	**1.2 NJ**
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	**1.6 NJ**	NA	NA	**2.4 NJ**	**4.2 NJ**
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	**7.7 NJ**	**10 NJ**
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	**3.7 NJ**
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	**1.7 NJ**	NA	NA	**4.2 NJ**	**1.1 NJ**
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-044	GSP-SB-048	GSP-DPT-45					
SAMPLE ID	GSP-SB/WP-44-20100524	GSP-SB/WP-48-20100427	GSP-DPT-45-15	GSP-DPT-45-20	GSP-DPT-45-25	GSP-DPT-45-30	GSP-DPT-45-35	GSP-DPT-45-40
SAMPLE DATE	20100524	20100427	20140307	20140307	20140307	20140307	20140307	20140310
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW08	GW08	GW08	GW08	GW08	GW08
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	7	6	10	15	20	25	30	35
BOTTOM DEPTH	7	6	15	20	25	30	35	40
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	1.3 R
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	0.8 U	0.8 U	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	0.27 U	0.27 U	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	0.8 U	0.8 U	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	0.8 U	0.8 U	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	0.28 U	0.28 U	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	0.8 U	0.8 U	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA
ACETOPHENONE	0.34 U	0.34 U	NA	NA	NA	NA	NA	NA
ANTHRACENE	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	**1.2 J**	0.8 U	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	0.84 B	0.8 U	NA	NA	NA	NA	NA	NA
CAPROLACTAM	0.8 U	0.8 U	NA	NA	NA	NA	NA	NA
CARBAZOLE	0.28 U	0.28 U	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	0.6 U	0.6 U	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	0.67 U	0.67 U	NA	NA	NA	NA	NA	NA
FLUORANTHENE	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA
FLUORENE	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS	0 U	0 U	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	**0.45**	**0.45**	NA	NA	NA	NA	NA	NA
ISOPHORONE	0.27 U	0.27 U	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS	0 U	0 U	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	0.35 U	0.35 U	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	**0.4**	**0.4**	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	0.31 U	0.31 U	NA	NA	NA	NA	NA	NA
PHENANTHRENE	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA
PHENOL	1.1 B	0.6 U	NA	NA	NA	NA	NA	NA
PYRENE	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA
TOTAL PAHS	0 U	0 U	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	0.85 U	0.85 U	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	0.85 U	0.85 U	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-044	GSP-SB-048	GSP-DPT-45					
SAMPLE ID	GSP-SB/WP-44-20100524	GSP-SB/WP-48-20100427	GSP-DPT-45-15	GSP-DPT-45-20	GSP-DPT-45-25	GSP-DPT-45-30	GSP-DPT-45-35	GSP-DPT-45-40
SAMPLE DATE	20100524	20100427	20140307	20140307	20140307	20140307	20140307	20140310
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW08	GW08	GW08	GW08	GW08	GW08
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	7	6	10	15	20	25	30	35
BOTTOM DEPTH	7	6	15	20	25	30	35	40
PCBS (UG/L)								
TOTAL AROCLOR HALFND	**0.555**	**0.555**	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)								
ANTIMONY	0.76 B	NA	NA	NA	NA	NA	NA	NA
ARSENIC	**3.8 J**	NA	NA	NA	NA	NA	NA	NA
BARIUM	**44.9**	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	0.0059 U	NA	NA	NA	NA	NA	NA	NA
CADMIUM	0.025 U	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	**8.4**	NA	NA	NA	NA	NA	NA	NA
COBALT	0.15 B	NA	NA	NA	NA	NA	NA	NA
COPPER	**1 J**	NA	NA	NA	NA	NA	NA	NA
IRON	10.3 B	NA	NA	NA	NA	NA	NA	NA
LEAD	0.046 B	NA	NA	NA	NA	NA	NA	NA
MANGANESE	1.5 B	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.1 UL	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	1.6 B	NA	NA	NA	NA	NA	NA	NA
NICKEL	0.86 B	NA	NA	NA	NA	NA	NA	NA
SELENIUM	**3.4 J**	NA	NA	NA	NA	NA	NA	NA
THALLIUM	0.13 U	NA	NA	NA	NA	NA	NA	NA
VANADIUM	**102**	NA	NA	NA	NA	NA	NA	NA
ZINC	10.9 B	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)								
ANTIMONY	0.72 B	**1 J**	NA	NA	NA	NA	NA	NA
ARSENIC	**2.6 J**	**12.3**	NA	NA	NA	NA	NA	NA
BARIUM	**42.8**	**140**	NA	NA	NA	NA	NA	NA
BERYLLIUM	0.0059 U	**0.8 J**	NA	NA	NA	NA	NA	NA
CADMIUM	0.025 U	**0.32 J**	NA	NA	NA	NA	NA	NA
CHROMIUM	**8.5**	**62.2**	NA	NA	NA	NA	NA	NA
COBALT	0.18 B	**10.5**	NA	NA	NA	NA	NA	NA
COPPER	**0.99 J**	**29**	NA	NA	NA	NA	NA	NA
IRON	**120**	NA	NA	NA	NA	NA	NA	NA
LEAD	0.13 B	**21.8**	NA	NA	NA	NA	NA	NA
MANGANESE	5.7 B	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.1 UL	**0.37**	NA	NA	NA	NA	NA	NA
MOLYBDENUM	1.5 B	**7.4**	NA	NA	NA	NA	NA	NA
NICKEL	0.69 B	**17.9**	NA	NA	NA	NA	NA	NA
SELENIUM	**3.2 J**	**1.2 J**	NA	NA	NA	NA	NA	NA
SILVER	0.015 U	0.015 U	NA	NA	NA	NA	NA	NA
THALLIUM	0.13 U	0.34 B	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-044	GSP-SB-048	GSP-DPT-45					
SAMPLE ID	GSP-SB/WP-44-20100524	GSP-SB/WP-48-20100427	GSP-DPT-45-15	GSP-DPT-45-20	GSP-DPT-45-25	GSP-DPT-45-30	GSP-DPT-45-35	GSP-DPT-45-40
SAMPLE DATE	20100524	20100427	20140307	20140307	20140307	20140307	20140307	20140310
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW07	GW07	GW08	GW08	GW08	GW08	GW08	GW08
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	7	6	10	15	20	25	30	35
BOTTOM DEPTH	7	6	15	20	25	30	35	40
VANADIUM	**98.1**	**103**	NA	NA	NA	NA	NA	NA
ZINC	7.2 B	**110**	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	30 U	**110**	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	**33 J**	28 UJ	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION					GSP-MW/SB-022I	GSP-MW-09		GSP-MW-10
SAMPLE ID	GSP-DPT-45-45	GSP-DPT-45-5	GSP-DPT-45-50	GSP-DPT-45-55	GSP-MW-22I-031816	GSP-MW09-100512	GSP-MW9-022714	GSP-MW10-022714
SAMPLE DATE	20140310	20140307	20140310	20140310	20160318	20121005	20140227	20140227
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW08	GW08	GW08	GW08	GW08	GW08	GW08	GW08
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	40	0	45	50	50	10	10	12
BOTTOM DEPTH	45	5	50	55	60	20	20	22
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.25 U	0.15 U	0.38 U	0.15 U	1.2 U	0.15 U	0.15 U	0.15 U
1,1-DICHLOROETHENE	0.32 U	0.19 U	0.48 U	**0.26 J**	1.8 U	0.19 U	0.19 U	0.19 U
1,2,4-TRIMETHYLBENZENE	0.2 U	0.12 U	0.3 U	0.12 U	1.6 U	0.12 U	0.12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	1.1 U	0.67 U	1.7 U	0.67 U	3.3 UJ	0.67 U	0.67 UJ	0.67 UJ
1,2-DICHLOROBENZENE	0.22 U	0.13 U	0.33 U	0.13 U	1 U	0.13 U	0.13 U	0.13 U
1,2-DICHLOROETHANE	0.37 U	0.22 U	0.55 U	0.22 U	0.92 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROPROPANE	0.3 U	0.18 U	0.45 U	0.18 U	1 U	0.18 U	0.18 U	0.18 U
1,3-DICHLOROBENZENE	0.23 U	0.14 U	0.35 U	0.14 U	0.76 U	0.14 U	0.14 U	0.14 U
1,4-DICHLOROBENZENE	0.22 U	0.13 U	0.33 U	0.13 U	1.1 U	0.13 U	0.13 U	0.13 U
2-BUTANONE	0.95 UJ	**0.72 J**	1.4 U	**4.9 J**	2.1 UJ	0.57 U	0.57 U	0.57 U
2-HEXANONE	0.68 U	0.41 U	1 U	0.41 U	1.9 U	0.41 U	0.41 UJ	0.41 UJ
4-METHYL-2-PENTANONE	0.53 U	0.32 U	0.8 U	0.32 U	4 U	0.32 U	0.32 U	0.32 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	1.8 UJ	**3 J**	**5 J**	**18**	**310 J**	5.9 B	3.2 U	3.4 U
BENZENE	**0.77 J**	**0.15 J**	**1.4 J**	**0.74 J**	1.4 U	0.13 U	0.13 U	**4.1**
BROMOMETHANE	0.68 U	0.41 U	1 U	0.41 U	1.8 U	0.41 U	0.41 UJ	0.41 UJ
CARBON DISULFIDE	0.22 U	**0.22 J**	**0.72 J**	**0.14 J**	**3.2 J**	0.13 U	0.13 U	0.13 U
CARBON TETRACHLORIDE	**2.9**	0.13 U	**2.1 J**	0.13 U	**8.4**	0.13 U	0.13 U	0.13 U
CHLOROBENZENE	0.25 U	0.15 U	0.38 U	0.15 U	1 U	0.15 U	0.15 U	**0.19 J**
CHLOROFORM	**5.1**	0.16 U	**20**	**19**	**5.6**	0.16 U	0.16 U	**0.25 J**
CHLOROMETHANE	0.5 U	0.3 U	0.75 U	0.3 U	1.8 UJ	0.3 U	0.3 U	0.3 U
CIS-1,2-DICHLOROETHENE	**46**	0.17 U	**49**	**10**	**1.9 J**	0.17 U	0.17 U	**1.4**
ETHYLBENZENE	0.28 U	0.17 U	0.43 U	**0.21 J**	1 U	0.17 U	0.17 U	0.17 U
M+P-XYLENES	0.4 U	0.24 U	0.6 U	**0.24 J**	0.96 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	**2.8**	0.17 U	**0.95 J**	**0.24 J**	**3.9 J**	0.17 U	0.17 U	**0.36 J**
METHYLENE CHLORIDE	0.55 U	0.33 U	0.83 U	**2.4**	1.7 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.4 U	0.24 U	0.6 U	0.24 U	1.8 U	0.24 U	0.24 U	0.24 U
O-XYLENE	0.23 U	0.14 U	0.35 U	0.14 U	1 U	0.14 U	0.14 U	0.14 U
STYRENE	0.18 U	0.11 U	0.28 U	0.11 U	1.8 U	0.11 U	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	**0.28 J**	0.067 U	0.17 U	0.067 U	1.2 U	NA	0.067 U	0.067 U
TERTIARY-BUTYL ALCOHOL	6.5 UJ	3.9 U	9.8 UJ	**8.3 J**	20 UJ	3.9 UR	3.9 U	3.9 U
TOLUENE	0.22 U	0.13 U	0.33 U	**0.75 J**	0.92 U	0.21 B	0.13 U	0.13 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	0.23 U	0.14 U	0.35 U	**0.24 J**	2.1 U	0.28 U	0.14 U	0.14 U
TOTAL XYLENES DETECTED	NA	NA	NA	NA	0 U	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	0.32 U	0.19 U	0.48 U	0.19 U	1.2 U	0.19 U	0.19 U	0.19 U
TRICHLOROETHENE	**45**	0.17 U	**79**	**17**	**8.3**	0.17 U	0.17 U	**0.27 J**
TRICHLOROFLUOROMETHANE	0.35 U	0.21 U	0.53 U	0.21 U	2 UJ	0.21 U	0.21 UJ	0.21 UJ
VINYL CHLORIDE	0.37 U	0.22 U	0.55 U	0.22 U	1.2 U	0.22 U	0.22 U	0.22 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION					GSP-MW/SB-022I	GSP-MW-09		GSP-MW-10
SAMPLE ID	GSP-DPT-45-45	GSP-DPT-45-5	GSP-DPT-45-50	GSP-DPT-45-55	GSP-MW-22I-031816	GSP-MW09-100512	GSP-MW9-022714	GSP-MW10-022714
SAMPLE DATE	20140310	20140307	20140310	20140310	20160318	20121005	20140227	20140227
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW08	GW08	GW08	GW08	GW08	GW08	GW08	GW08
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	40	0	45	50	50	10	10	12
BOTTOM DEPTH	45	5	50	55	60	20	20	22
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	**5.7 NJ**	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	**7.2 NJ**	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	**1.3 NJ**	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	**4 NJ**	NA	NA	**1.1 NJ**	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	**3.8 NJ**	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	**4.1 NJ**	**2.5 NJ**	**23 NJ**	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	**1.1 NJ**	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	**1.6 NJ**	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	**2.3 NJ**
BUTANE	**2.3 NJ**	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	**8.1 NJ**	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	**3 NJ**	NA	**2.5 NJ**	**1.7 NJ**	NA	NA	NA	**2.5 NJ**
CYCLOBUTANE, METHYL-	NA	NA	NA	**5.3 NJ**	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	**3 NJ**	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	**1 NJ**
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	**1.3 NJ**	**4.1 NJ**	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION					GSP-MW/SB-022I	GSP-MW-09		GSP-MW-10
SAMPLE ID	GSP-DPT-45-45	GSP-DPT-45-5	GSP-DPT-45-50	GSP-DPT-45-55	GSP-MW-22I-031816	GSP-MW09-100512	GSP-MW9-022714	GSP-MW10-022714
SAMPLE DATE	20140310	20140307	20140310	20140310	20160318	20121005	20140227	20140227
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW08	GW08	GW08	GW08	GW08	GW08	GW08	GW08
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	40	0	45	50	50	10	10	12
BOTTOM DEPTH	45	5	50	55	60	20	20	22
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	1.3 R	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	0.25 U	0.77 U	0.27 U	0.28 U
2,4-DINITROTOLUENE	NA	NA	NA	NA	0.25 U	0.26 U	0.27 U	0.28 U
2,6-DINITROTOLUENE	NA	NA	NA	NA	0.81 U	0.77 U	0.87 U	0.89 U
2-METHYLNAPHTHALENE	NA	NA	NA	NA	0.091 U	0.096 U	0.098 U	0.1 U
2-METHYLPHENOL	NA	NA	NA	NA	0.17 U	0.77 U	0.18 U	0.19 U
2-NITROPHENOL	NA	NA	NA	NA	0.28 U	0.27 U	0.3 U	0.31 U
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	0.045 U	0.096 U	0.048 U	0.049 U
ACETOPHENONE	NA	NA	NA	NA	0.34 U	0.33 U	0.37 U	0.38 U
ANTHRACENE	NA	NA	NA	NA	0.089 U	0.096 U	0.096 U	0.098 U
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	1.7 U	0.77 U	1.8 U	1.9 U
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	0.26 U	0.77 U	0.28 U	0.29 U
CAPROLACTAM	NA	NA	NA	NA	0.2 UJ	0.77 U	0.22 U	0.22 U
CARBAZOLE	NA	NA	NA	NA	0.28 U	0.27 U	0.3 U	0.31 U
DIBENZOFURAN	NA	NA	NA	NA	0.02 U	0.096 U	0.022 U	0.022 U
DIETHYL PHTHALATE	NA	NA	NA	NA	0.61 U	0.58 U	0.65 U	0.67 U
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	1.7 U	0.64 U	1.8 U	1.9 U
FLUORANTHENE	NA	NA	NA	NA	0.045 U	0.096 U	0.048 U	0.05 U
FLUORENE	NA	NA	NA	NA	0.041 U	0.096 U	0.044 U	0.045 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	0 U	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	**0.198**	**0.432**	**0.213**	**0.2185**
ISOPHORONE	NA	NA	NA	NA	0.27 U	0.26 U	0.29 U	0.3 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	0 U	0 U	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	**0.243**	**0.384**	**0.2605**	**0.267**
NAPHTHALENE	NA	NA	NA	NA	0.063 U	0.096 U	0.068 U	0.07 U
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	0.31 U	0.3 U	0.34 U	0.34 U
PHENANTHRENE	NA	NA	NA	NA	0.063 U	0.096 U	0.067 U	0.069 U
PHENOL	NA	NA	NA	NA	0.61 U	0.58 U	0.65 U	0.67 U
PYRENE	NA	NA	NA	NA	0.042 U	0.096 U	0.046 U	0.047 U
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION					GSP-MW/SB-022I	GSP-MW-09		GSP-MW-10
SAMPLE ID	GSP-DPT-45-45	GSP-DPT-45-5	GSP-DPT-45-50	GSP-DPT-45-55	GSP-MW-22I-031816	GSP-MW09-100512	GSP-MW9-022714	GSP-MW10-022714
SAMPLE DATE	20140310	20140307	20140310	20140310	20160318	20121005	20140227	20140227
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW08	GW08	GW08	GW08	GW08	GW08	GW08	GW08
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	40	0	45	50	50	10	10	12
BOTTOM DEPTH	45	5	50	55	60	20	20	22
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	NA	NA	**0.2115**	NA	NA	NA
DISSOLVED METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	2.4 U	0.24 B	2.1 U	2.1 U
ARSENIC	NA	NA	NA	NA	2.9 U	**0.62 J**	3.2 U	3.2 U
BARIUM	NA	NA	NA	NA	26 U	**100**	**55 J**	**99 J**
BERYLLIUM	NA	NA	NA	NA	0.13 U	0.2 U	0.46 U	**0.48 J**
CADMIUM	NA	NA	NA	NA	0.14 U	0.13 U	0.66 U	0.66 U
CHROMIUM	NA	NA	NA	NA	0.55 U	0.71 UL	2.2 U	2.2 U
COBALT	NA	NA	NA	NA	**8.8 J**	**3.2**	**3.4 J**	**19**
COPPER	NA	NA	NA	NA	1.9 U	0.66 B	4.5 U	4.5 U
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	1.9 U	0.18 U	1.9 U	1.9 U
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	0.09 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	NA	NA	NA	NA	1.2 U	1.5 B	1.3 U	1.3 U
NICKEL	NA	NA	NA	NA	**9 J**	**2.3 K**	3.2 U	**22 J**
SELENIUM	NA	NA	NA	NA	4 U	0.57 U	4.1 U	4.1 U
THALLIUM	NA	NA	NA	NA	1.8 U	0.26 B	4.7 U	4.7 U
VANADIUM	NA	NA	NA	NA	2.4 U	0.44 UL	2.4 U	2.4 U
ZINC	NA	NA	NA	NA	9.6 U	5.5 B	**200**	46 U
METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	2.4 U	0.36 B	2.1 U	2.1 U
ARSENIC	NA	NA	NA	NA	2.9 U	**0.84 J**	**4.9 J**	3.2 U
BARIUM	NA	NA	NA	NA	27 U	**100**	**56 J**	**98 J**
BERYLLIUM	NA	NA	NA	NA	0.13 U	0.2 U	0.46 U	**0.59 J**
CADMIUM	NA	NA	NA	NA	0.14 U	0.13 U	0.66 U	0.66 U
CHROMIUM	NA	NA	NA	NA	0.55 U	0.71 UL	2.2 U	2.2 U
COBALT	NA	NA	NA	NA	**9.4 J**	**3.3**	**3.5 J**	**19**
COPPER	NA	NA	NA	NA	1.9 U	0.54 B	4.5 U	4.5 U
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	1.9 U	0.18 U	1.9 U	1.9 U
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	0.09 U	0.19 B	0.12 U	0.12 U
MOLYBDENUM	NA	NA	NA	NA	1.5 U	1.6 B	**1.3 J**	1.3 U
NICKEL	NA	NA	NA	NA	**9.8 J**	**2.1 K**	3.2 U	**20 J**
SELENIUM	NA	NA	NA	NA	4 U	0.57 U	4.1 U	4.1 U
SILVER	NA	NA	NA	NA	0.92 U	0.08 U	2.2 U	2.2 U
THALLIUM	NA	NA	NA	NA	1.7 U	0.17 B	4.7 U	4.7 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION					GSP-MW/SB-022I	GSP-MW-09		GSP-MW-10
SAMPLE ID	GSP-DPT-45-45	GSP-DPT-45-5	GSP-DPT-45-50	GSP-DPT-45-55	GSP-MW-22I-031816	GSP-MW09-100512	GSP-MW9-022714	GSP-MW10-022714
SAMPLE DATE	20140310	20140307	20140310	20140310	20160318	20121005	20140227	20140227
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW08	GW08	GW08	GW08	GW08	GW08	GW08	GW08
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	40	0	45	50	50	10	10	12
BOTTOM DEPTH	45	5	50	55	60	20	20	22
VANADIUM	NA	NA	NA	NA	2.4 U	0.44 UL	**10**	2.4 U
ZINC	NA	NA	NA	NA	9.6 U	17 B	**200**	44 U
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	0.051 UJ	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	**71 J**	78 B	25 U	**32 J**
TPH (C10-C32)	NA	NA	NA	NA	240 U	230 U	260 U	260 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW10	GSP-MW-11			GSP-MW-12		GSP-SB-050	
SAMPLE ID	GSP-MW10-100912	GSP-MW11-022114	GSP-MW-11-031816	GSP-MW11-100512	GSP-MW12-022614	GSP-MW12-100812	GSP-SB/WP-50-20100524	GSP-SB-WP-50-062211
SAMPLE DATE	20121009	20140221	20160318	20121005	20140226	20121008	20100524	20110622
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW08	GW08	GW08	GW08	GW08	GW08	GW08	GW08
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	12	5	5	5	13	13	8	8
BOTTOM DEPTH	22	15	15	15	28	28	8	8
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.15 U	0.6 U	0.3 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,1-DICHLOROETHENE	0.19 U	0.76 U	0.45 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.48 U	0.41 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	2.7 U	0.82 UJ	0.67 U	0.67 UJ	0.67 U	0.67 U	0.67 U
1,2-DICHLOROBENZENE	0.13 U	0.52 U	0.25 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2-DICHLOROETHANE	0.22 U	0.88 U	0.23 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROPROPANE	0.18 U	0.72 U	0.25 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	0.56 U	0.19 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,4-DICHLOROBENZENE	0.13 U	0.52 U	0.27 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2-BUTANONE	0.57 U	2.3 UJ	**6.4 J**	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
2-HEXANONE	0.41 U	1.6 UJ	0.48 UJ	0.41 U	0.41 UJ	0.41 U	0.41 U	0.41 U
4-METHYL-2-PENTANONE	0.32 U	1.3 UJ	0.99 UJ	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	**3.8 J**	4.4 UJ	**31 J**	5.3 B	1.8 U	1.1 U	7 B	1.9 B
BENZENE	**4.1**	0.52 U	0.35 U	**0.14 J**	0.13 U	0.13 U	0.13 U	0.13 U
BROMOMETHANE	0.41 U	1.6 UJ	0.44 U	0.41 U	0.41 UJ	0.41 U	0.41 UJ	0.41 U
CARBON DISULFIDE	0.13 U	0.52 UJ	0.38 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
CARBON TETRACHLORIDE	0.13 U	0.52 U	0.43 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROBENZENE	0.15 U	0.6 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
CHLOROFORM	**0.47 J**	0.64 U	0.25 U	0.16 U	**0.19 J**	**0.33 J**	0.16 U	0.16 U
CHLOROMETHANE	0.3 U	1.2 UJ	0.44 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CIS-1,2-DICHLOROETHENE	**1.1**	0.68 U	0.26 U	0.17 U	**0.36 J**	**0.21 J**	0.17 U	0.17 U
ETHYLBENZENE	0.17 U	0.68 U	0.25 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
M+P-XYLENES	0.24 U	0.96 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	**0.32 J**	0.68 U	0.2 UJ	0.17 U	**0.17 J**	0.17 U	0.17 UJ	0.17 U
METHYLENE CHLORIDE	0.33 U	1.3 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.24 U	**1.2 J**	**4.9 J**	**3**	0.24 U	0.24 U	0.24 U	0.24 U
O-XYLENE	0.14 U	0.56 U	0.25 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
STYRENE	0.11 U	0.44 U	0.45 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	NA	0.27 U	0.3 UJ	NA	0.067 U	NA	0.067 U	0.067 U
TERTIARY-BUTYL ALCOHOL	3.9 UR	16 U	4.9 UJ	3.9 UR	3.9 U	3.9 UR	3.9 UR	3.9 UR
TOLUENE	**0.25 J**	0.52 U	0.23 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	0.28 U	0.56 U	0.52 U	0.28 U	0.14 U	0.28 U	0.28 U	0.28 U
TOTAL XYLENES DETECTED	NA	NA	0 U	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	0.19 U	0.76 U	0.3 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
TRICHLOROETHENE	**0.21 J**	0.68 U	0.22 U	0.17 U	**2.2**	**1.4**	0.17 U	0.17 U
TRICHLOROFLUOROMETHANE	0.21 U	0.84 U	0.49 U	0.21 U	0.21 UJ	0.21 U	0.21 UJ	0.21 U
VINYL CHLORIDE	0.22 U	0.88 U	0.29 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW10	GSP-MW-11			GSP-MW-12		GSP-SB-050	
SAMPLE ID	GSP-MW10-100912	GSP-MW11-022114	GSP-MW-11-031816	GSP-MW11-100512	GSP-MW12-022614	GSP-MW12-100812	GSP-SB/WP-50-20100524	GSP-SB-WP-50-062211
SAMPLE DATE	20121009	20140221	20160318	20121005	20140226	20121008	20100524	20110622
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW08	GW08	GW08	GW08	GW08	GW08	GW08	GW08
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	12	5	5	5	13	13	8	8
BOTTOM DEPTH	22	15	15	15	28	28	8	8
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	**0.21 NJ**	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW10	GSP-MW-11			GSP-MW-12		GSP-SB-050	
SAMPLE ID	GSP-MW10-100912	GSP-MW11-022114	GSP-MW-11-031816	GSP-MW11-100512	GSP-MW12-022614	GSP-MW12-100812	GSP-SB/WP-50-20100524	GSP-SB-WP-50-062211
SAMPLE DATE	20121009	20140221	20160318	20121005	20140226	20121008	20100524	20110622
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW08	GW08	GW08	GW08	GW08	GW08	GW08	GW08
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	12	5	5	5	13	13	8	8
BOTTOM DEPTH	22	15	15	15	28	28	8	8
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	5.1 R	NA	NA	NA	NA	NA	NA	**2.9 NJ**
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	0.76 U	0.27 U	0.24 U	0.78 U	0.27 U	0.76 U	0.8 U	0.82 U
2,4-DINITROTOLUENE	0.26 U	0.27 U	0.24 U	0.26 U	0.27 U	0.26 U	0.27 U	0.28 U
2,6-DINITROTOLUENE	0.76 U	0.87 U	0.76 U	0.78 U	0.88 U	0.76 U	0.8 U	0.82 U
2-METHYLNAPHTHALENE	0.095 U	0.098 U	**0.2**	**0.11 J**	0.099 U	0.095 U	0.1 U	0.1 U
2-METHYLPHENOL	0.76 U	0.18 U	0.16 U	0.78 U	0.19 U	0.76 U	0.8 U	0.82 U
2-NITROPHENOL	0.27 U	0.3 U	0.27 U	0.27 U	0.31 U	0.27 U	0.28 U	0.29 U
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	0.8 U	NA
ACENAPHTHENE	0.095 U	**4.4**	**8.3**	**9.1**	0.049 U	0.095 U	0.1 U	0.1 U
ACETOPHENONE	0.32 U	0.37 U	0.32 U	0.33 U	0.37 U	0.32 U	0.34 U	0.35 U
ANTHRACENE	0.095 U	**0.41**	**0.72**	**0.57**	0.097 U	0.095 U	0.1 U	0.1 U
BIS(2-ETHYLHEXYL)PHTHALATE	**2.5**	1.8 U	1.6 U	0.78 U	1.9 U	0.76 U	0.8 U	1.1 B
BUTYL BENZYL PHTHALATE	0.76 U	0.28 U	0.25 U	0.78 U	0.29 U	0.76 U	2.3 B	0.82 U
CAPROLACTAM	0.76 U	0.22 U	0.19 UJ	0.78 U	0.22 U	0.76 U	0.8 U	0.82 U
CARBAZOLE	0.27 U	0.3 U	0.27 U	0.27 U	0.31 U	0.27 U	0.28 U	0.29 U
DIBENZOFURAN	0.095 U	**0.89 J**	**1.7**	**1.8**	0.022 U	0.095 U	0.1 U	0.1 U
DIETHYL PHTHALATE	0.57 U	0.65 U	0.57 U	0.58 U	0.66 U	0.57 U	0.6 U	0.62 U
DI-N-BUTYL PHTHALATE	0.64 U	1.8 U	1.6 U	0.65 U	1.9 U	0.64 U	0.67 U	0.69 U
FLUORANTHENE	0.095 U	**0.44**	**1.2**	**0.27**	0.049 U	0.095 U	0.1 U	0.1 U
FLUORENE	0.095 U	**3.1**	**6.2**	**5.9**	0.045 U	0.095 U	0.1 U	0.1 U
HIGH MOLECULAR WEIGHT PAHS	0 U	**0.27**	**0.68**	0 U	0 U	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	**0.4275**	**0.46**	**0.8465**	**0.4365**	**0.2145**	**0.4275**	**0.45**	**0.45**
ISOPHORONE	0.26 U	0.29 U	0.26 U	0.26 U	0.3 U	0.26 U	0.27 U	0.28 U
LOW MOLECULAR WEIGHT PAHS	0 U	**10.65**	**21.12**	**18.45**	0 U	0 U	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	0.35 U	0.35 U
LOW MOLECULAR WEIGHT PAHS-HALFND	**0.38**	**10.725**	**21.143**	**18.4985**	**0.2645**	**0.38**	**0.4**	**0.4**
NAPHTHALENE	0.095 U	**1.2**	**2.7**	**1.4**	0.069 U	0.095 U	0.1 U	0.1 U
N-NITROSODIMETHYLAMINE	0.3 U	0.34 U	0.3 U	0.3 U	0.34 U	0.3 U	0.31 U	0.32 U
PHENANTHRENE	0.095 U	**1.1**	**1.8**	**1.1**	0.068 U	0.095 U	0.1 U	0.1 U
PHENOL	0.57 U	0.65 U	0.57 U	0.58 U	0.66 U	0.57 U	3.3 B	0.62 U
PYRENE	0.095 U	**0.27**	**0.68**	0.097 U	0.046 U	0.095 U	0.1 U	0.1 U
TOTAL PAHS	NA	NA	NA	NA	NA	NA	0 U	0 U
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	0.85 U	0.85 U
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	0.85 U	0.85 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW10	GSP-MW-11			GSP-MW-12		GSP-SB-050	
SAMPLE ID	GSP-MW10-100912	GSP-MW11-022114	GSP-MW-11-031816	GSP-MW11-100512	GSP-MW12-022614	GSP-MW12-100812	GSP-SB/WP-50-20100524	GSP-SB-WP-50-062211
SAMPLE DATE	20121009	20140221	20160318	20121005	20140226	20121008	20100524	20110622
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW08	GW08	GW08	GW08	GW08	GW08	GW08	GW08
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	12	5	5	5	13	13	8	8
BOTTOM DEPTH	22	15	15	15	28	28	8	8
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	**0.199**	NA	NA	NA	**0.555**	NA
DISSOLVED METALS (UG/L)								
ANTIMONY	**0.2 J**	2.1 U	2.4 U	1.4 B	3.5 U	**2.2**	0.16 B	0.11 B
ARSENIC	0.4 UL	**8.7 J**	**11 J**	**21**	3.2 U	**1.3 J**	**11.2**	**1.2 J**
BARIUM	**110**	**220**	69 U	**1400**	**79 J**	**140**	**76.5**	**58**
BERYLLIUM	**0.42 J**	0.46 U	0.13 U	1 U	0.46 U	0.2 U	0.0059 U	0.092 U
CADMIUM	0.22 B	0.66 U	0.14 U	0.13 U	0.66 U	0.13 U	0.025 U	0.046 U
CHROMIUM	0.71 UL	**8.1 J**	**1.7 J**	**1.7 J**	2.2 U	0.71 UL	0.6 B	**0.47 J**
COBALT	**18**	1.7 U	0.56 U	**2.6**	1.7 U	**1**	5.2 B	**2.1**
COPPER	**5.1 K**	4.5 U	1.9 U	1.2 B	4.5 U	1.8 B	**1.8 J**	**3.2**
IRON	NA	NA	NA	NA	NA	NA	**588**	NA
LEAD	0.18 U	1.9 U	1.9 U	0.18 U	1.9 U	0.18 U	0.045 B	0.16 B
MANGANESE	NA	NA	NA	NA	NA	NA	**317**	NA
MERCURY	**0.19 J**	0.12 U	0.09 U	0.12 U	0.12 U	0.12 U	0.1 UL	0.066 U
MOLYBDENUM	0.093 U	1.3 U	0.86 U	**4.8 J**	**1.5 J**	**1.3 J**	1.6 B	1.8 B
NICKEL	**19**	**4.9 J**	**1.1 J**	**2.8 K**	3.2 U	**1.7 J**	**4.4**	**1.3 J**
SELENIUM	0.57 U	4.1 U	4 U	**0.72 J**	4.1 U	0.57 U	0.51 B	0.32 U
THALLIUM	0.26 B	4.7 U	1.7 U	0.3 B	4.7 U	0.14 U	0.13 U	0.25 B
VANADIUM	0.44 UL	**60**	2.4 U	**5.2 J**	**5.8 J**	**6.4 J**	3.6 B	**3.3 J**
ZINC	33 B	5 U	9.6 U	6.1 B	5.2 U	7.6 B	3.7 B	1.2 B
METALS (UG/L)								
ANTIMONY	**0.31 J**	2.1 U	2.4 U	0.27 B	3.8 U	**2.2**	0.38 B	0.4 B
ARSENIC	0.4 UL	**9.2 J**	**9.7 J**	**22**	3.2 U	**1.3 J**	**15**	**19 J**
BARIUM	**110**	**240**	69 U	**1400**	**80 J**	**140**	**86.1**	**150**
BERYLLIUM	**0.45 J**	0.46 U	0.13 U	0.2 U	0.46 U	0.2 U	0.1 B	**0.97 J**
CADMIUM	0.22 B	0.66 U	0.14 U	**0.22 J**	0.66 U	0.13 U	0.025 U	**0.34 J**
CHROMIUM	0.71 UL	**14**	**2.5 J**	**2.3 L**	2.2 U	0.71 UL	**14**	**42**
COBALT	**18**	1.7 U	0.56 U	**2.8**	1.7 U	**0.95 J**	**5.5**	**8.3**
COPPER	3.5 B	4.5 U	1.9 U	0.92 B	4.5 U	1.4 B	**7.4**	**35**
IRON	NA	NA	NA	NA	NA	NA	**7880**	NA
LEAD	**0.2 J**	**2.8 J**	1.9 U	0.5 B	1.9 U	0.18 U	3.6 B	**16**
MANGANESE	NA	NA	NA	NA	NA	NA	**305**	NA
MERCURY	**0.31 J**	0.12 U	0.09 U	0.12 U	0.12 U	0.12 U	0.1 UL	**0.14 J**
MOLYBDENUM	0.093 U	1.3 U	1 U	**4.6 J**	**1.8 J**	**1.3 J**	2 B	2.3 B
NICKEL	**19**	**3.7 J**	**1.2 J**	**2.8 K**	3.2 U	0.92 B	**5.3**	**13**
SELENIUM	0.57 U	4.1 U	4 U	**1.2 J**	4.1 U	0.57 U	0.68 B	**0.5 J**
SILVER	0.08 U	2.2 U	0.92 U	0.08 U	2.2 U	0.08 U	0.015 U	**0.018 J**
THALLIUM	0.33 B	4.7 U	1.7 U	0.46 B	4.7 U	0.14 B	0.13 U	0.51 B

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW10	GSP-MW-11			GSP-MW-12		GSP-SB-050	
SAMPLE ID	GSP-MW10-100912	GSP-MW11-022114	GSP-MW-11-031816	GSP-MW11-100512	GSP-MW12-022614	GSP-MW12-100812	GSP-SB/WP-50-20100524	GSP-SB-WP-50-062211
SAMPLE DATE	20121009	20140221	20160318	20121005	20140226	20121008	20100524	20110622
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW08	GW08	GW08	GW08	GW08	GW08	GW08	GW08
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	12	5	5	5	13	13	8	8
BOTTOM DEPTH	22	15	15	15	28	28	8	8
VANADIUM	0.44 UL	**70**	**4.5 J**	**6.1 J**	**5.7 J**	**6.5 J**	**51.6**	**110**
ZINC	32 B	12 U	16 U	5.6 B	5 U	5.4 B	9.9 B	**33**
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	0.36 U
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	0.051 UJ	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	30 U	380 B
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	**29 J**	34 B
TPH (C06-C10)	45 B	**25 J**	**33 J**	54 B	**35 J**	57 B	NA	NA
TPH (C10-C32)	230 U	**2300 J**	**950**	**690**	270 U	230 U	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-051	GSP-SB-054		GSP-DPT-44				
SAMPLE ID	GSP-SB-51-W	GSP-SB/WP-54-20100524	GSP-SB-WP-54-062111	GSP-DPT-44-20	GSP-DPT-44-25	GSP-DPT-44-30	GSP-DPT-44-35	GSP-DPT-44-40
SAMPLE DATE	20100429	20100524	20110621	20140311	20140311	20140311	20140311	20140311
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW08	GW08	GW08	GW09	GW09	GW09	GW09	GW09
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	10	13	13	15	20	25	30	35
BOTTOM DEPTH	10	13	13	20	25	30	35	40
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.15 U	12 U	1.5 U	0.75 U	0.19 U	0.27 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	16 U	1.9 U	0.95 U	**0.67 J**	0.35 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U	0.12 U	10 U	1.2 U	0.6 U	0.15 U	0.22 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 U	56 U	6.7 U	3.4 U	0.84 U	1.2 U
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	11 U	1.3 U	0.65 U	0.16 U	0.24 U
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.22 U	18 U	2.2 U	1.1 U	0.28 U	0.4 U
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U	15 U	1.8 U	0.9 U	0.23 U	0.33 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U	12 U	1.4 U	0.7 U	0.18 U	0.25 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	11 U	1.3 U	0.65 U	0.16 U	0.24 U
2-BUTANONE	**0.99 J**	0.57 U	0.57 U	47 U	5.7 U	2.9 U	**6.9 J**	1 U
2-HEXANONE	0.41 U	0.41 U	0.41 U	34 U	4.1 U	2.1 U	**0.7 J**	0.75 U
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.32 U	27 U	3.2 U	1.6 U	0.4 U	0.58 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	**11**	1.1 U	**2.8 J**	92 U	11 U	5.5 U	**29**	**5.7 J**
BENZENE	0.13 U	0.13 U	0.13 U	11 U	1.3 U	**0.89 J**	**0.94 J**	**1 J**
BROMOMETHANE	0.41 U	0.41 U	0.41 U	34 U	4.1 U	2.1 U	0.51 U	0.75 U
CARBON DISULFIDE	0.13 U	0.13 U	0.13 U	11 U	1.3 U	0.65 U	0.16 U	0.24 U
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U	11 U	1.3 U	0.65 U	0.16 U	**0.4 J**
CHLOROBENZENE	0.15 U	0.15 U	0.15 U	12 U	1.5 U	**1.2 J**	**0.25 J**	0.27 U
CHLOROFORM	0.16 U	0.16 U	0.16 U	13 U	1.6 U	0.8 U	0.2 U	**7.4**
CHLOROMETHANE	0.3 U	0.3 U	0.3 U	25 U	3 UJ	1.5 UJ	0.38 U	0.55 U
CIS-1,2-DICHLOROETHENE	0.17 U	0.17 U	0.17 U	14 U	1.7 U	0.85 U	**1.1 J**	**48**
ETHYLBENZENE	0.17 U	0.17 U	0.17 U	14 U	1.7 U	0.85 U	**0.25 J**	0.31 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	20 U	2.4 U	1.2 U	0.3 U	0.44 U
METHYL TERT-BUTYL ETHER	0.17 U	0.17 UJ	0.17 U	14 U	1.7 U	0.85 U	0.21 U	**2.9**
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	27 U	5.2 U	2.8 U	0.41 U	0.6 U
NAPHTHALENE	0.24 U	0.24 U	0.24 U	20 U	2.4 U	1.2 U	0.3 U	0.44 U
O-XYLENE	0.14 U	0.14 U	0.14 U	12 U	1.4 U	0.7 U	0.18 U	0.25 U
STYRENE	0.11 U	0.11 U	0.11 U	9.2 U	1.1 U	0.55 U	0.14 U	0.2 U
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.067 U	5.6 U	0.67 U	0.34 U	0.084 U	0.12 U
TERTIARY-BUTYL ALCOHOL	3.9 UR	3.9 UR	3.9 UR	320 UJ	39 UJ	20 UJ	4.9 UJ	7.1 UJ
TOLUENE	0.13 U	0.13 U	0.13 U	11 U	1.3 U	0.65 U	**0.77 J**	0.24 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	0.28 U	0.28 U	0.28 U	12 U	1.4 U	0.7 U	0.18 U	0.25 U
TOTAL XYLENES DETECTED	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	16 U	1.9 U	0.95 U	0.24 U	0.35 U
TRICHLOROETHENE	0.17 U	0.17 U	0.17 U	**2600**	**240**	**160**	**31**	**68**
TRICHLOROFLUOROMETHANE	**0.85 J**	**1.7 J**	0.21 U	17 U	2.1 U	1.1 U	0.26 U	0.38 U
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	18 U	2.2 U	1.1 U	0.28 U	0.4 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-051	GSP-SB-054		GSP-DPT-44				
SAMPLE ID	GSP-SB-51-W	GSP-SB/WP-54-20100524	GSP-SB-WP-54-062111	GSP-DPT-44-20	GSP-DPT-44-25	GSP-DPT-44-30	GSP-DPT-44-35	GSP-DPT-44-40
SAMPLE DATE	20100429	20100524	20110621	20140311	20140311	20140311	20140311	20140311
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW08	GW08	GW08	GW09	GW09	GW09	GW09	GW09
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	10	13	13	15	20	25	30	35
BOTTOM DEPTH	10	13	13	20	25	30	35	40
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	**5.3 NJ**	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	**6.1 NJ**	**2.6 NJ**
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	**4.5 NJ**	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	**11 NJ**	**14 NJ**	**26 NJ**	**9.8 NJ**
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	**9.4 NJ**	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	**3.2 NJ**
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	**1.8 NJ**	**3.3 NJ**
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	**3.5 NJ**	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	**4.3 NJ**	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	**17 NJ**	**8.4 NJ**	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	**23 NJ**	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	**2.9 NJ**
PROPENE	NA	NA	NA	NA	NA	NA	**36 NJ**	**16 NJ**

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-051	GSP-SB-054		GSP-DPT-44				
SAMPLE ID	GSP-SB-51-W	GSP-SB/WP-54-20100524	GSP-SB-WP-54-062111	GSP-DPT-44-20	GSP-DPT-44-25	GSP-DPT-44-30	GSP-DPT-44-35	GSP-DPT-44-40
SAMPLE DATE	20100429	20100524	20110621	20140311	20140311	20140311	20140311	20140311
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW08	GW08	GW08	GW09	GW09	GW09	GW09	GW09
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	10	13	13	15	20	25	30	35
BOTTOM DEPTH	10	13	13	20	25	30	35	40
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	4.2 R	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	5.1 R
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	0.8 U	0.8 U	0.76 U	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	0.27 U	0.27 U	0.26 U	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	0.8 U	0.8 U	0.76 U	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	0.1 U	0.1 U	0.095 U	NA	NA	NA	NA	NA
2-METHYLPHENOL	0.8 U	0.8 U	0.76 U	NA	NA	NA	NA	NA
2-NITROPHENOL	0.28 U	0.28 U	0.27 U	NA	NA	NA	NA	NA
4-METHYLPHENOL	0.8 U	0.8 U	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	0.1 U	0.1 U	0.095 U	NA	NA	NA	NA	NA
ACETOPHENONE	0.34 U	0.34 U	0.32 U	NA	NA	NA	NA	NA
ANTHRACENE	0.1 U	0.1 U	0.095 U	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	0.8 U	**2.2**	0.89 B	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	0.8 U	0.8 U	0.76 U	NA	NA	NA	NA	NA
CAPROLACTAM	0.8 U	0.8 U	0.76 U	NA	NA	NA	NA	NA
CARBAZOLE	0.28 U	0.28 U	0.27 U	NA	NA	NA	NA	NA
DIBENZOFURAN	0.1 U	0.1 U	0.095 U	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	0.6 U	0.6 U	0.57 U	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	0.67 U	0.67 U	**0.73 J**	NA	NA	NA	NA	NA
FLUORANTHENE	0.1 U	0.1 U	0.095 U	NA	NA	NA	NA	NA
FLUORENE	0.1 U	0.1 U	0.095 U	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS	0 U	0 U	0 U	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	**0.45**	**0.45**	**0.4275**	NA	NA	NA	NA	NA
ISOPHORONE	0.27 U	0.27 U	0.26 U	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS	0 U	0 U	0 U	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	0.35 U	0.35 U	0.3325 U	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	**0.4**	**0.4**	**0.38**	NA	NA	NA	NA	NA
NAPHTHALENE	0.1 U	0.1 U	0.095 U	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	0.31 U	0.31 U	0.3 U	NA	NA	NA	NA	NA
PHENANTHRENE	0.1 U	0.1 U	0.095 U	NA	NA	NA	NA	NA
PHENOL	0.6 U	0.6 U	0.57 U	NA	NA	NA	NA	NA
PYRENE	0.1 U	0.1 U	0.095 U	NA	NA	NA	NA	NA
TOTAL PAHS	0 U	0 U	0 U	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	0.85 U	0.85 U	0.8075 U	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	0.85 U	0.85 U	0.8075 U	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-051	GSP-SB-054		GSP-DPT-44				
SAMPLE ID	GSP-SB-51-W	GSP-SB/WP-54-20100524	GSP-SB-WP-54-062111	GSP-DPT-44-20	GSP-DPT-44-25	GSP-DPT-44-30	GSP-DPT-44-35	GSP-DPT-44-40
SAMPLE DATE	20100429	20100524	20110621	20140311	20140311	20140311	20140311	20140311
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW08	GW08	GW08	GW09	GW09	GW09	GW09	GW09
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	10	13	13	15	20	25	30	35
BOTTOM DEPTH	10	13	13	20	25	30	35	40
PCBS (UG/L)								
TOTAL AROCLOR HALFND	**0.555**	**0.555**	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)								
ANTIMONY	0.027 U	0.31 B	0.18 B	NA	NA	NA	NA	NA
ARSENIC	**0.75 J**	**6.3 K**	0.092 UJ	NA	NA	NA	NA	NA
BARIUM	**4.9**	**23.6**	**24**	NA	NA	NA	NA	NA
BERYLLIUM	0.0059 U	0.01 B	0.092 U	NA	NA	NA	NA	NA
CADMIUM	0.025 U	0.046 B	0.046 U	NA	NA	NA	NA	NA
CHROMIUM	0.19 B	1.1 B	0.31 B	NA	NA	NA	NA	NA
COBALT	**0.65 J**	5.1 B	0.33 B	NA	NA	NA	NA	NA
COPPER	**16.2**	**0.66 J**	**0.99 J**	NA	NA	NA	NA	NA
IRON	**1700**	**361**	NA	NA	NA	NA	NA	NA
LEAD	0.061 B	0.048 B	0.2 B	NA	NA	NA	NA	NA
MANGANESE	**55.6**	**171**	NA	NA	NA	NA	NA	NA
MERCURY	0.1 UL	0.1 UL	0.066 U	NA	NA	NA	NA	NA
MOLYBDENUM	0.27 U	1.9 B	0.47 B	NA	NA	NA	NA	NA
NICKEL	**4.4**	**1.5 J**	0.63 U	NA	NA	NA	NA	NA
SELENIUM	0.13 UL	0.46 B	0.32 U	NA	NA	NA	NA	NA
THALLIUM	0.13 U	0.28 B	0.24 B	NA	NA	NA	NA	NA
VANADIUM	0.43 U	1.5 B	**0.39 J**	NA	NA	NA	NA	NA
ZINC	10.4 B	6.9 B	**7.1 J**	NA	NA	NA	NA	NA
METALS (UG/L)								
ANTIMONY	0.47 B	0.19 B	0.19 B	NA	NA	NA	NA	NA
ARSENIC	**25.3**	**6.3 K**	0.092 UJ	NA	NA	NA	NA	NA
BARIUM	**54.3**	**23.4**	**23**	NA	NA	NA	NA	NA
BERYLLIUM	**0.36 J**	0.0059 U	0.092 U	NA	NA	NA	NA	NA
CADMIUM	0.025 UL	0.037 B	0.046 U	NA	NA	NA	NA	NA
CHROMIUM	**31.1**	1.9 B	0.52 B	NA	NA	NA	NA	NA
COBALT	**1.6**	5.1 B	0.53 B	NA	NA	NA	NA	NA
COPPER	**102**	**0.51 J**	**0.69 J**	NA	NA	NA	NA	NA
IRON	**26900**	**371**	NA	NA	NA	NA	NA	NA
LEAD	**9.7**	0.071 B	0.3 B	NA	NA	NA	NA	NA
MANGANESE	**161**	**172**	NA	NA	NA	NA	NA	NA
MERCURY	0.1 UL	0.1 UL	0.066 U	NA	NA	NA	NA	NA
MOLYBDENUM	**4.1**	1.6 B	0.46 B	NA	NA	NA	NA	NA
NICKEL	**15.7**	**1.5 J**	0.63 U	NA	NA	NA	NA	NA
SELENIUM	**1.1 J**	0.47 B	0.32 U	NA	NA	NA	NA	NA
SILVER	0.18 B	0.015 U	0.014 U	NA	NA	NA	NA	NA
THALLIUM	0.13 U	0.13 U	0.25 B	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-051	GSP-SB-054		GSP-DPT-44				
SAMPLE ID	GSP-SB-51-W	GSP-SB/WP-54-20100524	GSP-SB-WP-54-062111	GSP-DPT-44-20	GSP-DPT-44-25	GSP-DPT-44-30	GSP-DPT-44-35	GSP-DPT-44-40
SAMPLE DATE	20100429	20100524	20110621	20140311	20140311	20140311	20140311	20140311
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW08	GW08	GW08	GW09	GW09	GW09	GW09	GW09
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	10	13	13	15	20	25	30	35
BOTTOM DEPTH	10	13	13	20	25	30	35	40
VANADIUM	**54.6**	1.4 B	**0.98 J**	NA	NA	NA	NA	NA
ZINC	32.1 B	8.2 B	**7.5 J**	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	0.36 U	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	**200**	30 U	230 B	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	28 U	**35 J**	36 B	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION			GSP-MW/SB-023I			GSP-MW-07		
SAMPLE ID	GSP-DPT-44-45	GSP-DPT-44-50	GSP-MW-23I-031816	GSP-MW-23I-031816-AVG	GSP-MW-23I-031816-D	GSP-MW-07-031816	GSP-MW07-043012	GSP-MW7-022714
SAMPLE DATE	20140311	20140311	20160318	20160318	20160318	20160318	20120430	20140227
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL
MATRIX	GW09	GW09	GW09	GW09	GW09	GW09	GW09	GW09
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	40	45	30	30	30	12	12	12
BOTTOM DEPTH	45	50	40	40	40	22	22	22
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.3 U	0.5 U	1.2 U	1.2 U	1.2 U	0.3 U	NA	0.15 U
1,1-DICHLOROETHENE	0.38 U	0.63 U	1.8 U	1.8 U	1.8 U	0.45 U	NA	0.19 U
1,2,4-TRIMETHYLBENZENE	0.24 U	0.4 U	1.6 U	1.6 U	1.6 U	0.41 U	NA	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	1.3 U	2.2 U	3.3 UJ	3.3 U	3.3 UJ	0.82 UJ	NA	0.67 UJ
1,2-DICHLOROBENZENE	0.26 U	0.43 U	1 U	1 U	1 U	0.25 U	NA	0.13 U
1,2-DICHLOROETHANE	0.44 U	0.73 U	0.92 U	0.92 U	0.92 U	0.23 U	NA	0.22 U
1,2-DICHLOROPROPANE	0.36 U	0.6 U	1 U	1 U	1 U	0.25 U	NA	0.18 U
1,3-DICHLOROBENZENE	0.28 U	0.47 U	0.76 U	0.76 U	0.76 U	0.19 U	NA	0.14 U
1,4-DICHLOROBENZENE	0.26 U	0.43 U	1.1 U	1.1 U	1.1 U	0.27 U	NA	0.13 U
2-BUTANONE	1.1 U	1.9 UJ	2.1 UJ	2.1 U	2.1 UJ	0.53 UJ	NA	0.57 U
2-HEXANONE	0.82 U	1.4 U	1.9 UJ	1.9 U	1.9 UJ	0.48 UJ	NA	0.41 UJ
4-METHYL-2-PENTANONE	0.64 U	1.1 U	4 UJ	4 U	4 UJ	0.99 UJ	NA	0.32 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	**4 J**	**5.5 J**	3.8 UJ	3.8 U	3.8 UJ	0.94 UJ	NA	3.4 U
BENZENE	**0.93 J**	**0.91 J**	1.4 U	1.4 U	1.4 U	0.35 U	NA	0.13 U
BROMOMETHANE	0.82 U	1.4 U	1.8 U	1.8 U	1.8 U	0.44 U	NA	0.41 UJ
CARBON DISULFIDE	0.26 U	0.43 U	1.5 U	1.5 U	1.5 U	0.38 U	NA	0.13 U
CARBON TETRACHLORIDE	**2.6**	**0.88 J**	1.7 U	1.7 U	1.7 U	0.43 U	NA	0.13 U
CHLOROBENZENE	0.3 U	0.5 U	1 U	1 U	1 U	0.25 U	NA	0.15 U
CHLOROFORM	**9.4**	**30**	1 U	1 U	1 U	0.25 U	NA	0.16 U
CHLOROMETHANE	0.6 U	1 U	1.8 U	1.8 U	1.8 U	0.44 U	NA	0.3 U
CIS-1,2-DICHLOROETHENE	**14**	**30**	**3 J**	**3.1**	**3.2 J**	**2.3**	NA	0.17 U
ETHYLBENZENE	0.34 U	0.57 U	1 U	1 U	1 U	0.25 U	NA	0.17 U
M+P-XYLENES	0.48 U	0.8 U	0.96 U	0.96 U	0.96 U	0.24 U	NA	0.24 U
METHYL TERT-BUTYL ETHER	0.34 U	**0.94 J**	0.8 UJ	0.8 U	0.8 UJ	0.2 UJ	NA	0.17 U
METHYLENE CHLORIDE	0.66 U	1.1 U	1.7 U	1.85 U	2 U	0.33 U	NA	0.33 U
NAPHTHALENE	0.48 U	0.8 U	1.8 UJ	1.8 U	1.8 UJ	0.45 UJ	NA	0.24 U
O-XYLENE	0.28 U	0.47 U	1 U	1 U	1 U	0.25 U	NA	0.14 U
STYRENE	0.22 U	0.37 U	1.8 U	1.8 U	1.8 U	0.45 U	NA	0.11 U
TERT-AMYL METHYL ETHER	0.13 U	0.22 U	1.2 UJ	1.2 U	1.2 UJ	0.3 UJ	NA	0.067 U
TERTIARY-BUTYL ALCOHOL	7.8 UJ	13 UJ	20 UJ	20 U	20 UJ	4.9 UJ	NA	3.9 U
TOLUENE	**0.26 J**	0.43 U	0.92 U	0.92 U	0.92 U	0.23 U	NA	0.13 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	0.28 U	0.47 U	2.1 U	2.1 U	2.1 U	0.52 U	NA	0.14 U
TOTAL XYLENES DETECTED	NA	NA	0 U	0 U	0 U	0 U	NA	NA
TRANS-1,2-DICHLOROETHENE	0.38 U	0.63 U	1.2 U	1.2 U	1.2 U	0.3 U	NA	0.19 U
TRICHLOROETHENE	**52**	**95**	**110**	**110**	**110**	**29**	NA	**2.3**
TRICHLOROFLUOROMETHANE	0.42 U	0.7 U	2 U	2 U	2 U	0.49 U	NA	0.21 UJ
VINYL CHLORIDE	0.44 U	0.73 U	1.2 U	1.2 U	1.2 U	0.29 U	NA	0.22 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION			GSP-MW/SB-023I			GSP-MW-07		
SAMPLE ID	GSP-DPT-44-45	GSP-DPT-44-50	GSP-MW-23I-031816	GSP-MW-23I-031816-AVG	GSP-MW-23I-031816-D	GSP-MW-07-031816	GSP-MW07-043012	GSP-MW7-022714
SAMPLE DATE	20140311	20140311	20160318	20160318	20160318	20160318	20120430	20140227
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL
MATRIX	GW09	GW09	GW09	GW09	GW09	GW09	GW09	GW09
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	40	45	30	30	30	12	12	12
BOTTOM DEPTH	45	50	40	40	40	22	22	22
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	**8.5 NJ**	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	**17 NJ**	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	**2.2 NJ**	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	**4.2 NJ**	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	**2.8 NJ**	**4.4 NJ**	NA	NA	NA	NA	NA	NA
PROPENE	**15 NJ**	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION			GSP-MW/SB-023I			GSP-MW-07		
SAMPLE ID	GSP-DPT-44-45	GSP-DPT-44-50	GSP-MW-23I-031816	GSP-MW-23I-031816-AVG	GSP-MW-23I-031816-D	GSP-MW-07-031816	GSP-MW07-043012	GSP-MW7-022714
SAMPLE DATE	20140311	20140311	20160318	20160318	20160318	20160318	20120430	20140227
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL
MATRIX	GW09	GW09	GW09	GW09	GW09	GW09	GW09	GW09
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	40	45	30	30	30	12	12	12
BOTTOM DEPTH	45	50	40	40	40	22	22	22
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	3.7 R	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	4.3 R	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	NA	NA	0.25 U	0.245 U	0.24 U	0.24 U	NA	0.28 U
2,4-DINITROTOLUENE	NA	NA	0.25 U	0.245 U	0.24 U	0.24 U	NA	0.28 U
2,6-DINITROTOLUENE	NA	NA	0.78 U	0.77 U	0.76 U	0.76 U	NA	0.89 U
2-METHYLNAPHTHALENE	NA	NA	0.089 U	0.0875 U	0.086 U	0.086 U	NA	0.1 U
2-METHYLPHENOL	NA	NA	0.17 U	0.165 U	0.16 U	0.16 U	NA	0.19 U
2-NITROPHENOL	NA	NA	0.27 U	0.27 U	0.27 U	0.27 U	NA	0.31 U
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	0.043 U	0.0425 U	0.042 U	0.042 U	NA	0.049 U
ACETOPHENONE	NA	NA	0.33 U	0.325 U	0.32 U	0.32 U	NA	0.38 U
ANTHRACENE	NA	NA	0.086 U	0.085 U	0.084 U	0.084 U	NA	0.098 U
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	1.7 U	1.65 U	1.6 U	1.6 U	NA	1.9 U
BUTYL BENZYL PHTHALATE	NA	NA	0.25 U	0.25 U	0.25 U	0.25 U	NA	0.29 U
CAPROLACTAM	NA	NA	0.2 UJ	0.195 U	0.19 UJ	0.19 UJ	NA	0.22 U
CARBAZOLE	NA	NA	0.27 U	0.27 U	0.27 U	0.27 U	NA	0.31 U
DIBENZOFURAN	NA	NA	0.02 U	0.0195 U	0.019 U	0.019 U	NA	0.022 U
DIETHYL PHTHALATE	NA	NA	0.59 U	0.58 U	0.57 U	0.57 U	NA	0.67 U
DI-N-BUTYL PHTHALATE	NA	NA	1.7 U	1.65 U	1.6 U	1.6 U	NA	1.9 U
FLUORANTHENE	NA	NA	0.044 U	0.043 U	0.042 U	0.042 U	NA	0.05 U
FLUORENE	NA	NA	0.04 U	0.0395 U	0.039 U	0.039 U	NA	0.045 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	NA	0 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.1915**	**0.189**	**0.1865**	**0.1865**	NA	**0.2185**
ISOPHORONE	NA	NA	0.26 U	0.26 U	0.26 U	0.26 U	NA	0.3 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	0 U	0 U	0 U	0 U	NA	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	**0.2355**	**0.23225**	**0.229**	**0.229**	NA	**0.267**
NAPHTHALENE	NA	NA	0.061 U	0.0605 U	0.06 U	0.06 U	NA	0.07 U
N-NITROSODIMETHYLAMINE	NA	NA	0.3 U	0.3 U	0.3 U	0.3 U	NA	0.34 U
PHENANTHRENE	NA	NA	0.061 U	0.06 U	0.059 U	0.059 U	NA	0.069 U
PHENOL	NA	NA	0.59 U	0.58 U	0.57 U	0.57 U	NA	0.67 U
PYRENE	NA	NA	0.041 U	0.0405 U	0.04 U	0.04 U	NA	0.047 U
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION			GSP-MW/SB-023I			GSP-MW-07		
SAMPLE ID	GSP-DPT-44-45	GSP-DPT-44-50	GSP-MW-23I-031816	GSP-MW-23I-031816-AVG	GSP-MW-23I-031816-D	GSP-MW-07-031816	GSP-MW07-043012	GSP-MW7-022714
SAMPLE DATE	20140311	20140311	20160318	20160318	20160318	20160318	20120430	20140227
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL
MATRIX	GW09	GW09	GW09	GW09	GW09	GW09	GW09	GW09
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	40	45	30	30	30	12	12	12
BOTTOM DEPTH	45	50	40	40	40	22	22	22
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	**0.1865**	**0.19**	**0.1935**	**0.191**	NA	NA
DISSOLVED METALS (UG/L)								
ANTIMONY	NA	NA	2.4 U	2.4 U	2.4 U	2.4 U	NA	2.1 U
ARSENIC	NA	NA	**4.1 J**	**3.6**	**3.1 J**	2.9 U	NA	3.2 U
BARIUM	NA	NA	44 U	45 U	46 U	78 U	NA	**21 J**
BERYLLIUM	NA	NA	0.19 U	0.16 U	0.13 U	0.13 U	NA	0.46 U
CADMIUM	NA	NA	0.14 U	0.14 U	0.14 U	**0.18 J**	NA	0.66 U
CHROMIUM	NA	NA	**0.76 J**	**0.5175**	0.55 U	0.55 U	NA	2.2 U
COBALT	NA	NA	**8.2 J**	**8.4**	**8.6 J**	**12**	NA	1.7 U
COPPER	NA	NA	1.9 U	1.9 U	1.9 U	**4.2 J**	NA	**5.6 J**
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	1.9 U	1.9 U	1.9 U	1.9 U	NA	1.9 U
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	0.09 U	0.09 U	0.09 U	0.09 U	NA	0.12 U
MOLYBDENUM	NA	NA	0.53 U	0.53 U	0.53 U	0.53 U	NA	1.3 U
NICKEL	NA	NA	**12 J**	**11.5**	**11 J**	**18 J**	NA	**3.7 J**
SELENIUM	NA	NA	4 U	4 U	4 U	4 U	NA	4.1 U
THALLIUM	NA	NA	1.7 U	1.7 U	1.7 U	1.7 U	NA	4.7 U
VANADIUM	NA	NA	2.4 U	2.4 U	2.4 U	2.4 U	NA	2.4 U
ZINC	NA	NA	23 U	23 U	23 U	**500**	NA	**410**
METALS (UG/L)								
ANTIMONY	NA	NA	2.4 U	2.4 U	2.4 U	2.4 U	NA	3.8 U
ARSENIC	NA	NA	**3.4 J**	**4.25**	**5.1 J**	2.9 U	NA	3.2 U
BARIUM	NA	NA	47 U	46.5 U	46 U	76 U	NA	**23 J**
BERYLLIUM	NA	NA	0.2 U	0.165 U	0.13 U	0.14 U	NA	0.46 U
CADMIUM	NA	NA	0.14 U	0.14 U	0.14 U	**0.3 J**	NA	0.66 U
CHROMIUM	NA	NA	0.55 U	**0.4625**	**0.65 J**	0.55 U	NA	2.2 U
COBALT	NA	NA	**8.9 J**	**8.8**	**8.7 J**	**12**	NA	1.7 U
COPPER	NA	NA	1.9 U	1.9 U	1.9 U	**5 J**	NA	**6.6 J**
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	1.9 U	1.9 U	1.9 U	1.9 U	NA	1.9 U
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	0.09 U	0.09 U	0.09 U	0.09 U	NA	**0.13 J**
MOLYBDENUM	NA	NA	0.87 U	0.7 U	0.53 U	0.53 U	NA	**1.4 J**
NICKEL	NA	NA	**11 J**	**11**	**11 J**	**17 J**	NA	3.2 U
SELENIUM	NA	NA	4 U	4 U	4 U	4 U	NA	4.1 U
SILVER	NA	NA	0.92 U	0.92 U	0.92 U	0.92 U	NA	2.2 U
THALLIUM	NA	NA	1.7 U	1.7 U	1.7 U	1.7 U	NA	4.7 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION			GSP-MW/SB-023I			GSP-MW-07		
SAMPLE ID	GSP-DPT-44-45	GSP-DPT-44-50	GSP-MW-23I-031816	GSP-MW-23I-031816-AVG	GSP-MW-23I-031816-D	GSP-MW-07-031816	GSP-MW07-043012	GSP-MW7-022714
SAMPLE DATE	20140311	20140311	20160318	20160318	20160318	20160318	20120430	20140227
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL
MATRIX	GW09	GW09	GW09	GW09	GW09	GW09	GW09	GW09
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	40	45	30	30	30	12	12	12
BOTTOM DEPTH	45	50	40	40	40	22	22	22
VANADIUM	NA	NA	2.4 U	2.4 U	2.4 U	2.4 U	NA	**2.6 J**
ZINC	NA	NA	23 U	23 U	23 U	**500**	NA	**480**
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	**0.11**	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	**2.2 J**	**1.165**	0.26 UJ	**0.094 J**	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	**86 J**	**91.5**	**97 J**	**38 J**	NA	25 U
TPH (C10-C32)	NA	NA	**240 J**	**280**	**320 J**	240 U	NA	250 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-07		GSP-MW-08				GSP-SB-059	GSP-SB-061
SAMPLE ID	GSP-MW7-042712	GSP-MW-7-062211	GSP-MW08-043012	GSP-MW8-022814	GSP-MW8-042712	GSP-MW-8-062311	GSP-SB-59-W	GSP-SB/WP-61-20100527
SAMPLE DATE	20120427	20110622	20120430	20140228	20120427	20110623	20100510	20100527
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW09	GW09	GW09	GW09	GW09	GW09	GW09	GW09
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	12	12	7	7	7	7	12	7
BOTTOM DEPTH	22	22	17	17	17	17	12	7
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.6 U	2.5 U	NA	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,1-DICHLOROETHENE	0.76 U	3.2 U	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,2,4-TRIMETHYLBENZENE	0.48 U	2 U	NA	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	2.7 U	11 U	NA	0.67 UJ	0.67 U	0.67 U	0.67 U	0.67 U
1,2-DICHLOROBENZENE	0.52 U	2.2 U	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2-DICHLOROETHANE	0.88 U	3.7 U	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROPROPANE	0.72 U	3 U	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-DICHLOROBENZENE	0.56 U	2.3 U	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,4-DICHLOROBENZENE	0.52 U	2.2 U	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2-BUTANONE	2.3 U	9.5 U	NA	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
2-HEXANONE	1.6 U	6.8 U	NA	0.41 UJ	0.41 U	0.41 U	0.41 U	0.41 U
4-METHYL-2-PENTANONE	1.3 U	5.3 U	NA	0.32 UJ	0.32 U	0.32 U	0.32 U	0.32 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	4.4 U	22 B	NA	2 U	1.1 U	2.1 B	**2.2 J**	10 B
BENZENE	0.52 U	**3.1 J**	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
BROMOMETHANE	1.6 U	6.8 U	NA	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
CARBON DISULFIDE	0.52 U	2.2 U	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
CARBON TETRACHLORIDE	0.52 U	2.2 U	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROBENZENE	0.6 U	2.5 U	NA	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
CHLOROFORM	0.64 U	2.7 U	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
CHLOROMETHANE	1.2 U	5 U	NA	0.3 U	0.3 U	**0.42 J**	0.3 U	0.3 U
CIS-1,2-DICHLOROETHENE	**1.4 J**	2.8 U	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
ETHYLBENZENE	0.68 U	2.8 U	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
M+P-XYLENES	0.96 U	4 U	NA	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.68 U	2.8 U	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
METHYLENE CHLORIDE	1.3 U	5.5 U	NA	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.96 U	4 U	NA	0.24 UJ	0.24 U	0.24 U	0.24 U	0.24 U
O-XYLENE	0.56 U	2.3 U	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
STYRENE	0.44 U	1.8 U	NA	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	0.27 U	1.1 U	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
TERTIARY-BUTYL ALCOHOL	16 UR	65 UR	NA	3.9 UJ	3.9 UR	3.9 UR	3.9 UR	3.9 UR
TOLUENE	0.52 U	2.2 U	NA	0.13 U	0.13 U	**0.28 J**	0.13 U	0.13 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1.1 U	4.7 U	NA	0.14 U	0.28 U	0.28 U	0.28 U	0.28 U
TOTAL XYLENES DETECTED	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	0.76 U	3.2 U	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
TRICHLOROETHENE	**110**	**450**	NA	0.17 U	0.17 U	**0.27 J**	0.17 U	0.17 U
TRICHLOROFLUOROMETHANE	0.84 U	3.5 U	NA	0.21 UJ	0.21 U	0.21 UJ	0.21 U	0.21 U
VINYL CHLORIDE	0.88 U	3.7 U	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-07		GSP-MW-08				GSP-SB-059	GSP-SB-061
SAMPLE ID	GSP-MW7-042712	GSP-MW-7-062211	GSP-MW08-043012	GSP-MW8-022814	GSP-MW8-042712	GSP-MW-8-062311	GSP-SB-59-W	GSP-SB/WP-61-20100527
SAMPLE DATE	20120427	20110622	20120430	20140228	20120427	20110623	20100510	20100527
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW09	GW09	GW09	GW09	GW09	GW09	GW09	GW09
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	12	12	7	7	7	7	12	7
BOTTOM DEPTH	22	22	17	17	17	17	12	7
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-07		GSP-MW-08				GSP-SB-059	GSP-SB-061
SAMPLE ID	GSP-MW7-042712	GSP-MW-7-062211	GSP-MW08-043012	GSP-MW8-022814	GSP-MW8-042712	GSP-MW-8-062311	GSP-SB-59-W	GSP-SB/WP-61-20100527
SAMPLE DATE	20120427	20110622	20120430	20140228	20120427	20110623	20100510	20100527
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW09	GW09	GW09	GW09	GW09	GW09	GW09	GW09
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	12	12	7	7	7	7	12	7
BOTTOM DEPTH	22	22	17	17	17	17	12	7
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	4.5 R	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	NA	0.76 U	NA	0.27 U	NA	0.77 U	0.8 U	0.8 U
2,4-DINITROTOLUENE	NA	0.26 U	NA	0.27 U	NA	0.26 U	0.27 U	0.27 U
2,6-DINITROTOLUENE	NA	0.76 U	NA	0.85 U	NA	0.77 U	0.8 U	0.8 U
2-METHYLNAPHTHALENE	NA	0.095 U	NA	0.096 U	NA	0.096 U	0.1 U	0.1 U
2-METHYLPHENOL	NA	0.76 U	NA	0.18 U	NA	0.77 U	0.8 U	0.8 U
2-NITROPHENOL	NA	0.27 U	NA	0.3 U	NA	0.27 U	0.28 U	0.28 U
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	0.8 U	0.8 U
ACENAPHTHENE	NA	0.095 U	NA	0.047 U	NA	0.096 U	0.1 U	0.1 U
ACETOPHENONE	NA	0.32 U	NA	0.36 U	NA	0.33 U	0.34 U	0.34 U
ANTHRACENE	NA	0.095 U	NA	0.094 U	NA	0.096 U	0.1 U	0.1 U
BIS(2-ETHYLHEXYL)PHTHALATE	NA	0.83 B	NA	1.8 U	NA	0.77 U	**0.91 J**	0.8 U
BUTYL BENZYL PHTHALATE	NA	0.76 U	NA	0.28 U	NA	0.77 U	0.8 U	**1.1**
CAPROLACTAM	NA	0.76 U	NA	0.21 U	NA	0.77 U	0.8 U	0.8 U
CARBAZOLE	NA	0.27 U	NA	0.3 U	NA	0.27 U	0.28 U	0.28 U
DIBENZOFURAN	NA	0.095 U	NA	0.021 U	NA	0.096 U	0.1 U	0.1 U
DIETHYL PHTHALATE	NA	0.57 U	NA	0.64 U	NA	0.58 U	0.6 U	0.6 U
DI-N-BUTYL PHTHALATE	NA	0.64 U	NA	1.8 U	NA	0.64 U	0.67 U	0.67 U
FLUORANTHENE	NA	0.095 U	NA	0.047 U	NA	0.096 U	0.1 U	0.1 U
FLUORENE	NA	0.095 U	NA	0.043 U	NA	0.096 U	0.1 U	0.1 U
HIGH MOLECULAR WEIGHT PAHS	NA	0 U	NA	0 U	NA	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	**0.4275**	NA	**0.208**	NA	**0.432**	**0.45**	**0.45**
ISOPHORONE	NA	0.26 U	NA	0.29 U	NA	0.26 U	0.27 U	0.27 U
LOW MOLECULAR WEIGHT PAHS	NA	0 U	NA	0 U	NA	0 U	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	0.3325 U	NA	NA	NA	0.336 U	0.35 U	0.35 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	**0.38**	NA	**0.2555**	NA	**0.384**	**0.4**	**0.4**
NAPHTHALENE	NA	0.095 U	NA	0.067 U	NA	0.096 U	0.1 U	0.1 U
N-NITROSODIMETHYLAMINE	NA	0.3 U	NA	0.33 U	NA	0.3 U	0.31 U	0.31 U
PHENANTHRENE	NA	0.095 U	NA	0.066 U	NA	0.096 U	0.1 U	0.1 U
PHENOL	NA	0.57 U	NA	0.64 U	NA	0.58 U	0.6 U	0.6 U
PYRENE	NA	0.095 U	NA	0.045 U	NA	0.096 U	0.1 U	0.1 U
TOTAL PAHS	NA	0 U	NA	NA	NA	0 U	0 U	0 U
TOTAL PAHS ECO HALFND	NA	0.8075 U	NA	NA	NA	0.816 U	0.85 U	0.85 U
TOTAL PAHS HALFND	NA	0.8075 U	NA	NA	NA	0.816 U	0.85 U	0.85 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-07		GSP-MW-08				GSP-SB-059	GSP-SB-061
SAMPLE ID	GSP-MW7-042712	GSP-MW-7-062211	GSP-MW08-043012	GSP-MW8-022814	GSP-MW8-042712	GSP-MW-8-062311	GSP-SB-59-W	GSP-SB/WP-61-20100527
SAMPLE DATE	20120427	20110622	20120430	20140228	20120427	20110623	20100510	20100527
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW09	GW09	GW09	GW09	GW09	GW09	GW09	GW09
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	12	12	7	7	7	7	12	7
BOTTOM DEPTH	22	22	17	17	17	17	12	7
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	NA	NA	NA	NA	**0.555**	**0.555**
DISSOLVED METALS (UG/L)								
ANTIMONY	0.28 B	0.12 B	NA	12 U	0.13 U	**0.23 J**	NA	0.2 B
ARSENIC	**1.4 J**	0.66 B	NA	3.2 U	**0.58 J**	0.37 B	NA	**0.6 J**
BARIUM	**45**	**45**	NA	**51 J**	**49**	**110**	NA	**28.5**
BERYLLIUM	0.2 U	0.092 U	NA	0.46 U	**0.36 J**	**0.16 J**	NA	0.056 B
CADMIUM	0.13 U	0.046 U	NA	0.66 U	0.2 B	**0.31 J**	NA	0.062 B
CHROMIUM	0.71 U	**0.58 J**	NA	2.2 U	0.71 U	**0.11 J**	NA	0.56 B
COBALT	**6.3**	**3**	NA	**15**	**12**	**16**	NA	**3.8**
COPPER	1.5 B	**1.3 J**	NA	**9.5 J**	**3.8 K**	**6.1**	NA	1.6 B
IRON	NA	NA	NA	NA	NA	NA	NA	**6530**
LEAD	0.18 U	0.47 B	NA	1.9 U	0.48 B	0.48 B	NA	0.071 B
MANGANESE	NA	NA	NA	NA	NA	NA	NA	**222**
MERCURY	0.12 U	**0.09 J**	NA	0.12 U	0.12 U	0.066 U	NA	0.1 U
MOLYBDENUM	0.76 B	2.9 B	NA	1.3 U	0.15 B	0.42 U	NA	**2.3**
NICKEL	**7.2**	**6.4**	NA	**22 J**	**16**	**24**	NA	**8.1**
SELENIUM	0.57 U	**0.81 J**	NA	**6.8 J**	**4.7 J**	**5.2**	NA	0.34 B
THALLIUM	0.47 B	0.23 B	NA	4.7 U	0.23 B	0.22 B	NA	0.13 U
VANADIUM	**0.71 J**	0.3 U	NA	2.4 U	0.44 U	0.3 U	NA	0.43 U
ZINC	**760**	**14 J**	NA	**350**	**72**	**39 J**	NA	2 B
METALS (UG/L)								
ANTIMONY	0.41 B	0.1 B	NA	9 U	0.13 B	**0.43 J**	**3.5**	0.21 B
ARSENIC	**1.4 J**	**0.93 J**	NA	3.2 U	**0.85 J**	0.48 B	**48**	**0.9 J**
BARIUM	**44**	**55**	NA	**57 J**	**48**	**110**	**158**	**30.6**
BERYLLIUM	**0.22 J**	**0.17 J**	NA	**0.5 J**	**0.35 J**	**0.18 J**	1.9 B	0.0059 UJ
CADMIUM	0.13 U	**0.07 J**	NA	0.66 U	0.13 U	**0.32 J**	0.3 B	0.026 B
CHROMIUM	0.71 U	**1.6 J**	NA	**2.3 J**	0.71 U	**0.79 J**	**88.2**	**4.3**
COBALT	**6.4**	**3.5**	NA	**15**	**11**	**15**	**27.6**	**3.8**
COPPER	1.9 B	**2.6**	NA	**11 J**	**3.4 K**	**6.5**	**66.5**	3.1 B
IRON	NA	NA	NA	NA	NA	NA	**25600**	**6080**
LEAD	0.28 B	**1.9**	NA	1.9 U	0.53 B	**1**	**23.1**	**0.58 J**
MANGANESE	NA	NA	NA	NA	NA	NA	**272**	**212**
MERCURY	0.12 U	**0.19 J**	NA	0.12 U	0.12 U	0.066 U	**0.13 J**	0.1 U
MOLYBDENUM	1.2 B	2.6 B	NA	1.3 U	0.24 B	**0.47 J**	**5.7**	**2.5**
NICKEL	**7.1**	**7.9**	NA	**20 J**	**15**	**23**	**73.1**	**7.9**
SELENIUM	**0.83 J**	**0.72 J**	NA	**6 J**	**4.4 J**	**5.2**	**5.9**	0.26 B
SILVER	0.08 U	0.014 U	NA	2.2 U	0.08 U	0.014 U	0.058 B	0.015 U
THALLIUM	0.82 B	0.24 B	NA	4.7 U	0.32 B	0.22 B	0.34 B	0.13 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-07		GSP-MW-08				GSP-SB-059	GSP-SB-061
SAMPLE ID	GSP-MW7-042712	GSP-MW-7-062211	GSP-MW08-043012	GSP-MW8-022814	GSP-MW8-042712	GSP-MW-8-062311	GSP-SB-59-W	GSP-SB/WP-61-20100527
SAMPLE DATE	20120427	20110622	20120430	20140228	20120427	20110623	20100510	20100527
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW09	GW09	GW09	GW09	GW09	GW09	GW09	GW09
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	12	12	7	7	7	7	12	7
BOTTOM DEPTH	22	22	17	17	17	17	12	7
VANADIUM	**0.92 J**	**1.3 J**	NA	2.4 U	0.44 U	**0.55 J**	**197**	**3.4 J**
ZINC	**730**	**18 J**	NA	**360**	**77**	**37 J**	**83.9**	10.2 B
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	**0.097**	NA	NA	NA	NA	NA
PERCHLORATE	0.082 U	0.36 U	NA	NA	**0.45 J**	0.36 U	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	380 B	NA	NA	NA	230 U	30 U	30 UJ
GASOLINE RANGE ORGANICS	NA	**300**	NA	NA	NA	39 B	28 U	**28 J**
TPH (C06-C10)	96 B	NA	NA	**44 J**	57 B	NA	NA	NA
TPH (C10-C32)	240 U	NA	NA	260 U	230 U	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-WP-61		GSP-MW-05					GSP-MW-06
SAMPLE ID	GSP-SB-WP-61-062211	GSP-SB-WP-61-062311	GSP-MW-05-031716	GSP-MW05-043012	GSP-MW5-022814	GSP-MW5-043012	GSP-MW-5-062011	GSP-MW-06-031816
SAMPLE DATE	20110622	20110623	20160317	20120430	20140228	20120430	20110620	20160318
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW09	GW09	GW10	GW10	GW10	GW10	GW10	GW10
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	7	7	30	30	30	30	30	12.5
BOTTOM DEPTH	7	7	40	40	40	40	40	22.5
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.15 U	NA	0.3 U	NA	0.15 U	0.15 U	0.15 U	0.3 U
1,1-DICHLOROETHENE	0.19 U	NA	0.45 U	NA	0.19 U	0.19 U	0.19 U	0.45 U
1,2,4-TRIMETHYLBENZENE	0.12 U	NA	0.41 U	NA	0.12 U	0.12 U	0.12 U	0.41 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	NA	0.82 UJ	NA	0.67 UJ	0.67 U	0.67 U	0.82 UJ
1,2-DICHLOROBENZENE	0.13 U	NA	0.25 U	NA	0.13 U	0.13 U	0.13 U	0.25 U
1,2-DICHLOROETHANE	0.22 U	NA	0.23 U	NA	0.22 U	0.22 U	0.22 U	0.23 U
1,2-DICHLOROPROPANE	0.18 U	NA	0.25 U	NA	0.18 U	0.18 U	0.18 U	0.25 U
1,3-DICHLOROBENZENE	0.14 U	NA	0.19 U	NA	0.14 U	0.14 U	0.14 U	0.19 U
1,4-DICHLOROBENZENE	0.13 U	NA	0.27 U	NA	0.13 U	0.13 U	0.13 U	0.27 U
2-BUTANONE	0.57 U	NA	0.53 UJ	NA	0.57 U	0.57 U	0.57 U	0.53 UJ
2-HEXANONE	0.41 U	NA	0.48 UJ	NA	0.41 UJ	0.41 U	0.41 U	0.48 UJ
4-METHYL-2-PENTANONE	0.32 U	NA	0.99 UJ	NA	0.32 UJ	0.32 U	0.32 U	0.99 UJ
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	**2.1 NJ**	NA	NA	NA
ACETONE	1.4 B	NA	0.94 UJ	NA	3.2 U	1.1 U	**2 J**	**1.8 J**
BENZENE	0.13 U	NA	0.35 U	NA	0.13 U	0.13 U	0.13 U	0.35 U
BROMOMETHANE	0.41 U	NA	0.44 U	NA	0.41 U	0.41 U	0.41 U	0.44 U
CARBON DISULFIDE	0.13 U	NA	0.38 U	NA	0.13 U	**0.13 J**	0.13 U	0.38 U
CARBON TETRACHLORIDE	0.13 U	NA	0.43 U	NA	**0.79 J**	**1.9**	**2.6**	0.43 U
CHLOROBENZENE	0.15 U	NA	0.25 U	NA	0.15 U	0.15 U	0.15 U	0.25 U
CHLOROFORM	0.16 U	NA	0.25 U	NA	**0.51 J**	**0.68 J**	**0.92 J**	0.25 U
CHLOROMETHANE	0.3 U	NA	0.44 U	NA	0.3 U	0.3 U	0.3 U	0.44 U
CIS-1,2-DICHLOROETHENE	0.17 U	NA	0.26 U	NA	0.17 U	0.17 U	0.17 U	0.26 U
ETHYLBENZENE	0.17 U	NA	0.25 U	NA	0.17 U	0.17 U	0.17 U	0.25 U
M+P-XYLENES	0.24 U	NA	0.24 U	NA	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.17 U	NA	0.2 U	NA	0.17 U	0.17 U	0.17 U	0.2 UJ
METHYLENE CHLORIDE	0.33 U	NA	0.33 U	NA	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.24 U	NA	0.45 UJ	NA	0.24 UJ	0.24 U	0.24 U	0.45 UJ
O-XYLENE	0.14 U	NA	0.25 U	NA	0.14 U	0.14 U	0.14 U	0.25 U
STYRENE	0.11 U	NA	0.45 U	NA	0.11 U	0.11 U	0.11 U	0.45 U
TERT-AMYL METHYL ETHER	0.067 U	NA	0.3 UJ	NA	0.067 U	0.067 U	0.067 U	0.3 UJ
TERTIARY-BUTYL ALCOHOL	3.9 UR	NA	4.9 UJ	NA	3.9 UJ	3.9 UR	3.9 UR	4.9 UJ
TOLUENE	0.13 U	NA	0.23 U	NA	0.13 U	0.13 U	0.13 U	0.23 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	0.28 U	NA	0.52 U	NA	0.14 U	0.28 U	0.28 U	0.52 U
TOTAL XYLENES DETECTED	NA	NA	0 U	NA	NA	NA	NA	0 U
TRANS-1,2-DICHLOROETHENE	0.19 U	NA	0.3 U	NA	0.19 U	0.19 U	0.19 U	0.3 U
TRICHLOROETHENE	0.17 U	NA	0.22 U	NA	0.17 U	0.17 U	0.17 U	0.22 U
TRICHLOROFLUOROMETHANE	0.21 U	NA	0.49 U	NA	0.21 UJ	0.21 U	0.21 U	0.49 U
VINYL CHLORIDE	0.22 U	NA	0.29 U	NA	0.22 U	0.22 U	0.22 U	0.29 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-WP-61		GSP-MW-05					GSP-MW-06
SAMPLE ID	GSP-SB-WP-61-062211	GSP-SB-WP-61-062311	GSP-MW-05-031716	GSP-MW05-043012	GSP-MW5-022814	GSP-MW5-043012	GSP-MW-5-062011	GSP-MW-06-031816
SAMPLE DATE	20110622	20110623	20160317	20120430	20140228	20120430	20110620	20160318
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW09	GW09	GW10	GW10	GW10	GW10	GW10	GW10
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	7	7	30	30	30	30	30	12.5
BOTTOM DEPTH	7	7	40	40	40	40	40	22.5
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	**1.4 NJ**	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-WP-61		GSP-MW-05					GSP-MW-06
SAMPLE ID	GSP-SB-WP-61-062211	GSP-SB-WP-61-062311	GSP-MW-05-031716	GSP-MW05-043012	GSP-MW5-022814	GSP-MW5-043012	GSP-MW-5-062011	GSP-MW-06-031816
SAMPLE DATE	20110622	20110623	20160317	20120430	20140228	20120430	20110620	20160318
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW09	GW09	GW10	GW10	GW10	GW10	GW10	GW10
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	7	7	30	30	30	30	30	12.5
BOTTOM DEPTH	7	7	40	40	40	40	40	22.5
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	**1.1 NJ**	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	NA	0.77 U	0.27 U	NA	0.26 U	NA	0.8 U	0.25 U
2,4-DINITROTOLUENE	NA	0.26 U	0.27 U	NA	0.26 U	NA	0.27 U	0.25 U
2,6-DINITROTOLUENE	NA	0.77 U	0.85 U	NA	0.84 U	NA	0.8 U	0.79 U
2-METHYLNAPHTHALENE	NA	0.096 U	0.096 U	NA	0.095 U	NA	0.1 U	0.09 U
2-METHYLPHENOL	NA	0.77 U	0.18 U	NA	0.18 U	NA	0.8 U	0.17 U
2-NITROPHENOL	NA	0.27 U	0.3 U	NA	0.29 U	NA	0.28 U	0.28 U
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	0.096 U	0.047 U	NA	0.047 U	NA	0.1 U	0.044 U
ACETOPHENONE	NA	0.33 U	0.36 U	NA	0.36 U	NA	0.34 U	0.34 U
ANTHRACENE	NA	0.096 U	0.094 U	NA	**0.14 J**	NA	0.1 U	0.087 U
BIS(2-ETHYLHEXYL)PHTHALATE	NA	0.77 U	1.8 U	NA	1.8 U	NA	0.8 U	1.7 U
BUTYL BENZYL PHTHALATE	NA	0.77 U	0.28 U	NA	0.27 U	NA	0.8 U	0.26 U
CAPROLACTAM	NA	0.77 U	0.21 UJ	NA	0.21 U	NA	0.8 U	0.2 UJ
CARBAZOLE	NA	0.27 U	0.3 U	NA	0.29 U	NA	0.28 U	0.28 U
DIBENZOFURAN	NA	0.096 U	0.021 U	NA	0.021 U	NA	0.1 U	0.02 U
DIETHYL PHTHALATE	NA	0.58 U	0.64 U	NA	0.63 U	NA	0.6 U	0.59 U
DI-N-BUTYL PHTHALATE	NA	0.64 U	1.8 U	NA	1.8 U	NA	0.67 U	1.7 U
FLUORANTHENE	NA	0.096 U	0.047 U	NA	0.047 U	NA	0.1 U	0.044 U
FLUORENE	NA	0.096 U	0.043 U	NA	0.043 U	NA	0.1 U	0.04 U
HIGH MOLECULAR WEIGHT PAHS	NA	0 U	0 U	NA	0 U	NA	0 U	**0.1**
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	**0.432**	**0.208**	NA	**0.206**	NA	**0.45**	**0.273**
ISOPHORONE	NA	0.26 U	0.29 U	NA	0.28 U	NA	0.27 U	0.27 U
LOW MOLECULAR WEIGHT PAHS	NA	0 U	0 U	NA	**0.14**	NA	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	0.336 U	NA	NA	NA	NA	0.35 U	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	**0.384**	**0.2555**	NA	**0.347**	NA	**0.4**	**0.238**
NAPHTHALENE	NA	0.096 U	0.067 U	NA	0.066 U	NA	0.1 U	0.062 U
N-NITROSODIMETHYLAMINE	NA	0.3 U	0.33 U	NA	0.33 U	NA	0.31 U	0.31 U
PHENANTHRENE	NA	0.096 U	0.066 U	NA	0.065 U	NA	0.1 U	0.061 U
PHENOL	NA	0.58 U	0.64 U	NA	0.63 U	NA	0.6 U	0.59 U
PYRENE	NA	0.096 U	0.045 U	NA	0.044 U	NA	0.1 U	**0.1 J**
TOTAL PAHS	NA	0 U	NA	NA	NA	NA	0 U	NA
TOTAL PAHS ECO HALFND	NA	0.816 U	NA	NA	NA	NA	0.85 U	NA
TOTAL PAHS HALFND	NA	0.816 U	NA	NA	NA	NA	0.85 U	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-WP-61		GSP-MW-05					GSP-MW-06
SAMPLE ID	GSP-SB-WP-61-062211	GSP-SB-WP-61-062311	GSP-MW-05-031716	GSP-MW05-043012	GSP-MW5-022814	GSP-MW5-043012	GSP-MW-5-062011	GSP-MW-06-031816
SAMPLE DATE	20110622	20110623	20160317	20120430	20140228	20120430	20110620	20160318
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW09	GW09	GW10	GW10	GW10	GW10	GW10	GW10
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	7	7	30	30	30	30	30	12.5
BOTTOM DEPTH	7	7	40	40	40	40	40	22.5
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	**0.199**	NA	NA	NA	NA	**0.1975**
DISSOLVED METALS (UG/L)								
ANTIMONY	0.19 B	NA	2.4 U	NA	2.1 U	0.13 U	0.19 B	2.4 U
ARSENIC	0.41 B	NA	**2.9 J**	NA	3.2 U	**3.5 J**	0.092 U	2.9 U
BARIUM	**28**	NA	20 U	NA	**24 J**	**21**	**39**	50 U
BERYLLIUM	0.092 U	NA	0.13 U	NA	0.46 U	**1.4**	**2.8**	0.13 U
CADMIUM	0.046 U	NA	**0.26 J**	NA	0.66 U	**0.31 J**	**1.3**	**0.49 J**
CHROMIUM	**0.47 J**	NA	0.55 U	NA	2.2 U	**0.78 J**	**3.7**	0.55 U
COBALT	**0.42 J**	NA	**4.9 J**	NA	**8 J**	**29**	**70**	0.56 U
COPPER	**14**	NA	1.9 U	NA	4.5 U	0.34 B	**15**	**2.7 J**
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	0.3 B	NA	1.9 U	NA	1.9 U	0.18 U	0.5 B	1.9 U
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.066 U	NA	0.09 U	NA	0.12 U	0.12 U	0.066 U	0.09 U
MOLYBDENUM	0.93 B	NA	0.53 U	NA	1.3 U	0.35 B	**1.7 J**	2.5 U
NICKEL	0.63 U	NA	**3.2 J**	NA	3.2 U	**19**	**50**	**1 J**
SELENIUM	0.32 U	NA	4 U	NA	4.1 U	**2.7 J**	0.32 U	4 U
THALLIUM	0.2 B	NA	1.7 U	NA	4.7 U	0.26 B	0.29 B	1.7 U
VANADIUM	**0.99 J**	NA	2.4 U	NA	**3.3 J**	**1.8 J**	0.3 U	**5.7 J**
ZINC	**9.9 J**	NA	9.6 U	NA	**58**	**25**	**69**	32 U
METALS (UG/L)								
ANTIMONY	0.23 B	NA	2.4 U	NA	3.1 U	0.13 U	0.21 B	2.4 U
ARSENIC	**0.79 J**	NA	**2.9 J**	NA	3.2 U	**3.4 J**	**0.71 J**	**3 J**
BARIUM	**30**	NA	22 U	NA	**23 J**	**21**	**37**	52 U
BERYLLIUM	0.092 U	NA	0.13 U	NA	0.46 U	**1.3**	**3.5**	0.13 U
CADMIUM	0.046 U	NA	**0.43 J**	NA	0.66 U	**0.32 J**	**1.4**	**0.42 J**
CHROMIUM	**1.8 J**	NA	**0.62 J**	NA	2.2 U	**2.2**	**6.7**	**1.5 J**
COBALT	**0.68 J**	NA	**5.2 J**	NA	**7.8 J**	**26**	**76**	0.56 U
COPPER	**39**	NA	1.9 U	NA	4.5 U	**4.9**	**20**	**4.8 J**
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	**1.7**	NA	1.9 U	NA	1.9 U	**0.39 J**	0.84 B	1.9 U
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.066 U	NA	0.09 U	NA	0.12 U	0.12 U	0.066 U	0.09 U
MOLYBDENUM	1.5 B	NA	0.53 U	NA	1.3 U	0.34 B	**5.9**	2.6 U
NICKEL	**1 J**	NA	**2.8 J**	NA	**3.5 J**	**17**	**53**	**2.1 J**
SELENIUM	0.32 U	NA	4 U	NA	4.1 U	**2.2 J**	**2.9 J**	4 U
SILVER	0.014 U	NA	0.92 U	NA	2.2 U	0.08 U	0.014 U	0.92 U
THALLIUM	0.26 B	NA	1.7 U	NA	4.7 U	0.14 U	0.29 B	1.7 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-WP-61		GSP-MW-05					GSP-MW-06
SAMPLE ID	GSP-SB-WP-61-062211	GSP-SB-WP-61-062311	GSP-MW-05-031716	GSP-MW05-043012	GSP-MW5-022814	GSP-MW5-043012	GSP-MW-5-062011	GSP-MW-06-031816
SAMPLE DATE	20110622	20110623	20160317	20120430	20140228	20120430	20110620	20160318
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW09	GW09	GW10	GW10	GW10	GW10	GW10	GW10
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	7	7	30	30	30	30	30	12.5
BOTTOM DEPTH	7	7	40	40	40	40	40	22.5
VANADIUM	**3.9 J**	NA	2.4 U	NA	2.4 U	**4.4 J**	**3.7 J**	**6.9 J**
ZINC	**30**	NA	**10 J**	NA	**54**	**28**	**79**	**68**
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	0.02 U	NA	NA	NA	NA
PERCHLORATE	0.36 U	NA	NA	NA	NA	**0.16 J**	0.36 U	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	0.051 UJ	NA	NA	NA	NA	0.051 UJ
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	320 B	NA	NA	NA	NA	NA	**1400**	NA
GASOLINE RANGE ORGANICS	33 B	NA	NA	NA	NA	NA	37 B	NA
TPH (C06-C10)	NA	NA	25 U	NA	25 U	37 B	NA	**29 J**
TPH (C10-C32)	NA	NA	**1700**	NA	**2000**	**1200**	NA	**470 J**

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-06				GSP-SB-066			GSP-SB-071
SAMPLE ID	GSP-MW06-043012	GSP-MW6-022814	GSP-MW6-043012	GSP-MW-6-062011	GSP-SB/WP-66-20100527	GSP-SB-WP-66-062311	GSP-SB-WP-66-062411	GSP-SB/WP-71-20100528
SAMPLE DATE	20120430	20140228	20120430	20110620	20100527	20110623	20110624	20100528
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW10	GW10	GW10	GW10	GW10	GW10	GW10	GW10
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	12.5	12.5	12.5	12.5	9	9	9	15
BOTTOM DEPTH	22.5	22.5	22.5	22.5	9	9	9	15
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	NA	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	NA	0.15 U
1,1-DICHLOROETHENE	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	0.19 U
1,2,4-TRIMETHYLBENZENE	NA	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	NA	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	NA	0.67 UJ	0.67 U	0.67 U	0.67 U	0.67 U	NA	0.67 U
1,2-DICHLOROBENZENE	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	NA	0.13 U
1,2-DICHLOROETHANE	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	NA	0.22 U
1,2-DICHLOROPROPANE	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	NA	0.18 U
1,3-DICHLOROBENZENE	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	NA	0.14 U
1,4-DICHLOROBENZENE	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	NA	0.13 U
2-BUTANONE	NA	0.57 U	0.57 U	0.57 U	0.57 U	**3.2 J**	NA	0.57 U
2-HEXANONE	NA	0.41 UJ	0.41 U	0.41 U	0.41 U	0.41 U	NA	0.41 U
4-METHYL-2-PENTANONE	NA	0.32 UJ	0.32 U	0.32 U	0.32 U	0.32 U	NA	0.32 U
ACETAMIDE, 2-CHLORO-	NA	**1.2 NJ**	NA	NA	NA	NA	NA	NA
ACETONE	NA	3 U	1.1 U	**2.6 J**	14 B	7.9 B	NA	12 B
BENZENE	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	NA	0.13 U
BROMOMETHANE	NA	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	NA	0.41 U
CARBON DISULFIDE	NA	0.13 U	0.13 U	0.13 U	0.13 U	**0.27 J**	NA	0.13 U
CARBON TETRACHLORIDE	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	NA	0.13 U
CHLOROBENZENE	NA	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	NA	0.15 U
CHLOROFORM	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U
CHLOROMETHANE	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	NA	0.3 U
CIS-1,2-DICHLOROETHENE	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	NA	0.17 U
ETHYLBENZENE	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	NA	0.17 U
M+P-XYLENES	NA	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	NA	0.24 U
METHYL TERT-BUTYL ETHER	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	NA	0.17 U
METHYLENE CHLORIDE	NA	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	NA	0.33 U
NAPHTHALENE	NA	0.24 UJ	0.24 U	0.24 U	0.24 U	0.24 U	NA	0.24 U
O-XYLENE	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	NA	0.14 U
STYRENE	NA	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	NA	0.11 U
TERT-AMYL METHYL ETHER	NA	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	NA	0.067 U
TERTIARY-BUTYL ALCOHOL	NA	3.9 UJ	3.9 UR	3.9 UR	3.9 UR	**6.9 J**	NA	3.9 UR
TOLUENE	NA	0.13 U	0.13 U	0.13 U	0.13 U	**22**	NA	0.13 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	0.14 U	0.28 U	0.28 U	0.28 U	0.28 U	NA	0.28 U
TOTAL XYLENES DETECTED	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	0.19 U
TRICHLOROETHENE	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	NA	0.17 U
TRICHLOROFLUOROMETHANE	NA	0.21 UJ	0.21 U	0.21 U	0.21 U	0.21 UJ	NA	0.21 U
VINYL CHLORIDE	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	NA	0.22 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-06				GSP-SB-066			GSP-SB-071
SAMPLE ID	GSP-MW06-043012	GSP-MW6-022814	GSP-MW6-043012	GSP-MW-6-062011	GSP-SB/WP-66-20100527	GSP-SB-WP-66-062311	GSP-SB-WP-66-062411	GSP-SB/WP-71-20100528
SAMPLE DATE	20120430	20140228	20120430	20110620	20100527	20110623	20110624	20100528
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW10	GW10	GW10	GW10	GW10	GW10	GW10	GW10
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	12.5	12.5	12.5	12.5	9	9	9	15
BOTTOM DEPTH	22.5	22.5	22.5	22.5	9	9	9	15
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-06				GSP-SB-066			GSP-SB-071
SAMPLE ID	GSP-MW06-043012	GSP-MW6-022814	GSP-MW6-043012	GSP-MW-6-062011	GSP-SB/WP-66-20100527	GSP-SB-WP-66-062311	GSP-SB-WP-66-062411	GSP-SB/WP-71-20100528
SAMPLE DATE	20120430	20140228	20120430	20110620	20100527	20110623	20110624	20100528
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW10	GW10	GW10	GW10	GW10	GW10	GW10	GW10
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	12.5	12.5	12.5	12.5	9	9	9	15
BOTTOM DEPTH	22.5	22.5	22.5	22.5	9	9	9	15
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	**3 NJ**	NA	2.8 R	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	**1.8 NJ**	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	NA	0.26 U	NA	0.76 U	0.8 U	NA	1.2 U	0.8 U
2,4-DINITROTOLUENE	NA	0.26 U	NA	0.26 U	0.27 U	NA	0.41 U	0.27 U
2,6-DINITROTOLUENE	NA	0.83 U	NA	0.76 U	0.8 U	NA	1.2 U	0.8 U
2-METHYLNAPHTHALENE	NA	0.094 U	NA	0.095 U	0.1 U	NA	0.15 U	0.1 U
2-METHYLPHENOL	NA	0.18 U	NA	0.76 U	0.8 U	NA	1.2 U	0.8 U
2-NITROPHENOL	NA	0.29 U	NA	0.27 U	0.28 U	NA	0.42 U	0.28 U
4-METHYLPHENOL	NA	NA	NA	NA	**2.1**	NA	NA	0.8 U
ACENAPHTHENE	NA	0.046 U	NA	0.095 U	0.1 U	NA	0.15 U	0.1 U
ACETOPHENONE	NA	0.35 U	NA	0.32 U	0.34 U	NA	0.52 U	0.34 U
ANTHRACENE	NA	**0.11 J**	NA	0.095 U	0.1 U	NA	0.15 U	0.1 U
BIS(2-ETHYLHEXYL)PHTHALATE	NA	1.8 U	NA	0.76 U	0.8 U	NA	1.2 U	**0.85 J**
BUTYL BENZYL PHTHALATE	NA	0.27 U	NA	0.76 U	**2.3**	NA	1.2 U	0.8 U
CAPROLACTAM	NA	0.21 U	NA	0.76 U	0.8 U	NA	1.2 U	0.8 U
CARBAZOLE	NA	0.29 U	NA	0.27 U	0.28 U	NA	0.42 U	0.28 U
DIBENZOFURAN	NA	0.021 U	NA	0.095 U	0.1 U	NA	0.15 U	0.1 U
DIETHYL PHTHALATE	NA	0.62 U	NA	0.57 U	0.6 U	NA	0.91 U	0.6 U
DI-N-BUTYL PHTHALATE	NA	1.8 U	NA	0.64 U	0.67 U	NA	1 U	0.67 U
FLUORANTHENE	NA	0.046 U	NA	0.095 U	0.1 U	NA	0.15 U	0.1 U
FLUORENE	NA	0.042 U	NA	0.095 U	0.1 U	NA	0.15 U	0.1 U
HIGH MOLECULAR WEIGHT PAHS	NA	0 U	NA	0 U	0 U	NA	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	**0.204**	NA	**0.4275**	**0.45**	NA	**0.675**	**0.45**
ISOPHORONE	NA	0.28 U	NA	0.26 U	0.27 U	NA	0.41 U	0.27 U
LOW MOLECULAR WEIGHT PAHS	NA	**0.11**	NA	0 U	0 U	NA	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	0.3325 U	0.35 U	NA	0.525 U	0.35 U
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	**0.3135**	NA	**0.38**	**0.4**	NA	**0.6**	**0.4**
NAPHTHALENE	NA	0.065 U	NA	0.095 U	0.1 U	NA	0.15 U	0.1 U
N-NITROSODIMETHYLAMINE	NA	0.32 U	NA	0.3 U	0.31 U	NA	0.47 U	0.31 U
PHENANTHRENE	NA	0.064 U	NA	0.095 U	0.1 U	NA	0.15 U	0.1 U
PHENOL	NA	0.62 U	NA	0.57 U	**1.7**	NA	0.91 U	**0.77 J**
PYRENE	NA	0.044 U	NA	0.095 U	0.1 U	NA	0.15 U	0.1 U
TOTAL PAHS	NA	NA	NA	0 U	0 U	NA	0 U	0 U
TOTAL PAHS ECO HALFND	NA	NA	NA	0.8075 U	0.85 U	NA	1.275 U	0.85 U
TOTAL PAHS HALFND	NA	NA	NA	0.8075 U	0.85 U	NA	1.275 U	0.85 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-06				GSP-SB-066			GSP-SB-071
SAMPLE ID	GSP-MW06-043012	GSP-MW6-022814	GSP-MW6-043012	GSP-MW-6-062011	GSP-SB/WP-66-20100527	GSP-SB-WP-66-062311	GSP-SB-WP-66-062411	GSP-SB/WP-71-20100528
SAMPLE DATE	20120430	20140228	20120430	20110620	20100527	20110623	20110624	20100528
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW10	GW10	GW10	GW10	GW10	GW10	GW10	GW10
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	12.5	12.5	12.5	12.5	9	9	9	15
BOTTOM DEPTH	22.5	22.5	22.5	22.5	9	9	9	15
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	NA	NA	**0.555**	NA	NA	**0.555**
DISSOLVED METALS (UG/L)								
ANTIMONY	NA	2.1 U	**0.76 J**	0.086 B	0.06 B	**0.49 J**	NA	0.31 B
ARSENIC	NA	3.2 U	**2.1 J**	0.56 B	**0.38 J**	**6.6**	NA	**4.4 J**
BARIUM	NA	**27 J**	**40**	**32**	**53.8**	**46**	NA	**64.9**
BERYLLIUM	NA	0.46 U	0.2 U	0.092 U	**0.33 J**	0.092 U	NA	0.0059 U
CADMIUM	NA	0.66 U	0.13 U	**0.053 J**	0.13 B	0.046 U	NA	0.044 B
CHROMIUM	NA	2.2 U	0.71 U	0.11 U	0.65 B	**3.4**	NA	**2.1**
COBALT	NA	1.7 U	**0.45 J**	**1.1**	**33.7**	**13**	NA	**3.7**
COPPER	NA	4.5 U	**4.1**	**1.5 J**	2.5 B	**12**	NA	0.76 B
IRON	NA	NA	NA	NA	**464**	NA	NA	**14200**
LEAD	NA	1.9 U	0.18 U	0.22 B	0.11 B	**2.7**	NA	0.1 B
MANGANESE	NA	NA	NA	NA	**486**	NA	NA	**772**
MERCURY	NA	0.12 U	0.12 U	0.066 U	0.1 U	0.066 U	NA	0.1 U
MOLYBDENUM	NA	2.5 U	2.2 B	**1 J**	0.27 U	**1 J**	NA	**5.4**
NICKEL	NA	3.2 U	**1.2 J**	0.63 U	**10**	**8.1**	NA	**4.2**
SELENIUM	NA	4.1 U	**13**	**0.53 J**	0.44 B	**0.62 J**	NA	0.38 B
THALLIUM	NA	4.7 U	0.2 B	0.25 B	0.13 U	0.21 B	NA	0.13 U
VANADIUM	NA	2.4 U	**6.5 J**	**0.63 J**	0.43 U	**13 J**	NA	**2.7 J**
ZINC	NA	**92**	**460**	0.5 U	22.6 B	**20 J**	NA	2.9 B
METALS (UG/L)								
ANTIMONY	NA	2.1 U	**0.92 J**	0.19 B	0.18 B	**0.53 J**	NA	0.39 B
ARSENIC	NA	3.2 U	**4 J**	**0.42 J**	**2.2 J**	**7.1**	NA	**4 J**
BARIUM	NA	**32 J**	**42**	**34**	**65.8**	**60**	NA	**65.5**
BERYLLIUM	NA	0.46 U	0.2 U	0.092 U	**0.94 J**	**0.12 J**	NA	0.12 B
CADMIUM	NA	0.66 U	0.13 U	0.046 U	0.14 B	**0.15 J**	NA	0.058 B
CHROMIUM	NA	**2.3 J**	0.71 U	0.67 B	**7.5**	**8.2**	NA	**6.4**
COBALT	NA	1.7 U	**0.56 J**	**1.5**	**31.8**	**11**	NA	**2.5**
COPPER	NA	4.5 U	**5**	**1.9 J**	**7**	**23**	NA	3.4 B
IRON	NA	NA	NA	NA	**5040**	NA	NA	**13600**
LEAD	NA	1.9 U	0.18 U	0.28 B	**2.2 J**	**8.5**	NA	**1.1 J**
MANGANESE	NA	NA	NA	NA	**496**	NA	NA	**756**
MERCURY	NA	0.12 U	0.12 U	0.066 U	0.1 U	0.066 U	NA	0.1 U
MOLYBDENUM	NA	2.5 U	2.7 B	**0.72 J**	0.33 B	**1.2 J**	NA	**3.9**
NICKEL	NA	3.2 U	**1.3 J**	0.63 U	**10.5**	**9.7**	NA	**4**
SELENIUM	NA	4.1 U	**14**	0.32 U	0.62 B	**0.6 J**	NA	0.43 B
SILVER	NA	2.2 U	0.08 U	0.014 U	0.018 B	0.014 U	NA	0.015 U
THALLIUM	NA	4.7 U	0.25 B	0.28 B	0.13 B	0.26 B	NA	0.13 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-06				GSP-SB-066			GSP-SB-071
SAMPLE ID	GSP-MW06-043012	GSP-MW6-022814	GSP-MW6-043012	GSP-MW-6-062011	GSP-SB/WP-66-20100527	GSP-SB-WP-66-062311	GSP-SB-WP-66-062411	GSP-SB/WP-71-20100528
SAMPLE DATE	20120430	20140228	20120430	20110620	20100527	20110623	20110624	20100528
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW10	GW10	GW10	GW10	GW10	GW10	GW10	GW10
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	12.5	12.5	12.5	12.5	9	9	9	15
BOTTOM DEPTH	22.5	22.5	22.5	22.5	9	9	9	15
VANADIUM	NA	**7 J**	**8.5 J**	**1.4 J**	**12 J**	**23**	NA	**7.5 J**
ZINC	NA	**450**	**530**	**6 J**	44 B	**26 J**	NA	10.4 B
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	**0.118**	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	0.082 U	1.8 U	NA	1.8 U	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	NA	NA	**1600**	30 UJ	NA	240 U	**450**
GASOLINE RANGE ORGANICS	NA	NA	NA	32 B	**27 J**	42 B	NA	32 B
TPH (C06-C10)	NA	25 U	41 B	NA	NA	NA	NA	NA
TPH (C10-C32)	NA	**400 J**	**490**	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-71	GSP-DPT-51						
SAMPLE ID	GSP-SB-WP-71-062111	GSP-DPT-51-10-15	GSP-DPT-51-20-25	GSP-DPT-51-25-30	GSP-DPT-51-30-35	GSP-DPT-51-35-40	GSP-DPT-51-35-40-AVG	GSP-DPT-51-35-40-D
SAMPLE DATE	20110621	20160107	20160107	20160107	20160107	20160107	20160107	20160107
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	GW10	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	15	10	20	25	30	35	35	35
BOTTOM DEPTH	15	15	25	30	35	40	40	40
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.15 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,1-DICHLOROETHENE	0.19 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
1,2-DICHLOROBENZENE	0.13 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-DICHLOROETHANE	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-DICHLOROPROPANE	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-DICHLOROBENZENE	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,4-DICHLOROBENZENE	0.13 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
2-BUTANONE	0.57 U	0.65 U	2.3 U	0.92 U	6.7 U	1.6 U	1.6 U	1.3 U
2-HEXANONE	0.41 U	0.48 U	0.48 U	0.48 U	**0.75 J**	0.48 U	0.48 U	0.48 U
4-METHYL-2-PENTANONE	0.32 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	**1.9 J**	2.1 U	10 U	1.3 U	14 U	1.7 U	1.7 U	3.4 U
BENZENE	0.13 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
BROMOMETHANE	0.41 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
CARBON DISULFIDE	0.13 U	**0.39 J**	**0.59 J**	0.38 U	**0.74 J**	**0.74 J**	**0.74 J**	**0.38 J**
CARBON TETRACHLORIDE	0.13 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
CHLOROBENZENE	0.15 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
CHLOROFORM	0.16 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
CHLOROMETHANE	0.3 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
CIS-1,2-DICHLOROETHENE	0.17 U	**0.28 J**	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
ETHYLBENZENE	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
M+P-XYLENES	0.24 U	0.24 U	**0.33 J**	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.17 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.24 U	0.45 U	**1.1**	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
O-XYLENE	0.14 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
STYRENE	0.11 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
TERT-AMYL METHYL ETHER	0.067 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
TERTIARY-BUTYL ALCOHOL	3.9 UR	4.9 UJ	4.9 UJ	4.9 UJ	4.9 UJ	4.9 UJ	4.9 UJ	4.9 UJ
TOLUENE	0.13 U	0.23 U	0.23 U	0.23 U	**0.24 J**	0.23 U	0.23 U	0.23 U
TOTAL CHLORINATED VOCS	NA	**0.28**	0 U	0 U	0 U	0 U	0 U	**0.22**
TOTAL CHLORINATED VOCS HALFND	NA	**3.125**	**2.975**	**2.975**	**2.975**	**2.975**	**2.975**	**3.085**
TOTAL XYLENES	0.28 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
TOTAL XYLENES DETECTED	NA	0 U	**0.33**	0 U	0 U	0 U	0 U	0 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
TRICHLOROETHENE	0.17 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	**0.22 J**
TRICHLOROFLUOROMETHANE	0.21 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
VINYL CHLORIDE	0.22 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-71	GSP-DPT-51						
SAMPLE ID	GSP-SB-WP-71-062111	GSP-DPT-51-10-15	GSP-DPT-51-20-25	GSP-DPT-51-25-30	GSP-DPT-51-30-35	GSP-DPT-51-35-40	GSP-DPT-51-35-40-AVG	GSP-DPT-51-35-40-D
SAMPLE DATE	20110621	20160107	20160107	20160107	20160107	20160107	20160107	20160107
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	GW10	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	15	10	20	25	30	35	35	35
BOTTOM DEPTH	15	15	25	30	35	40	40	40
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-71	GSP-DPT-51						
SAMPLE ID	GSP-SB-WP-71-062111	GSP-DPT-51-10-15	GSP-DPT-51-20-25	GSP-DPT-51-25-30	GSP-DPT-51-30-35	GSP-DPT-51-35-40	GSP-DPT-51-35-40-AVG	GSP-DPT-51-35-40-D
SAMPLE DATE	20110621	20160107	20160107	20160107	20160107	20160107	20160107	20160107
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	GW10	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	15	10	20	25	30	35	35	35
BOTTOM DEPTH	15	15	25	30	35	40	40	40
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	**1.4 NJ**	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	0.76 U	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	0.26 U	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	0.76 U	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	0.095 U	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	0.76 U	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	0.27 U	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	0.095 U	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	0.32 U	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	0.095 U	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	0.85 B	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	0.76 U	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	0.76 U	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	0.27 U	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	0.095 U	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	0.57 U	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	0.64 U	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	0.095 U	NA	NA	NA	NA	NA	NA	NA
FLUORENE	0.095 U	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS	0 U	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	**0.4275**	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	0.26 U	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS	0 U	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	0.3325 U	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	**0.38**	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.095 U	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	0.3 U	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	0.095 U	NA	NA	NA	NA	NA	NA	NA
PHENOL	0.57 U	NA	NA	NA	NA	NA	NA	NA
PYRENE	0.095 U	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS	0 U	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	0.8075 U	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	0.8075 U	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-71	GSP-DPT-51						
SAMPLE ID	GSP-SB-WP-71-062111	GSP-DPT-51-10-15	GSP-DPT-51-20-25	GSP-DPT-51-25-30	GSP-DPT-51-30-35	GSP-DPT-51-35-40	GSP-DPT-51-35-40-AVG	GSP-DPT-51-35-40-D
SAMPLE DATE	20110621	20160107	20160107	20160107	20160107	20160107	20160107	20160107
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	GW10	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	15	10	20	25	30	35	35	35
BOTTOM DEPTH	15	15	25	30	35	40	40	40
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)								
ANTIMONY	0.28 B	NA	NA	NA	NA	NA	NA	NA
ARSENIC	**9.1 J**	NA	NA	NA	NA	NA	NA	NA
BARIUM	**68**	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	0.092 U	NA	NA	NA	NA	NA	NA	NA
CADMIUM	**0.055 J**	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	**2.7**	NA	NA	NA	NA	NA	NA	NA
COBALT	**13 J**	NA	NA	NA	NA	NA	NA	NA
COPPER	**0.47 J**	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	0.25 B	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.066 U	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	1.6 B	NA	NA	NA	NA	NA	NA	NA
NICKEL	**2.1**	NA	NA	NA	NA	NA	NA	NA
SELENIUM	0.32 U	NA	NA	NA	NA	NA	NA	NA
THALLIUM	0.23 B	NA	NA	NA	NA	NA	NA	NA
VANADIUM	**4.9 J**	NA	NA	NA	NA	NA	NA	NA
ZINC	**7.6 J**	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)								
ANTIMONY	0.36 B	NA	NA	NA	NA	NA	NA	NA
ARSENIC	**9.7 J**	NA	NA	NA	NA	NA	NA	NA
BARIUM	**68**	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	0.092 U	NA	NA	NA	NA	NA	NA	NA
CADMIUM	**0.076 J**	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	**5.9**	NA	NA	NA	NA	NA	NA	NA
COBALT	**11 J**	NA	NA	NA	NA	NA	NA	NA
COPPER	**7**	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	**0.98 J**	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.066 U	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	1.5 B	NA	NA	NA	NA	NA	NA	NA
NICKEL	**2**	NA	NA	NA	NA	NA	NA	NA
SELENIUM	0.32 U	NA	NA	NA	NA	NA	NA	NA
SILVER	0.014 U	NA	NA	NA	NA	NA	NA	NA
THALLIUM	0.23 B	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-71	GSP-DPT-51						
SAMPLE ID	GSP-SB-WP-71-062111	GSP-DPT-51-10-15	GSP-DPT-51-20-25	GSP-DPT-51-25-30	GSP-DPT-51-30-35	GSP-DPT-51-35-40	GSP-DPT-51-35-40-AVG	GSP-DPT-51-35-40-D
SAMPLE DATE	20110621	20160107	20160107	20160107	20160107	20160107	20160107	20160107
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	GW10	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	15	10	20	25	30	35	35	35
BOTTOM DEPTH	15	15	25	30	35	40	40	40
VANADIUM	11 J	NA	NA	NA	NA	NA	NA	NA
ZINC	12 J	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	0.36 U	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	230 U	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	31 B	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-51	GSP-DPT-52	GSP-DPT-53					
SAMPLE ID	GSP-DPT-51-5-10	GSP-DPT-52-35-37	GSP-DPT-53-10-15	GSP-DPT-53-15-20	GSP-DPT-53-30-35	GSP-DPT-53-30-35-AVG	GSP-DPT-53-30-35-D	GSP-DPT-53-35-40
SAMPLE DATE	20160107	20160107	20160108	20160108	20160108	20160108	20160108	20160108
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	5	35	10	15	30	30	30	35
BOTTOM DEPTH	10	37	15	20	35	35	35	40
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.3 U	0.3 U	0.6 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,1-DICHLOROETHENE	0.45 U	0.45 U	**1.3 J**	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
1,2,4-TRIMETHYLBENZENE	0.41 U	0.41 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
1,2-DIBROMO-3-CHLOROPROPANE	0.82 U	0.82 U	1.6 UJ	0.82 UJ	0.82 UJ	0.82 UJ	0.82 UJ	0.82 UJ
1,2-DICHLOROBENZENE	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-DICHLOROETHANE	0.23 U	0.23 U	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-DICHLOROPROPANE	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-DICHLOROBENZENE	0.19 U	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,4-DICHLOROBENZENE	0.27 U	0.27 U	0.54 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
2-BUTANONE	2.3 U	9 U	1.1 U	**5.3 J**	0.53 U	0.53 U	0.53 U	0.53 U
2-HEXANONE	0.48 U	**1.1 J**	0.96 UJ	**0.59 J**	0.48 UJ	0.48 UJ	0.48 UJ	0.48 UJ
4-METHYL-2-PENTANONE	0.99 U	0.99 U	2 UJ	0.99 UJ	0.99 UJ	0.99 UJ	0.99 UJ	0.99 UJ
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	4.2 U	8.4 U	4.3 U	7.1 U	0.94 U	0.94 U	1.5 U	0.94 U
BENZENE	0.35 U	0.35 U	0.7 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
BROMOMETHANE	0.44 U	0.44 U	0.88 UJ	0.44 UJ	0.44 U	0.44 U	0.44 U	0.44 U
CARBON DISULFIDE	0.38 U	0.38 U	0.76 UJ	0.38 UJ	0.38 U	0.38 U	0.38 U	0.38 U
CARBON TETRACHLORIDE	0.43 U	0.43 U	0.86 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
CHLOROBENZENE	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
CHLOROFORM	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
CHLOROMETHANE	0.44 U	0.44 U	0.88 UJ	0.44 UJ	0.44 U	0.44 U	0.44 U	0.44 U
CIS-1,2-DICHLOROETHENE	0.26 U	0.26 U	**2.4**	**1.5**	0.26 U	0.26 U	0.26 U	0.26 U
ETHYLBENZENE	0.25 U	0.25 U	0.5 U	**0.29 J**	0.25 U	0.25 U	0.25 U	0.25 U
M+P-XYLENES	0.24 U	**0.32 J**	**0.79 J**	**1 J**	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.2 U	0.2 U	0.4 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ
METHYLENE CHLORIDE	0.33 U	0.33 U	0.71 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.45 U	**0.53 J**	0.9 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
O-XYLENE	0.25 U	0.25 U	0.5 U	**0.36 J**	0.25 U	0.25 U	0.25 U	0.25 U
STYRENE	0.45 U	0.45 U	0.9 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
TERT-AMYL METHYL ETHER	0.3 U	0.3 U	0.6 UJ	0.3 UJ	0.3 UJ	0.3 UJ	0.3 UJ	0.3 UJ
TERTIARY-BUTYL ALCOHOL	4.9 UJ	4.9 UJ	9.8 UJ	4.9 UJ	4.9 UJ	4.9 UJ	4.9 UJ	4.9 UJ
TOLUENE	0.23 U	**0.33 J**	0.46 U	**0.48 J**	0.23 U	0.23 U	0.23 U	0.23 U
TOTAL CHLORINATED VOCS	0 U	0 U	**52.7**	**16.79**	0 U	0 U	0 U	0 U
TOTAL CHLORINATED VOCS HALFND	**2.975**	**2.975**	**57.72**	**19.4**	**2.975**	**2.975**	**2.975**	**2.975**
TOTAL XYLENES	0.52 U	0.52 U	1 U	**1.4 J**	0.52 U	0.52 U	0.52 U	0.52 U
TOTAL XYLENES DETECTED	0 U	**0.32**	**0.79**	**1.36**	0 U	0 U	0 U	0 U
TRANS-1,2-DICHLOROETHENE	0.3 U	0.3 U	0.6 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
TRICHLOROETHENE	0.22 U	0.22 U	**49**	**15**	0.22 U	0.22 U	0.22 U	0.22 U
TRICHLOROFLUOROMETHANE	0.49 U	0.49 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
VINYL CHLORIDE	0.29 U	0.29 U	0.58 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-51	GSP-DPT-52	GSP-DPT-53					
SAMPLE ID	GSP-DPT-51-5-10	GSP-DPT-52-35-37	GSP-DPT-53-10-15	GSP-DPT-53-15-20	GSP-DPT-53-30-35	GSP-DPT-53-30-35-AVG	GSP-DPT-53-30-35-D	GSP-DPT-53-35-40
SAMPLE DATE	20160107	20160107	20160108	20160108	20160108	20160108	20160108	20160108
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	5	35	10	15	30	30	30	35
BOTTOM DEPTH	10	37	15	20	35	35	35	40
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-51	GSP-DPT-52	GSP-DPT-53					
SAMPLE ID	GSP-DPT-51-5-10	GSP-DPT-52-35-37	GSP-DPT-53-10-15	GSP-DPT-53-15-20	GSP-DPT-53-30-35	GSP-DPT-53-30-35-AVG	GSP-DPT-53-30-35-D	GSP-DPT-53-35-40
SAMPLE DATE	20160107	20160107	20160108	20160108	20160108	20160108	20160108	20160108
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	5	35	10	15	30	30	30	35
BOTTOM DEPTH	10	37	15	20	35	35	35	40
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-51	GSP-DPT-52	GSP-DPT-53					
SAMPLE ID	GSP-DPT-51-5-10	GSP-DPT-52-35-37	GSP-DPT-53-10-15	GSP-DPT-53-15-20	GSP-DPT-53-30-35	GSP-DPT-53-30-35-AVG	GSP-DPT-53-30-35-D	GSP-DPT-53-35-40
SAMPLE DATE	20160107	20160107	20160108	20160108	20160108	20160108	20160108	20160108
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	5	35	10	15	30	30	30	35
BOTTOM DEPTH	10	37	15	20	35	35	35	40
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-51	GSP-DPT-52	GSP-DPT-53					
SAMPLE ID	GSP-DPT-51-5-10	GSP-DPT-52-35-37	GSP-DPT-53-10-15	GSP-DPT-53-15-20	GSP-DPT-53-30-35	GSP-DPT-53-30-35-AVG	GSP-DPT-53-30-35-D	GSP-DPT-53-35-40
SAMPLE DATE	20160107	20160107	20160108	20160108	20160108	20160108	20160108	20160108
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	5	35	10	15	30	30	30	35
BOTTOM DEPTH	10	37	15	20	35	35	35	40
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-54				GSP-DPT-55			
SAMPLE ID	GSP-DPT-54-10-15	GSP-DPT-54-15-20	GSP-DPT-54-30-35	GSP-DPT-54-35-38	GSP-DPT-55-10-15	GSP-DPT-55-15-20	GSP-DPT-55-15-20-AVG	GSP-DPT-55-15-20-D
SAMPLE DATE	20160114	20160115	20160115	20160115	20160111	20160111	20160111	20160111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	NA	NA	NA	NA	NA
TOP DEPTH	10	15	30	35	10	15	15	15
BOTTOM DEPTH	15	20	35	38	15	20	20	20
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.75 U	0.75 U	0.75 U
1,2,4-TRIMETHYLBENZENE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.68 U	0.68 U	0.68 U
1,2-DIBROMO-3-CHLOROPROPANE	0.82 UJ	0.82 UJ	0.82 UJ	0.82 UJ	0.82 U	1.4 U	1.4 U	1.4 UJ
1,2-DICHLOROBENZENE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.42 U	0.42 U	0.42 U
1,2-DICHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.38 U	0.38 U	0.38 U
1,2-DICHLOROPROPANE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.42 U	0.42 U	0.42 U
1,3-DICHLOROBENZENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.32 U	0.32 U	0.32 U
1,4-DICHLOROBENZENE	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.45 U	0.45 U	0.45 U
2-BUTANONE	**2.2 J**	**57**	1.1 U	0.53 U	0.53 U	0.89 U	0.89 U	0.89 U
2-HEXANONE	0.48 UJ	**2.5 J**	0.48 U	0.48 U	0.48 U	0.8 U	0.8 U	0.8 U
4-METHYL-2-PENTANONE	0.99 UJ	0.99 UJ	0.99 UJ	0.99 UJ	0.99 U	1.7 U	1.7 U	1.7 UJ
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	**13**	38 U	1.3 U	0.94 U	**1.4 J**	1.6 U	1.6 U	1.6 U
BENZENE	**0.52 J**	0.35 U	0.35 U	0.35 U	0.35 U	**0.59 J**	**0.59 J**	0.58 U
BROMOMETHANE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 UJ	0.73 UJ	0.73 UJ	0.73 U
CARBON DISULFIDE	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.63 U	0.63 U	0.63 U
CARBON TETRACHLORIDE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.72 U	0.72 U	0.72 U
CHLOROBENZENE	0.25 U	0.25 U	0.25 U	0.25 U	**0.7 J**	**2.7**	**2.7**	**2.5**
CHLOROFORM	**1**	**0.38 J**	0.25 U	0.25 U	0.25 U	0.42 U	0.42 U	0.42 U
CHLOROMETHANE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.73 U	0.73 U	0.73 UJ
CIS-1,2-DICHLOROETHENE	**14**	**5.9**	0.26 U	0.26 U	0.26 U	**0.44 J**	**0.44 J**	0.43 U
ETHYLBENZENE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.42 U	0.42 U	0.42 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	**0.69 J**	**0.69 J**	**0.6 J**
METHYL TERT-BUTYL ETHER	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 U	0.33 U	0.33 U	0.33 U
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U	0.33 UJ	0.55 UJ	0.55 UJ	0.55 U
NAPHTHALENE	0.45 U	0.45 U	0.45 U	0.45 U	**1.4 J**	**43 J**	**43 J**	**42**
O-XYLENE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	**0.42 J**	**0.42 J**	0.42 U
STYRENE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.75 U	0.75 U	0.75 U
TERT-AMYL METHYL ETHER	0.3 UJ	0.3 U	0.3 U	0.3 U	0.3 U	0.5 U	0.5 U	0.5 UJ
TERTIARY-BUTYL ALCOHOL	4.9 UJ	4.9 UJ	4.9 UJ	4.9 UJ	4.9 U	8.2 U	8.2 U	8.2 UJ
TOLUENE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.38 U	0.38 U	0.38 U
TOTAL CHLORINATED VOCS	**34.52**	**15.28**	0 U	0 U	0 U	**1.54**	**1.54**	**0.46**
TOTAL CHLORINATED VOCS HALFND	**36.955**	**17.89**	**2.975**	**2.975**	**2.975**	**5.805**	**5.805**	**5.23**
TOTAL XYLENES	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	**1.1 J**	**1.1 J**	0.87 U
TOTAL XYLENES DETECTED	NA	NA	NA	NA	0 U	**1.11**	**1.11**	**0.6**
TRANS-1,2-DICHLOROETHENE	**0.34 J**	0.3 U	0.3 U	0.3 U	0.3 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	**19**	**9**	0.22 U	0.22 U	0.22 U	**0.51 J**	**0.51 J**	**0.46 J**
TRICHLOROFLUOROMETHANE	0.49 UJ	0.49 U	0.49 U	0.49 U	0.49 U	0.82 U	0.82 U	0.82 UJ
VINYL CHLORIDE	**2**	**0.51 J**	0.29 U	0.29 U	0.29 U	**0.55 J**	**0.55 J**	0.48 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-54				GSP-DPT-55			
SAMPLE ID	GSP-DPT-54-10-15	GSP-DPT-54-15-20	GSP-DPT-54-30-35	GSP-DPT-54-35-38	GSP-DPT-55-10-15	GSP-DPT-55-15-20	GSP-DPT-55-15-20-AVG	GSP-DPT-55-15-20-D
SAMPLE DATE	20160114	20160115	20160115	20160115	20160111	20160111	20160111	20160111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	NA	NA	NA	NA	NA
TOP DEPTH	10	15	30	35	10	15	15	15
BOTTOM DEPTH	15	20	35	38	15	20	20	20
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-54				GSP-DPT-55			
SAMPLE ID	GSP-DPT-54-10-15	GSP-DPT-54-15-20	GSP-DPT-54-30-35	GSP-DPT-54-35-38	GSP-DPT-55-10-15	GSP-DPT-55-15-20	GSP-DPT-55-15-20-AVG	GSP-DPT-55-15-20-D
SAMPLE DATE	20160114	20160115	20160115	20160115	20160111	20160111	20160111	20160111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	NA	NA	NA	NA	NA
TOP DEPTH	10	15	30	35	10	15	15	15
BOTTOM DEPTH	15	20	35	38	15	20	20	20
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-54				GSP-DPT-55			
SAMPLE ID	GSP-DPT-54-10-15	GSP-DPT-54-15-20	GSP-DPT-54-30-35	GSP-DPT-54-35-38	GSP-DPT-55-10-15	GSP-DPT-55-15-20	GSP-DPT-55-15-20-AVG	GSP-DPT-55-15-20-D
SAMPLE DATE	20160114	20160115	20160115	20160115	20160111	20160111	20160111	20160111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	NA	NA	NA	NA	NA
TOP DEPTH	10	15	30	35	10	15	15	15
BOTTOM DEPTH	15	20	35	38	15	20	20	20
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-54				GSP-DPT-55			
SAMPLE ID	GSP-DPT-54-10-15	GSP-DPT-54-15-20	GSP-DPT-54-30-35	GSP-DPT-54-35-38	GSP-DPT-55-10-15	GSP-DPT-55-15-20	GSP-DPT-55-15-20-AVG	GSP-DPT-55-15-20-D
SAMPLE DATE	20160114	20160115	20160115	20160115	20160111	20160111	20160111	20160111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	NA	NA	NA	NA	NA
TOP DEPTH	10	15	30	35	10	15	15	15
BOTTOM DEPTH	15	20	35	38	15	20	20	20
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-55				GSP-DPT-56			
SAMPLE ID	GSP-DPT-55-20-25	GSP-DPT-55-25-30	GSP-DPT-55-30-35	GSP-DPT-55-35-38	GSP-DPT-56-10-15-011916	GSP-DPT-56-15-20-011916	GSP-DPT-56-20-25-012016	GSP-DPT-56-25-30-012016
SAMPLE DATE	20160111	20160111	20160111	20160111	20160119	20160119	20160120	20160120
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	20	25	30	35	10	15	20	25
BOTTOM DEPTH	25	30	35	38	15	20	25	30
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.6 U	1 U	1.7 U
1,1-DICHLOROETHENE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.9 U	1.5 U	2.6 U
1,2,4-TRIMETHYLBENZENE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.82 U	1.4 U	2.3 U
1,2-DIBROMO-3-CHLOROPROPANE	0.82 U	0.82 U	0.82 U	0.82 U	0.82 UJ	1.6 UJ	2.7 UJ	4.7 UJ
1,2-DICHLOROBENZENE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.83 U	1.4 U
1,2-DICHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U	**0.73 J**	**2.9**	**3.9**	**23**
1,2-DICHLOROPROPANE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.83 U	1.4 U
1,3-DICHLOROBENZENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.38 U	0.63 U	1.1 U
1,4-DICHLOROBENZENE	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.54 U	0.9 U	1.5 U
2-BUTANONE	**7.8 J**	**20**	**0.53 J**	**2.2 J**	0.53 U	1.1 U	**9.4 J**	3 U
2-HEXANONE	**0.62 J**	**2.3 J**	0.48 U	0.48 U	0.48 U	0.96 U	1.6 U	2.7 U
4-METHYL-2-PENTANONE	0.99 U	0.99 U	0.99 U	0.99 U	0.99 UJ	2 UJ	3.3 U	5.7 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	**15**	**16**	0.94 U	**1.4 J**	0.94 U	**4.5 J**	3.1 U	5.4 U
BENZENE	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.7 U	1.2 U	2 U
BROMOMETHANE	0.44 UJ	0.44 UJ	0.44 UJ	0.44 UJ	0.44 U	0.88 U	1.5 UJ	2.5 UJ
CARBON DISULFIDE	0.38 U	0.38 U	0.38 U	**0.61 J**	0.38 U	0.76 U	1.3 U	2.2 U
CARBON TETRACHLORIDE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 UJ	0.86 UJ	1.4 U	2.5 U
CHLOROBENZENE	0.25 U	**0.29 J**	0.25 U	0.25 U	**0.34 J**	**0.79 J**	0.83 U	1.4 U
CHLOROFORM	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	**1.1 J**	**1 J**	**2 J**
CHLOROMETHANE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.88 U	1.5 U	2.5 U
CIS-1,2-DICHLOROETHENE	0.26 U	0.26 U	0.26 U	0.26 U	**2.5**	**16**	**19**	**45**
ETHYLBENZENE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.83 U	1.4 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.48 U	0.8 U	1.4 U
METHYL TERT-BUTYL ETHER	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.67 U	1.1 U
METHYLENE CHLORIDE	0.33 UJ	0.33 UJ	0.33 UJ	0.33 UJ	0.33 U	0.66 U	1.1 U	1.9 U
NAPHTHALENE	**0.87 J**	**1.6 J**	**0.45 J**	0.45 UJ	**1.4 J**	**21 J**	**2.1 J**	**3.4 J**
O-XYLENE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.83 U	1.4 U
STYRENE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.9 U	1.5 U	2.6 U
TERT-AMYL METHYL ETHER	0.3 U	0.3 U	0.3 U	0.3 U	0.3 UJ	0.6 UJ	1 U	1.7 U
TERTIARY-BUTYL ALCOHOL	4.9 U	4.9 U	4.9 U	4.9 U	4.9 UJ	9.8 UJ	16 UJ	28 UJ
TOLUENE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.46 U	0.77 U	1.3 U
TOTAL CHLORINATED VOCS	0 U	0 U	0 U	0 U	**8.7**	**73.1**	**58**	**217**
TOTAL CHLORINATED VOCS HALFND	**2.975**	**2.975**	**2.975**	**2.975**	**11.435**	**78.32**	**66.75**	**231.9**
TOTAL XYLENES	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	1 U	1.7 U	3 U
TOTAL XYLENES DETECTED	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TRANS-1,2-DICHLOROETHENE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.6 U	1 U	1.7 U
TRICHLOROETHENE	0.22 U	0.22 U	0.22 U	0.22 U	**6.2**	**56**	**38**	**170**
TRICHLOROFLUOROMETHANE	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.98 U	1.6 UJ	2.8 UJ
VINYL CHLORIDE	0.29 U	0.29 U	0.29 U	0.29 U	**1.9**	**6.4**	**5.3**	**7**

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-55				GSP-DPT-56			
SAMPLE ID	GSP-DPT-55-20-25	GSP-DPT-55-25-30	GSP-DPT-55-30-35	GSP-DPT-55-35-38	GSP-DPT-56-10-15-011916	GSP-DPT-56-15-20-011916	GSP-DPT-56-20-25-012016	GSP-DPT-56-25-30-012016
SAMPLE DATE	20160111	20160111	20160111	20160111	20160119	20160119	20160120	20160120
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	20	25	30	35	10	15	20	25
BOTTOM DEPTH	25	30	35	38	15	20	25	30
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-55				GSP-DPT-56			
SAMPLE ID	GSP-DPT-55-20-25	GSP-DPT-55-25-30	GSP-DPT-55-30-35	GSP-DPT-55-35-38	GSP-DPT-56-10-15-011916	GSP-DPT-56-15-20-011916	GSP-DPT-56-20-25-012016	GSP-DPT-56-25-30-012016
SAMPLE DATE	20160111	20160111	20160111	20160111	20160119	20160119	20160120	20160120
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	20	25	30	35	10	15	20	25
BOTTOM DEPTH	25	30	35	38	15	20	25	30
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-55				GSP-DPT-56			
SAMPLE ID	GSP-DPT-55-20-25	GSP-DPT-55-25-30	GSP-DPT-55-30-35	GSP-DPT-55-35-38	GSP-DPT-56-10-15-011916	GSP-DPT-56-15-20-011916	GSP-DPT-56-20-25-012016	GSP-DPT-56-25-30-012016
SAMPLE DATE	20160111	20160111	20160111	20160111	20160119	20160119	20160120	20160120
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	20	25	30	35	10	15	20	25
BOTTOM DEPTH	25	30	35	38	15	20	25	30
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-55				GSP-DPT-56			
SAMPLE ID	GSP-DPT-55-20-25	GSP-DPT-55-25-30	GSP-DPT-55-30-35	GSP-DPT-55-35-38	GSP-DPT-56-10-15-011916	GSP-DPT-56-15-20-011916	GSP-DPT-56-20-25-012016	GSP-DPT-56-25-30-012016
SAMPLE DATE	20160111	20160111	20160111	20160111	20160119	20160119	20160120	20160120
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	20	25	30	35	10	15	20	25
BOTTOM DEPTH	25	30	35	38	15	20	25	30
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-56		GSP-DPT-57					
SAMPLE ID	GSP-DPT-56-30-35-012016	GSP-DPT-56-35-40-012016	GSP-DPT-57-10-15-021116	GSP-DPT-57-15-20-021116	GSP-DPT-57-15-20-021116-AVG	GSP-DPT-57-15-20-021116-D	GSP-DPT-57-20-25-021216	GSP-DPT-57-25-30-021216
SAMPLE DATE	20160120	20160120	20160211	20160211	20160211	20160211	20160212	20160212
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	30	35	10	15	15	15	20	25
BOTTOM DEPTH	35	40	15	20	20	20	25	30
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.3 U	0.3 U	0.3 U	0.75 U	0.75 U	1 U	2 U	2 U
1,1-DICHLOROETHENE	0.45 U	0.45 U	0.45 U	1.1 U	1.1 U	1.5 U	3 U	3 U
1,2,4-TRIMETHYLBENZENE	0.41 U	0.41 U	0.41 U	1 U	1 U	1.4 U	2.7 U	2.7 U
1,2-DIBROMO-3-CHLOROPROPANE	0.82 UJ	0.82 UJ	0.82 U	2.1 U	2.1 U	2.7 U	5.5 U	5.5 U
1,2-DICHLOROBENZENE	0.25 U	0.25 U	0.25 U	0.63 U	0.63 U	0.83 U	1.7 U	1.7 U
1,2-DICHLOROETHANE	**3.3**	**0.29 J**	**0.28 J**	**2.5**	**2.5**	**2.6 J**	**4.4 J**	**7.3**
1,2-DICHLOROPROPANE	0.25 U	0.25 U	0.25 U	0.63 U	0.63 U	0.83 U	1.7 U	1.7 U
1,3-DICHLOROBENZENE	0.19 U	0.19 U	0.19 U	0.48 U	0.48 U	0.63 U	1.3 U	1.3 U
1,4-DICHLOROBENZENE	0.27 U	0.27 U	0.27 U	0.68 U	0.68 U	0.9 U	1.8 U	1.8 U
2-BUTANONE	0.53 U	**1.1 J**	0.53 U	1.3 U	1.3 U	1.8 U	3.5 U	3.5 U
2-HEXANONE	0.48 U	0.48 U	0.48 U	1.2 U	1.2 U	1.6 U	3.2 U	3.2 U
4-METHYL-2-PENTANONE	0.99 U	0.99 U	0.99 U	2.5 U	2.5 U	3.3 U	6.6 U	6.6 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	0.94 U	0.94 U	2.7 U	3.5 U	3.5 U	3.1 U	6.3 UJ	9.4 U
BENZENE	0.35 U	0.35 U	0.35 U	0.88 U	0.88 U	1.2 U	2.3 U	2.3 U
BROMOMETHANE	0.44 UJ	0.44 UJ	0.44 U	1.1 U	1.1 U	1.5 U	2.9 U	2.9 UJ
CARBON DISULFIDE	0.38 U	0.38 U	0.38 U	0.95 U	0.95 U	1.3 U	2.5 U	2.5 U
CARBON TETRACHLORIDE	0.43 U	0.43 U	0.43 U	1.1 U	1.1 U	1.4 U	2.9 U	2.9 U
CHLOROBENZENE	0.25 U	0.25 U	0.25 U	0.63 U	0.63 U	0.83 U	1.7 U	1.7 U
CHLOROFORM	**0.45 J**	**0.36 J**	0.25 U	**1.3 J**	**1.3 J**	**1.4 J**	1.7 U	1.7 U
CHLOROMETHANE	0.44 U	0.44 U	0.44 U	1.1 U	1.1 U	1.5 U	2.9 U	2.9 U
CIS-1,2-DICHLOROETHENE	**2.5**	0.26 U	**3.2**	**27**	**27**	**28**	**50**	**60**
ETHYLBENZENE	0.25 U	0.25 U	0.25 U	0.63 U	0.63 U	0.83 U	1.7 U	1.7 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.6 U	0.6 U	0.8 U	1.6 U	1.6 U
METHYL TERT-BUTYL ETHER	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.67 U	1.3 U	1.3 U
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	4.3 U	4.3 U	5 U	6.4 U	**3.3 J**
NAPHTHALENE	0.45 UJ	0.45 UJ	0.45 UJ	**12 J**	**12 J**	**13 J**	**12**	**7.1**
O-XYLENE	0.25 U	0.25 U	0.25 U	0.63 U	0.63 U	0.83 U	1.7 U	1.7 U
STYRENE	0.45 U	0.45 U	0.45 U	1.1 U	1.1 U	1.5 U	3 U	3 U
TERT-AMYL METHYL ETHER	0.3 U	0.3 U	0.3 U	0.75 U	0.75 U	1 U	2 U	2 U
TERTIARY-BUTYL ALCOHOL	4.9 UJ	4.9 UJ	4.9 U	12 U	12 U	16 U	33 U	**70 J**
TOLUENE	0.23 U	0.23 U	0.23 U	0.58 U	0.58 U	0.77 U	1.5 U	1.5 U
TOTAL CHLORINATED VOCS	**14.95**	**1.29**	**12**	**112.3**	**112.3**	**112.4**	**240**	**320**
TOTAL CHLORINATED VOCS HALFND	**17.56**	**4.03**	**14.735**	**118.81**	**118.81**	**121.15**	**258.2**	**338.2**
TOTAL XYLENES	0.52 U	0.52 U	0.52 U	1.3 U	1.3 U	1.7 U	3.5 U	3.5 U
TOTAL XYLENES DETECTED	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TRANS-1,2-DICHLOROETHENE	0.3 U	0.3 U	0.3 U	**0.89 J**	**0.89 J**	**1 J**	2 U	2 U
TRICHLOROETHENE	**12**	**0.93 J**	**8.8**	**84**	**84**	**83**	**190**	**260**
TRICHLOROFLUOROMETHANE	0.49 UJ	0.49 UJ	0.49 U	1.2 U	1.2 U	1.6 U	3.3 U	3.3 U
VINYL CHLORIDE	**0.4 J**	0.29 U	**1.3**	**7**	**7**	**7.1**	**6.8**	**4.7 J**

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-56		GSP-DPT-57					
SAMPLE ID	GSP-DPT-56-30-35-012016	GSP-DPT-56-35-40-012016	GSP-DPT-57-10-15-021116	GSP-DPT-57-15-20-021116	GSP-DPT-57-15-20-021116-AVG	GSP-DPT-57-15-20-021116-D	GSP-DPT-57-20-25-021216	GSP-DPT-57-25-30-021216
SAMPLE DATE	20160120	20160120	20160211	20160211	20160211	20160211	20160212	20160212
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	30	35	10	15	15	15	20	25
BOTTOM DEPTH	35	40	15	20	20	20	25	30
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-56		GSP-DPT-57					
SAMPLE ID	GSP-DPT-56-30-35-012016	GSP-DPT-56-35-40-012016	GSP-DPT-57-10-15-021116	GSP-DPT-57-15-20-021116	GSP-DPT-57-15-20-021116-AVG	GSP-DPT-57-15-20-021116-D	GSP-DPT-57-20-25-021216	GSP-DPT-57-25-30-021216
SAMPLE DATE	20160120	20160120	20160211	20160211	20160211	20160211	20160212	20160212
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	30	35	10	15	15	15	20	25
BOTTOM DEPTH	35	40	15	20	20	20	25	30
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-56		GSP-DPT-57					
SAMPLE ID	GSP-DPT-56-30-35-012016	GSP-DPT-56-35-40-012016	GSP-DPT-57-10-15-021116	GSP-DPT-57-15-20-021116	GSP-DPT-57-15-20-021116-AVG	GSP-DPT-57-15-20-021116-D	GSP-DPT-57-20-25-021216	GSP-DPT-57-25-30-021216
SAMPLE DATE	20160120	20160120	20160211	20160211	20160211	20160211	20160212	20160212
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	30	35	10	15	15	15	20	25
BOTTOM DEPTH	35	40	15	20	20	20	25	30
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-56		GSP-DPT-57					
SAMPLE ID	GSP-DPT-56-30-35-012016	GSP-DPT-56-35-40-012016	GSP-DPT-57-10-15-021116	GSP-DPT-57-15-20-021116	GSP-DPT-57-15-20-021116-AVG	GSP-DPT-57-15-20-021116-D	GSP-DPT-57-20-25-021216	GSP-DPT-57-25-30-021216
SAMPLE DATE	20160120	20160120	20160211	20160211	20160211	20160211	20160212	20160212
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	30	35	10	15	15	15	20	25
BOTTOM DEPTH	35	40	15	20	20	20	25	30
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-57		GSP-DPT-58					
SAMPLE ID	GSP-DPT-57-30-35-021216	GSP-DPT-57-35-40-021216	GSP-DPT-58-10-15-021016	GSP-DPT-58-15-20-021016	GSP-DPT-58-20-25-021116	GSP-DPT-58-25-30-021116	GSP-DPT-58-30-35-021116	GSP-DPT-58-35-40-021116
SAMPLE DATE	20160212	20160212	20160210	20160210	20160211	20160211	20160211	20160211
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	30	35	10	15	20	25	30	35
BOTTOM DEPTH	35	40	15	20	25	30	35	40
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.5 U	0.3 U	2.4 U	3 U	2 U	0.6 U	0.3 U	0.3 U
1,1-DICHLOROETHENE	0.75 U	0.45 U	3.6 U	4.5 U	3 U	0.9 U	0.45 U	0.45 U
1,2,4-TRIMETHYLBENZENE	0.68 U	0.41 UJ	3.3 U	4.1 U	2.7 U	0.82 U	0.41 U	0.41 U
1,2-DIBROMO-3-CHLOROPROPANE	1.4 U	0.82 U	6.6 U	8.2 U	5.5 U	1.6 U	0.82 U	0.82 U
1,2-DICHLOROBENZENE	0.42 U	0.25 UJ	2 U	2.5 U	1.7 U	0.5 U	0.25 U	0.25 U
1,2-DICHLOROETHANE	**3.5**	**1.1**	**4.8 J**	**7 J**	**6.4 J**	**5.5**	**4**	**0.66 J**
1,2-DICHLOROPROPANE	0.42 U	0.25 U	2 U	2.5 U	1.7 U	0.5 U	0.25 U	0.25 U
1,3-DICHLOROBENZENE	0.32 U	0.19 UJ	1.5 U	1.9 U	1.3 U	0.38 U	0.19 U	0.19 U
1,4-DICHLOROBENZENE	0.45 U	0.27 UJ	2.2 U	2.7 U	1.8 U	0.54 U	0.27 U	0.27 U
2-BUTANONE	0.89 U	**2.8 J**	4.2 U	5.3 U	3.5 U	1.1 U	0.53 U	**0.78 J**
2-HEXANONE	0.8 U	0.48 U	3.8 U	4.8 U	3.2 U	0.96 U	0.48 U	0.48 U
4-METHYL-2-PENTANONE	1.7 U	0.99 U	7.9 U	9.9 U	6.6 U	2 U	0.99 U	0.99 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	3.7 U	6.1 U	7.5 U	9.4 U	9.1 U	1.9 UJ	2.2 U	1.6 U
BENZENE	0.58 U	0.35 UJ	2.8 U	3.5 U	2.3 U	0.7 U	**0.45 J**	0.35 U
BROMOMETHANE	0.73 UJ	0.44 UJ	3.5 U	4.4 U	2.9 UJ	0.88 U	0.44 U	0.44 U
CARBON DISULFIDE	0.63 U	**0.42 J**	3 U	3.8 U	2.5 U	0.76 U	**0.64 J**	**0.46 J**
CARBON TETRACHLORIDE	0.72 U	0.43 U	3.4 U	4.3 U	2.9 U	0.86 U	0.43 U	0.43 U
CHLOROBENZENE	0.42 U	0.25 UJ	**2.6 J**	**4.1 J**	**3.2 J**	**3.1**	**1.7**	**0.34 J**
CHLOROFORM	0.42 U	**0.28 J**	2 U	2.5 U	1.7 U	0.5 U	**0.28 J**	0.25 U
CHLOROMETHANE	0.73 U	0.44 U	3.5 U	4.4 U	2.9 U	0.88 U	0.44 U	0.44 U
CIS-1,2-DICHLOROETHENE	**12**	**5.2**	**58**	**51**	**55**	**11**	**5.2**	**0.57 J**
ETHYLBENZENE	0.42 U	0.25 UJ	2 U	2.5 U	1.7 U	0.5 U	0.25 U	0.25 U
M+P-XYLENES	0.4 U	0.24 UJ	1.9 U	2.4 U	1.6 U	0.48 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.33 U	0.2 U	1.6 U	2 U	1.3 U	0.4 U	0.2 U	0.2 U
METHYLENE CHLORIDE	0.55 U	0.33 U	2.6 U	3.3 U	**2.5 J**	0.66 U	0.33 U	0.33 U
NAPHTHALENE	0.75 U	0.45 U	**59**	**68**	**58**	**24**	**0.57 J**	0.45 UJ
O-XYLENE	0.42 U	0.25 UJ	2 U	2.5 U	1.7 U	0.5 U	0.25 U	0.25 U
STYRENE	0.75 U	0.45 UJ	3.6 U	4.5 U	3 U	0.9 U	0.45 U	0.45 U
TERT-AMYL METHYL ETHER	0.5 U	0.3 U	2.4 U	3 U	2 U	0.6 U	0.3 U	0.3 U
TERTIARY-BUTYL ALCOHOL	8.2 U	4.9 U	39 U	49 U	33 U	9.8 U	4.9 U	4.9 U
TOLUENE	0.38 U	**0.26 J**	1.8 U	2.3 U	1.5 U	0.46 U	0.23 U	0.23 U
TOTAL CHLORINATED VOCS	**71**	**20.48**	**338**	**271**	**265**	**52**	**21.93**	**2.67**
TOTAL CHLORINATED VOCS HALFND	**75.555**	**23.09**	**359.85**	**298.35**	**283.2**	**57.47**	**24.365**	**5.405**
TOTAL XYLENES	0.87 U	0.52 UJ	4.2 U	5.2 U	3.5 U	1 U	0.52 U	0.52 U
TOTAL XYLENES DETECTED	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TRANS-1,2-DICHLOROETHENE	0.5 U	0.3 U	2.4 U	3 U	2 U	0.6 U	0.3 U	0.3 U
TRICHLOROETHENE	**59**	**15**	**280**	**220**	**210**	**41**	**16**	**2.1**
TRICHLOROFLUOROMETHANE	0.82 U	0.49 U	3.9 U	4.9 U	3.3 U	0.98 U	0.49 U	0.49 U
VINYL CHLORIDE	**0.59 J**	0.29 U	**6.6 J**	**5.2 J**	**5.6 J**	0.58 U	**0.38 J**	0.29 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-57		GSP-DPT-58					
SAMPLE ID	GSP-DPT-57-30-35-021216	GSP-DPT-57-35-40-021216	GSP-DPT-58-10-15-021016	GSP-DPT-58-15-20-021016	GSP-DPT-58-20-25-021116	GSP-DPT-58-25-30-021116	GSP-DPT-58-30-35-021116	GSP-DPT-58-35-40-021116
SAMPLE DATE	20160212	20160212	20160210	20160210	20160211	20160211	20160211	20160211
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	30	35	10	15	20	25	30	35
BOTTOM DEPTH	35	40	15	20	25	30	35	40
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-57		GSP-DPT-58					
SAMPLE ID	GSP-DPT-57-30-35-021216	GSP-DPT-57-35-40-021216	GSP-DPT-58-10-15-021016	GSP-DPT-58-15-20-021016	GSP-DPT-58-20-25-021116	GSP-DPT-58-25-30-021116	GSP-DPT-58-30-35-021116	GSP-DPT-58-35-40-021116
SAMPLE DATE	20160212	20160212	20160210	20160210	20160211	20160211	20160211	20160211
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	30	35	10	15	20	25	30	35
BOTTOM DEPTH	35	40	15	20	25	30	35	40
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-57		GSP-DPT-58					
SAMPLE ID	GSP-DPT-57-30-35-021216	GSP-DPT-57-35-40-021216	GSP-DPT-58-10-15-021016	GSP-DPT-58-15-20-021016	GSP-DPT-58-20-25-021116	GSP-DPT-58-25-30-021116	GSP-DPT-58-30-35-021116	GSP-DPT-58-35-40-021116
SAMPLE DATE	20160212	20160212	20160210	20160210	20160211	20160211	20160211	20160211
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	30	35	10	15	20	25	30	35
BOTTOM DEPTH	35	40	15	20	25	30	35	40
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-57		GSP-DPT-58					
SAMPLE ID	GSP-DPT-57-30-35-021216	GSP-DPT-57-35-40-021216	GSP-DPT-58-10-15-021016	GSP-DPT-58-15-20-021016	GSP-DPT-58-20-25-021116	GSP-DPT-58-25-30-021116	GSP-DPT-58-30-35-021116	GSP-DPT-58-35-40-021116
SAMPLE DATE	20160212	20160212	20160210	20160210	20160211	20160211	20160211	20160211
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	30	35	10	15	20	25	30	35
BOTTOM DEPTH	35	40	15	20	25	30	35	40
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-59			GSP-DPT-60				
SAMPLE ID	GSP-DPT-59-25-30-012116	GSP-DPT-59-30-35-012116	GSP-DPT-59-35-40-012116	GSP-DPT-60-10-15-021016	GSP-DPT-60-25-30-021016	GSP-DPT-60-30-35-021016	GSP-DPT-60-30-35-021016-AVG	GSP-DPT-60-30-35-021016-D
SAMPLE DATE	20160121	20160121	20160121	20160210	20160210	20160210	20160210	20160210
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	25	30	35	10	25	30	30	30
BOTTOM DEPTH	30	35	40	15	30	35	35	35
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,1-DICHLOROETHENE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
1,2,4-TRIMETHYLBENZENE	0.41 U	0.41 U	0.41 U	**0.73 J**	0.41 U	0.41 U	0.41 U	0.41 U
1,2-DIBROMO-3-CHLOROPROPANE	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
1,2-DICHLOROBENZENE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-DICHLOROETHANE	0.23 U	0.23 U	0.23 U	**6**	**0.23 J**	0.23 U	0.23 U	0.23 U
1,2-DICHLOROPROPANE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-DICHLOROBENZENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,4-DICHLOROBENZENE	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
2-BUTANONE	**11**	**2.8 J**	**0.76 J**	0.53 U	**0.73 J**	0.53 U	0.53 U	0.53 U
2-HEXANONE	**0.94 J**	**0.52 J**	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
4-METHYL-2-PENTANONE	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	**3.6 J**	0.94 U	**1.3 J**	0.94 U	**1.1 J**	0.94 U	0.94 U	0.94 U
BENZENE	0.35 U	0.35 U	0.35 U	**1.5**	0.35 U	0.35 U	0.35 U	0.35 U
BROMOMETHANE	0.44 UJ	0.44 UJ	0.44 UJ	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
CARBON DISULFIDE	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
CARBON TETRACHLORIDE	0.43 UJ	0.43 UJ	0.43 UJ	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
CHLOROBENZENE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
CHLOROFORM	0.25 U	0.25 U	0.25 U	0.25 U	**0.27 J**	0.25 U	0.25 U	0.25 U
CHLOROMETHANE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
CIS-1,2-DICHLOROETHENE	0.26 U	0.26 U	0.26 U	**8.1**	0.26 U	0.26 U	0.26 U	0.26 U
ETHYLBENZENE	0.25 U	0.25 U	0.25 U	**0.46 J**	0.25 U	0.25 U	0.25 U	0.25 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	**0.52 J**	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.45 U	0.45 U	0.45 U	**4.7**	0.45 U	0.45 U	0.45 U	0.45 U
O-XYLENE	0.25 U	0.25 U	0.25 U	**0.33 J**	0.25 U	0.25 U	0.25 U	0.25 U
STYRENE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
TERT-AMYL METHYL ETHER	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
TERTIARY-BUTYL ALCOHOL	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
TOLUENE	0.23 U	0.23 U	0.23 U	**0.28 J**	0.23 U	0.23 U	0.23 U	0.23 U
TOTAL CHLORINATED VOCS	0 U	0 U	0 U	**17.46**	**0.27**	0 U	0 U	0 U
TOTAL CHLORINATED VOCS HALFND	**2.975**	**2.975**	**2.975**	**19.895**	**3.12**	**2.975**	**2.975**	**2.975**
TOTAL XYLENES	0.52 U	0.52 U	0.52 U	**0.85 J**	0.52 U	0.52 U	0.52 U	0.52 U
TOTAL XYLENES DETECTED	0 U	0 U	0 U	**0.85**	0 U	0 U	0 U	0 U
TRANS-1,2-DICHLOROETHENE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
TRICHLOROETHENE	0.22 U	0.22 U	0.22 U	**7.4**	0.22 U	0.22 U	0.22 U	0.22 U
TRICHLOROFLUOROMETHANE	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
VINYL CHLORIDE	0.29 U	0.29 U	0.29 U	**3**	0.29 U	0.29 U	0.29 U	0.29 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-59			GSP-DPT-60				
SAMPLE ID	GSP-DPT-59-25-30-012116	GSP-DPT-59-30-35-012116	GSP-DPT-59-35-40-012116	GSP-DPT-60-10-15-021016	GSP-DPT-60-25-30-021016	GSP-DPT-60-30-35-021016	GSP-DPT-60-30-35-021016-AVG	GSP-DPT-60-30-35-021016-D
SAMPLE DATE	20160121	20160121	20160121	20160210	20160210	20160210	20160210	20160210
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	25	30	35	10	25	30	30	30
BOTTOM DEPTH	30	35	40	15	30	35	35	35
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-59			GSP-DPT-60				
SAMPLE ID	GSP-DPT-59-25-30-012116	GSP-DPT-59-30-35-012116	GSP-DPT-59-35-40-012116	GSP-DPT-60-10-15-021016	GSP-DPT-60-25-30-021016	GSP-DPT-60-30-35-021016	GSP-DPT-60-30-35-021016-AVG	GSP-DPT-60-30-35-021016-D
SAMPLE DATE	20160121	20160121	20160121	20160210	20160210	20160210	20160210	20160210
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	25	30	35	10	25	30	30	30
BOTTOM DEPTH	30	35	40	15	30	35	35	35
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-59			GSP-DPT-60				
SAMPLE ID	GSP-DPT-59-25-30-012116	GSP-DPT-59-30-35-012116	GSP-DPT-59-35-40-012116	GSP-DPT-60-10-15-021016	GSP-DPT-60-25-30-021016	GSP-DPT-60-30-35-021016	GSP-DPT-60-30-35-021016-AVG	GSP-DPT-60-30-35-021016-D
SAMPLE DATE	20160121	20160121	20160121	20160210	20160210	20160210	20160210	20160210
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	25	30	35	10	25	30	30	30
BOTTOM DEPTH	30	35	40	15	30	35	35	35
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-59			GSP-DPT-60				
SAMPLE ID	GSP-DPT-59-25-30-012116	GSP-DPT-59-30-35-012116	GSP-DPT-59-35-40-012116	GSP-DPT-60-10-15-021016	GSP-DPT-60-25-30-021016	GSP-DPT-60-30-35-021016	GSP-DPT-60-30-35-021016-AVG	GSP-DPT-60-30-35-021016-D
SAMPLE DATE	20160121	20160121	20160121	20160210	20160210	20160210	20160210	20160210
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	25	30	35	10	25	30	30	30
BOTTOM DEPTH	30	35	40	15	30	35	35	35
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-61							GSP-DPT-62
SAMPLE ID	GSP-DPT-61-10-15-011916	GSP-DPT-61-20-25-011916	GSP-DPT-61-25-30-011916	GSP-DPT-61-30-35-011916	GSP-DPT-61-30-35-011916-AVG	GSP-DPT-61-30-35-011916-D	GSP-DPT-61-35-40-011916	GSP-DPT-62-10-15-020916
SAMPLE DATE	20160119	20160119	20160119	20160119	20160119	20160119	20160119	20160209
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	10	20	25	30	30	30	35	10
BOTTOM DEPTH	15	25	30	35	35	35	40	15
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	2 U
1,1-DICHLOROETHENE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	3 U
1,2,4-TRIMETHYLBENZENE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	2.7 U
1,2-DIBROMO-3-CHLOROPROPANE	0.82 UJ	0.82 UJ	0.82 UJ	0.82 UJ	0.82 UJ	0.82 UJ	0.82 UJ	5.5 U
1,2-DICHLOROBENZENE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	1.7 U
1,2-DICHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	**110**
1,2-DICHLOROPROPANE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	1.7 U
1,3-DICHLOROBENZENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	1.3 U
1,4-DICHLOROBENZENE	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	1.8 U
2-BUTANONE	0.53 U	**2.3 J**	0.53 U	0.53 U	0.53 U	0.53 U	**2.4 J**	3.5 U
2-HEXANONE	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	3.2 U
4-METHYL-2-PENTANONE	0.99 U	0.99 U	0.99 U	0.99 UJ	0.99 UJ	0.99 UJ	0.99 UJ	6.6 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	0.94 U	**7 J**	0.94 U	0.94 U	0.94 U	0.94 U	**1.9 J**	7.3 U
BENZENE	**0.53 J**	**0.36 J**	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	**3 J**
BROMOMETHANE	0.44 UJ	0.44 UJ	0.44 UJ	0.44 U	0.44 U	0.44 U	0.44 U	2.9 U
CARBON DISULFIDE	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	2.5 U
CARBON TETRACHLORIDE	0.43 U	0.43 U	0.43 U	0.43 UJ	0.43 UJ	0.43 UJ	0.43 UJ	2.9 U
CHLOROBENZENE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	1.7 U
CHLOROFORM	0.25 U	0.25 U	**0.37 J**	0.25 U	0.25 U	0.25 U	**0.52 J**	1.7 U
CHLOROMETHANE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	2.9 U
CIS-1,2-DICHLOROETHENE	**9.3**	**3.1**	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	**22**
ETHYLBENZENE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	1.7 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	1.6 U
METHYL TERT-BUTYL ETHER	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.3 U
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.6 U
NAPHTHALENE	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	3 UJ
O-XYLENE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	1.7 U
STYRENE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	3 U
TERT-AMYL METHYL ETHER	0.3 U	0.3 U	0.3 U	0.3 UJ	0.3 UJ	0.3 UJ	0.3 UJ	2 U
TERTIARY-BUTYL ALCOHOL	4.9 UR	4.9 UR	4.9 UR	4.9 UJ	4.9 UJ	4.9 UJ	4.9 UJ	33 UJ
TOLUENE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	**0.24 J**	1.5 U
TOTAL CHLORINATED VOCS	**15.03**	**4.56**	**0.37**	0 U	0 U	0 U	**0.52**	**36**
TOTAL CHLORINATED VOCS HALFND	**17.59**	**7.12**	**3.22**	**2.975**	**2.975**	**2.975**	**3.37**	**53.05**
TOTAL XYLENES	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	3.5 U
TOTAL XYLENES DETECTED	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
TRANS-1,2-DICHLOROETHENE	**0.52 J**	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	2 U
TRICHLOROETHENE	**5.2**	**1.1**	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	**11**
TRICHLOROFLUOROMETHANE	0.49 UJ	0.49 UJ	0.49 UJ	0.49 U	0.49 U	0.49 U	0.49 U	3.3 UJ
VINYL CHLORIDE	**4.6**	**0.63 J**	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	**27**

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-61							GSP-DPT-62
SAMPLE ID	GSP-DPT-61-10-15-011916	GSP-DPT-61-20-25-011916	GSP-DPT-61-25-30-011916	GSP-DPT-61-30-35-011916	GSP-DPT-61-30-35-011916-AVG	GSP-DPT-61-30-35-011916-D	GSP-DPT-61-35-40-011916	GSP-DPT-62-10-15-020916
SAMPLE DATE	20160119	20160119	20160119	20160119	20160119	20160119	20160119	20160209
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	10	20	25	30	30	30	35	10
BOTTOM DEPTH	15	25	30	35	35	35	40	15
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-61							GSP-DPT-62
SAMPLE ID	GSP-DPT-61-10-15-011916	GSP-DPT-61-20-25-011916	GSP-DPT-61-25-30-011916	GSP-DPT-61-30-35-011916	GSP-DPT-61-30-35-011916-AVG	GSP-DPT-61-30-35-011916-D	GSP-DPT-61-35-40-011916	GSP-DPT-62-10-15-020916
SAMPLE DATE	20160119	20160119	20160119	20160119	20160119	20160119	20160119	20160209
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	10	20	25	30	30	30	35	10
BOTTOM DEPTH	15	25	30	35	35	35	40	15
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-61							GSP-DPT-62
SAMPLE ID	GSP-DPT-61-10-15-011916	GSP-DPT-61-20-25-011916	GSP-DPT-61-25-30-011916	GSP-DPT-61-30-35-011916	GSP-DPT-61-30-35-011916-AVG	GSP-DPT-61-30-35-011916-D	GSP-DPT-61-35-40-011916	GSP-DPT-62-10-15-020916
SAMPLE DATE	20160119	20160119	20160119	20160119	20160119	20160119	20160119	20160209
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	10	20	25	30	30	30	35	10
BOTTOM DEPTH	15	25	30	35	35	35	40	15
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-61							GSP-DPT-62
SAMPLE ID	GSP-DPT-61-10-15-011916	GSP-DPT-61-20-25-011916	GSP-DPT-61-25-30-011916	GSP-DPT-61-30-35-011916	GSP-DPT-61-30-35-011916-AVG	GSP-DPT-61-30-35-011916-D	GSP-DPT-61-35-40-011916	GSP-DPT-62-10-15-020916
SAMPLE DATE	20160119	20160119	20160119	20160119	20160119	20160119	20160119	20160209
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	10	20	25	30	30	30	35	10
BOTTOM DEPTH	15	25	30	35	35	35	40	15
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-62			GSP-DPT-63				
SAMPLE ID	GSP-DPT-62-25-30-020916	GSP-DPT-62-30-35-020916	GSP-DPT-62-35-40-020916	GSP-DPT-63-20-25'-011816	GSP-DPT-63-25-30'-011816	GSP-DPT-63-30-35'-011816	GSP-DPT-63-35-40'-011816	GSP-DPT-64-10-15-020816
SAMPLE DATE	20160209	20160209	20160209	20160118	20160118	20160118	20160118	20160208
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	25	30	35	20	25	30	35	10
BOTTOM DEPTH	30	35	40	25	30	35	40	15
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.6 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	**1.5**
1,1-DICHLOROETHENE	0.9 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.64 U
1,2,4-TRIMETHYLBENZENE	0.82 UJ	0.41 U	0.41 UJ	0.41 U	0.41 U	0.41 U	0.41 U	0.59 U
1,2-DIBROMO-3-CHLOROPROPANE	1.6 U	0.82 U	0.82 U	0.82 UJ	0.82 UJ	0.82 UJ	0.82 UJ	1.2 U
1,2-DICHLOROBENZENE	0.5 UJ	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.36 U
1,2-DICHLOROETHANE	**55**	**6.1**	**12**	**0.72 J**	**1.4**	**2.8**	**0.44 J**	**2.8**
1,2-DICHLOROPROPANE	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.36 U
1,3-DICHLOROBENZENE	0.38 UJ	0.19 U	0.19 UJ	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U
1,4-DICHLOROBENZENE	0.54 UJ	0.27 U	0.27 UJ	0.27 U	0.27 U	0.27 U	0.27 U	0.39 U
2-BUTANONE	**12 J**	**2.1 J**	**4.6 J**	**3.5 J**	**1.5 J**	0.53 U	**4.4 J**	0.76 U
2-HEXANONE	**1.8 J**	0.48 U	0.48 U	**0.58 J**	0.48 U	0.48 U	**0.89 J**	0.69 U
4-METHYL-2-PENTANONE	2 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	1.4 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	**27**	6.4 U	**12**	**6.9 J**	**13**	**1.4 J**	**5.1 J**	1.3 U
BENZENE	0.7 UJ	0.35 U	**0.48 J**	0.35 U	0.35 U	0.35 U	0.35 U	0.5 U
BROMOMETHANE	0.88 U	0.44 U	0.44 U	0.44 U	**1.9**	**0.7 J**	0.44 U	0.63 U
CARBON DISULFIDE	0.76 U	**0.38 J**	0.38 U	0.38 U	**0.46 J**	0.38 U	0.38 U	0.54 U
CARBON TETRACHLORIDE	0.86 U	0.43 U	0.43 U	0.43 U	0.43 U	**7.6**	0.43 U	0.61 U
CHLOROBENZENE	0.5 UJ	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.36 U
CHLOROFORM	0.5 U	0.25 U	**0.34 J**	**0.39 J**	**1.1**	**2.9**	**3.4**	**37**
CHLOROMETHANE	0.88 U	0.44 U	0.44 U	0.44 U	**6.9**	**2.1**	0.44 U	0.63 UJ
CIS-1,2-DICHLOROETHENE	**4**	**0.94 J**	**1.1**	**0.35 J**	**0.74 J**	**1.6**	**0.3 J**	**3.3**
ETHYLBENZENE	0.5 UJ	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.36 U
M+P-XYLENES	0.48 UJ	0.24 U	**0.31 J**	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U
METHYL TERT-BUTYL ETHER	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.29 U
METHYLENE CHLORIDE	0.69 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	**8.5**
NAPHTHALENE	0.9 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.64 U
O-XYLENE	0.5 UJ	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.36 U
STYRENE	0.9 UJ	0.45 U	0.45 UJ	0.45 U	0.45 U	0.45 U	0.45 U	0.64 U
TERT-AMYL METHYL ETHER	0.6 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.43 U
TERTIARY-BUTYL ALCOHOL	9.8 UJ	4.9 UJ	4.9 UJ	4.9 U	4.9 U	4.9 U	4.9 U	7 U
TOLUENE	0.46 UJ	0.23 U	**0.44 J**	0.23 U	0.23 U	0.23 U	**0.27 J**	0.33 U
TOTAL CHLORINATED VOCS	**4.99**	**1.3**	**2.21**	**0.74**	**12.74**	**17.8**	**3.7**	**45.7**
TOTAL CHLORINATED VOCS HALFND	**10.46**	**4.035**	**4.645**	**3.46**	**14.91**	**19.755**	**6.42**	**49.215**
TOTAL XYLENES	1 UJ	0.52 U	0.52 UJ	0.52 U	0.52 U	0.52 U	0.52 U	0.74 U
TOTAL XYLENES DETECTED	0 U	0 U	**0.31**	0 U	0 U	0 U	0 U	0 U
TRANS-1,2-DICHLOROETHENE	0.6 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	**0.48 J**
TRICHLOROETHENE	**0.99 J**	**0.36 J**	**0.29 J**	0.22 U	**2.1**	**2.9**	0.22 U	**3.9**
TRICHLOROFLUOROMETHANE	0.98 UJ	0.49 UJ	0.49 UJ	0.49 U	0.49 U	0.49 U	0.49 U	0.7 U
VINYL CHLORIDE	0.58 U	**0.5 J**	**0.29 J**	0.29 U	0.29 U	**1.1**	0.29 U	**1 J**

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-62			GSP-DPT-63				
SAMPLE ID	GSP-DPT-62-25-30-020916	GSP-DPT-62-30-35-020916	GSP-DPT-62-35-40-020916	GSP-DPT-63-20-25'-011816	GSP-DPT-63-25-30'-011816	GSP-DPT-63-30-35'-011816	GSP-DPT-63-35-40'-011816	GSP-DPT-64-10-15-020816
SAMPLE DATE	20160209	20160209	20160209	20160118	20160118	20160118	20160118	20160208
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	25	30	35	20	25	30	35	10
BOTTOM DEPTH	30	35	40	25	30	35	40	15
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-62			GSP-DPT-63				
SAMPLE ID	GSP-DPT-62-25-30-020916	GSP-DPT-62-30-35-020916	GSP-DPT-62-35-40-020916	GSP-DPT-63-20-25'-011816	GSP-DPT-63-25-30'-011816	GSP-DPT-63-30-35'-011816	GSP-DPT-63-35-40'-011816	GSP-DPT-64-10-15-020816
SAMPLE DATE	20160209	20160209	20160209	20160118	20160118	20160118	20160118	20160208
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	25	30	35	20	25	30	35	10
BOTTOM DEPTH	30	35	40	25	30	35	40	15
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-62			GSP-DPT-63				
SAMPLE ID	GSP-DPT-62-25-30-020916	GSP-DPT-62-30-35-020916	GSP-DPT-62-35-40-020916	GSP-DPT-63-20-25'-011816	GSP-DPT-63-25-30'-011816	GSP-DPT-63-30-35'-011816	GSP-DPT-63-35-40'-011816	GSP-DPT-64-10-15-020816
SAMPLE DATE	20160209	20160209	20160209	20160118	20160118	20160118	20160118	20160208
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	25	30	35	20	25	30	35	10
BOTTOM DEPTH	30	35	40	25	30	35	40	15
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-62			GSP-DPT-63				
SAMPLE ID	GSP-DPT-62-25-30-020916	GSP-DPT-62-30-35-020916	GSP-DPT-62-35-40-020916	GSP-DPT-63-20-25'-011816	GSP-DPT-63-25-30'-011816	GSP-DPT-63-30-35'-011816	GSP-DPT-63-35-40'-011816	GSP-DPT-64-10-15-020816
SAMPLE DATE	20160209	20160209	20160209	20160118	20160118	20160118	20160118	20160208
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	25	30	35	20	25	30	35	10
BOTTOM DEPTH	30	35	40	25	30	35	40	15
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C32)	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-64					GSP-MW/SB-024I	GSP-MW/SB-025I	GSP-MW/SB-026I
SAMPLE ID	GSP-DPT-64-15-20-020816	GSP-DPT-64-20-25-020816	GSP-DPT-64-25-30-020816	GSP-DPT-64-30-35-020816	GSP-DPT-64-35-40-020816	GSP-MW-24I-031716	GSP-MW-25I-031616	GSP-MW-26I-031616
SAMPLE DATE	20160208	20160208	20160208	20160208	20160208	20160317	20160316	20160316
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	15	20	25	30	35	45	50	50
BOTTOM DEPTH	20	25	30	35	40	55	60	60
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	**1.5 J**	0.3 U	0.3 U	0.6 U	0.6 U	0.3 U	0.3 U	0.3 U
1,1-DICHLOROETHENE	1.5 U	0.45 U	0.45 U	0.9 U	0.9 U	0.45 U	0.45 U	0.45 U
1,2,4-TRIMETHYLBENZENE	1.4 U	0.41 U	0.41 U	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U
1,2-DIBROMO-3-CHLOROPROPANE	2.7 U	0.82 U	0.82 U	1.6 U	1.6 U	0.82 UJ	0.82 U	0.82 U
1,2-DICHLOROBENZENE	0.83 U	0.25 U	0.25 U	0.5 U	0.5 U	0.25 U	0.25 U	0.25 U
1,2-DICHLOROETHANE	**7.9**	**0.92 J**	**6.4**	**20**	**13**	0.23 U	0.23 U	**1.3**
1,2-DICHLOROPROPANE	0.83 U	0.25 U	0.25 U	0.5 U	0.5 U	0.25 U	0.25 U	0.25 U
1,3-DICHLOROBENZENE	0.63 U	0.19 U	0.19 U	0.38 U	0.38 U	0.19 U	0.19 U	0.19 U
1,4-DICHLOROBENZENE	0.9 U	0.27 U	0.27 U	0.54 U	0.54 U	0.27 U	0.27 U	0.27 U
2-BUTANONE	**2.8 J**	0.53 U	0.53 U	1.1 U	**13 J**	0.53 UJ	0.53 U	0.53 U
2-HEXANONE	1.6 U	0.48 U	0.48 U	0.96 U	**1.5 J**	0.48 UJ	0.48 U	0.48 U
4-METHYL-2-PENTANONE	3.3 U	0.99 U	0.99 U	2 U	2 U	0.99 UJ	0.99 U	0.99 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	7.1 U	0.94 U	5.4 U	1.9 U	28 U	**6.7 J**	**2.5 J**	**5.3 J**
BENZENE	1.2 U	0.35 U	0.35 U	**0.77 J**	0.7 U	0.35 U	0.35 U	0.35 U
BROMOMETHANE	1.5 U	0.44 U	0.44 U	0.88 U	0.88 U	0.44 U	0.44 U	0.44 U
CARBON DISULFIDE	1.3 U	0.38 U	0.38 U	0.76 U	0.76 U	0.38 U	0.38 U	**0.47 J**
CARBON TETRACHLORIDE	1.4 U	0.43 U	0.43 U	0.86 U	0.86 U	0.43 U	0.43 U	0.43 U
CHLOROBENZENE	0.83 U	0.25 U	0.25 U	0.5 U	0.5 U	0.25 U	0.25 U	**0.31 J**
CHLOROFORM	**84**	**9.2**	**5.5**	**2.7**	**1.6 J**	0.25 U	0.25 U	**0.32 J**
CHLOROMETHANE	1.5 UJ	0.44 UJ	0.44 UJ	0.88 UJ	0.88 UJ	0.44 U	0.44 U	0.44 U
CIS-1,2-DICHLOROETHENE	**2 J**	**1.9**	**14**	**44**	**18**	0.26 U	0.26 U	**4**
ETHYLBENZENE	0.83 U	0.25 U	**1.1**	0.5 U	0.5 U	0.25 U	0.25 U	0.25 U
M+P-XYLENES	0.8 U	**0.58 J**	**4.4**	**1.3 J**	**0.62 J**	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.67 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U
METHYLENE CHLORIDE	**120**	**3.7**	0.33 U	0.66 U	0.66 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	1.5 U	0.45 U	0.45 U	0.9 U	0.9 U	0.45 UJ	0.45 U	0.45 U
O-XYLENE	0.83 U	**0.27 J**	**2**	**72**	**8.5**	0.25 U	0.25 U	0.25 U
STYRENE	1.5 U	0.45 U	0.45 U	0.9 U	0.9 U	0.45 U	0.45 U	0.45 U
TERT-AMYL METHYL ETHER	1 U	0.3 U	0.3 U	0.6 U	0.6 U	0.3 UJ	0.3 UJ	0.3 UJ
TERTIARY-BUTYL ALCOHOL	16 U	4.9 U	4.9 U	9.8 U	9.8 U	4.9 UJ	4.9 U	4.9 U
TOLUENE	0.77 U	**0.24 J**	**1.2**	0.46 U	0.46 U	**0.26 J**	0.23 U	0.23 U
TOTAL CHLORINATED VOCS	**89.7**	**15.7**	**45.6**	**90.47**	**32.6**	NA	NA	NA
TOTAL CHLORINATED VOCS HALFND	**97.95**	**18.31**	**48.085**	**95.34**	**37.82**	NA	NA	NA
TOTAL XYLENES	1.7 U	**0.85 J**	**6.4**	**73**	**9.1**	0.52 U	0.52 U	0.52 U
TOTAL XYLENES DETECTED	0 U	**0.85**	**6.4**	**73.3**	**9.12**	0 U	0 U	0 U
TRANS-1,2-DICHLOROETHENE	1 U	0.3 U	**0.62 J**	**2.3**	**0.74 J**	0.3 U	0.3 U	0.3 U
TRICHLOROETHENE	**2.2 J**	**4.6**	**25**	**43**	**13**	**0.63 J**	0.22 U	**23**
TRICHLOROFLUOROMETHANE	1.6 U	0.49 U	0.49 U	0.98 U	0.98 U	0.49 U	0.49 U	0.49 U
VINYL CHLORIDE	0.97 U	**0.47 J**	**12**	**33**	**8.3**	0.29 U	0.29 U	0.29 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-64					GSP-MW/SB-024I	GSP-MW/SB-025I	GSP-MW/SB-026I
SAMPLE ID	GSP-DPT-64-15-20-020816	GSP-DPT-64-20-25-020816	GSP-DPT-64-25-30-020816	GSP-DPT-64-30-35-020816	GSP-DPT-64-35-40-020816	GSP-MW-24I-031716	GSP-MW-25I-031616	GSP-MW-26I-031616
SAMPLE DATE	20160208	20160208	20160208	20160208	20160208	20160317	20160316	20160316
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	15	20	25	30	35	45	50	50
BOTTOM DEPTH	20	25	30	35	40	55	60	60
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-64					GSP-MW/SB-024I	GSP-MW/SB-025I	GSP-MW/SB-026I
SAMPLE ID	GSP-DPT-64-15-20-020816	GSP-DPT-64-20-25-020816	GSP-DPT-64-25-30-020816	GSP-DPT-64-30-35-020816	GSP-DPT-64-35-40-020816	GSP-MW-24I-031716	GSP-MW-25I-031616	GSP-MW-26I-031616
SAMPLE DATE	20160208	20160208	20160208	20160208	20160208	20160317	20160316	20160316
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	15	20	25	30	35	45	50	50
BOTTOM DEPTH	20	25	30	35	40	55	60	60
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	0.26 U	0.24 U	0.24 U
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	0.26 U	0.24 U	0.24 U
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	0.82 U	0.76 U	0.76 U
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	0.093 U	0.086 U	0.086 U
2-METHYLPHENOL	NA	NA	NA	NA	NA	0.18 U	0.16 U	0.16 U
2-NITROPHENOL	NA	NA	NA	NA	NA	0.29 U	0.27 U	0.27 U
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	0.046 U	0.042 U	0.042 U
ACETOPHENONE	NA	NA	NA	NA	NA	0.35 U	0.32 U	0.32 U
ANTHRACENE	NA	NA	NA	NA	NA	0.091 U	0.084 U	0.084 U
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	1.8 U	1.6 U	1.6 U
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	0.27 U	0.25 U	0.25 U
CAPROLACTAM	NA	NA	NA	NA	NA	0.21 UJ	0.19 U	0.19 U
CARBAZOLE	NA	NA	NA	NA	NA	0.29 U	0.27 U	0.27 U
DIBENZOFURAN	NA	NA	NA	NA	NA	0.021 U	0.019 U	0.019 U
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	0.62 U	0.57 U	0.57 U
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	1.8 U	1.6 U	1.6 U
FLUORANTHENE	NA	NA	NA	NA	NA	0.046 U	0.042 U	0.042 U
FLUORENE	NA	NA	NA	NA	NA	0.042 U	0.039 U	0.039 U
HIGH MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	**0.202**	**0.1865**	**0.1865**
ISOPHORONE	NA	NA	NA	NA	NA	0.28 U	0.26 U	0.26 U
LOW MOLECULAR WEIGHT PAHS	NA	NA	NA	NA	NA	0 U	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	NA	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	NA	NA	NA	NA	**0.2485**	**0.229**	**0.229**
NAPHTHALENE	NA	NA	NA	NA	NA	0.065 U	0.06 U	0.06 U
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	0.32 U	0.3 U	0.3 U
PHENANTHRENE	NA	NA	NA	NA	NA	0.064 U	0.059 U	0.059 U
PHENOL	NA	NA	NA	NA	NA	0.62 U	0.57 U	0.57 U
PYRENE	NA	NA	NA	NA	NA	0.043 U	0.04 U	0.04 U
TOTAL PAHS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-64					GSP-MW/SB-024I	GSP-MW/SB-025I	GSP-MW/SB-026I
SAMPLE ID	GSP-DPT-64-15-20-020816	GSP-DPT-64-20-25-020816	GSP-DPT-64-25-30-020816	GSP-DPT-64-30-35-020816	GSP-DPT-64-35-40-020816	GSP-MW-24I-031716	GSP-MW-25I-031616	GSP-MW-26I-031616
SAMPLE DATE	20160208	20160208	20160208	20160208	20160208	20160317	20160316	20160316
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	15	20	25	30	35	45	50	50
BOTTOM DEPTH	20	25	30	35	40	55	60	60
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	NA	NA	NA	**0.2075**	**0.1865**	**0.1875**
DISSOLVED METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	2.4 U	2.4 U	2.4 U
ARSENIC	NA	NA	NA	NA	NA	**4.8 J**	2.9 U	2.9 U
BARIUM	NA	NA	NA	NA	NA	18 U	11 U	34 U
BERYLLIUM	NA	NA	NA	NA	NA	0.24 U	**0.15 J**	**0.15 J**
CADMIUM	NA	NA	NA	NA	NA	0.14 U	0.14 U	0.14 U
CHROMIUM	NA	NA	NA	NA	NA	**13**	0.55 U	0.55 U
COBALT	NA	NA	NA	NA	NA	**2.5 J**	**5.8 J**	**17**
COPPER	NA	NA	NA	NA	NA	**2.4 J**	1.9 U	1.9 U
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	**2.3 J**	1.9 U	1.9 U
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	**0.16 J**	0.09 U	0.09 U
MOLYBDENUM	NA	NA	NA	NA	NA	10 U	0.53 U	0.53 U
NICKEL	NA	NA	NA	NA	NA	**3.8 J**	**7.1 J**	**20 J**
SELENIUM	NA	NA	NA	NA	NA	4 U	4 U	4 U
THALLIUM	NA	NA	NA	NA	NA	1.7 U	1.7 U	1.7 U
VANADIUM	NA	NA	NA	NA	NA	**7.9 J**	2.4 U	2.4 U
ZINC	NA	NA	NA	NA	NA	20 U	19 U	25 U
METALS (UG/L)								
ANTIMONY	NA	NA	NA	NA	NA	2.4 U	2.4 U	2.4 U
ARSENIC	NA	NA	NA	NA	NA	**6.1 J**	2.9 U	2.9 U
BARIUM	NA	NA	NA	NA	NA	26 U	14 U	34 U
BERYLLIUM	NA	NA	NA	NA	NA	0.44 U	**0.18 J**	0.13 U
CADMIUM	NA	NA	NA	NA	NA	0.14 U	0.14 U	0.14 U
CHROMIUM	NA	NA	NA	NA	NA	**22**	**1.8 J**	**0.6 J**
COBALT	NA	NA	NA	NA	NA	**2.8 J**	**5.8 J**	**17**
COPPER	NA	NA	NA	NA	NA	**4.6 J**	**2.9 J**	1.9 U
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	**3.5 J**	1.9 U	1.9 U
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	**0.27**	0.09 U	0.09 U
MOLYBDENUM	NA	NA	NA	NA	NA	8.6 U	0.53 U	0.53 U
NICKEL	NA	NA	NA	NA	NA	**4.1 J**	**7.5 J**	**19 J**
SELENIUM	NA	NA	NA	NA	NA	4 U	4 U	4 U
SILVER	NA	NA	NA	NA	NA	0.92 U	0.92 U	0.92 U
THALLIUM	NA	NA	NA	NA	NA	1.7 U	1.7 U	1.7 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-DPT-64					GSP-MW/SB-024I	GSP-MW/SB-025I	GSP-MW/SB-026I
SAMPLE ID	GSP-DPT-64-15-20-020816	GSP-DPT-64-20-25-020816	GSP-DPT-64-25-30-020816	GSP-DPT-64-30-35-020816	GSP-DPT-64-35-40-020816	GSP-MW-24I-031716	GSP-MW-25I-031616	GSP-MW-26I-031616
SAMPLE DATE	20160208	20160208	20160208	20160208	20160208	20160317	20160316	20160316
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	15	20	25	30	35	45	50	50
BOTTOM DEPTH	20	25	30	35	40	55	60	60
VANADIUM	NA	NA	NA	NA	NA	**17**	2.4 U	2.4 U
ZINC	NA	NA	NA	NA	NA	27 U	25 U	22 U
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	0.051 UJ	0.051 UJ	0.26 UJ
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	**31 J**	**31 J**	**39 J**
TPH (C10-C32)	NA	NA	NA	NA	NA	**1600**	**260 J**	250 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-01				GSP-MW-02			
SAMPLE ID	GSP-MW-01-031616	GSP-MW01-042612	GSP-MW1-042612	GSP-MW-1-061711	GSP-MW02-042612	GSP-MW2-042612	GSP-MW-2-061711	GSP-MW03-042612
SAMPLE DATE	20160316	20120426	20120426	20110617	20120426	20120426	20110617	20120426
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	5	5	5	5	21	21	21	25
BOTTOM DEPTH	15	15	15	15	31	31	31	35
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.3 U	NA	0.15 U	0.15 U	NA	0.15 U	0.15 U	NA
1,1-DICHLOROETHENE	0.45 U	NA	0.19 U	**0.45 J**	NA	0.19 U	0.19 U	NA
1,2,4-TRIMETHYLBENZENE	0.41 U	NA	0.12 U	**0.26 J**	NA	0.12 U	0.12 U	NA
1,2-DIBROMO-3-CHLOROPROPANE	0.82 U	NA	0.67 U	0.67 U	NA	0.67 U	0.67 U	NA
1,2-DICHLOROBENZENE	0.25 U	NA	0.13 U	0.13 U	NA	0.13 U	0.13 U	NA
1,2-DICHLOROETHANE	0.23 U	NA	0.22 U	0.22 U	NA	0.22 U	0.22 U	NA
1,2-DICHLOROPROPANE	0.25 U	NA	0.18 U	0.18 U	NA	0.18 U	0.18 U	NA
1,3-DICHLOROBENZENE	0.19 U	NA	0.14 U	0.14 U	NA	0.14 U	0.14 U	NA
1,4-DICHLOROBENZENE	0.27 U	NA	0.13 U	0.13 U	NA	0.13 U	0.13 U	NA
2-BUTANONE	0.53 U	NA	0.57 U	0.57 U	NA	0.57 U	0.57 U	NA
2-HEXANONE	0.48 U	NA	0.41 U	0.41 U	NA	0.41 U	0.41 U	NA
4-METHYL-2-PENTANONE	0.99 U	NA	0.32 U	0.32 U	NA	0.32 U	0.32 U	NA
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	**2.1 J**	NA	1.1 U	6.9 B	NA	1.1 U	1.6 B	NA
BENZENE	0.35 U	NA	0.13 U	0.35 B	NA	0.13 U	0.19 B	NA
BROMOMETHANE	0.44 U	NA	0.41 U	0.41 U	NA	0.41 U	0.41 U	NA
CARBON DISULFIDE	0.38 U	NA	0.13 U	0.13 U	NA	0.13 U	0.13 U	NA
CARBON TETRACHLORIDE	0.43 U	NA	0.13 U	0.13 U	NA	0.13 U	0.13 U	NA
CHLOROBENZENE	0.25 U	NA	0.15 U	0.15 U	NA	0.15 U	0.15 U	NA
CHLOROFORM	0.25 U	NA	0.16 U	0.16 U	NA	0.16 U	0.16 U	NA
CHLOROMETHANE	0.44 U	NA	0.3 U	0.3 U	NA	0.3 U	0.3 U	NA
CIS-1,2-DICHLOROETHENE	0.26 U	NA	**0.27 J**	**2.1**	NA	0.17 U	0.17 U	NA
ETHYLBENZENE	0.25 U	NA	0.17 U	0.17 U	NA	0.17 U	0.17 U	NA
M+P-XYLENES	0.24 U	NA	0.24 U	**0.71 J**	NA	0.24 U	0.24 U	NA
METHYL TERT-BUTYL ETHER	0.2 U	NA	0.17 U	0.17 U	NA	0.17 U	0.17 U	NA
METHYLENE CHLORIDE	0.33 U	NA	0.33 U	0.33 U	NA	0.33 U	0.33 U	NA
NAPHTHALENE	0.45 U	NA	0.24 U	0.24 U	NA	0.24 U	0.24 U	NA
O-XYLENE	0.25 U	NA	0.14 U	**0.33 J**	NA	0.14 U	0.14 U	NA
STYRENE	0.45 U	NA	0.11 U	0.11 U	NA	0.11 U	0.11 U	NA
TERT-AMYL METHYL ETHER	0.3 UJ	NA	0.067 U	0.067 U	NA	0.067 U	0.067 U	NA
TERTIARY-BUTYL ALCOHOL	4.9 U	NA	3.9 UR	3.9 UR	NA	3.9 UR	3.9 UR	NA
TOLUENE	0.23 U	NA	0.13 U	1.1 B	NA	0.13 U	0.19 B	NA
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	0.52 U	NA	0.28 U	**1 J**	NA	0.28 U	0.28 U	NA
TOTAL XYLENES DETECTED	0 U	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	0.3 U	NA	0.19 U	0.19 U	NA	0.19 U	0.19 U	NA
TRICHLOROETHENE	0.22 U	NA	**0.81 J**	**12**	NA	0.17 U	0.17 U	NA
TRICHLOROFLUOROMETHANE	0.49 U	NA	0.21 U	0.21 U	NA	0.21 U	0.21 U	NA
VINYL CHLORIDE	0.29 U	NA	0.22 U	0.22 U	NA	0.22 U	0.22 U	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-01				GSP-MW-02			
SAMPLE ID	GSP-MW-01-031616	GSP-MW01-042612	GSP-MW1-042612	GSP-MW-1-061711	GSP-MW02-042612	GSP-MW2-042612	GSP-MW-2-061711	GSP-MW03-042612
SAMPLE DATE	20160316	20120426	20120426	20110617	20120426	20120426	20110617	20120426
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	5	5	5	5	21	21	21	25
BOTTOM DEPTH	15	15	15	15	31	31	31	35
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-01				GSP-MW-02			
SAMPLE ID	GSP-MW-01-031616	GSP-MW01-042612	GSP-MW1-042612	GSP-MW-1-061711	GSP-MW02-042612	GSP-MW2-042612	GSP-MW-2-061711	GSP-MW03-042612
SAMPLE DATE	20160316	20120426	20120426	20110617	20120426	20120426	20110617	20120426
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	5	5	5	5	21	21	21	25
BOTTOM DEPTH	15	15	15	15	31	31	31	35
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	**1.6 NJ**	NA	NA	**1.5 NJ**	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	0.24 U	NA	NA	0.77 U	NA	NA	0.78 U	NA
2,4-DINITROTOLUENE	0.24 U	NA	NA	0.26 U	NA	NA	0.26 U	NA
2,6-DINITROTOLUENE	0.76 U	NA	NA	0.77 U	NA	NA	0.78 U	NA
2-METHYLNAPHTHALENE	0.086 U	NA	NA	0.096 U	NA	NA	0.098 U	NA
2-METHYLPHENOL	0.16 U	NA	NA	0.77 U	NA	NA	0.78 U	NA
2-NITROPHENOL	0.27 U	NA	NA	0.27 U	NA	NA	0.27 U	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	0.042 U	NA	NA	0.096 U	NA	NA	0.098 U	NA
ACETOPHENONE	0.32 U	NA	NA	0.33 U	NA	NA	0.33 U	NA
ANTHRACENE	0.084 U	NA	NA	0.096 U	NA	NA	0.098 U	NA
BIS(2-ETHYLHEXYL)PHTHALATE	1.6 U	NA	NA	0.77 U	NA	NA	0.78 U	NA
BUTYL BENZYL PHTHALATE	0.25 U	NA	NA	0.77 U	NA	NA	0.78 U	NA
CAPROLACTAM	0.19 U	NA	NA	**0.77 J**	NA	NA	0.78 U	NA
CARBAZOLE	0.27 U	NA	NA	0.27 U	NA	NA	0.27 U	NA
DIBENZOFURAN	0.019 U	NA	NA	0.096 U	NA	NA	0.098 U	NA
DIETHYL PHTHALATE	0.57 U	NA	NA	0.58 U	NA	NA	0.59 U	NA
DI-N-BUTYL PHTHALATE	1.6 U	NA	NA	0.64 U	NA	NA	0.66 U	NA
FLUORANTHENE	0.042 U	NA	NA	0.096 U	NA	NA	0.098 U	NA
FLUORENE	0.039 U	NA	NA	0.096 U	NA	NA	0.098 U	NA
HIGH MOLECULAR WEIGHT PAHS	0 U	NA	NA	0 U	NA	NA	0 U	NA
HIGH MOLECULAR WEIGHT PAHS-HALFND	**0.1865**	NA	NA	**0.432**	NA	NA	**0.441**	NA
ISOPHORONE	0.26 U	NA	NA	0.26 U	NA	NA	0.26 U	NA
LOW MOLECULAR WEIGHT PAHS	0 U	NA	NA	0 U	NA	NA	0 U	NA
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	0.336 U	NA	NA	0.343 U	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	**0.229**	NA	NA	**0.384**	NA	NA	**0.392**	NA
NAPHTHALENE	0.06 U	NA	NA	0.096 U	NA	NA	0.098 U	NA
N-NITROSODIMETHYLAMINE	0.3 U	NA	NA	0.3 U	NA	NA	0.3 U	NA
PHENANTHRENE	0.059 U	NA	NA	0.096 U	NA	NA	0.098 U	NA
PHENOL	0.57 U	NA	NA	0.58 U	NA	NA	0.59 U	NA
PYRENE	0.04 U	NA	NA	0.096 U	NA	NA	0.098 U	NA
TOTAL PAHS	NA	NA	NA	0 U	NA	NA	0 U	NA
TOTAL PAHS ECO HALFND	NA	NA	NA	0.816 U	NA	NA	0.833 U	NA
TOTAL PAHS HALFND	NA	NA	NA	0.816 U	NA	NA	0.833 U	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-01				GSP-MW-02			
SAMPLE ID	GSP-MW-01-031616	GSP-MW01-042612	GSP-MW1-042612	GSP-MW-1-061711	GSP-MW02-042612	GSP-MW2-042612	GSP-MW-2-061711	GSP-MW03-042612
SAMPLE DATE	20160316	20120426	20120426	20110617	20120426	20120426	20110617	20120426
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	5	5	5	5	21	21	21	25
BOTTOM DEPTH	15	15	15	15	31	31	31	35
PCBS (UG/L)								
TOTAL AROCLOR HALFND	**0.195**	NA	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)								
ANTIMONY	2.4 U	NA	0.19 B	0.18 B	NA	0.13 U	0.15 B	NA
ARSENIC	**10 J**	NA	**5.6**	**0.3 J**	NA	**0.92 J**	**0.87 J**	NA
BARIUM	56 U	NA	**76**	**10**	NA	**9.9 K**	**23**	NA
BERYLLIUM	0.13 U	NA	0.2 UL	0.092 U	NA	0.2 U	0.092 U	NA
CADMIUM	0.14 U	NA	0.13 U	0.046 U	NA	0.13 U	**0.1 J**	NA
CHROMIUM	**1.4 J**	NA	**0.82 J**	0.3 B	NA	0.71 U	0.62 B	NA
COBALT	**4.8 J**	NA	**9.4**	**11**	NA	**12**	**16**	NA
COPPER	1.9 U	NA	1 B	**7.2**	NA	1.7 B	**3.9**	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	1.9 U	NA	0.18 U	0.21 B	NA	0.18 U	0.34 B	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.09 U	NA	0.12 U	0.066 U	NA	0.12 U	0.066 U	NA
MOLYBDENUM	2.3 U	NA	2.2 B	0.42 U	NA	0.093 U	0.42 U	NA
NICKEL	**8.6 J**	NA	**8.9**	**11**	NA	**12**	**16**	NA
SELENIUM	4 U	NA	**0.72 J**	0.32 U	NA	0.57 U	0.32 U	NA
THALLIUM	**3.9 J**	NA	0.3 B	0.25 B	NA	0.16 B	0.25 B	NA
VANADIUM	2.4 U	NA	**1 J**	**0.67 J**	NA	0.44 U	0.3 U	NA
ZINC	9.6 U	NA	25 B	**42 J**	NA	27 B	**31 J**	NA
METALS (UG/L)								
ANTIMONY	2.4 U	NA	0.18 B	0.17 B	NA	0.13 U	0.14 B	NA
ARSENIC	**9.2 J**	NA	**5.7**	**0.55 J**	NA	**0.99 J**	**0.95 J**	NA
BARIUM	56 U	NA	**73**	**120**	NA	**10**	**24**	NA
BERYLLIUM	0.13 U	NA	0.2 UL	**1.7**	NA	0.2 U	0.092 U	NA
CADMIUM	0.14 U	NA	0.13 U	**0.3 J**	NA	0.13 U	**0.11 J**	NA
CHROMIUM	**1.5 J**	NA	**0.86 J**	**5.1**	NA	0.71 U	0.36 B	NA
COBALT	**5.2 J**	NA	**9.3**	**52**	NA	**12**	**16**	NA
COPPER	1.9 U	NA	1.6 B	**35**	NA	1.3 B	**3**	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	1.9 U	NA	0.18 U	**1.1 J**	NA	0.18 U	0.33 B	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.09 U	NA	0.12 U	0.066 U	NA	0.12 U	0.066 U	NA
MOLYBDENUM	2.3 U	NA	2.1 B	0.56 B	NA	0.13 B	0.42 U	NA
NICKEL	**5.5 J**	NA	**8.6**	**77**	NA	**12**	**17**	NA
SELENIUM	4 U	NA	**0.59 J**	**1.1 J**	NA	0.57 U	0.32 U	NA
SILVER	0.92 U	NA	0.08 U	0.014 U	NA	0.08 U	0.014 U	NA
THALLIUM	**4.5 J**	NA	0.16 B	0.47 B	NA	0.21 B	0.28 B	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-01				GSP-MW-02			
SAMPLE ID	GSP-MW-01-031616	GSP-MW01-042612	GSP-MW1-042612	GSP-MW-1-061711	GSP-MW02-042612	GSP-MW2-042612	GSP-MW-2-061711	GSP-MW03-042612
SAMPLE DATE	20160316	20120426	20120426	20110617	20120426	20120426	20110617	20120426
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	5	5	5	5	21	21	21	25
BOTTOM DEPTH	15	15	15	15	31	31	31	35
VANADIUM	2.4 U	NA	**0.8 J**	0.3 U	NA	0.44 U	**0.41 J**	NA
ZINC	9.6 U	NA	25 B	**210 J**	NA	27 B	**29 J**	NA
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	0.02 U	NA	NA	0.02 U	NA	NA	0.02 U
PERCHLORATE	NA	NA	0.082 U	0.36 U	NA	0.082 U	0.36 U	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	0.26 UJ	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	NA	NA	**310 J**	NA	NA	**300 J**	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	51 B	NA	NA	40 B	NA
TPH (C06-C10)	25 U	NA	33 B	NA	NA	40 B	NA	NA
TPH (C10-C32)	**840**	NA	**240 J**	NA	NA	230 U	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-03		GSP-MW-04				GSP-MW-17	GSP-MW-18
SAMPLE ID	GSP-MW3-042612	GSP-MW-3-061711	GSP-MW-04-031716	GSP-MW04-043012	GSP-MW4-042712	GSP-MW-4-062011	GSP-MW17-101012	GSP-MW-18-031716
SAMPLE DATE	20120426	20110617	20160317	20120430	20120427	20110620	20121010	20160317
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	25	25	10.5	10.5	10.5	10.5	15	13
BOTTOM DEPTH	35	35	20.5	20.5	20.5	20.5	30	28
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.3 U	NA	0.15 U	0.15 U	0.15 U	0.38 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.45 U	NA	0.19 U	0.19 U	0.19 U	0.56 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U	0.41 U	NA	0.12 U	0.12 U	0.12 U	0.51 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.82 UJ	NA	0.67 U	0.67 U	0.67 U	1 U
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.25 U	NA	0.13 U	0.13 U	0.13 U	0.31 U
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.23 U	NA	0.22 U	0.22 U	**0.41 J**	**1.2 J**
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.25 U	NA	0.18 U	0.18 U	0.18 U	0.31 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.19 U	NA	0.14 U	0.14 U	0.14 U	0.24 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.27 U	NA	0.13 U	0.13 U	0.13 U	0.34 U
2-BUTANONE	0.57 U	**0.62 J**	0.53 UJ	NA	0.57 U	0.57 U	0.57 U	0.66 U
2-HEXANONE	0.41 U	0.41 U	0.48 UJ	NA	0.41 U	0.41 U	0.41 U	0.6 U
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.99 UJ	NA	0.32 U	0.32 U	0.32 U	1.2 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	1.1 U	3.6 B	0.94 UJ	NA	**1.6 J**	**1.5 J**	**3.5 J**	1.2 U
BENZENE	0.13 U	0.16 B	0.35 U	NA	0.13 U	**0.13 J**	0.13 U	0.44 U
BROMOMETHANE	0.41 U	0.41 U	0.44 U	NA	0.41 U	0.41 U	0.41 U	0.55 UJ
CARBON DISULFIDE	0.13 U	0.13 U	0.38 U	NA	0.13 U	0.13 U	0.13 U	0.48 U
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.43 U	NA	0.13 U	0.13 U	0.13 U	0.54 U
CHLOROBENZENE	0.15 U	0.15 U	0.25 U	NA	0.15 U	0.15 U	0.15 U	0.31 U
CHLOROFORM	0.16 U	0.16 U	0.25 U	NA	0.16 U	0.16 U	**0.33 J**	0.31 U
CHLOROMETHANE	0.3 U	0.3 U	0.44 U	NA	0.3 U	0.3 U	**0.51 J**	0.55 U
CIS-1,2-DICHLOROETHENE	0.17 U	0.17 U	**1.3**	NA	**1.7**	**1.6**	**1**	**9.8**
ETHYLBENZENE	0.17 U	0.17 U	0.25 U	NA	0.17 U	0.17 U	0.17 U	0.31 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	NA	0.24 U	0.24 U	0.24 U	0.3 U
METHYL TERT-BUTYL ETHER	0.17 U	0.17 U	0.2 U	NA	0.17 U	0.17 U	0.17 U	0.25 U
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	NA	0.33 U	0.33 U	0.33 U	**0.43 J**
NAPHTHALENE	0.24 U	0.24 U	0.45 UJ	NA	0.24 U	0.24 U	0.24 U	**0.87 J**
O-XYLENE	0.14 U	0.14 U	0.25 U	NA	0.14 U	0.14 U	0.14 U	0.31 U
STYRENE	0.11 U	0.11 U	0.45 U	NA	0.11 U	0.11 U	0.11 U	0.56 U
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.3 UJ	NA	0.067 U	0.067 U	NA	0.38 UJ
TERTIARY-BUTYL ALCOHOL	3.9 UR	3.9 UR	4.9 UJ	NA	3.9 UR	3.9 UR	3.9 UR	6.1 UJ
TOLUENE	0.13 U	0.17 B	0.23 U	NA	0.13 U	**0.13 J**	**0.48 J**	0.29 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	0.28 U	0.28 U	0.52 U	NA	0.28 U	0.28 U	0.28 U	0.65 U
TOTAL XYLENES DETECTED	NA	NA	0 U	NA	NA	NA	NA	0 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.3 U	NA	0.19 U	0.19 U	0.19 U	0.38 U
TRICHLOROETHENE	0.17 U	0.17 U	**4**	NA	**5.1**	**6**	**4.9**	**38**
TRICHLOROFLUOROMETHANE	0.21 U	0.21 U	0.49 U	NA	0.21 U	0.21 U	0.21 U	0.61 U
VINYL CHLORIDE	0.22 U	0.22 U	**0.63 J**	NA	**0.53 J**	**0.66 J**	0.22 U	**1.9**

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-03		GSP-MW-04				GSP-MW-17	GSP-MW-18
SAMPLE ID	GSP-MW3-042612	GSP-MW-3-061711	GSP-MW-04-031716	GSP-MW04-043012	GSP-MW4-042712	GSP-MW-4-062011	GSP-MW17-101012	GSP-MW-18-031716
SAMPLE DATE	20120426	20110617	20160317	20120430	20120427	20110620	20121010	20160317
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	25	25	10.5	10.5	10.5	10.5	15	13
BOTTOM DEPTH	35	35	20.5	20.5	20.5	20.5	30	28
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-03		GSP-MW-04				GSP-MW-17	GSP-MW-18
SAMPLE ID	GSP-MW3-042612	GSP-MW-3-061711	GSP-MW-04-031716	GSP-MW04-043012	GSP-MW4-042712	GSP-MW-4-062011	GSP-MW17-101012	GSP-MW-18-031716
SAMPLE DATE	20120426	20110617	20160317	20120430	20120427	20110620	20121010	20160317
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	25	25	10.5	10.5	10.5	10.5	15	13
BOTTOM DEPTH	35	35	20.5	20.5	20.5	20.5	30	28
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	**1.6 NJ**	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	NA	0.78 U	0.24 U	NA	NA	0.76 U	0.77 U	0.26 U
2,4-DINITROTOLUENE	NA	0.26 U	0.24 U	NA	NA	0.26 U	0.26 U	0.26 U
2,6-DINITROTOLUENE	NA	0.78 U	0.76 U	NA	NA	0.76 U	0.77 U	0.82 U
2-METHYLNAPHTHALENE	NA	0.097 U	0.086 U	NA	NA	0.095 U	0.096 U	0.093 U
2-METHYLPHENOL	NA	0.78 U	0.16 U	NA	NA	0.76 U	0.77 U	0.18 U
2-NITROPHENOL	NA	0.27 U	0.27 U	NA	NA	0.27 U	0.27 U	0.29 U
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	0.097 U	0.042 U	NA	NA	0.095 U	0.096 U	0.046 U
ACETOPHENONE	NA	0.33 U	0.32 U	NA	NA	0.32 U	0.33 U	0.35 U
ANTHRACENE	NA	0.097 U	0.084 U	NA	NA	0.095 U	0.096 U	0.091 U
BIS(2-ETHYLHEXYL)PHTHALATE	NA	**0.99 J**	1.6 U	NA	NA	0.76 U	0.77 U	1.8 U
BUTYL BENZYL PHTHALATE	NA	0.78 U	0.25 U	NA	NA	0.76 U	0.77 U	0.27 U
CAPROLACTAM	NA	0.78 U	0.19 UJ	NA	NA	0.76 U	0.77 U	0.21 UJ
CARBAZOLE	NA	0.27 U	0.27 U	NA	NA	0.27 U	0.27 U	0.29 U
DIBENZOFURAN	NA	0.097 U	0.019 U	NA	NA	0.095 U	0.096 U	0.021 U
DIETHYL PHTHALATE	NA	0.58 U	0.57 U	NA	NA	0.57 U	0.58 U	0.62 U
DI-N-BUTYL PHTHALATE	NA	0.65 U	1.6 U	NA	NA	0.64 U	0.64 U	1.8 U
FLUORANTHENE	NA	0.097 U	0.042 U	NA	NA	0.095 U	0.096 U	0.046 U
FLUORENE	NA	0.097 U	0.039 U	NA	NA	0.095 U	0.096 U	0.042 U
HIGH MOLECULAR WEIGHT PAHS	NA	0 U	0 U	NA	NA	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	NA	**0.4365**	**0.1865**	NA	NA	**0.4275**	**0.432**	**0.202**
ISOPHORONE	NA	0.26 U	0.26 U	NA	NA	0.26 U	0.26 U	0.28 U
LOW MOLECULAR WEIGHT PAHS	NA	0 U	0 U	NA	NA	0 U	**0.097**	**1**
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	0.3395 U	NA	NA	NA	0.3325 U	NA	NA
LOW MOLECULAR WEIGHT PAHS-HALFND	NA	**0.388**	**0.229**	NA	NA	**0.38**	**0.433**	**1.216**
NAPHTHALENE	NA	0.097 U	0.06 U	NA	NA	0.095 U	**0.097 J**	**1**
N-NITROSODIMETHYLAMINE	NA	0.3 U	0.3 U	NA	NA	0.3 U	0.3 U	0.32 U
PHENANTHRENE	NA	0.097 U	0.059 U	NA	NA	0.095 U	0.096 U	0.064 U
PHENOL	NA	0.58 U	0.57 U	NA	NA	0.57 U	0.58 U	0.62 U
PYRENE	NA	0.097 U	0.04 U	NA	NA	0.095 U	0.096 U	0.043 U
TOTAL PAHS	NA	0 U	NA	NA	NA	0 U	NA	NA
TOTAL PAHS ECO HALFND	NA	0.8245 U	NA	NA	NA	0.8075 U	NA	NA
TOTAL PAHS HALFND	NA	0.8245 U	NA	NA	NA	0.8075 U	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-03		GSP-MW-04				GSP-MW-17	GSP-MW-18
SAMPLE ID	GSP-MW3-042612	GSP-MW-3-061711	GSP-MW-04-031716	GSP-MW04-043012	GSP-MW4-042712	GSP-MW-4-062011	GSP-MW17-101012	GSP-MW-18-031716
SAMPLE DATE	20120426	20110617	20160317	20120430	20120427	20110620	20121010	20160317
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	25	25	10.5	10.5	10.5	10.5	15	13
BOTTOM DEPTH	35	35	20.5	20.5	20.5	20.5	30	28
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	NA	**0.2075**	NA	NA	NA	NA	**0.2075**
DISSOLVED METALS (UG/L)								
ANTIMONY	0.13 U	0.15 B	2.4 U	NA	0.13 U	0.15 B	0.13 U	2.4 U
ARSENIC	**5.5**	**0.27 J**	**6.5 J**	NA	**6.4**	**4.1 J**	0.4 UL	**3.6 J**
BARIUM	**9.5 K**	**120**	19 U	NA	**27**	**36**	**57**	26 U
BERYLLIUM	0.2 U	**1.8**	0.13 U	NA	0.2 U	0.092 U	0.2 U	1.2 U
CADMIUM	0.13 U	**0.36 J**	0.14 U	NA	0.13 U	0.046 U	0.17 B	0.14 U
CHROMIUM	0.71 U	**4.7**	0.55 U	NA	0.71 U	0.2 B	**0.92 J**	**0.93 J**
COBALT	**16**	**54**	**7.7 J**	NA	**11**	**11**	**14**	**34**
COPPER	0.67 B	**36**	1.9 U	NA	0.5 B	**0.39 J**	**4.4 K**	1.9 U
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	0.18 U	**1.2 J**	1.9 U	NA	0.18 U	0.27 B	0.18 U	1.9 U
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.12 U	0.066 U	0.09 U	NA	0.12 U	0.066 U	**0.14 J**	0.09 U
MOLYBDENUM	0.25 B	0.42 U	0.53 U	NA	0.14 B	0.42 U	0.093 U	0.53 U
NICKEL	**15**	**79**	**1.3 J**	NA	**1.1 J**	**0.73 J**	**20**	**16 J**
SELENIUM	0.57 U	**0.35 J**	4 U	NA	**0.58 J**	0.32 U	0.57 U	4 U
THALLIUM	0.5 B	0.39 B	1.7 U	NA	0.26 B	0.31 B	0.17 B	1.7 U
VANADIUM	0.44 U	0.3 U	2.4 U	NA	0.44 U	0.3 U	0.44 UL	2.4 U
ZINC	**51**	**220 J**	9.6 U	NA	2.3 U	**4.9 J**	23 B	30 U
METALS (UG/L)								
ANTIMONY	0.27 B	0.28 B	2.4 U	NA	0.13 U	0.16 B	**0.15 J**	2.4 U
ARSENIC	**6**	**11**	**7.6 J**	NA	**6.5**	**4.9 J**	0.4 UL	**3.6 J**
BARIUM	**9.9 K**	**16**	19 U	NA	**27**	**36**	**58**	27 U
BERYLLIUM	0.2 U	0.092 U	0.13 U	NA	0.2 U	0.092 U	0.2 U	1.2 U
CADMIUM	0.13 U	0.046 U	0.14 U	NA	0.13 U	0.046 U	0.18 B	0.14 U
CHROMIUM	0.71 U	**4.3**	0.55 U	NA	0.71 U	0.73 B	**0.92 J**	**1.1 J**
COBALT	**17**	**11**	**8 J**	NA	**11**	**11**	**14**	**36**
COPPER	1.8 B	**17**	1.9 U	NA	0.59 B	**0.93 J**	**4.2 K**	1.9 U
IRON	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	0.18 U	**1.9 J**	1.9 U	NA	0.18 U	0.3 B	0.18 U	1.9 U
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.12 U	0.066 U	0.09 U	NA	0.12 U	0.066 U	0.12 U	0.09 U
MOLYBDENUM	0.84 B	0.48 B	0.53 U	NA	0.26 B	0.42 U	0.093 U	1.2 U
NICKEL	**16**	**11**	**1.5 J**	NA	**0.94 J**	**0.69 J**	**20**	**15 J**
SELENIUM	0.57 U	0.32 U	4 U	NA	0.57 U	0.32 U	0.57 U	4 U
SILVER	0.08 U	0.014 U	0.92 U	NA	0.08 U	0.014 U	0.08 U	0.92 U
THALLIUM	0.88 B	0.29 B	1.7 U	NA	0.35 B	0.32 B	0.2 B	1.7 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-03		GSP-MW-04				GSP-MW-17	GSP-MW-18
SAMPLE ID	GSP-MW3-042612	GSP-MW-3-061711	GSP-MW-04-031716	GSP-MW04-043012	GSP-MW4-042712	GSP-MW-4-062011	GSP-MW17-101012	GSP-MW-18-031716
SAMPLE DATE	20120426	20110617	20160317	20120430	20120427	20110620	20121010	20160317
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	25	25	10.5	10.5	10.5	10.5	15	13
BOTTOM DEPTH	35	35	20.5	20.5	20.5	20.5	30	28
VANADIUM	**0.55 J**	**48**	2.4 U	NA	0.44 U	**0.37 J**	0.44 UL	2.4 U
ZINC	**51**	**45 J**	9.6 U	NA	2.3 U	3.5 B	21 B	27 U
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	0.02 U	NA	NA	NA	NA
PERCHLORATE	0.082 U	0.36 U	NA	NA	0.082 U	0.36 U	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	0.1 UJ	NA	NA	NA	NA	0.051 UJ
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	**360 J**	NA	NA	NA	230 U	NA	NA
GASOLINE RANGE ORGANICS	NA	41 B	NA	NA	NA	36 B	NA	NA
TPH (C06-C10)	41 B	NA	**26 J**	NA	55 B	NA	33 B	**52 J**
TPH (C10-C32)	240 U	NA	**500**	NA	**330 J**	NA	230 U	**520**

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-18	GSP-MW-19		GSP-MW-20		GSP-SB-072	GSP-SB-080	GSP-SB-083
SAMPLE ID	GSP-MW18-101012	GSP-MW-19-031616	GSP-MW19-101112	GSP-MW-20-031616	GSP-MW20-101112	GSP-SB-72-W	GSP-SB-80-W	GSP-SB/WP-83-20100528
SAMPLE DATE	20121010	20160316	20121011	20160316	20121011	20100512	20100512	20100528
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	13	15	15	6	6	15	10	6
BOTTOM DEPTH	28	30	30	16	16	15	10	6
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	1 U	0.3 U	0.15 U	1.2 U	0.15 U	0.15 U	0.5 U	0.15 U
1,1-DICHLOROETHENE	1.3 U	0.45 U	0.19 U	1.8 U	0.19 U	0.19 U	0.63 U	0.19 U
1,2,4-TRIMETHYLBENZENE	0.8 U	0.41 U	0.12 U	1.6 U	0.12 U	0.12 U	**0.87 J**	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	4.5 U	0.82 U	0.67 U	3.3 U	0.67 U	0.67 U	**2.9 J**	0.67 U
1,2-DICHLOROBENZENE	0.87 U	0.25 U	0.13 U	1 U	0.13 U	0.13 U	0.43 U	0.13 U
1,2-DICHLOROETHANE	**13**	0.23 U	0.22 U	0.92 U	0.22 U	**0.33 J**	0.73 U	0.22 U
1,2-DICHLOROPROPANE	1.2 U	0.25 U	0.18 U	1 U	0.18 U	0.18 U	0.6 U	0.18 U
1,3-DICHLOROBENZENE	0.93 U	0.19 U	0.14 U	0.76 U	0.14 U	0.14 U	0.47 U	0.14 U
1,4-DICHLOROBENZENE	0.87 U	0.27 U	0.13 U	1.1 U	0.13 U	0.13 U	0.43 U	0.13 U
2-BUTANONE	3.8 U	0.53 U	0.57 U	2.1 U	**1.1 J**	0.57 U	1.9 U	0.57 U
2-HEXANONE	2.7 U	0.48 U	0.41 U	1.9 U	0.41 U	0.41 U	1.4 U	0.41 U
4-METHYL-2-PENTANONE	2.1 U	0.99 U	0.32 U	4 U	0.32 U	0.32 U	1.1 U	0.32 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	7.3 U	0.94 U	**1.8 J**	**6.9 J**	**16**	**2 J**	**4.5 J**	16 B
BENZENE	0.87 U	0.35 U	0.13 U	1.4 U	0.13 U	0.13 U	0.43 U	0.13 U
BROMOMETHANE	2.7 U	0.44 U	**0.72 J**	1.8 U	0.41 U	0.41 U	1.4 U	0.41 U
CARBON DISULFIDE	0.87 U	0.38 U	**0.3 J**	1.5 U	**0.23 J**	0.13 U	0.43 U	0.13 U
CARBON TETRACHLORIDE	0.87 U	0.43 U	0.13 U	1.7 U	0.13 U	0.13 U	0.43 U	0.13 U
CHLOROBENZENE	1 U	0.25 U	0.15 U	1 U	0.15 U	**0.33 J**	0.5 U	0.15 U
CHLOROFORM	1.1 U	0.25 U	**0.39 J**	1 U	0.16 U	0.16 U	0.53 U	0.16 U
CHLOROMETHANE	2 U	0.44 U	**0.67 J**	1.8 U	0.3 U	0.3 U	1 U	0.3 U
CIS-1,2-DICHLOROETHENE	**34**	0.26 U	0.17 U	1 U	0.17 U	**1.8**	**0.98 J**	**0.84 J**
ETHYLBENZENE	1.1 U	0.25 U	0.17 U	1 U	**0.19 J**	0.17 U	**21**	0.17 U
M+P-XYLENES	1.6 U	0.24 U	0.24 U	0.96 U	0.24 U	0.24 U	**2.9 J**	0.24 U
METHYL TERT-BUTYL ETHER	1.1 U	0.2 U	0.17 U	0.8 U	0.17 U	0.17 U	0.57 U	0.17 U
METHYLENE CHLORIDE	2.2 U	0.33 U	0.33 U	1.3 U	0.33 U	0.33 U	1.2 B	0.33 U
NAPHTHALENE	1.6 U	0.45 U	0.24 U	1.8 U	1.2 B	2.7 B	**110**	0.24 U
O-XYLENE	0.93 U	0.25 U	0.14 U	1 U	0.14 U	0.14 U	**1.8 J**	0.14 U
STYRENE	0.73 U	0.45 U	0.11 U	1.8 U	0.11 U	0.11 U	**1.8 J**	0.11 U
TERT-AMYL METHYL ETHER	NA	0.3 UJ	NA	1.2 UJ	NA	0.067 U	0.22 U	0.067 U
TERTIARY-BUTYL ALCOHOL	26 UR	4.9 U	3.9 UR	20 U	3.9 UR	3.9 UR	13 UR	3.9 UR
TOLUENE	**0.93 J**	0.23 U	0.13 U	0.92 U	**0.99 J**	0.13 U	**1.9 J**	0.13 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS HALFND	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	1.9 U	0.52 U	0.28 U	2.1 U	0.28 U	0.28 U	**4.7 J**	0.28 U
TOTAL XYLENES DETECTED	NA	0 U	NA	0 U	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	1.3 U	0.3 U	0.19 U	1.2 U	0.19 U	0.19 U	0.63 U	0.19 U
TRICHLOROETHENE	**170**	0.22 U	0.17 U	0.88 U	0.17 U	**7.1**	0.57 U	**2.7**
TRICHLOROFLUOROMETHANE	1.4 U	0.49 U	0.21 U	2 U	0.21 U	**1.8**	0.7 U	0.21 U
VINYL CHLORIDE	**4.7 J**	0.29 U	0.22 U	1.2 U	0.22 U	**1.2**	**1.5 J**	0.22 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-18	GSP-MW-19		GSP-MW-20		GSP-SB-072	GSP-SB-080	GSP-SB-083
SAMPLE ID	GSP-MW18-101012	GSP-MW-19-031616	GSP-MW19-101112	GSP-MW-20-031616	GSP-MW20-101112	GSP-SB-72-W	GSP-SB-80-W	GSP-SB/WP-83-20100528
SAMPLE DATE	20121010	20160316	20121011	20160316	20121011	20100512	20100512	20100528
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	13	15	15	6	6	15	10	6
BOTTOM DEPTH	28	30	30	16	16	15	10	6
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)								
1-BUTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-18	GSP-MW-19		GSP-MW-20		GSP-SB-072	GSP-SB-080	GSP-SB-083
SAMPLE ID	GSP-MW18-101012	GSP-MW-19-031616	GSP-MW19-101112	GSP-MW-20-031616	GSP-MW20-101112	GSP-SB-72-W	GSP-SB-80-W	GSP-SB/WP-83-20100528
SAMPLE DATE	20121010	20160316	20121011	20160316	20121011	20100512	20100512	20100528
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	13	15	15	6	6	15	10	6
BOTTOM DEPTH	28	30	30	16	16	15	10	6
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)								
2,4-DIMETHYLPHENOL	0.77 U	0.25 U	1.1 U	0.25 U	0.8 U	0.8 U	**6.7**	0.8 U
2,4-DINITROTOLUENE	0.26 U	0.25 U	0.36 U	0.25 U	**0.85 J**	0.27 U	0.54 U	0.27 U
2,6-DINITROTOLUENE	0.77 U	0.8 U	1.1 U	0.8 U	**0.93 J**	0.8 U	1.6 U	0.8 U
2-METHYLNAPHTHALENE	0.096 U	0.09 U	0.13 U	**0.13 J**	0.1 U	**0.22**	**3.4**	0.1 U
2-METHYLPHENOL	0.77 U	0.17 U	1.1 U	0.17 U	0.8 U	0.8 U	**4.2**	0.8 U
2-NITROPHENOL	0.27 U	0.28 U	0.37 U	0.28 U	0.28 U	0.28 U	0.56 U	0.28 U
4-METHYLPHENOL	NA	NA	NA	NA	NA	0.8 U	1.6 U	**8.4**
ACENAPHTHENE	0.096 U	0.044 U	0.13 U	0.044 U	0.1 U	0.1 U	**13**	0.1 U
ACETOPHENONE	0.33 U	0.34 U	0.45 U	0.34 U	0.34 U	0.34 U	**1.1 J**	0.34 U
ANTHRACENE	0.096 U	0.088 U	0.13 U	0.088 U	0.1 U	0.1 U	**1**	0.1 U
BIS(2-ETHYLHEXYL)PHTHALATE	0.77 U	1.7 U	**10**	1.7 U	0.8 U	**1.3 J**	**1.9 J**	0.8 U
BUTYL BENZYL PHTHALATE	0.77 U	0.26 U	1.1 U	0.26 U	0.8 U	0.8 U	1.6 U	**0.9 J**
CAPROLACTAM	**4 J**	0.2 U	**1.1 J**	0.2 U	0.8 U	0.8 U	1.6 U	0.8 U
CARBAZOLE	0.27 U	0.28 U	0.37 U	0.28 U	0.28 U	0.28 U	**16**	0.28 U
DIBENZOFURAN	0.096 U	0.02 U	0.13 U	0.02 U	0.1 U	0.1 U	**5.9**	0.1 U
DIETHYL PHTHALATE	0.58 U	0.6 U	0.79 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U
DI-N-BUTYL PHTHALATE	0.64 U	1.7 U	0.88 U	1.7 U	0.67 U	0.67 U	1.3 U	0.67 U
FLUORANTHENE	0.096 U	0.045 U	0.13 U	0.045 U	0.1 U	0.1 U	0.2 U	0.1 U
FLUORENE	0.096 U	0.041 U	0.13 U	0.041 U	0.1 U	0.1 U	**9.5**	0.1 U
HIGH MOLECULAR WEIGHT PAHS	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	**0.432**	**0.1955**	**0.585**	**0.1955**	**0.45**	**0.45**	**0.9**	**0.45**
ISOPHORONE	0.26 U	0.27 U	0.36 U	0.27 U	0.27 U	0.27 U	0.54 U	0.27 U
LOW MOLECULAR WEIGHT PAHS	**3.3**	0 U	0 U	**0.38**	**0.4**	**3.32**	**101.8**	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	NA	NA	NA	NA	NA	**3.57**	**101.9**	0.35 U
LOW MOLECULAR WEIGHT PAHS-HALFND	**3.636**	**0.2405**	**0.52**	**0.544**	**0.75**	**3.62**	**102**	**0.4**
NAPHTHALENE	**3.3**	0.063 U	0.13 U	**0.25**	**0.4**	**3.1**	**70**	0.1 U
N-NITROSODIMETHYLAMINE	0.3 U	0.31 U	0.41 U	0.31 U	0.31 U	0.31 U	0.62 U	0.31 U
PHENANTHRENE	0.096 U	0.062 U	0.13 U	0.062 U	0.1 U	0.1 U	**4.9**	0.1 U
PHENOL	0.58 U	0.6 U	0.79 U	0.6 U	0.6 U	0.6 U	**1.3 J**	**1.7**
PYRENE	0.096 U	0.042 U	0.13 U	0.042 U	0.1 U	0.1 U	0.2 U	0.1 U
TOTAL PAHS	NA	NA	NA	NA	NA	**3.32**	**101.8**	0 U
TOTAL PAHS ECO HALFND	NA	NA	NA	NA	NA	**4.07**	**102.9**	0.85 U
TOTAL PAHS HALFND	NA	NA	NA	NA	NA	**4.07**	**102.9**	0.85 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
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LOCATION	GSP-MW-18	GSP-MW-19		GSP-MW-20		GSP-SB-072	GSP-SB-080	GSP-SB-083
SAMPLE ID	GSP-MW18-101012	GSP-MW-19-031616	GSP-MW19-101112	GSP-MW-20-031616	GSP-MW20-101112	GSP-SB-72-W	GSP-SB-80-W	GSP-SB/WP-83-20100528
SAMPLE DATE	20121010	20160316	20121011	20160316	20121011	20100512	20100512	20100528
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	13	15	15	6	6	15	10	6
BOTTOM DEPTH	28	30	30	16	16	15	10	6
PCBS (UG/L)								
TOTAL AROCLOR HALFND	NA	**0.195**	NA	**0.1865**	NA	**0.555**	**0.555**	**0.555**
DISSOLVED METALS (UG/L)								
ANTIMONY	**0.14 J**	2.4 U	**0.22 J**	2.4 U	**0.32 J**	0.069 B	0.16 B	0.13 B
ARSENIC	0.4 UL	2.9 U	**0.48 J**	**9.2 J**	**4.2 J**	**9.3**	**87.4**	**4.9 J**
BARIUM	**210**	83 U	**130**	96 U	**170**	**36.9**	**82.8**	**42.9**
BERYLLIUM	**1**	**1.7 J**	**0.25 J**	0.13 U	0.2 U	**0.38 J**	**0.24 J**	**1.1 J**
CADMIUM	**1.8**	**0.43 J**	0.58 B	0.14 U	0.13 U	0.16 B	0.14 B	0.05 B
CHROMIUM	0.71 UL	**1.4 J**	0.71 UL	**13**	**3.4 L**	**1.4 J**	**0.63 J**	**5.8**
COBALT	**80**	**140**	**71**	**9.6 J**	**7**	**28.8**	**23.8**	**50.1**
COPPER	**18 K**	**17 J**	3.3 B	1.9 U	0.81 B	2.9 B	1.6 B	0.63 B
IRON	NA	NA	NA	NA	NA	**10400**	**18000**	**19800**
LEAD	0.18 U	1.9 U	**0.61 J**	1.9 U	0.18 U	0.019 U	0.029 B	0.078 B
MANGANESE	NA	NA	NA	NA	NA	**779**	**579**	**193**
MERCURY	**0.12 J**	0.09 U	**0.12 J**	0.09 U	0.12 U	0.1 U	0.1 U	0.1 U
MOLYBDENUM	0.093 U	0.53 U	0.093 UL	0.53 U	**2.4 J**	**0.41 J**	**2.9**	0.27 U
NICKEL	**60**	**280**	**120**	**5.4 J**	**6.5**	**57.2**	**29**	**71.8**
SELENIUM	**1.4 J**	4 U	0.57 U	4 U	**1.4 J**	**1.3 J**	**1.5 J**	0.87 B
THALLIUM	0.31 B	1.7 U	0.38 B	1.7 U	0.14 U	0.17 B	0.33 B	0.13 U
VANADIUM	0.44 UL	2.4 U	0.44 UL	**14**	**2.1 J**	0.43 UL	**0.59 J**	**1.3 J**
ZINC	**92**	**1800**	**1400**	17 U	17 B	26.4 B	23.9 B	**121**
METALS (UG/L)								
ANTIMONY	**0.18 J**	2.4 U	**0.17 J**	2.4 U	**0.36 J**	0.32 B	0.24 B	0.12 B
ARSENIC	**0.55 J**	2.9 U	**0.52 J**	**11 J**	**4.8 J**	**13.5**	**92.3**	**5.3**
BARIUM	**200**	81 U	**170**	93 U	**180**	**45.8**	**89**	**42.3**
BERYLLIUM	**1.1**	**1.5 J**	**0.34 J**	0.13 U	0.2 U	**0.77 J**	**0.23 J**	**0.75 J**
CADMIUM	**1.7**	**0.47 J**	**0.87 J**	0.14 U	0.13 U	0.14 B	0.097 B	0.029 B
CHROMIUM	0.71 UL	**1.2 J**	**0.87 J**	**15**	**3.6 L**	**37.6**	**6.6**	**5.9**
COBALT	**77**	**140**	**100**	**14**	**6.7**	**29.6**	**21.1**	**48.4**
COPPER	**18 K**	**17 J**	**4 K**	1.9 U	1.3 B	**18.6**	**7.3**	0.65 B
IRON	NA	NA	NA	NA	NA	**13900**	**18800**	**20800**
LEAD	**0.22 J**	1.9 U	**0.92 J**	1.9 U	**0.37 J**	**2.3**	0.82 B	0.073 B
MANGANESE	NA	NA	NA	NA	NA	**758**	**560**	**215**
MERCURY	**0.12 J**	0.09 U	**0.12 J**	0.09 U	0.16 B	0.1 U	0.1 U	0.1 U
MOLYBDENUM	0.093 U	0.53 U	0.093 UL	0.53 U	**2.4 J**	**3.5**	**3.4**	0.27 U
NICKEL	**57**	**270**	**180**	**7.8 J**	**5.7**	**52.2**	**27.5**	**68.7**
SELENIUM	**1.5 J**	4 U	0.57 U	4 U	**1.4 J**	**2.6 J**	**1.5 J**	0.9 B
SILVER	0.08 U	0.92 U	0.08 U	0.92 U	0.08 U	0.015 U	0.015 U	0.015 U
THALLIUM	0.18 B	1.7 U	0.42 B	**2.2 J**	0.14 U	0.23 B	0.31 B	0.13 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-MW-18	GSP-MW-19		GSP-MW-20		GSP-SB-072	GSP-SB-080	GSP-SB-083
SAMPLE ID	GSP-MW18-101012	GSP-MW-19-031616	GSP-MW19-101112	GSP-MW-20-031616	GSP-MW20-101112	GSP-SB-72-W	GSP-SB-80-W	GSP-SB/WP-83-20100528
SAMPLE DATE	20121010	20160316	20121011	20160316	20121011	20100512	20100512	20100528
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	13	15	15	6	6	15	10	6
BOTTOM DEPTH	28	30	30	16	16	15	10	6
VANADIUM	0.44 UL	2.4 U	0.44 UL	**17**	**2 J**	**22.8**	**4.3 J**	**1.2 J**
ZINC	**89**	**1800**	**2100**	19 U	15 B	**35.9**	22.2 B	**112**
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA
FILTERED MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	NA	0.051 UJ	NA	1.3 U	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	**220**	**2800**	**200**
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	38 B	120 B	30 B
TPH (C06-C10)	120 B	**32 J**	48 B	**27 J**	31 B	NA	NA	NA
TPH (C10-C32)	**390 J**	**280 J**	250 U	**3000**	**840**	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-83	GSP-SB-084		GSP-SB-089	
SAMPLE ID	GSP-SB-WP-83-062211	GSP-SB/WP-84-20100526	GSP-SB-WP-84-062311	GSP-SB/WP-89-20100528	GSP-SB-WP-89-062311
SAMPLE DATE	20110622	20100526	20110623	20100528	20110623
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA
TOP DEPTH	6	11	11	12	12
BOTTOM DEPTH	6	11	11	12	12
VOLATILES (UG/L)					
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	**1.3**	**0.99 J**
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2-BUTANONE	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
2-HEXANONE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
ACETAMIDE, 2-CHLORO-	NA	NA	NA	NA	NA
ACETONE	1.6 B	9.9 B	1.1 U	1.1 U	1.1 U
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
BROMOMETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
CARBON DISULFIDE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
CHLOROFORM	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
CHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CIS-1,2-DICHLOROETHENE	0.17 U	**0.32 J**	**0.33 J**	**4.5**	**4.1**
ETHYLBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
O-XYLENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
STYRENE	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
TERTIARY-BUTYL ALCOHOL	3.9 UR	3.9 UR	3.9 UR	3.9 UR	3.9 UR
TOLUENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
TOTAL CHLORINATED VOCS	NA	NA	NA	NA	NA
TOTAL CHLORINATED VOCS HALFND	NA	NA	NA	NA	NA
TOTAL XYLENES	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
TOTAL XYLENES DETECTED	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	**0.22 J**	**0.19 J**
TRICHLOROETHENE	**1.3**	**3.8**	**5**	**25**	**25**
TRICHLOROFLUOROMETHANE	0.21 U	0.21 U	0.21 UJ	0.21 U	0.21 UJ
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	**0.28 J**	0.22 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-83	GSP-SB-084		GSP-SB-089	
SAMPLE ID	GSP-SB-WP-83-062211	GSP-SB/WP-84-20100526	GSP-SB-WP-84-062311	GSP-SB/WP-89-20100528	GSP-SB-WP-89-062311
SAMPLE DATE	20110622	20100526	20110623	20100528	20110623
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA
TOP DEPTH	6	11	11	12	12
BOTTOM DEPTH	6	11	11	12	12
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)					
1-BUTENE	NA	NA	NA	NA	NA
1-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA
1-BUTENE, 3-METHYL-	NA	NA	NA	NA	NA
1-HEPTENE	NA	NA	NA	NA	NA
1-HEXANOL, 2-ETHYL-	NA	NA	NA	NA	NA
1-HEXENE	NA	NA	NA	NA	NA
1-PENTENE	NA	NA	NA	NA	NA
1-PENTENE, 2-METHYL-	NA	NA	NA	NA	NA
1-PROPENE, 2-METHYL-	NA	NA	NA	NA	NA
2-BUTENE, 2-METHYL-	NA	NA	NA	NA	NA
2-HEXENE	NA	NA	NA	NA	NA
2-METHYL-2-OCTENE	NA	NA	NA	NA	NA
2-PENTENE	NA	NA	NA	NA	NA
2-PENTENE, (Z)-	NA	NA	NA	NA	NA
3-HEXANONE, 2,4-DIMETHYL-	NA	NA	NA	NA	NA
ACETALDEHYDE	NA	NA	NA	NA	NA
BENZYL ALCOHOL, .ALPHA.-(1-AMINOETHYL)-M	NA	NA	NA	NA	NA
BUTANE	NA	NA	NA	NA	NA
BUTANE, 2,2,3,3-TETRAMETHYL-	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA
CYCLOPENTENE	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, CIS-	NA	NA	NA	NA	NA
CYCLOPROPANE, 1,2-DIMETHYL-, TRANS-	NA	NA	NA	NA	NA
CYCLOPROPANE, 1-ETHYL-1-METHYL-	NA	NA	NA	NA	NA
CYCLOPROPANE, ETHYL-	NA	NA	NA	NA	NA
DECANE, 5-METHYL-	NA	NA	NA	NA	NA
ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	NA	NA	NA	NA	NA
ETHENE, 1,2-DIBROMO-	NA	NA	NA	NA	NA
ETHENE, BROMO-	NA	NA	NA	NA	NA
ETHENE, TRIBROMO-	NA	NA	NA	NA	NA
ISOBUTANE	NA	NA	NA	NA	NA
N-BUTANOL	NA	NA	NA	NA	NA
N-TERT-BUTOXYCARBONYLIMIDAZOLE	NA	NA	NA	NA	NA
PENTANE	NA	NA	NA	NA	NA
PROPENE	NA	NA	NA	NA	NA

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-83	GSP-SB-084		GSP-SB-089	
SAMPLE ID	GSP-SB-WP-83-062211	GSP-SB/WP-84-20100526	GSP-SB-WP-84-062311	GSP-SB/WP-89-20100528	GSP-SB-WP-89-062311
SAMPLE DATE	20110622	20100526	20110623	20100528	20110623
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA
TOP DEPTH	6	11	11	12	12
BOTTOM DEPTH	6	11	11	12	12
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	1.3 R	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)					
2,4-DIMETHYLPHENOL	0.77 U	0.8 U	0.77 U	0.8 U	0.76 U
2,4-DINITROTOLUENE	0.26 U	0.27 U	0.26 U	0.27 U	0.26 U
2,6-DINITROTOLUENE	0.77 U	0.8 U	0.77 U	0.8 U	0.76 U
2-METHYLNAPHTHALENE	0.096 U	0.1 U	0.096 U	0.1 U	0.095 U
2-METHYLPHENOL	0.77 U	0.8 U	0.77 U	0.8 U	0.76 U
2-NITROPHENOL	0.27 U	0.28 U	0.27 U	0.28 U	0.27 U
4-METHYLPHENOL	NA	0.8 U	NA	0.8 U	NA
ACENAPHTHENE	0.096 U	0.1 U	0.096 U	0.1 U	0.095 U
ACETOPHENONE	0.33 U	0.34 U	0.33 U	0.34 U	0.32 U
ANTHRACENE	0.096 U	0.1 U	0.096 U	0.1 U	0.095 U
BIS(2-ETHYLHEXYL)PHTHALATE	0.77 U	**1.3 J**	0.77 U	0.8 U	0.76 U
BUTYL BENZYL PHTHALATE	0.77 U	**0.82 J**	0.77 U	0.8 U	0.76 U
CAPROLACTAM	0.77 U	0.8 U	0.77 U	0.8 U	0.76 U
CARBAZOLE	0.27 U	0.28 U	0.27 U	0.28 U	0.27 U
DIBENZOFURAN	0.096 U	0.1 U	0.096 U	0.1 U	0.095 U
DIETHYL PHTHALATE	0.58 U	0.6 U	0.58 U	0.6 U	0.57 U
DI-N-BUTYL PHTHALATE	0.64 U	0.67 U	0.64 U	0.67 U	0.64 U
FLUORANTHENE	0.096 U	0.1 U	0.096 U	0.1 U	0.095 U
FLUORENE	0.096 U	0.1 U	0.096 U	0.1 U	0.095 U
HIGH MOLECULAR WEIGHT PAHS	0 U	0 U	0 U	0 U	0 U
HIGH MOLECULAR WEIGHT PAHS-HALFND	**0.432**	**0.45**	**0.432**	**0.45**	**0.4275**
ISOPHORONE	0.26 U	0.27 U	0.26 U	0.27 U	0.26 U
LOW MOLECULAR WEIGHT PAHS	0 U	0 U	0 U	0 U	0 U
LOW MOLECULAR WEIGHT PAHS ECOSD	0.336 U	0.35 U	0.336 U	0.35 U	0.3325 U
LOW MOLECULAR WEIGHT PAHS-HALFND	**0.384**	**0.4**	**0.384**	**0.4**	**0.38**
NAPHTHALENE	0.096 U	0.1 U	0.096 U	0.1 U	0.095 U
N-NITROSODIMETHYLAMINE	0.3 U	0.31 U	0.3 U	0.31 U	0.3 U
PHENANTHRENE	0.096 U	0.1 U	0.096 U	0.1 U	0.095 U
PHENOL	0.58 U	**0.69 J**	0.58 U	**1.2**	0.57 U
PYRENE	0.096 U	0.1 U	0.096 U	0.1 U	0.095 U
TOTAL PAHS	0 U	0 U	0 U	0 U	0 U
TOTAL PAHS ECO HALFND	0.816 U	0.85 U	0.816 U	0.85 U	0.8075 U
TOTAL PAHS HALFND	0.816 U	0.85 U	0.816 U	0.85 U	0.8075 U

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-83	GSP-SB-084		GSP-SB-089	
SAMPLE ID	GSP-SB-WP-83-062211	GSP-SB/WP-84-20100526	GSP-SB-WP-84-062311	GSP-SB/WP-89-20100528	GSP-SB-WP-89-062311
SAMPLE DATE	20110622	20100526	20110623	20100528	20110623
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA
TOP DEPTH	6	11	11	12	12
BOTTOM DEPTH	6	11	11	12	12
PCBS (UG/L)					
TOTAL AROCLOR HALFND	NA	**0.555**	NA	**0.555**	NA
DISSOLVED METALS (UG/L)					
ANTIMONY	0.31 B	0.42 B	0.073 U	0.55 B	0.073 U
ARSENIC	**9.4 J**	**7.2**	**6.9**	**0.79 J**	**4.3 J**
BARIUM	**44**	**62.3**	**76**	**49**	**48**
BERYLLIUM	0.092 U	**1.1 J**	**0.64 J**	**0.98 J**	**0.61 J**
CADMIUM	0.046 U	**1**	**1.1**	0.096 B	**0.074 J**
CHROMIUM	**2.5**	**2.1**	**1.4 J**	**2.4**	**2**
COBALT	**4**	**191**	**220**	**41.3**	**38**
COPPER	**2**	3.3 B	**2.4**	0.42 B	**0.83 J**
IRON	NA	**6610**	NA	**5680**	NA
LEAD	0.19 B	**2.2 J**	**2.6**	0.16 B	0.27 B
MANGANESE	NA	**27.5**	NA	**111**	NA
MERCURY	0.066 U	0.1 U	0.066 U	0.1 U	0.066 U
MOLYBDENUM	0.83 B	0.46 B	0.42 U	0.64 B	0.42 U
NICKEL	**1.7 J**	**344**	**410**	**53.9**	**48**
SELENIUM	**0.71 J**	0.38 B	0.32 U	0.15 B	**0.96 J**
THALLIUM	0.26 B	1 B	**1.1 J**	0.31 B	0.34 B
VANADIUM	**1.3 J**	**11.7 J**	**13 J**	**0.45 J**	**0.51 J**
ZINC	6.1 B	**1270**	**1600 J**	**122**	**100 J**
METALS (UG/L)					
ANTIMONY	0.31 B	0.38 B	0.073 U	0.19 B	0.073 U
ARSENIC	**11 J**	**8.5**	**6.4**	**2.7 J**	**4.8 J**
BARIUM	**46**	**80.6**	**74**	**49.4**	**49**
BERYLLIUM	0.092 U	**0.51 J**	**0.64 J**	**0.77 J**	**0.6 J**
CADMIUM	0.046 U	**0.96 J**	**1**	0.058 B	**0.1 J**
CHROMIUM	**4.2**	**7.5**	**2.2**	**5.8**	**3.6**
COBALT	**4.5**	**194**	**210**	**34**	**38**
COPPER	**5.2**	5.6 B	**3**	3.7 B	**1.8 J**
IRON	NA	**7470**	NA	**8690**	NA
LEAD	0.56 B	**5 J**	**3.1**	**1.1 J**	0.75 B
MANGANESE	NA	**29.8**	NA	**120**	NA
MERCURY	0.066 U	0.1 U	**0.073 J**	0.1 U	0.066 U
MOLYBDENUM	0.64 B	0.76 B	0.42 U	0.43 B	0.42 U
NICKEL	**3.4**	**352**	**380**	**44.4**	**47**
SELENIUM	**0.73 J**	0.48 B	**0.36 J**	0.34 B	**1.2 J**
SILVER	0.014 U	0.015 U	0.014 U	0.016 B	0.014 U
THALLIUM	0.21 B	1.1 B	**1.1 J**	0.15 B	0.36 B

Table D-2
Groundwater Chemical Detection Summary Table
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

LOCATION	GSP-SB-83	GSP-SB-084		GSP-SB-089	
SAMPLE ID	GSP-SB-WP-83-062211	GSP-SB/WP-84-20100526	GSP-SB-WP-84-062311	GSP-SB/WP-89-20100528	GSP-SB-WP-89-062311
SAMPLE DATE	20110622	20100526	20110623	20100528	20110623
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW11	GW11	GW11	GW11	GW11
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA
TOP DEPTH	6	11	11	12	12
BOTTOM DEPTH	6	11	11	12	12
VANADIUM	**3.6 J**	**21.1**	**14 J**	**9.3 J**	**4.2 J**
ZINC	**6 J**	**1300**	**1500 J**	98.1 B	**100 J**
MISCELLANEOUS PARAMETERS (UG/L)					
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
PERCHLORATE	0.36 U	NA	0.36 U	NA	0.36 U
FILTERED MISCELLANEOUS (UG/L)					
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)					
DIESEL RANGE ORGANICS	260 B	**55 J**	450 B	**42 J**	740 B
GASOLINE RANGE ORGANICS	37 B	25 U	38 B	50 B	53 B
TPH (C06-C10)	NA	NA	NA	NA	NA
TPH (C10-C32)	NA	NA	NA	NA	NA

ATC - Maryland Anticipated Typical Concentration for Eastern Maryland Soils.
B - Laboratory blank contamination.
L - Positive result is considered biased low as a result of technical noncompliance.
K - Positive result is considered biased high as a result of technical noncompliance.
J - Positive result is considered estimated as a result of technical noncompliance.
mg/L – milligrams per liter
ug/L – micrograms per liter
NA-Not Applicable/Analyzed
U – Nondetected
Positive Results bolded
Black shaded values exceed groundwater criteria.

APPENDIX E—CALCULATIONS

LMC GSP AAM AND FS
HIGH CONCENTRATION AREAS - AREAS AND VOLUMES
6/19/2017

HCA	Sketch	L, feet	W, feet	Area, ft2	Thickness, feet	Saturated Volume, ft3	Depth to top, feet bgs	Depth to water, feet bgs	Notes
REC 8/9 TCE	2	175	110	19,250	20	385,000	10	2 to 3	use 10' bgs to 30' bgs interval, ~100 ug/L

Used Measure tool on pdf to measure distances.
In general, 5 to 10 feet were added to the depth interval beyond the sampled interval, unless other data was available.

LMC GSP FS
HIGH CONCENTRATION AREAS - ESTIMATED NUMBER OF BORINGS
6/19/2017

From the Areas/Volumes sheet, bring forward the HCAs for ISCO treatment:

Injection spacing: 10 feet
area per injection 78.5 square feet

Treatment Area	Area, ft2	number of borings
REC 8/9 TCE	19,250	245

LMC
GSP FS
TCE CONTAMINANT MASS CALCULATIONS
6/19/2017

							Aqueous						TCE, sorbed						cis-1,2-DCE, sorbed						VC, sorbed					
Top, ft bgs	Bottom, ft bgs	Location	Area, ft2	Vol, in place, ft3	n	Vol, water, gal	TCE, ug/L	TCE, lb	cis-1,2-DCE, ug/L	cis-1,2-DCE, lb	VC, ug/L	VC, lb	Koc, L/kg	Kd, L/kg	Cs, ug/kg	Soil mass, lb	lb sorbed	**TCE Aq + sorbed**	Koc, L/kg	Kd, L/kg	Cs, ug/kg	Soil mass, lb	lb sorbed	**cDCE Aq + sorbed**	Koc, L/kg	Kd, L/kg	Cs, ug/kg	Soil mass, lb	lb sorbed	**VC Aq + sorbed**
10	30	REC 8/9 TCE	19,250	385,000	0.3	864,000	558	4.0	1	0.0	1	0.01	107	0.535	299	42,350,000	12.6	16.7	45	0.23	0.225	42,350,000	0.0	0.0	17	0.085	0.085	42,350,000	0.00	0.01
				0		0		0.0		0.0		0.00	107	0.535	0	0	0.0	0.0	45	0.23	0	0	0.0	0.0	17	0.085	0	0	0.00	0.00
				0		0		0.0		0.0		0.00		0	0	0	0.0			0	0	0	0.0			0	0	0	0.00	
				0		0		0.0		0.0		0.00		0	0	0	0.0			0	0	0	0.0			0	0	0	0.00	
				0		0		0.0		0.0		0.00		0	0	0	0.0			0	0	0	0.0			0	0	0	0.00	
				0		0		0.0		0.0		0.00		0	0	0	0.0			0	0	0	0.0			0	0	0	0.00	
				0		0		0.0		0.0		0.00		0	0	0	0.0			0	0	0	0.0			0	0	0	0.00	
				0		0		0.0		0.0		0.00		0	0	0	0.0			0	0	0	0.0			0	0	0	0.00	
Total						864,000		4.0		0.0		0.0					12.6	16.7					0.0	0.0					0.0	0.0

Shaded values are entered.
n = 0.3

foc	0.005	Typical value.
bulk density, lb/ft3	110	

Koc x foc = Kd
Kd = Cs/Cw
Kd * Cw = Cs

Assume 90% removal of TCE: 15 lb removed.

LMC
GSP FS
CONTAMINANT MASS CALCULATIONS - DATA
6/19/2017

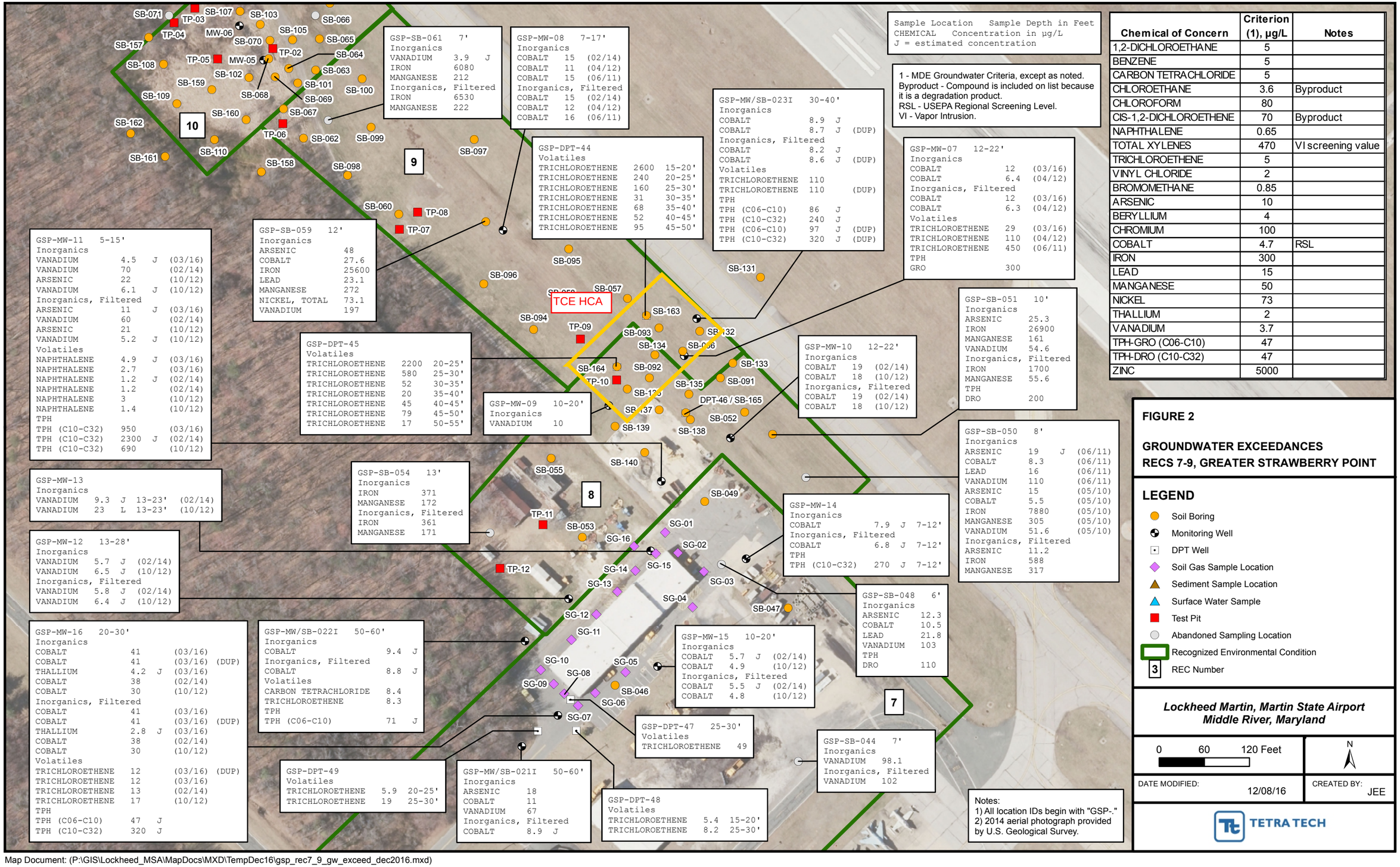
TCE, cDCE, VC, and TPH results from samples within the treatment area were copied from data table, as needed. Average concentrations were then calculated.

REC 8/9 TCE

0.17	3.2	2200	580	From data table, ug/L
2600	240	160		
110	110	110	29	

Average TCE, ug/L:
558

cDCE and VC concentrations are very low, typically below detection limits. Use 1 ug/L for those.



Sample Location Sample Depth in Feet
CHEMICAL Concentration in µg/L
J = estimated concentration

1 - MDE Groundwater Criteria, except as noted.
Byproduct - Compound is included on list because it is a degradation product.
RSL - USEPA Regional Screening Level.
VI - Vapor Intrusion.

Chemical of Concern	Criterion (1), µg/L	Notes
1,2-DICHLOROETHANE	5	
BENZENE	5	
CARBON TETRACHLORIDE	5	
CHLOROETHANE	3.6	Byproduct
CHLOROFORM	80	
CIS-1,2-DICHLOROETHENE	70	Byproduct
NAPHTHALENE	0.65	
TOTAL XYLENES	470	VI screening value
TRICHLOROETHENE	5	
VINYL CHLORIDE	2	
BROMOMETHANE	0.85	
ARSENIC	10	
BERYLLIUM	4	
CHROMIUM	100	
COBALT	4.7	RSL
IRON	300	
LEAD	15	
MANGANESE	50	
NICKEL	73	
THALLIUM	2	
VANADIUM	3.7	
TPH-GRO (C06-C10)	47	
TPH-DRO (C10-C32)	47	
ZINC	5000	

GSP-SB-061 7'
Inorganics
VANADIUM 3.9 J
IRON 6080
MANGANESE 212
Inorganics, Filtered
IRON 6530
MANGANESE 222

GSP-MW-08 7-17'
Inorganics
COBALT 15 (02/14)
COBALT 11 (04/12)
COBALT 15 (06/11)
Inorganics, Filtered
COBALT 15 (02/14)
COBALT 12 (04/12)
COBALT 16 (06/11)

GSP-DPT-44
Volatiles
TRICHLOROETHENE 2600 15-20'
TRICHLOROETHENE 240 20-25'
TRICHLOROETHENE 160 25-30'
TRICHLOROETHENE 31 30-35'
TRICHLOROETHENE 68 35-40'
TRICHLOROETHENE 52 40-45'
TRICHLOROETHENE 95 45-50'

GSP-MW/SB-023I 30-40'
Inorganics
COBALT 8.9 J
COBALT 8.7 J (DUP)
Inorganics, Filtered
COBALT 8.2 J
COBALT 8.6 J (DUP)
Volatiles
TRICHLOROETHENE 110
TRICHLOROETHENE 110 (DUP)
TPH
TPH (C06-C10) 86 J
TPH (C10-C32) 240 J
TPH (C06-C10) 97 J (DUP)
TPH (C10-C32) 320 J (DUP)

GSP-MW-07 12-22'
Inorganics
COBALT 12 (03/16)
COBALT 6.4 (04/12)
Inorganics, Filtered
COBALT 12 (03/16)
COBALT 6.3 (04/12)
Volatiles
TRICHLOROETHENE 29 (03/16)
TRICHLOROETHENE 110 (04/12)
TRICHLOROETHENE 450 (06/11)
TPH
GRO 300

GSP-MW-11 5-15'
Inorganics
VANADIUM 4.5 J (03/16)
VANADIUM 70 (02/14)
ARSENIC 22 (10/12)
VANADIUM 6.1 J (10/12)
Inorganics, Filtered
ARSENIC 11 J (03/16)
VANADIUM 60 (02/14)
ARSENIC 21 (10/12)
VANADIUM 5.2 J (10/12)
Volatiles
NAPHTHALENE 4.9 J (03/16)
NAPHTHALENE 2.7 (03/16)
NAPHTHALENE 1.2 J (02/14)
NAPHTHALENE 1.2 (02/14)
NAPHTHALENE 3 (10/12)
NAPHTHALENE 1.4 (10/12)
TPH
TPH (C10-C32) 950 (03/16)
TPH (C10-C32) 2300 J (02/14)
TPH (C10-C32) 690 (10/12)

GSP-SB-059 12'
Inorganics
ARSENIC 48
COBALT 27.6
IRON 25600
LEAD 23.1
MANGANESE 272
NICKEL, TOTAL 73.1
VANADIUM 197

GSP-SB-051 10'
Inorganics
ARSENIC 25.3
IRON 26900
MANGANESE 161
VANADIUM 54.6
Inorganics, Filtered
IRON 1700
MANGANESE 55.6
TPH
DRO 200

GSP-DPT-45
Volatiles
TRICHLOROETHENE 2200 20-25'
TRICHLOROETHENE 580 25-30'
TRICHLOROETHENE 52 30-35'
TRICHLOROETHENE 20 35-40'
TRICHLOROETHENE 45 40-45'
TRICHLOROETHENE 79 45-50'
TRICHLOROETHENE 17 50-55'

GSP-MW-09 10-20'
Inorganics
VANADIUM 10

GSP-MW-10 12-22'
Inorganics
COBALT 19 (02/14)
COBALT 18 (10/12)
Inorganics, Filtered
COBALT 19 (02/14)
COBALT 18 (10/12)

GSP-SB-050 8'
Inorganics
ARSENIC 19 J (06/11)
COBALT 8.3 (06/11)
LEAD 16 (06/11)
VANADIUM 110 (06/11)
ARSENIC 15 (05/10)
COBALT 5.5 (05/10)
IRON 7880 (05/10)
MANGANESE 305 (05/10)
VANADIUM 51.6 (05/10)
Inorganics, Filtered
ARSENIC 11.2
IRON 588
MANGANESE 317

GSP-SB-054 13'
Inorganics
IRON 371
MANGANESE 172
Inorganics, Filtered
IRON 361
MANGANESE 171

GSP-MW-14
Inorganics
COBALT 7.9 J 7-12'
Inorganics, Filtered
COBALT 6.8 J 7-12'
TPH
TPH (C10-C32) 270 J 7-12'

GSP-MW-13
Inorganics
VANADIUM 9.3 J 13-23' (02/14)
VANADIUM 23 L 13-23' (10/12)

GSP-MW-12 13-28'
Inorganics
VANADIUM 5.7 J (02/14)
VANADIUM 6.5 J (10/12)
Inorganics, Filtered
VANADIUM 5.8 J (02/14)
VANADIUM 6.4 J (10/12)

GSP-SB-048 6'
Inorganics
ARSENIC 12.3
COBALT 10.5
LEAD 21.8
VANADIUM 103
TPH
DRO 110

GSP-MW-16 20-30'
Inorganics
COBALT 41 (03/16)
COBALT 41 (03/16) (DUP)
THALLIUM 4.2 J (03/16)
COBALT 38 (02/14)
COBALT 30 (10/12)
Inorganics, Filtered
COBALT 41 (03/16)
COBALT 41 (03/16) (DUP)
THALLIUM 2.8 J (03/16)
COBALT 38 (02/14)
COBALT 30 (10/12)
Volatiles
TRICHLOROETHENE 12 (03/16) (DUP)
TRICHLOROETHENE 12 (03/16)
TRICHLOROETHENE 13 (02/14)
TRICHLOROETHENE 17 (10/12)
TPH
TPH (C06-C10) 47 J
TPH (C10-C32) 320 J

GSP-MW/SB-022I 50-60'
Inorganics
COBALT 9.4 J
Inorganics, Filtered
COBALT 8.8 J
Volatiles
CARBON TETRACHLORIDE 8.4
TRICHLOROETHENE 8.3
TPH
TPH (C06-C10) 71 J

GSP-MW-15 10-20'
Inorganics
COBALT 5.7 J (02/14)
COBALT 4.9 (10/12)
Inorganics, Filtered
COBALT 5.5 J (02/14)
COBALT 4.8 (10/12)

GSP-DPT-47 25-30'
Volatiles
TRICHLOROETHENE 49

GSP-SB-044 7'
Inorganics
VANADIUM 98.1
Inorganics, Filtered
VANADIUM 102

GSP-DPT-49
Volatiles
TRICHLOROETHENE 5.9 20-25'
TRICHLOROETHENE 19 25-30'

GSP-MW/SB-021I 50-60'
Inorganics
ARSENIC 18
COBALT 11
VANADIUM 67
Inorganics, Filtered
COBALT 8.9 J

GSP-DPT-48
Volatiles
TRICHLOROETHENE 5.4 15-20'
TRICHLOROETHENE 8.2 25-30'

Notes:
1) All location IDs begin with "GSP-."
2) 2014 aerial photograph provided by U.S. Geological Survey.

FIGURE 2

GROUNDWATER EXCEEDANCES
RECS 7-9, GREATER STRAWBERRY POINT

LEGEND

- Soil Boring
- Monitoring Well
- DPT Well
- Soil Gas Sample Location
- Sediment Sample Location
- Surface Water Sample
- Test Pit
- Abandoned Sampling Location
- Recognized Environmental Condition
- 3 REC Number

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 60 120 Feet

N

DATE MODIFIED: 12/08/16

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\TempDec16\gsp_rec7_9_gw_exceed_dec2016.mxd)
01/03/17 -- JEE

REGENESIS

Purchasing Information

LMC GSP REC 8-9 TCE	--	Dissolved plume
3-D Microemulsion Required	**lbs**	**16,000**
CRS Required	**lbs**	**6,400**
BDI Plus Required	**liters**	**219**
3-D Microemulsion Cost*	$	$51,840
CRS Cost	$	$16,960
BDI Plus Cost	$	$37,230
Total Product Cost	**$**	**$106,030**
Estimated Tax and Freight %	%	15%
Estimated Tax and Freight Cost*	$	$15,905
Estimated Total Product Cost	**$**	**$121,935**
Cost per cubic yard	**$**	**8.55**

***Note that the combined tax and freight costs are preliminary estimates only. Please contact your local sales manager or Customer Service at 949-366-8000 to obtain a shipping quote. You will be asked to provide a ship-to address and estimated time of delivery.**

Currently Available Packaging Options

3DME Package Type***	# of packages	lbs required
400 lb poly drums	40	16,000
2,000 lb reinforced plastic totes	8	16,000
CRS Package Type* **	**# of packages**	**lbs required**
400-lb poly drums	16	6,400
BDI Plus Package Type* **	**# of packages**	**L required**
18-L kegs	13	219
HRC Primer Package Type* **	**# of packages**	**L required**
30-lb pails	0	0

REGENESIS

Purchasing Information

LMC GSP REC 8-9 TCE	--	Dissolved plume
PersulfOx Required	**lbs**	**92,733**
PersulfOx Cost	**$**	**$171,557**
Estimated Tax and Freight %	%	15%
Estimated Tax and Freight Cost*	$	$25,733
Estimated Total Product Cost	**$**	**$197,290**
Cost per cubic yard	**$**	**$13.84**

***Note that the combined tax and freight costs are preliminary estimates only. Please contact your local sales manager or Customer Service at 949-366-8000 to obtain a shipping quote. You will be asked to provide a ship-to address and estimated time of delivery.**

Currently Available Packaging Options

PersulfOx Package Type***	# of packages	lbs required
55.1 lb poly-lined bag	1683	92,733
2,204 lb supersacks	43	94,772

****Total Project cost is only an estimate; actual project cost may change as the final scope and/or RRS proposal are developed.**

*****Available Package Types are subject to change.**

APPENDIX F—COST ESTIMATES

LOCKHEED MARTIN
Baltimore, Maryland
Greater Strawberry Point FS
Alternative G-2: Monitored Natural Attenuation and LUCs
Capital Cost

6/30/2017 10:50 AM

Item	Quantity	Unit	Unit Cost Subcontract	Unit Cost Material	Unit Cost Labor	Unit Cost Equipment	Extended Cost Subcontract	Extended Cost Material	Extended Cost Labor	Extended Cost Equipment	Subtotal
1 PROJECT PLANNING & DOCUMENTS											
1.1 Prepare Documents & Plans	150	hr			$60.00		$0	$0	$9,000	$0	$9,000
1.2 Prepare LTM Plans	300	hr			$60.00		$0	$0	$18,000	$0	$18,000
1.3 Prepare LUCs	300	hr			$60.00		$0	$0	$18,000	$0	$18,000
2 FIELD SUPPORT AND SITE ACCESS											
2.1 Storage Trailer	1	mo				$108.00	$0	$0	$0	$108	$108
2.2 Survey Support	2	day	$1,225.00				$2,450	$0	$0	$0	$2,450
2.3 Site Superintendent	5	day		$160.00	$420.00		$0	$800	$2,100	$0	$2,900
2.4 Underground Utility Clearance	1	ls	$10,000.00				$10,000	$0	$0	$0	$10,000
3 MONITORING WELLS											
3.1 Driller Mobilization	1	ls	$4,000.00				$4,000	$0	$0	$0	$4,000
3.2 Well Installation, 2" dia	465	lf	$65.00				$30,225	$0	$0	$0	$30,225
3.3 Well Protective Casing & Apron	13	ea	$250.00				$3,250	$0	$0	$0	$3,250
3.4 IDW Transportation & Disposal	26	drum	$160.00				$4,160	$0	$0	$0	$4,160
Subtotal							$54,085	$800	$47,100	$108	$102,093
Overhead on Labor Cost @ 30%									$14,130		$14,130
G & A on Labor, Material, Equipment, & Subs Cost @ 10%							$5,409	$80	$4,710	$11	$10,209
Tax on Materials and Equipment Cost @ 6.00%								$48		$6	$54
Total Direct Cost							$59,494	$928	$65,940	$125	$126,487
Indirects on Total Direct Cost @ 25%											$31,622
Profit on Total Direct Cost @ 10%											$12,649
Subtotal											$170,757
Health & Safety Monitoring @ 2%											$3,415
Total Field Cost											$174,172
Engineering on Total Field Cost @ 10%											$17,417
Contingency on Total Field Cost @ 25%											$43,543
TOTAL CAPITAL COST											**$235,133**

LOCKHEED MARTIN
Baltimore, Maryland
Greater Strawberry Point FS
Alternative G-2: Monitored Natural Attenuation and LUCs
Annual Cost

Item	Item Cost year 1	Item Cost years 2 - 3	Item Cost years 4 - 30	Item Cost every 5 years	Notes
LUC Inspection & Report	$2,500	$2,500	$2,500		One-day visit and report to verify LUC RD
MNA Sampling	$10,500	$10,500	$10,500		Labor (100 hrs) and supplies ($2,500) to collect samples.
Analysis: MNA	$4,300	$4,300	$4,300		Analyze samples for 11 CVOC, 11 MNA, 13 TPH, 6 metals
Annual MNA Report	$8,000	$8,000	$8,000		
Five Year Site Review				$30,000	
Subtotal	$25,300	$25,300	$25,300	$30,000	
Contingency @ 10%	$2,530	$2,530	$2,530	$3,000	
TOTAL	**$27,830**	**$27,830**	**$27,830**	**$33,000**	

LOCKHEED MARTIN
Greater Strawberry Point FS
Baltimore, Maryland
Alternative G-2: Monitored Natural Attenuation and LUCs
Present Worth Analysis

Year	Capital Cost	Annual Cost	Total Year Cost	Annual Discount Rate 0.7%	Present Worth
0	$235,133		$235,133	1.000	$235,133
1		$27,830	$27,830	0.993	$27,637
2		$27,830	$27,830	0.986	$27,444
3		$27,830	$27,830	0.979	$27,254
4		$27,830	$27,830	0.972	$27,064
5		$60,830	$60,830	0.966	$58,745
6		$27,830	$27,830	0.959	$26,689
7		$27,830	$27,830	0.952	$26,504
8		$27,830	$27,830	0.946	$26,319
9		$27,830	$27,830	0.939	$26,137
10		$60,830	$60,830	0.933	$56,731
11		$27,830	$27,830	0.926	$25,774
12		$27,830	$27,830	0.920	$25,595
13		$27,830	$27,830	0.913	$25,417
14		$27,830	$27,830	0.907	$25,241
15		$60,830	$60,830	0.901	$54,787
16		$27,830	$27,830	0.894	$24,891
17		$27,830	$27,830	0.888	$24,718
18		$27,830	$27,830	0.882	$24,546
19		$27,830	$27,830	0.876	$24,375
20		$60,830	$60,830	0.870	$52,909
21		$27,830	$27,830	0.864	$24,038
22		$27,830	$27,830	0.858	$23,871
23		$27,830	$27,830	0.852	$23,705
24		$27,830	$27,830	0.846	$23,540
25		$60,830	$60,830	0.840	$51,095
26		$27,830	$27,830	0.834	$23,214
27		$27,830	$27,830	0.828	$23,052
28		$27,830	$27,830	0.823	$22,892
29		$27,830	$27,830	0.817	$22,733
30		$60,830	$60,830	0.811	$49,344
31		$27,830	$27,830	0.806	$22,418
32		$27,830	$27,830	0.800	$22,262
33		$27,830	$27,830	0.794	$22,108
34		$27,830	$27,830	0.789	$21,954
35		$60,830	$60,830	0.783	$47,653
36		$27,830	$27,830	0.778	$21,650
37		$27,830	$27,830	0.773	$21,499
38		$27,830	$27,830	0.767	$21,350
39		$27,830	$27,830	0.762	$21,201
40		$60,830	$60,830	0.757	$46,019
				TOTAL PRESENT WORTH (40 yr)	**$1,429,508**

Ave Annual cost (40 years)	$34,430	
Total Capital plus Annual (40 years)		$1,612,333

30-Year values	$34,430	$1,268,033		$1,161,395

LOCKHEED MARTIN
Baltimore, Maryland
Greater Strawberry Point FS
Alternative G-3: ISCO, MNA and LUCs
Capital Cost

6/30/2017 10:51 AM

Item	Quantity	Unit	Unit Cost Subcontract	Unit Cost Material	Unit Cost Labor	Unit Cost Equipment	Extended Cost Subcontract	Extended Cost Material	Extended Cost Labor	Extended Cost Equipment	Subtotal
1 PROJECT PLANNING & DOCUMENTS											
1.1 Prepare Documents & ISCO Work Plan	300	hr			$60.00		$0	$0	$18,000	$0	$18,000
1.2 Prepare LTM Plans	300	hr			$60.00		$0	$0	$18,000	$0	$18,000
1.3 Prepare LUCs	300	hr			$60.00		$0	$0	$18,000	$0	$18,000
1.4 ISCO Bench/Pilot Studies	1	ea	$50,000.00		$0.00		$50,000	$0	$0	$0	$50,000
2 FIELD SUPPORT AND SITE ACCESS											
2.1 Office Trailer	3	mo				$440.00	$0	$0	$0	$1,320	$1,320
2.2 Field Office Equipment, Utilities, & Support	3	mo		$534.00			$0	$1,602	$0	$0	$1,602
2.1 Storage Trailer	3	mo				$108.00	$0	$0	$0	$324	$324
2.2 Survey Support	2	day	$1,225.00				$2,450	$0	$0	$0	$2,450
2.3 Site Superintendent	45	day		$160.00	$420.00		$0	$7,200	$18,900	$0	$26,100
2.4 Site Health & Safety and QA/QC	40	day		$160.00	$370.00		$0	$6,400	$14,800	$0	$21,200
2.5 Underground Utility Clearance	1	ls	$10,000.00				$10,000	$0	$0	$0	$10,000
3 DECONTAMINATION											
3.1 Decontamination Services	3	mo		$1,220.00	$2,245.00	$1,550.00	$0	$3,660	$6,735	$4,650	$15,045
3.2 Temporary Equipment Decon Pad	1	ls		$1,500.00	$2,000.00	$300.00	$0	$1,500	$2,000	$300	$3,800
3.3 Decon Water	3,000	gal		$0.20			$0	$600	$0	$0	$600
3.4 Decon Water Storage Tank, 6,000 gallon	3	mo				$825.00	$0	$0	$0	$2,475	$2,475
3.5 Clean Water Storage Tank, 4,000 gallon	3	mo				$775.00	$0	$0	$0	$2,325	$2,325
3.6 Disposal of Decon Waste (liquid & solid)	3	mo	$985.00				$2,955	$0	$0	$0	$2,955
4 ISCO INSTALLATION											
4.1 ISCO Materials	1	ls		$198,000.00			$0	$198,000	$0	$0	$198,000
4.2 ISCO Application	1	ls	$246,000.00				$246,000	$0	$0	$0	$246,000
4.3 ISCO Monitoring, 2 wells, 4 qtr.,	8	ea	$100.00		$47.00	$125.00	$800	$0	$376	$1,000	$2,176
5 MONITORING WELLS											
5.1 Driller Mobilization	1	ls	$4,000.00				$4,000	$0	$0	$0	$4,000
5.2 Well Installation, 2" dia	465	lf	$65.00				$30,225	$0	$0	$0	$30,225
5.3 Well Protective Casing & Apron	13	ea	$250.00				$3,250	$0	$0	$0	$3,250
5.4 IDW Transportation & Disposal	26	drum	$160.00				$4,160	$0	$0	$0	$4,160
Subtotal							$353,840	$218,962	$96,811	$12,394	$682,007
Overhead on Labor Cost @ 30%									$29,043		$29,043
G & A on Labor, Material, Equipment, & Subs Cost @ 10%							$35,384	$21,896	$9,681	$1,239	$68,201
Tax on Materials and Equipment Cost @ 6.00%								$13,138		$744	$13,881
Total Direct Cost							$389,224	$253,996	$135,535	$14,377	$793,132
Indirects on Total Direct Cost @ 25%											$198,283
Profit on Total Direct Cost @ 10%											$79,313
Subtotal											$1,070,729
Health & Safety Monitoring @ 2%											$21,415
Total Field Cost											$1,092,143
Engineering on Total Field Cost @ 3%											$32,764
Contingency on Total Field Cost @ 25%											$273,036
TOTAL CAPITAL COST											**$1,397,943**

LOCKHEED MARTIN
Baltimore, Maryland
Greater Strawberry Point FS
Alternative G-3: ISCO, MNA and LUCs
Annual Cost

Item	Item Cost year 1	Item Cost years 2 - 3	Item Cost years 4 - 30	Item Cost every 5 years	Notes
LUC Inspection & Report	$2,500	$2,500	$2,500		One-day visit and report to verify LUC RD
MNA Sampling	$10,500	$10,500	$10,500		Labor (100 hrs) and supplies ($2,500) to collect samples.
Analysis: MNA	$4,300	$4,300	$4,300		Analyze samples for 11 CVOC, 11 MNA, 13 TPH, 6 metals
Annual MNA Report	$8,000	$8,000	$8,000		
Five Year Site Review				$30,000	
Subtotal	$25,300	$25,300	$25,300	$30,000	
Contingency @ 10%	$2,530	$2,530	$2,530	$3,000	
TOTAL	**$27,830**	**$27,830**	**$27,830**	**$33,000**	

LOCKHEED MARTIN
Greater Strawberry Point FS
Baltimore, Maryland
Alternative G-3: ISCO, MNA and LUCs
Present Worth Analysis

Year	Capital Cost	Annual Cost	Total Year Cost	Annual Discount Rate 0.7%	Present Worth
0	$1,397,943		$1,397,943	1.000	$1,397,943
1		$27,830	$27,830	0.993	$27,637
2		$27,830	$27,830	0.986	$27,444
3		$27,830	$27,830	0.979	$27,254
4		$27,830	$27,830	0.972	$27,064
5		$60,830	$60,830	0.966	$58,745
6		$27,830	$27,830	0.959	$26,689
7		$27,830	$27,830	0.952	$26,504
8		$27,830	$27,830	0.946	$26,319
9		$27,830	$27,830	0.939	$26,137
10		$60,830	$60,830	0.933	$56,731
11		$27,830	$27,830	0.926	$25,774
12		$27,830	$27,830	0.920	$25,595
13		$27,830	$27,830	0.913	$25,417
14		$27,830	$27,830	0.907	$25,241
15		$60,830	$60,830	0.901	$54,787
16		$27,830	$27,830	0.894	$24,891
17		$27,830	$27,830	0.888	$24,718
18		$27,830	$27,830	0.882	$24,546
19		$27,830	$27,830	0.876	$24,375
20		$60,830	$60,830	0.870	$52,909
21		$27,830	$27,830	0.864	$24,038
22		$27,830	$27,830	0.858	$23,871
23		$27,830	$27,830	0.852	$23,705
24		$27,830	$27,830	0.846	$23,540
25		$60,830	$60,830	0.840	$51,095
26		$27,830	$27,830	0.834	$23,214
27		$27,830	$27,830	0.828	$23,052
28		$27,830	$27,830	0.823	$22,892
29		$27,830	$27,830	0.817	$22,733
30		$60,830	$60,830	0.811	$49,344
31		$27,830	$27,830	0.806	$22,418
32		$27,830	$27,830	0.800	$22,262
			TOTAL PRESENT WORTH (32-Year)		**$2,368,886**

Ave Annual cost 32-yr	$34,018	
Total Capital plus Annual 32 yr		$2,486,503

30-Year values	$34,430	$2,430,843		$2,324,205

LOCKHEED MARTIN
Baltimore, Maryland
Greater Strawberry Point FS
Alternative G-4: Enhanced Bioremediation, MNA and LUCs
Capital Cost

Item	Quantity	Unit	Unit Cost Subcontract	Unit Cost Material	Unit Cost Labor	Unit Cost Equipment	Extended Cost Subcontract	Extended Cost Material	Extended Cost Labor	Extended Cost Equipment	Subtotal
1 PROJECT PLANNING & DOCUMENTS											
1.1 Prepare Documents & Enhanced Bio Work Plan	300	hr			$60.00		$0	$0	$18,000	$0	$18,000
1.2 Prepare LTM Plans	300	hr			$60.00		$0	$0	$18,000	$0	$18,000
1.3 Prepare LUCs	300	hr			$60.00		$0	$0	$18,000	$0	$18,000
1.4 Enhanced Bio Pilot Studies	1	ea	$40,000.00		$0.00		$40,000	$0	$0	$0	$40,000
2 FIELD SUPPORT AND SITE ACCESS											
2.1 Office Trailer	3	mo				$440.00	$0	$0	$0	$1,320	$1,320
2.2 Field Office Equipment, Utilities, & Support	3	mo		$534.00			$0	$1,602	$0	$0	$1,602
2.1 Storage Trailer	3	mo				$108.00	$0	$0	$0	$324	$324
2.2 Survey Support	2	day	$1,225.00				$2,450	$0	$0	$0	$2,450
2.3 Site Superintendent	45	day		$160.00	$420.00		$0	$7,200	$18,900	$0	$26,100
2.4 Site Health & Safety and QA/QC	40	day		$160.00	$370.00		$0	$6,400	$14,800	$0	$21,200
2.5 Underground Utility Clearance	1	ls	$10,000.00				$10,000	$0	$0	$0	$10,000
3 DECONTAMINATION											
3.1 Decontamination Services	3	mo		$1,220.00	$2,245.00	$1,550.00	$0	$3,660	$6,735	$4,650	$15,045
3.2 Temporary Equipment Decon Pad	1	ls		$1,500.00	$2,000.00	$300.00	$0	$1,500	$2,000	$300	$3,800
3.3 Decon Water	3,000	gal		$0.20			$0	$600	$0	$0	$600
3.4 Decon Water Storage Tank, 6,000 gallon	3	mo				$825.00	$0	$0	$0	$2,475	$2,475
3.5 Clean Water Storage Tank, 4,000 gallon	3	mo				$775.00	$0	$0	$0	$2,325	$2,325
3.6 Disposal of Decon Waste (liquid & solid)	3	mo	$985.00				$2,955	$0	$0	$0	$2,955
4 ENHANCED BIO INSTALLATION											
4.1 Enhanced Bio Materials (3-D)	1	ls		$122,000.00			$0	$122,000	$0	$0	$122,000
4.2 Enhanced Bio Application	1	ls	$246,000.00				$246,000	$0	$0	$0	$246,000
4.3 Enhanced Bio Monitoring, 2 wells, 4 qtr.,	8	ea	$100.00		$47.00	$125.00	$800	$0	$376	$1,000	$2,176
5 MONITORING WELLS											
5.1 Driller Mobilization	1	ls	$4,000.00				$4,000	$0	$0	$0	$4,000
5.2 Well Installation, 2" dia	465	lf	$65.00				$30,225	$0	$0	$0	$30,225
5.3 Well Protective Casing & Apron	13	ea	$250.00				$3,250	$0	$0	$0	$3,250
5.4 IDW Transportation & Disposal	26	drum	$160.00				$4,160	$0	$0	$0	$4,160
Subtotal							$343,840	$142,962	$96,811	$12,394	$596,007
Overhead on Labor Cost @ 30%									$29,043		$29,043
G & A on Labor, Material, Equipment, & Subs Cost @ 10%							$34,384	$14,296	$9,681	$1,239	$59,601
Tax on Materials and Equipment Cost @ 6.00%								$8,578		$744	$9,321
Total Direct Cost							$378,224	$165,836	$135,535	$14,377	$693,972
Indirects on Total Direct Cost @ 25%											$173,493
Profit on Total Direct Cost @ 10%											$69,397
Subtotal											$936,863
Health & Safety Monitoring @ 2%											$18,737
Total Field Cost											$955,600
Engineering on Total Field Cost @ 3%											$28,668
Contingency on Total Field Cost @ 25%											$238,900
TOTAL CAPITAL COST											**$1,223,168**

LOCKHEED MARTIN
Baltimore, Maryland
Greater Strawberry Point FS
Alternative G-4: Enhanced Bioremediation, MNA and LUCs
Annual Cost

Item	Item Cost year 1	Item Cost years 2 - 3	Item Cost years 4 - 30	Item Cost every 5 years	Notes
LUC Inspection & Report	$2,500	$2,500	$2,500		One-day visit and report to verify LUC RD
MNA Sampling	$10,500	$10,500	$10,500		Labor (100 hrs) and supplies ($2,500) to collect samples
Analysis: MNA	$4,300	$4,300	$4,300		Analyze samples for 11 CVOC, 11 MNA, 13 TPH, 6 metals
Annual MNA Report	$8,000	$8,000	$8,000		
Five Year Site Review				$30,000	
Subtotal	$25,300	$25,300	$25,300	$30,000	
Contingency @ 10%	$2,530	$2,530	$2,530	$3,000	
TOTAL	**$27,830**	**$27,830**	**$27,830**	**$33,000**	

LOCKHEED MARTIN
Greater Strawberry Point FS
Baltimore, Maryland
Alternative G-4: Enhanced Bioremediation, MNA and LUCs
Present Worth Analysis

Year	Capital Cost	Annual Cost	Total Year Cost	Annual Discount Rate 0.7%	Present Worth
0	$1,223,168		$1,223,168	1.000	$1,223,168
1		$27,830	$27,830	0.993	$27,637
2		$27,830	$27,830	0.986	$27,444
3		$27,830	$27,830	0.979	$27,254
4		$27,830	$27,830	0.972	$27,064
5		$60,830	$60,830	0.966	$58,745
6		$27,830	$27,830	0.959	$26,689
7		$27,830	$27,830	0.952	$26,504
8		$27,830	$27,830	0.946	$26,319
9		$27,830	$27,830	0.939	$26,137
10		$60,830	$60,830	0.933	$56,731
11		$27,830	$27,830	0.926	$25,774
12		$27,830	$27,830	0.920	$25,595
13		$27,830	$27,830	0.913	$25,417
14		$27,830	$27,830	0.907	$25,241
15		$60,830	$60,830	0.901	$54,787
16		$27,830	$27,830	0.894	$24,891
17		$27,830	$27,830	0.888	$24,718
18		$27,830	$27,830	0.882	$24,546
19		$27,830	$27,830	0.876	$24,375
20		$60,830	$60,830	0.870	$52,909
21		$27,830	$27,830	0.864	$24,038
22		$27,830	$27,830	0.858	$23,871
23		$27,830	$27,830	0.852	$23,705
24		$27,830	$27,830	0.846	$23,540
25		$60,830	$60,830	0.840	$51,095
26		$27,830	$27,830	0.834	$23,214
27		$27,830	$27,830	0.828	$23,052
28		$27,830	$27,830	0.823	$22,892
29		$27,830	$27,830	0.817	$22,733
30		$60,830	$60,830	0.811	$49,344
31		$27,830	$27,830	0.806	$22,418
32		$27,830	$27,830	0.800	$22,262
			TOTAL PRESENT WORTH (32-Year)		**$2,194,110**
Ave Annual cost 32-yr		$34,018			
Total Capital plus Annual 32 y			$2,311,728		
30-Year values		$34,430	$2,256,068		$2,149,430

APPENDIX G—*SITEWISE*™

APPENDIX G

Environmental Footprint Evaluation
Greater Strawberry Point
Feasibility Study
Lockheed Martin, Baltimore, Maryland
June 2017

OBJECTIVE

This Environmental Footprint Evaluation of remedial alternatives is provided as an Appendix G to the Feasibility Study (FFS) for Greater Strawberry Point located at the Lockheed Martin Facility in Baltimore Maryland. The purpose of the footprint evaluation is to assess the environmental impacts of three remedial alternatives (in addition to the no action alternative) using the metrics of greenhouse gas (GHG) and criteria pollutant emissions, energy use, water consumption, and worker safety. The results of this footprint evaluation are intended to provide additional information for consideration during remedy selection, design, and to enhance the understanding of the environmental impacts throughout the remedy life-cycle for each of the proposed alternatives.

EVALUATION TOOLS

This evaluation was performed using a hybrid model of the Navy's SiteWise™ tool supplemented with a Tetra Tech developed model as appropriate for some site-specific items.

SiteWise™ is a life-cycle footprint assessment tool developed jointly by the U.S. Navy, U.S. Army Corps of Engineers (USACE), and Battelle. SiteWise™ assesses the environmental footprint of a remedial alternative/technology using a consistent set of metrics. The assessment is conducted using a building block approach, where each remedial alternative is first broken down into modules that follow the phases for most remedial actions, including remedial investigation (RI), remedial action construction (RA-C), remedial action operation (RA-O), and long-term monitoring (LTM). Once broken down by remedial phase, the footprint of each phase is calculated. The phase-specific footprints are then combined to estimate the overall footprint of the remedial alternative. This building block approach reduces redundancy in the footprint assessment and facilitates the identification of specific impact drivers that contribute to the environmental footprint. The inputs that need to be considered include (1) production of material required by the activity; (2) transportation of the required materials to the site, transportation of personnel; (3) all site activities to be performed; and (4) management of the waste produced by the activity.

GSRx builds off of SiteWise™ and allows for a flexible, detailed analysis, particularly for materials and equipment use. GSRx was used to account for materials and activities not readily input into SiteWise™

and where equipment usage assumptions built into SiteWise™ were not consistent with site-specific requirements.

ENVIRONMENTAL FOOTPRINT EVALUATION FRAMEWORK AND LIMITATIONS

The environmental footprint evaluation performed for Greater Strawberry Point considered life-cycle quantitative metrics for global warming potential (through greenhouse gas emissions), criteria air pollutant emissions (through NO_X, SO_X and PM_{10} emissions), energy consumption, water usage, and worker safety.

Life cycle impacts were calculated for energy consumption, emissions of GHG (carbon dioxide [CO_2], methane [CH_4], and nitrous oxide [N_2O]) and criteria pollutants (nitrogen oxides [NO_X], sulfur oxides [SO_X] and particulate matter [PM_{10}]), water usage, and energy consumption, and worker safety.

Life cycle inventory inputs in SiteWise™ were divided into four categories – 1) materials production; 2) transportation of personnel, materials and equipment; 3) equipment use and miscellaneous; and 4) residual handling and disposal. Cost estimates from the FFS and design calculations were used as a basis for inventory quantities and related assumptions. Emission factors, energy consumption, and water usage data were correlated to material quantities, equipment, transportation distances, and installation time frames in order to calculate life-cycle emissions, energy consumption, water usage, and worker safety. Default SiteWise™ emission, energy usage, water consumption, and worker fatality and accident risk factors were utilized.

Although GSRx was used to minimize limitations resulting within SiteWise™, elimination of all limitations was not possible while using a hybrid model of SiteWise™ and GSRx. For example, several materials and construction equipment inventoried were input into GSRx and these impacts were incorporated into SiteWise™ within the "Equipment Use and Miscellaneous" sector. This sector in SiteWise™ does not differentiate into the specific equipment usage or material consumption items that are input in GSRx, but rather are considered miscellaneous items. However, impact drivers for items input in GSRx can be identified and evaluated directly within the respective GSRx evaluation and output summary sheets. In addition, worker safety results in general do not include worker safety related to equipment usage that was input within GSRx because GSRx was not developed to evaluate worker safety.

EVALUATION RESULTS

The following are the remedial action phases that were analyzed with SiteWise™ and GSRx for the Industrial Operations Area FFS located at former NAS South Weymouth:

- Alternative G2: MNA and LUCs
- Alternative G3A: In-Situ ISCO Injection, MNA and LUCs

- Alternative G4: In-Situ Enhanced Bioremediation, MNA and LUCs

The following sections summarize the relative environmental impacts and primary impact drivers for the 3 alternatives and their respective metrics. In addition, the attachment includes the inventory and output sheets that were used for the SiteWise™/GSRx hybrid model. An evaluation of SiteWise™ and GSRx output summary sheets and related figures included in the footprint evaluation attachments (Appendix G-2 and G-3), provides detailed information on the contribution to each metric from each phase of the remedial process (RI, RAC, RAO, and LTM) and for each respective input category (materials production, transportation, equipment usage, etc). Further inspection of related inventory sheets provide information on the specific contribution to a metric from each item of material, transportation, equipment, etc. This level of detail also helps clarify results that could be misinterpreted based on SiteWise™ data entry limitations mentioned previously. The environmental impacts of the alternatives analyzed are summarized quantitatively in Table G-1.

Greenhouse Gas Emissions

Emissions of CO_2, CH_4, and N_2O were normalized to CO_2 equivalents (CO_2e), which is a cumulative method of weighing GHG emissions relative to global warming potential. Figure D1 shows the overall GHG emissions of each of the phases analyzed; the x-axis represents the alternatives evaluated and the y-axis represents the GHG emissions in metric ton of CO_2e. Figure D2 shows the breakdown of the percent that each of the main activities of each alternative (x-axis) contributes to the GHG emissions (y-axis).

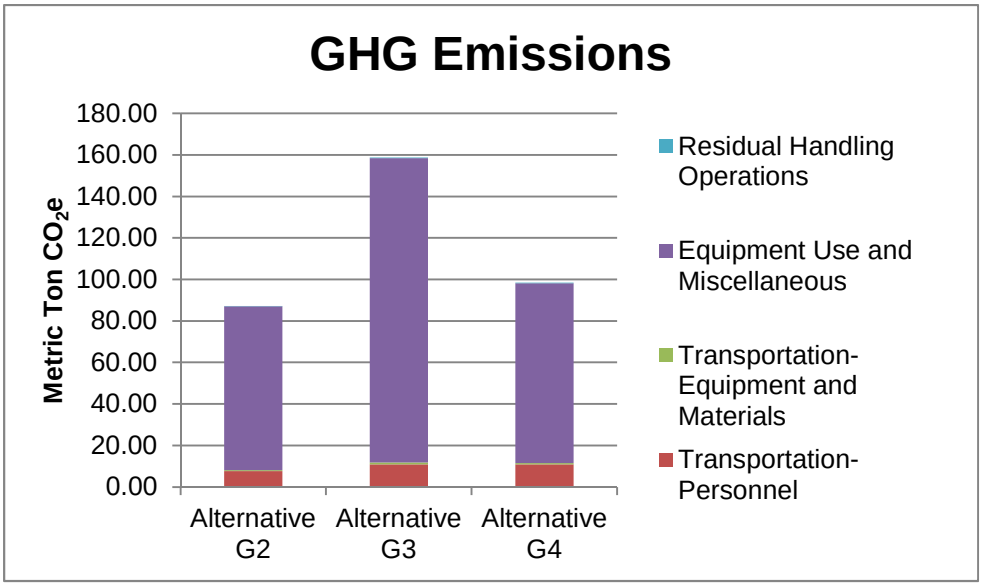


Figure G1: GHG Emissions for Alternatives at Lockheed Martin Greater Strawberry Point

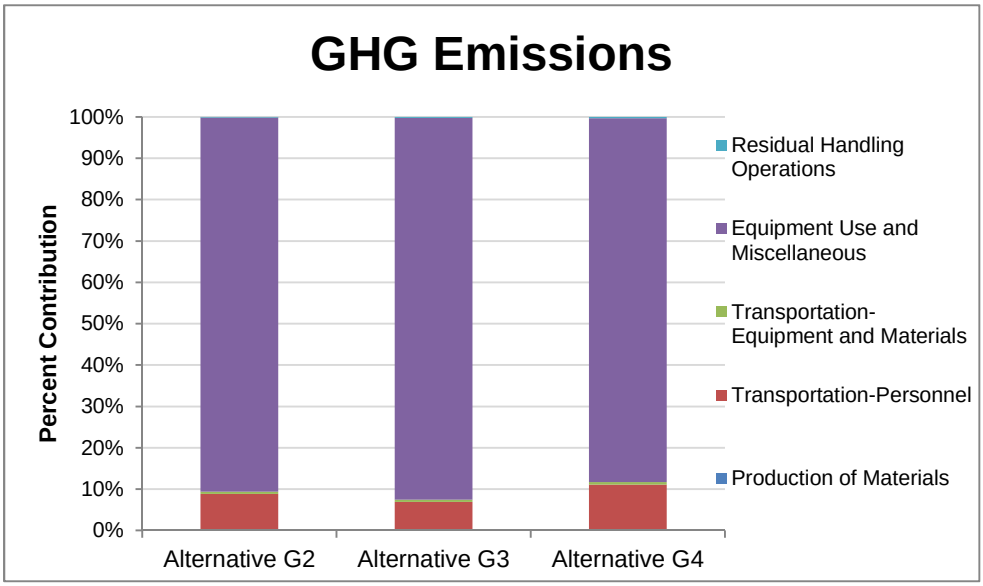


Figure G2: GHG Emissions percentage breakdown for Alternatives at Lockheed Martin Greater Strawberry Point

The total amount of GHG emissions from Alternative G2 is 87.18 metric ton of CO_2e. The main contributor for the GHG emissions is the analysis of samples at a laboratory for the length of the long-term monitoring and the amount of emissions resulting from this activity is 76.07 metric ton of CO_2e, corresponding to 87.3% percent of the total GHG emissions. The transportation of personnel is the activity with the second highest contribution to GHG emissions with 7.72 metric ton of CO_2e released, corresponding to approximately 8.9 percent of the total GHG emissions.

The total amount of GHG emissions from Alternative G3 is 158.75 metric ton of CO_2e. The main contributor for the GHG emissions is the use of equipment (including laboratory equipment) and production of materials and the amount of emissions resulting from these activities is 146.65 metric ton of CO_2e, corresponding to 92.4 percent of the total GHG emissions. The production and use of sodium persulfate is the largest single contributor, contributing 62.42 metric tons, or 39.3 percent. The transportation of personnel is the activity with the second highest contribution to GHG emissions with 10.92 metric ton of CO_2e released, corresponding to approximately 6.9 percent of the total GHG emissions.

The total amount of GHG emissions from Alternative G4 is 98.43 metric ton of CO_2e. The main contributor for the GHG emissions is the use of equipment (including laboratory equipment) and production of materials and the amount of emissions resulting from these activities is 86.63 metric ton of CO_2e, corresponding to 88.0 percent of the total GHG emissions. The transportation of personnel is the activity with the second

highest contribution to GHG emissions with 10.92 metric ton of CO_2e released, corresponding to approximately 11.1 percent of the total GHG emissions.

Criteria Pollutant Emissions

NO_X

Figure G3 shows the overall NO_X emissions of each of the alternatives analyzed; the x-axis represents the alternatives evaluated and the y-axis represents the NO_X emissions in metric ton of NO_X. Figure G4 shows the breakdown of the percent that each of main activities of each alternative (x-axis) contributes to the NO_X emissions (y-axis).

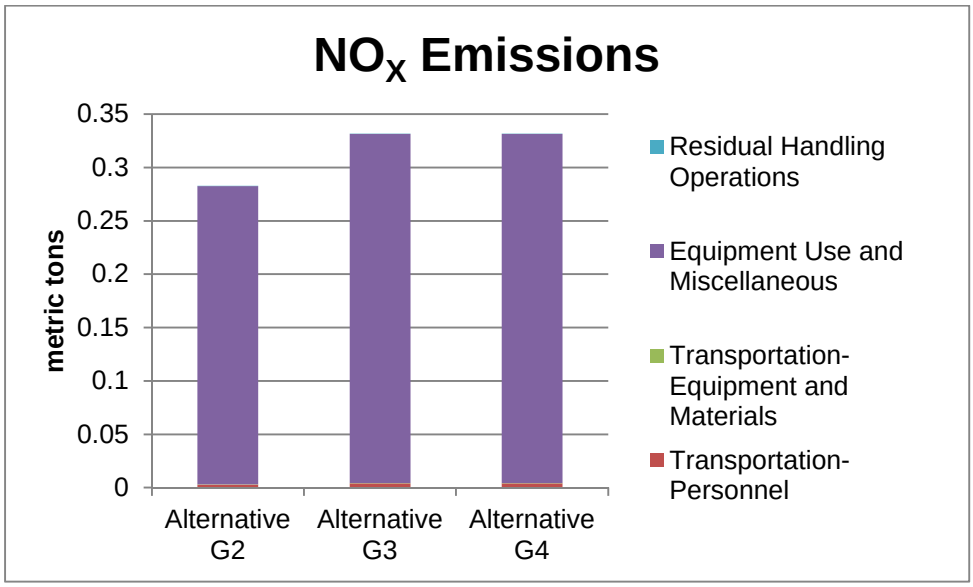


Figure G3 NO_X Emissions for Alternatives at Lockheed Martin Greater Strawberry Point

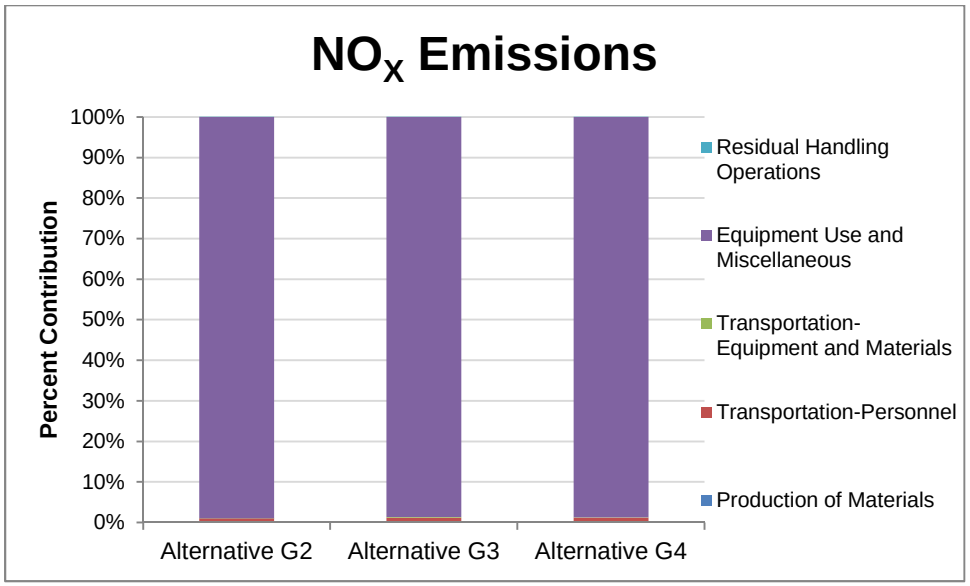


Figure G4: NO_X Emissions percentage breakdown for Alternatives at Lockheed Martin Greater Strawberry Point

The total amount of NO_X emissions from Alternative G2 is 0.28 metric ton. The highest contributor to NO_X emissions is equipment use and materials production, emitting approximately 0.428 metric ton of NO_X, corresponding to approximately 98.9 percent of the total NO_X emissions. The activity with the second highest contribution to NO_X emissions is transportation of personnel, emitting 0.00028 metric ton of NO_X, corresponding to approximately 1.0 percent of the total NO_X emissions.

The total amount of NO_X emissions from Alternative G3 is 0.332 metric ton. The activity with the highest contribution to NO_X emissions is equipment use (including laboratory equipment) and materials production, emitting approximately 0.33 metric ton of NO_X, corresponding to approximately 98.7 percent of the total NO_X emissions. The activity with the second highest contribution to NO_X emissions is the transportation of personnel, emitting 0.004 metric ton of NO_X, corresponding to approximately 1.2 percent of the total NO_X emissions.

The total amount of NO_X emissions from Alternative G4 is 0.332 metric ton. The activity with the highest contribution to NO_X emissions is equipment use (including laboratory equipment) and materials production, emitting 0.327 metric ton of NO_X, corresponding to approximately 98.7 percent of the total NO_X emissions. The activity with the second highest contribution to NO_X emissions is the transportation of personnel, emitting 0.004 metric ton of NO_X, corresponding to approximately 1.2 percent of the total NO_X emissions.

SO_X

Figure G5 shows the overall SO_X emissions of each of the alternatives analyzed; the x-axis represents the alternatives evaluated and the y-axis represents the SO_X emissions in metric ton of SO_X. Figure G6 shows the breakdown of the percent that each of main activities of each alternative (x-axis) contributes to the SO_X emissions (y-axis).

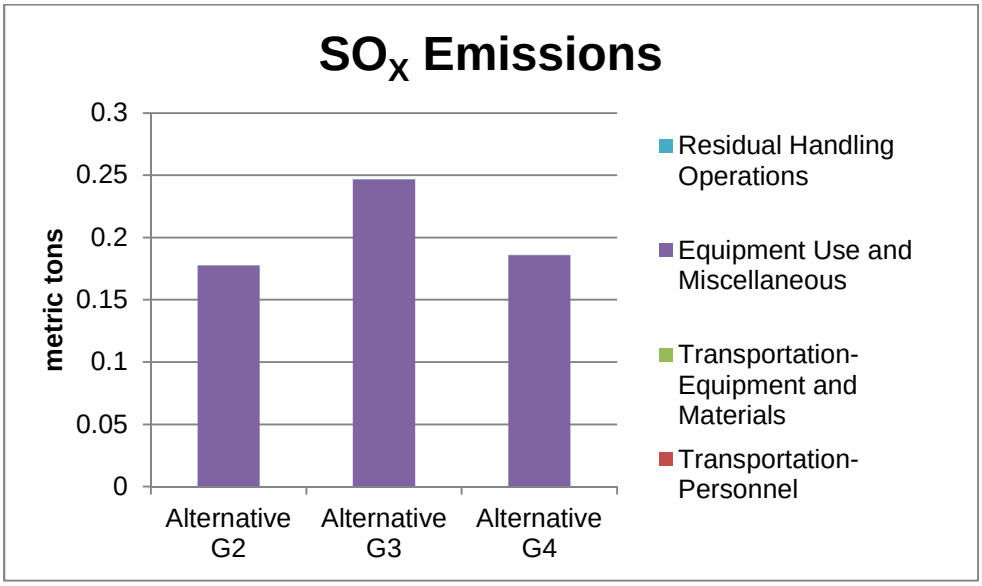


Figure G5: SO_X Emissions for Alternatives at Lockheed Martin Greater Strawberry Point

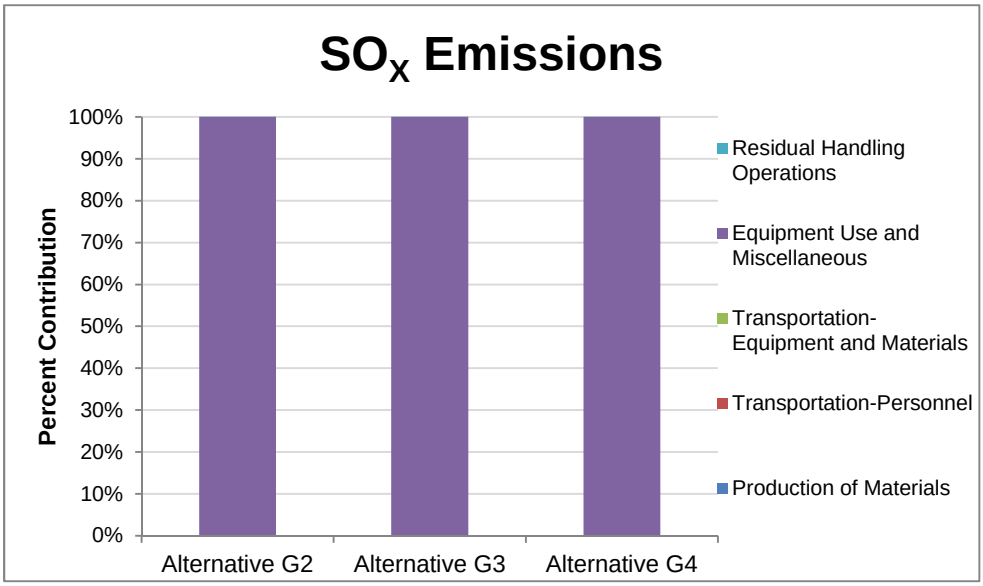


Figure G6: SO_X Emissions percentage breakdown for Alternatives at Lockheed Martin Greater Strawberry Point

The total amount of SO_X emissions from Alternative G2 is 0.18 metric ton. The activity with the highest contribution to SO_X emissions is equipment use and materials production, emitting approximately 0.18 metric ton of SO_X, corresponding to 99.9 percent of the total SO_X emissions.

The total amount of SO_X emissions from Alternative G3 is 0.247 metric ton. The activity with the highest contribution to SO_X emissions is the use of equipment, emitting approximately 0.247 metric ton of SO_X, corresponding to 99.9 percent of the total SO_X emissions.

The total amount of SO_X emissions from Alternative G4 is 0.186 metric ton. The activity with the highest contribution to SO_X emissions is the use of equipment, emitting approximately 0.186 metric ton of SO_X, corresponding to 99.9 percent of the total SO_X emissions.

PM_{10}

Figure G7 shows the overall PM_{10} emissions of each alternative analyzed; the x-axis represents the alternatives evaluated and the y-axis represents the PM_{10} emissions in metric ton of PM_{10}. Figure G8 shows the breakdown of the percent that each of main activities of each alternative (x-axis) contributes to the PM_{10} emissions (y-axis).

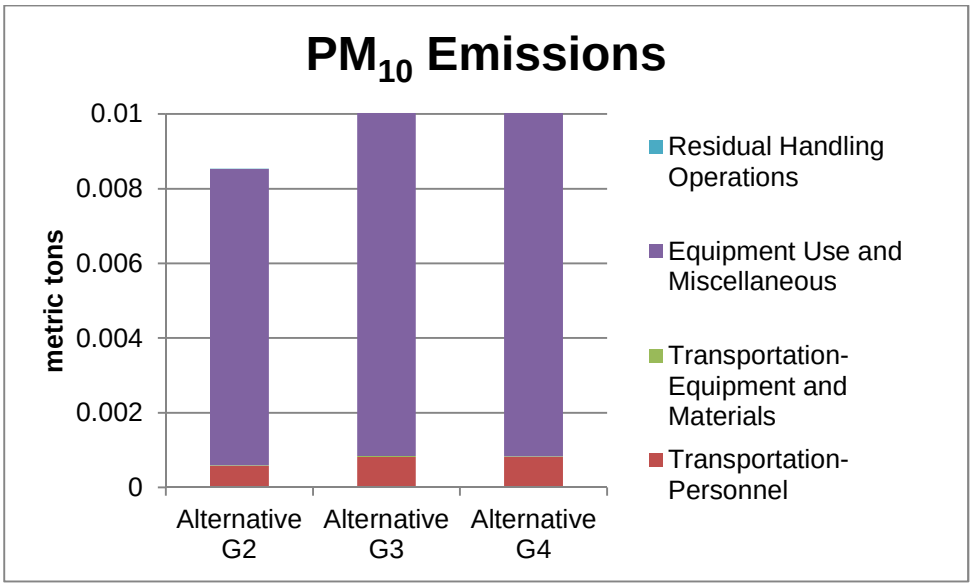


Figure G7: PM_{10} Emissions for Alternatives at Lockheed Martin Greater Strawberry Point

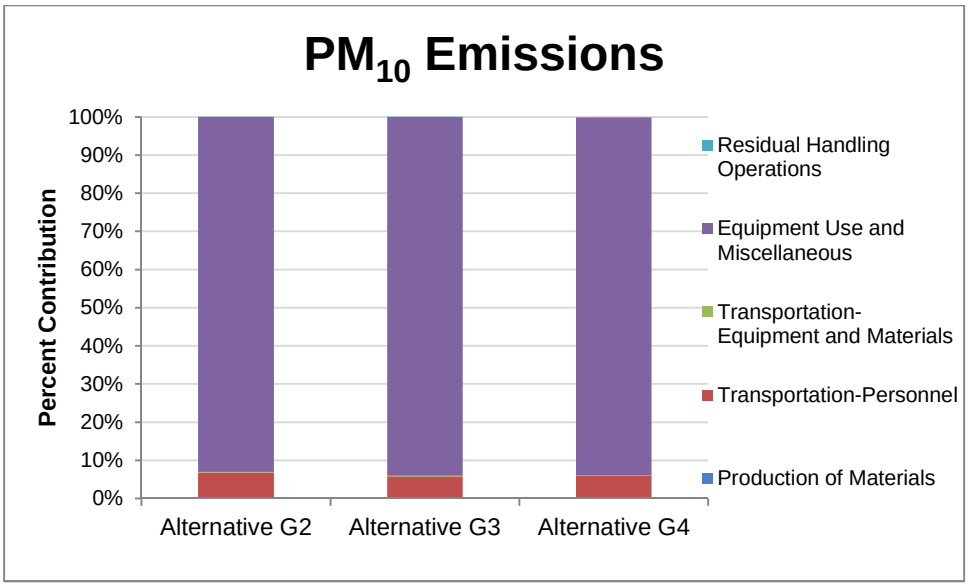


Figure G8: PM_{10} Emissions percentage breakdown for Alternatives at Lockheed Martin Greater Strawberry Point

The total PM_{10} emissions resulting from Alternative G2.is 8.53 x 10^{-3} metric ton. The activity with the highest contribution to these emissions is equipment use and materials production, emitting 7.93 x 10^{-3} metric ton of PM_{10}, approximately 93.0 percent of the total PM_{10} emissions.

The total PM_{10} emissions resulting from Alternative G3 is 0.0142 metric ton. The activity with the highest contribution to these emissions is equipment use (including laboratory equipment) and materials production, emitting 0.013 metric ton of PM_{10}, approximately 94.0 percent of the total PM_{10} emissions. Transportation of personnel is the activity with the second highest contribution and emits 0.0009 metric ton of PM_{10}, corresponding to approximately 5.8 percent of the total emissions.

The total PM_{10} emissions resulting from Alternative G4 is 0.0138 metric ton. The activity with the highest contribution to these emissions is equipment use (including laboratory equipment) and materials production, emitting 0.0130 metric ton of PM_{10}, approximately 93.9 percent of the total PM_{10} emissions. Transportation of personnel is the activity with the second highest contribution and emits 0.0008 metric ton of PM_{10}, corresponding to approximately 5.9 percent of the total emissions.

Energy Consumption

Figure G9 shows the energy consumption of each of the alternatives; the x-axis represents the alternatives evaluated and the y-axis represents the amount of energy consumed in units of million British Thermal Units (MMBTU). Figure G10 shows the percentage breakdown contribution of energy consumption from the different activity groups for each alternative.

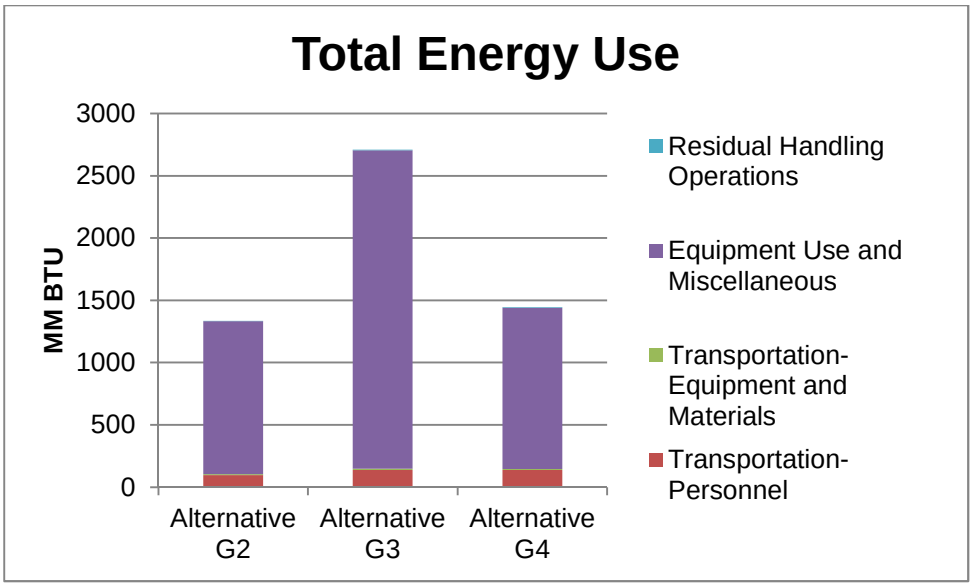


Figure G9: Energy Consumption for Alternatives at Lockheed Martin Greater Strawberry Point

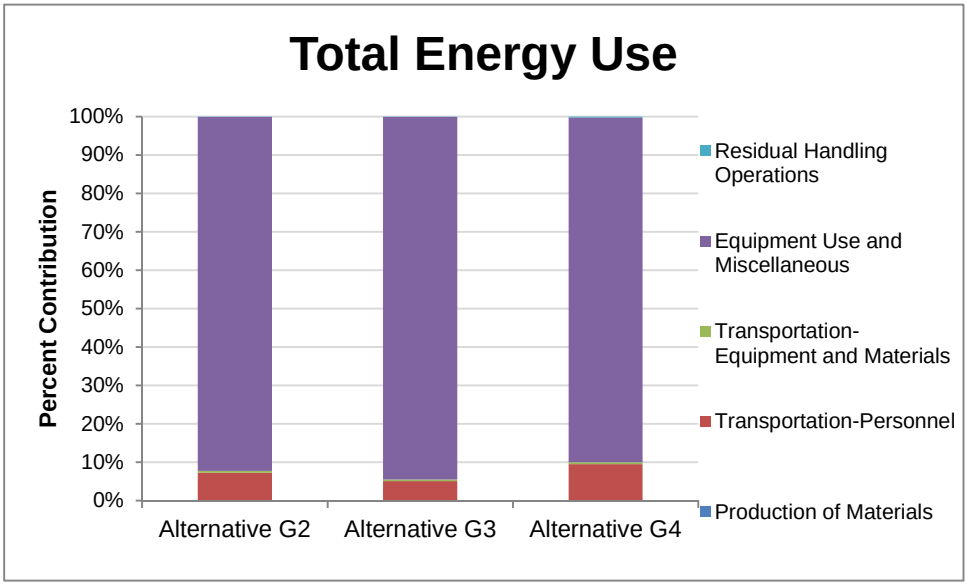


Figure G10: Energy Consumption percentage for Alternatives at Lockheed Martin Greater Strawberry Point

The total amount of energy consumed by Alternative G2 is 1,335 MMBTU. The activity with the highest energy consumption is the use of equipment, including laboratory equipment, utilizing 1,229 MMBTU, corresponding to approximately 92.1 percent of the total energy consumption.

The total amount of energy consumed by Alternative G3 is 2,709.92 MMBTU. The activity with the highest energy consumption is the use of equipment (including laboratory equipment) and production of materials, utilizing 2,556.38 MMBTU, corresponding to approximately 92.4 percent of the total energy consumption. Within this category, the production and use of sodium persulfate itself contributes 1,344.42 MMBTU, or 49.6 percent of the total energy consumption. The activity with the second highest energy use is the transportation of personnel, where 137.34 MMBTUs are consumed, approximately 5.1 percent of the total energy used during this alternative.

The total amount of energy consumed by Alternative G4 is 1,444.74 MMBTU. The activity with the highest energy consumption is the use of equipment and production of materials, utilizing 1,295.26 MMBTU, corresponding to approximately 89.7 percent of the total energy consumption. The activity with the second highest energy use is the transportation of personnel, where 137.34 MMBTUs are consumed, approximately 9.5 percent of the total energy used during this alternative.

Water Usage

The water consumption of the evaluated alternatives is shown in Figure G11. The x-axis shows the alternatives evaluated and the y-axis shows the amount of water consumed in thousands of gallons. Figure G12 shows the percentage breakdown contribution of the different sectors of the water use through the lifetime of the each of the alternatives.

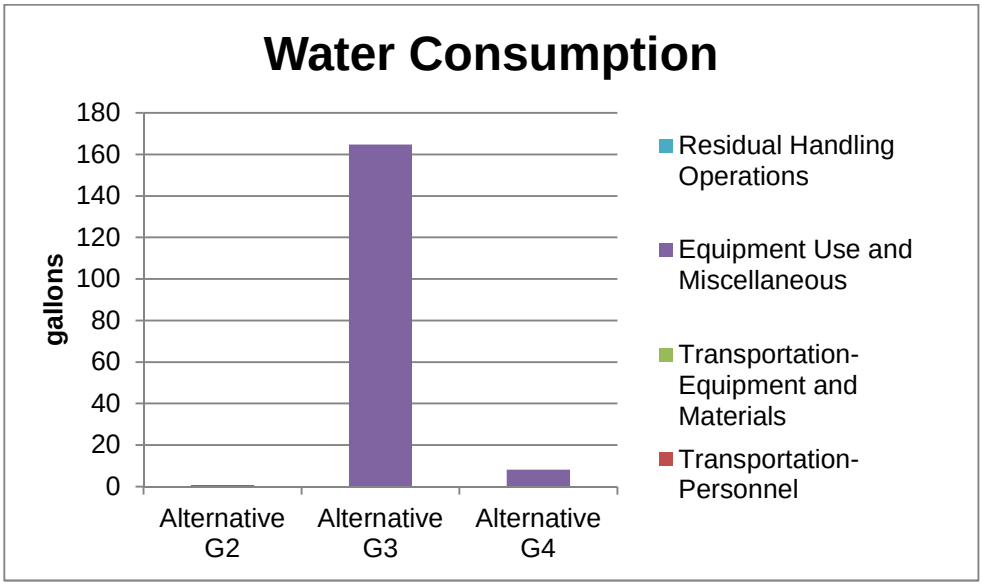


Figure G11: Water Consumption for Alternatives at Lockheed Martin Greater Strawberry Point

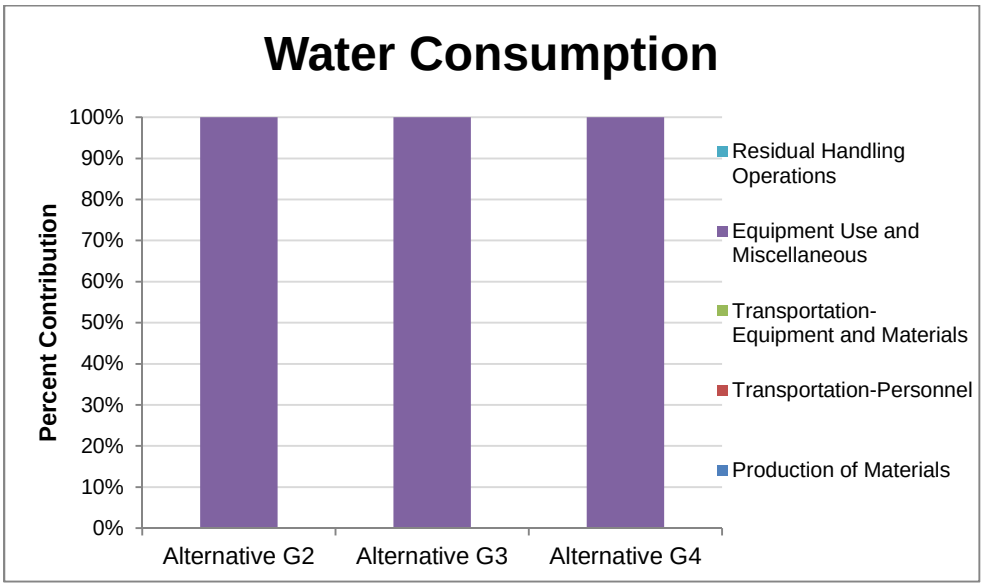


Figure G12: Water Consumption percentage breakdown for Alternatives at Lockheed Martin Greater Strawberry Point

The total water consumption for Alternative G2 is 69 gallons of water. All water is consumed in equipment usage and site activities, including laboratory activities.

The total water consumption for Alternative G3 is 164,747 gallons of water. All water is consumed in equipment usage, production of materials and site activities, including laboratory activities.

The total water consumption for Alternative G4 is 8,170 gallons of water. All water is consumed in equipment usage, production of materials and site activities, including laboratory activities.

Accident Risk

Accident Risk Fatality

Figure G13 shows the risk of fatality between the evaluated alternatives. The x-axis represents the alternatives evaluated, and the y-axis represents the risk of fatality.

For all alternatives evaluated, the activity with the highest risk of fatality is the transportation of personnel.

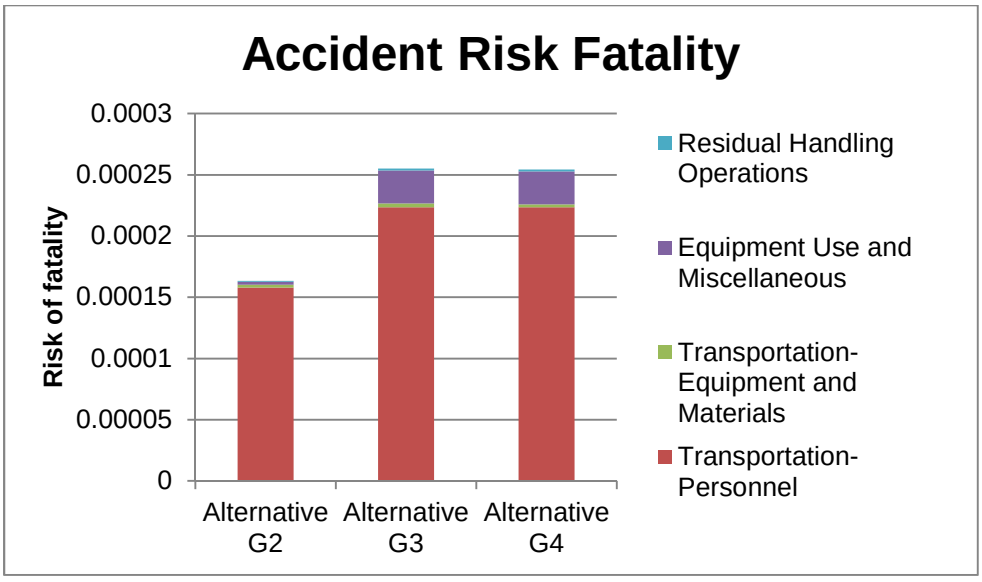


Figure G13 Risk of Fatality for Alternatives at Lockheed Martin Greater Strawberry Point

Accident Risk Injury

Figure G14 shows the risk of injury between the evaluated alternatives. The x-axis represents the alternatives evaluated, and the y-axis represents the risk of injury.

For all alternatives evaluated, the activity with the highest risk of injury is the transportation of personnel, though operator usage of equipment also presents a notable risk for Alternatives G3 and G4.

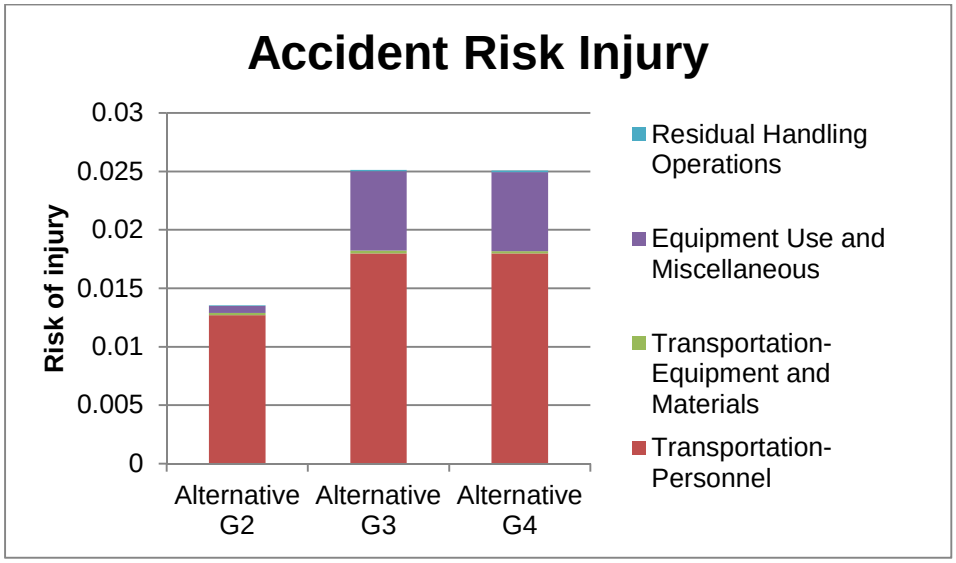


Figure G14 Risk of Injury for Alternatives at Lockheed Martin Greater Strawberry Point

CONCLUSIONS AND RECOMMENDATIONS

During selection and design of the remedy, a sensitivity analysis considering elements of the remedy that have the greatest impact on remedy effectiveness, life-cycle cost, and environmental footprint metrics may provide additional insight into appropriate optimization. To aid in the sensitivity analysis, an impact analysis summary was created to qualitatively highlight the relative impact of respective metrics for the six alternatives and to identify the primary drivers of emissions, energy consumption, and water usage for each alternative (see Table G-2 for details).

Figures G2, G4, G6, G8, G10 and G12 show the percentage breakdown of each of the sectors that take place during the proposed remedial alternatives. In these graphs, it is easy to identify the sector whose contribution is largest from all other sectors to that impact category. Identifying where the large contributions occur optimizes the process for potentially lowering the environmental impacts of each of the phases evaluated. Considering this, the following recommendations could noticeably reduce the environmental footprint of the phases listed below.

- For Alternative G2: Equipment usage and site activities are the largest contributors to most of the impact categories. It is recommended that the use of necessary equipment be limited as much as possible through clear and concise planning.
- For Alternatives G3: The production and handling of ISCO injection chemicals is the largest contributor to most of the impact categories. It is recommended for this reason that Alternative G4 be selected over G3 if all other comparison criteria is comparable, because the use of 3-D microemulsion presents less environmental impacts.
- For all Alternatives, the use of laboratory equipment is a significant contributor to total emissions and energy usage. This footprint could be reduced if the sampling protocol were optimized during long-term monitoring.
- For all Alternatives: Some reduction of the environmental footprint, particularly GHG emissions and energy consumption, could be realized for all phases through the possible use of emission control measures such as alternate fuel sources (e.g. biodiesel), equipment exhaust controls (e.g. diesel), and equipment idle reduction.

REFERENCES

(a) NAVFAC, DON Guidance for Optimizing Remedy Evaluation, Selection, and Design, March 2010
(b) NAVFAC, DON Policy on SiteWise™ Optimization/GSR Tool Usage, email received from Brian Harrison/NAVFAC HQ dated 10 AUG 2010

Table G-1
Environmental Footprint Evaluation Results
Greater Strawberry Point
Feasibility Study
Lockheed Martin, Baltimore, Maryland

Alternative	Activities	GHG Emissions	Total Energy Used	Water Impacts	NO_X Emissions	SO_X Emissions	PM_{10} Emissions	Accident Risk Fatality	Accident Risk Injury
		metric ton CO_2e	MMBTU	gallons	metric ton	metric ton	metric ton		
Alternative G2	Materials Production	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00	NA	NA
	Transportation-Personnel	7.717	97.071	NA	2.86E-03	1.01E-04	5.79E-04	1.58E-04	1.27E-02
	Transportation-Equipment	0.461	6.310	NA	1.48E-04	6.05E-06	1.20E-05	2.34E-06	1.88E-04
	Equpiment Use and Misc	78.854	1229.522	0.687	2.80E-01	1.78E-01	7.93E-03	2.34E-06	5.89E-04
	Residual Handling	0.152	2.085	NA	4.91E-05	2.00E-06	3.97E-06	7.80E-07	6.28E-05
	Total	87.185	1334.988	0.687	0.283	0.178	0.009	0.000	0.014
Alternative G3	Materials Production	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00	NA	NA
	Transportation-Personnel	10.919	137.338	NA	4.04E-03	1.42E-04	8.19E-04	2.23E-04	1.80E-02
	Transportation-Equipment	0.865	11.852	NA	2.79E-04	1.14E-05	2.26E-05	3.12E-06	2.51E-04
	Equpiment Use and Misc	146.653	2556.375	164.747	3.27E-01	2.47E-01	1.33E-02	2.69E-05	6.77E-03
	Residual Handling	0.318	4.356	NA	1.02E-04	4.18E-06	8.30E-06	1.56E-06	1.26E-04
	Total	158.755	2709.920	164.747	0.332	0.247	0.014	0.000	0.025
Alternative G4	Materials Production	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00	NA	NA
	Transportation-Personnel	10.919	137.338	NA	4.04E-03	1.42E-04	8.19E-04	2.23E-04	1.80E-02
	Transportation-Equipment	0.569	7.790	NA	1.83E-04	7.47E-06	1.48E-05	2.34E-06	1.88E-04
	Equpiment Use and Misc	86.626	1295.259	8.170	3.27E-01	1.86E-01	1.30E-02	2.69E-05	6.77E-03
	Residual Handling	0.318	4.356	NA	1.02E-04	4.18E-06	8.30E-06	1.56E-06	1.26E-04
	Total	98.431	1444.743	8.170	0.332	0.186	0.014	0.000	0.025

Table G-2
Environmental Impact Drivers
Greater Strawberry Point
Feasibility Study
Lockheed Martin, Baltimore, Maryland

Alternatives	GHG Emsissions	Energy Use	Water Consumption	NO_X Emissions	SO_X Emissions	PM_{10} Emissions	Risk of injury	Risk of fatality
Alternative G2	0.55	0.49	0.00	0.85	0.72	0.60	0.64	0.54
	Use of laboratory equipment	Use of laboratory equipment	Use of equipment onsite	Use of laboratory equipment	Use of laboratory equipment	Use of laboratory equipment	Transportation of Personnel	Transportation of Personnel
Alternative G3	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Production and Use of Sodium Persulfate	Production and Use of Sodium Persulfate	Use of equipment onsite	Use of laboratory equipment	Use of laboratory equipment	Use of laboratory equipment	Transportation of Personnel	Transportation of Personnel
Alternative G4	0.62	0.53	0.05	1.00	0.75	0.98	1.00	1.00
	Use of laboratory equipment	Production and Use of 3-D microemulsion	Use of equipment onsite	Use of laboratory equipment	Use of laboratory equipment	Use of laboratory equipment	Transportation of Personnel	Transportation of Personnel

Appendix G2

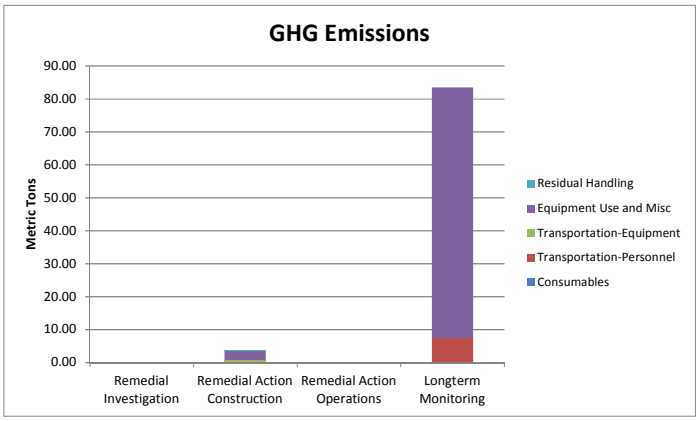
SiteWise Outputs for Alternatives G2, G3, G4

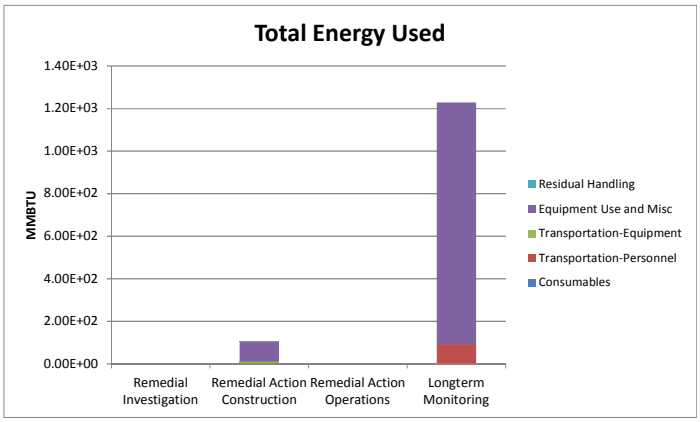
Sustainable Remediation - Environmental Footprint Summary
Alternative G2

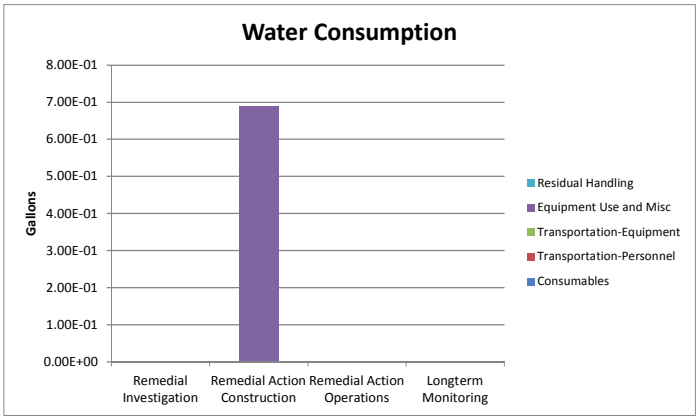
Phase	Activities	GHG Emissions	Total energy Used	Water Consumption	NOx emissions	SOx Emissions	PM10 Emissions	Accident Risk Fatality	Accident Risk Injury
		metric ton	MMBTU	gallons	metric ton	metric ton	metric ton		
Remedial Investigation	Consumables	0.00	0.0E+00	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Transportation-Equipment	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Equipment Use and Misc	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Residual Handling	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Sub-Total	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Remedial Action Construction	Consumables	0.00	0.0E+00	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	0.29	3.6E+00	NA	1.1E-04	3.7E-06	2.1E-05	5.9E-06	4.7E-04
	Transportation-Equipment	0.46	6.3E+00	NA	1.5E-04	6.0E-06	1.2E-05	2.3E-06	1.9E-04
	Equipment Use and Misc	2.79	9.4E+01	6.9E-01	1.6E-02	2.1E-03	1.3E-03	2.3E-06	5.9E-04
	Residual Handling	0.15	2.1E+00	NA	4.9E-05	2.0E-06	4.0E-06	7.8E-07	6.3E-05
	Sub-Total	3.69	1.06E+02	6.87E-01	1.66E-02	2.07E-03	1.30E-03	1.13E-05	1.31E-03
Remedial Action Operations	Consumables	0.00	0.0E+00	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Transportation-Equipment	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Equipment Use and Misc	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Residual Handling	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Sub-Total	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Longterm Monitoring	Consumables	0.00	0.0E+00	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	7.43	9.3E+01	NA	2.7E-03	9.7E-05	5.6E-04	1.5E-04	1.2E-02
	Transportation-Equipment	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Equipment Use and Misc	76.07	1.1E+03	0.0E+00	2.6E-01	1.8E-01	6.7E-03	0.0E+00	0.0E+00
	Residual Handling	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Sub-Total	83.50	1.23E+03	0.00E+00	2.66E-01	1.76E-01	7.23E-03	1.52E-04	1.22E-02
Total		**8.7E+01**	**1.3E+03**	**6.9E-01**	**2.8E-01**	**1.8E-01**	**8.5E-03**	**1.6E-04**	**1.4E-02**

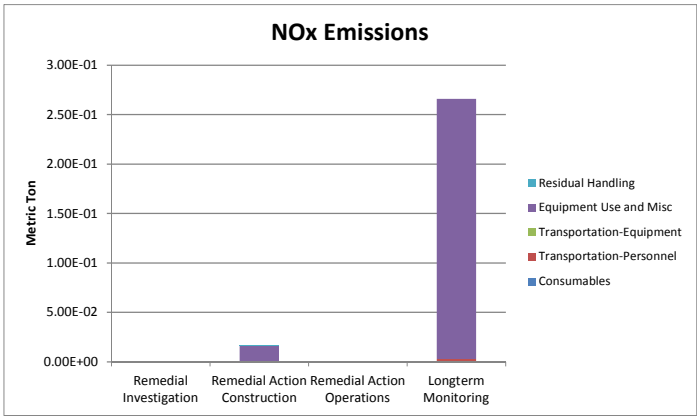
Remedial Alternative Phase	Non-Hazardous Waste Landfill Space	Hazardous Waste Landfill Space	Topsoil Consumption	Costing	Lost Hours - Injury
	tons	tons	cubic yards	$	
Remedial Investigation	0.0E+00	0.0E+00	0.0E+00	0	0.0E+00
Remedial Action Construction	0.0E+00	0.0E+00	0.0E+00	0	1.0E-02
Remedial Action Operations	0.0E+00	0.0E+00	0.0E+00	0	0.0E+00
Longterm Monitoring	0.0E+00	0.0E+00	0.0E+00	0	9.8E-02
Total	**0.0E+00**	**0.0E+00**	**0.0E+00**	**$0**	**1.1E-01**

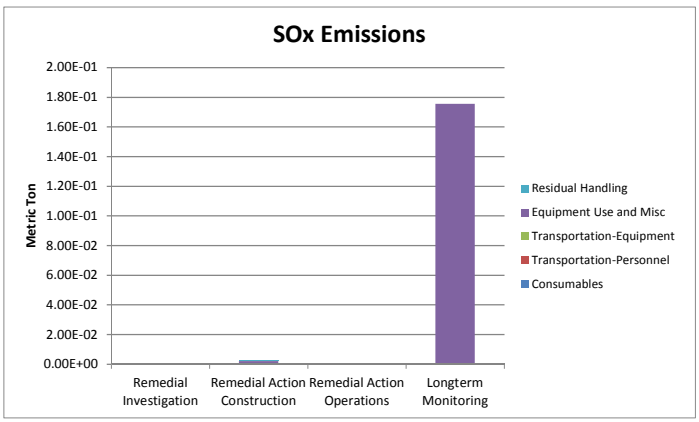
Total Cost with Footprint Reduction
$0

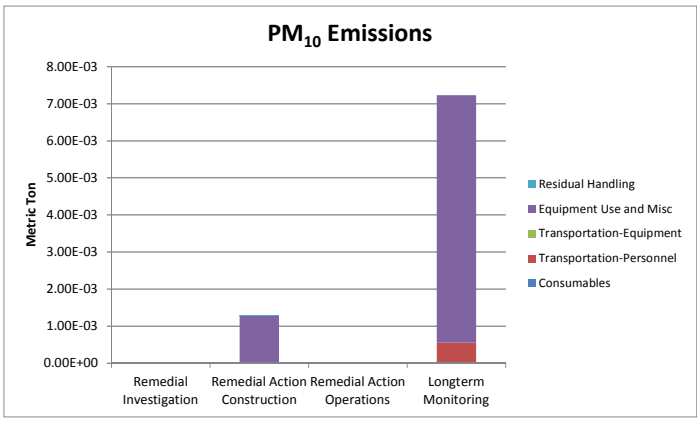

GHG Emissions
Metric Tons
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

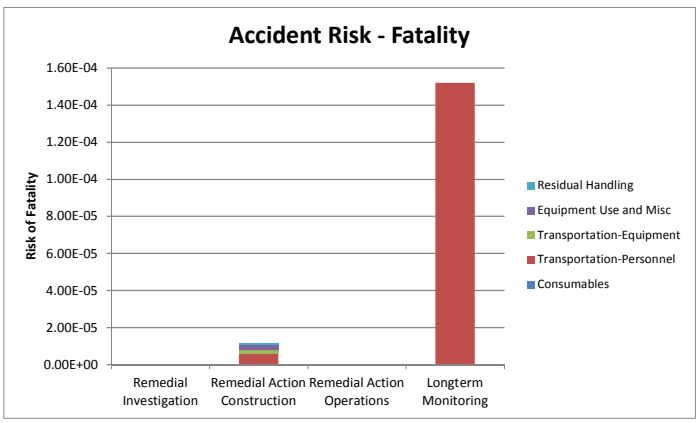

Total Energy Used
MMBTU
1.40E+03
1.20E+03
1.00E+03
8.00E+02
6.00E+02
4.00E+02
2.00E+02
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

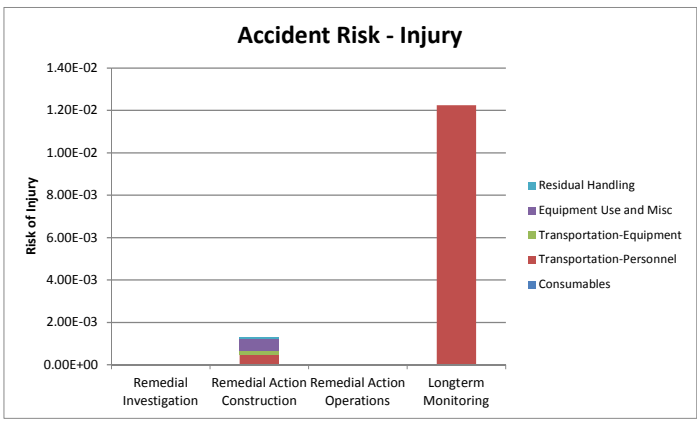

Water Consumption
Gallons
8.00E-01
7.00E-01
6.00E-01
5.00E-01
4.00E-01
3.00E-01
2.00E-01
1.00E-01
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


NOx Emissions
Metric Ton
3.00E-01
2.50E-01
2.00E-01
1.50E-01
1.00E-01
5.00E-02
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


SOx Emissions
Metric Ton
2.00E-01
1.80E-01
1.60E-01
1.40E-01
1.20E-01
1.00E-01
8.00E-02
6.00E-02
4.00E-02
2.00E-02
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


PM10 Emissions
Metric Ton
8.00E-03
7.00E-03
6.00E-03
5.00E-03
4.00E-03
3.00E-03
2.00E-03
1.00E-03
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


Accident Risk - Fatality
Risk of Fatality
1.60E-04
1.40E-04
1.20E-04
1.00E-04
8.00E-05
6.00E-05
4.00E-05
2.00E-05
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

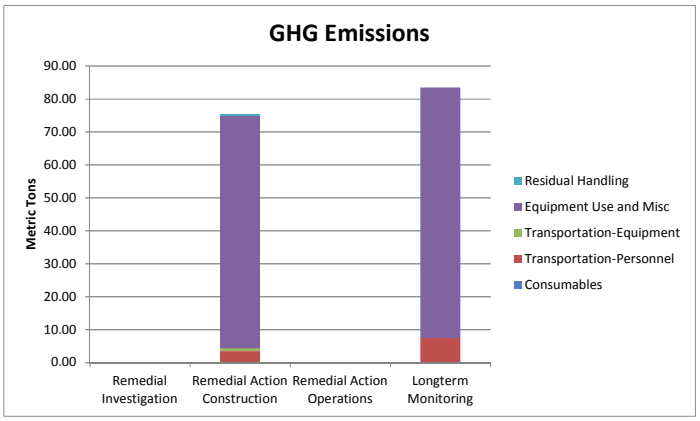

Accident Risk - Injury
Risk of Injury
1.40E-02
1.20E-02
1.00E-02
8.00E-03
6.00E-03
4.00E-03
2.00E-03
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

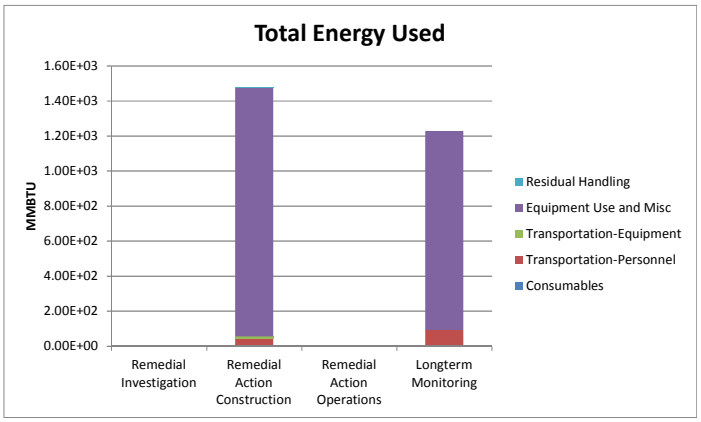
Sustainable Remediation - Environmental Footprint Summary
Alternative G3

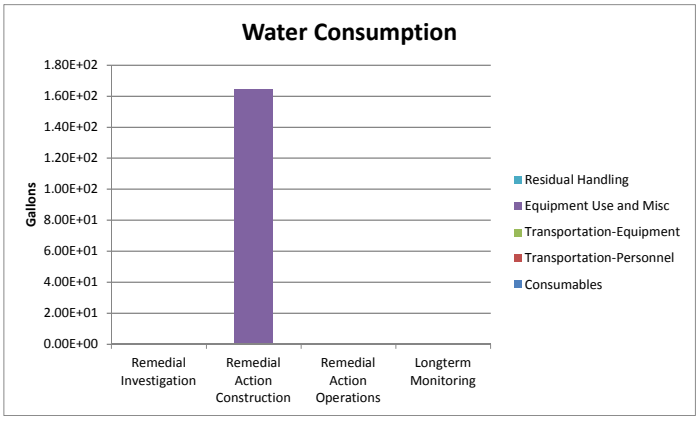
Phase	Activities	GHG Emissions	Total energy Used	Water Consumption	NOx emissions	SOx Emissions	PM10 Emissions	Accident Risk Fatality	Accident Risk Injury
		metric ton	MMBTU	gallons	metric ton	metric ton	metric ton		
Remedial Investigation	Consumables	0.00	0.0E+00	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Transportation-Equipment	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Equipment Use and Misc	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Residual Handling	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Sub-Total	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Remedial Action Construction	Consumables	0.00	0.0E+00	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	3.49	4.4E+01	NA	1.3E-03	4.5E-05	2.6E-04	7.1E-05	5.7E-03
	Transportation-Equipment	0.87	1.2E+01	NA	2.8E-04	1.1E-05	2.3E-05	3.1E-06	2.5E-04
	Equipment Use and Misc	70.59	1.4E+03	1.6E+02	6.4E-02	7.1E-02	6.7E-03	2.7E-05	6.8E-03
	Residual Handling	0.32	4.4E+00	NA	1.0E-04	4.2E-06	8.3E-06	1.6E-06	1.3E-04
	Sub-Total	75.26	1.48E+03	1.65E+02	6.55E-02	7.12E-02	6.95E-03	1.03E-04	1.29E-02
Remedial Action Operations	Consumables	0.00	0.0E+00	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Transportation-Equipment	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Equipment Use and Misc	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Residual Handling	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Sub-Total	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Longterm Monitoring	Consumables	0.00	0.0E+00	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	7.43	9.3E+01	NA	2.7E-03	9.7E-05	5.6E-04	1.5E-04	1.2E-02
	Transportation-Equipment	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Equipment Use and Misc	76.07	1.1E+03	0.0E+00	2.6E-01	1.8E-01	6.7E-03	0.0E+00	0.0E+00
	Residual Handling	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Sub-Total	83.50	1.23E+03	0.00E+00	2.66E-01	1.76E-01	7.23E-03	1.52E-04	1.22E-02
Total		**1.6E+02**	**2.7E+03**	**1.6E+02**	**3.3E-01**	**2.5E-01**	**1.4E-02**	**2.6E-04**	**2.5E-02**

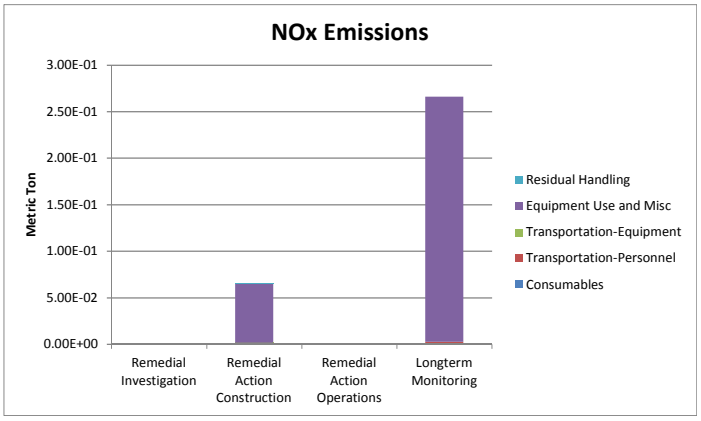
Remedial Alternative Phase	Non-Hazardous Waste Landfill Space	Hazardous Waste Landfill Space	Topsoil Consumption	Costing	Lost Hours - Injury
	tons	tons	cubic yards	$	
Remedial Investigation	0.0E+00	0.0E+00	0.0E+00	0	0.0E+00
Remedial Action Construction	0.0E+00	0.0E+00	0.0E+00	0	1.0E-01
Remedial Action Operations	0.0E+00	0.0E+00	0.0E+00	0	0.0E+00
Longterm Monitoring	0.0E+00	0.0E+00	0.0E+00	0	9.8E-02
Total	**0.0E+00**	**0.0E+00**	**0.0E+00**	**$0**	**2.0E-01**

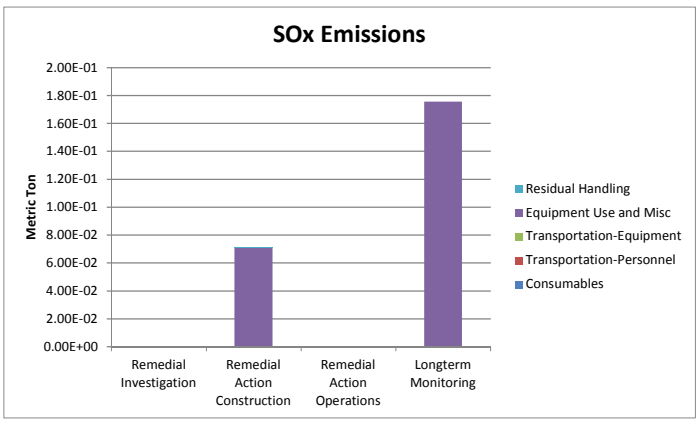
Total Cost with Footprint Reduction
$0

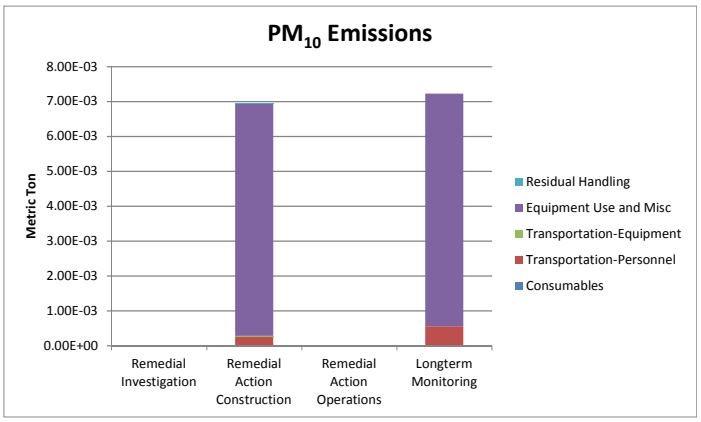

GHG Emissions
Metric Tons
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

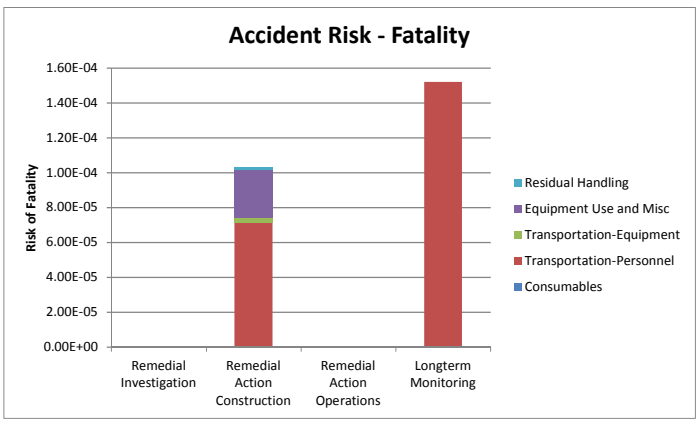

Total Energy Used
MMBTU
1.60E+03
1.40E+03
1.20E+03
1.00E+03
8.00E+02
6.00E+02
4.00E+02
2.00E+02
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

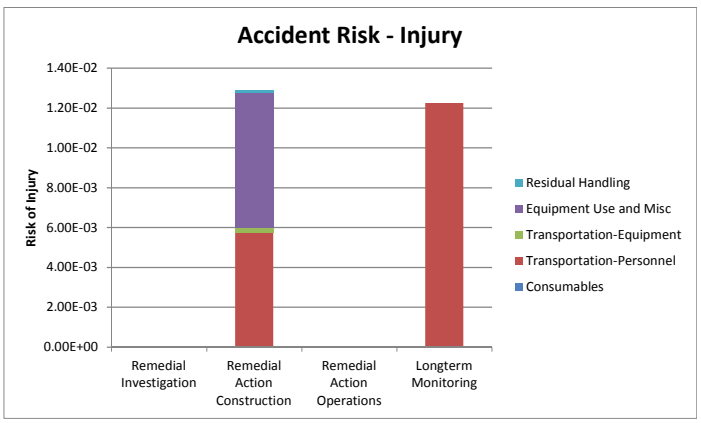

Water Consumption
Gallons
1.80E+02
1.60E+02
1.40E+02
1.20E+02
1.00E+02
8.00E+01
6.00E+01
4.00E+01
2.00E+01
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


NOx Emissions
Metric Ton
3.00E-01
2.50E-01
2.00E-01
1.50E-01
1.00E-01
5.00E-02
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


SOx Emissions
Metric Ton
2.00E-01
1.80E-01
1.60E-01
1.40E-01
1.20E-01
1.00E-01
8.00E-02
6.00E-02
4.00E-02
2.00E-02
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


PM10 Emissions
Metric Ton
8.00E-03
7.00E-03
6.00E-03
5.00E-03
4.00E-03
3.00E-03
2.00E-03
1.00E-03
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


Accident Risk - Fatality
Risk of Fatality
1.60E-04
1.40E-04
1.20E-04
1.00E-04
8.00E-05
6.00E-05
4.00E-05
2.00E-05
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

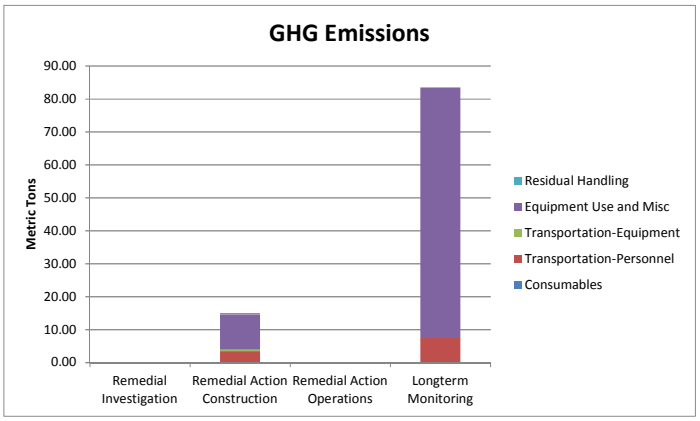

Accident Risk - Injury
Risk of Injury
1.40E-02
1.20E-02
1.00E-02
8.00E-03
6.00E-03
4.00E-03
2.00E-03
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

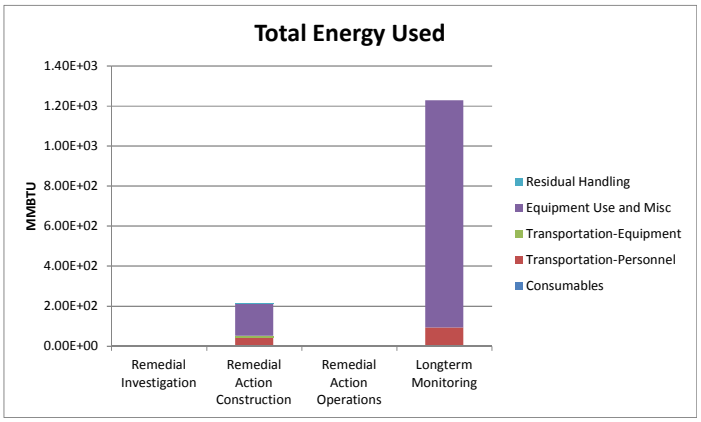
Sustainable Remediation - Environmental Footprint Summary
Alternative G4

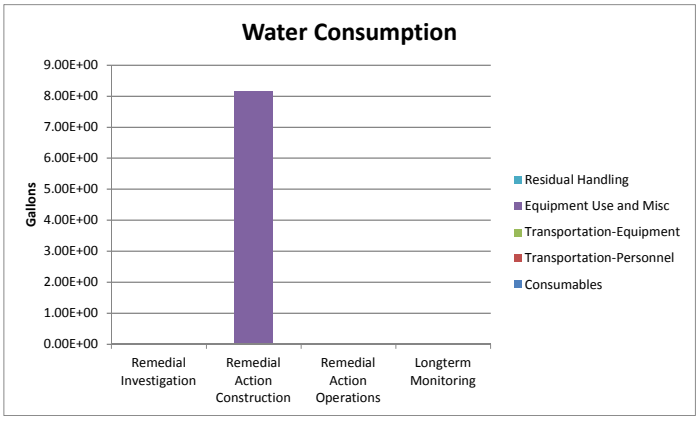
Phase	Activities	GHG Emissions	Total energy Used	Water Consumption	NOx emissions	SOx Emissions	PM10 Emissions	Accident Risk Fatality	Accident Risk Injury
		metric ton	MMBTU	gallons	metric ton	metric ton	metric ton		
Remedial Investigation	Consumables	0.00	0.0E+00	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Transportation-Equipment	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Equipment Use and Misc	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Residual Handling	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Sub-Total	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Remedial Action Construction	Consumables	0.00	0.0E+00	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	3.49	4.4E+01	NA	1.3E-03	4.5E-05	2.6E-04	7.1E-05	5.7E-03
	Transportation-Equipment	0.57	7.8E+00	NA	1.8E-04	7.5E-06	1.5E-05	2.3E-06	1.9E-04
	Equipment Use and Misc	10.56	1.6E+02	8.2E+00	6.4E-02	1.0E-02	6.3E-03	2.7E-05	6.8E-03
	Residual Handling	0.32	4.4E+00	NA	1.0E-04	4.2E-06	8.3E-06	1.6E-06	1.3E-04
	Sub-Total	14.93	2.16E+02	8.17E+00	6.54E-02	1.03E-02	6.61E-03	1.02E-04	1.28E-02
Remedial Action Operations	Consumables	0.00	0.0E+00	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Transportation-Equipment	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Equipment Use and Misc	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Residual Handling	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Sub-Total	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Longterm Monitoring	Consumables	0.00	0.0E+00	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	7.43	9.3E+01	NA	2.7E-03	9.7E-05	5.6E-04	1.5E-04	1.2E-02
	Transportation-Equipment	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Equipment Use and Misc	76.07	1.1E+03	0.0E+00	2.6E-01	1.8E-01	6.7E-03	0.0E+00	0.0E+00
	Residual Handling	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Sub-Total	83.50	1.23E+03	0.00E+00	2.66E-01	1.76E-01	7.23E-03	1.52E-04	1.22E-02
Total		**9.8E+01**	**1.4E+03**	**8.2E+00**	**3.3E-01**	**1.9E-01**	**1.4E-02**	**2.5E-04**	**2.5E-02**

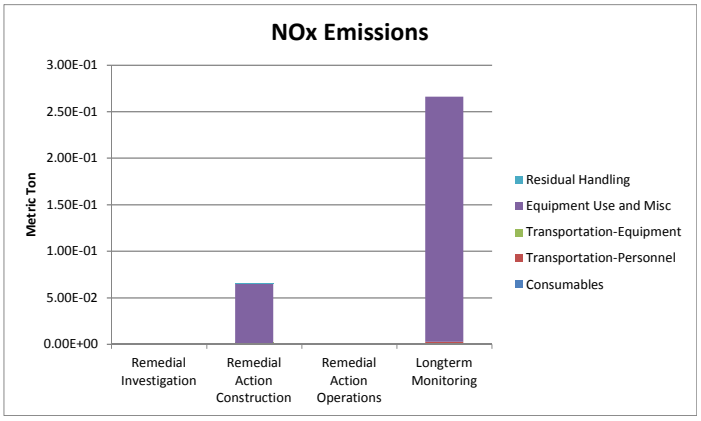
Remedial Alternative Phase	Non-Hazardous Waste Landfill Space	Hazardous Waste Landfill Space	Topsoil Consumption	Costing	Lost Hours - Injury
	tons	tons	cubic yards	$	
Remedial Investigation	0.0E+00	0.0E+00	0.0E+00	0	0.0E+00
Remedial Action Construction	0.0E+00	0.0E+00	0.0E+00	0	1.0E-01
Remedial Action Operations	0.0E+00	0.0E+00	0.0E+00	0	0.0E+00
Longterm Monitoring	0.0E+00	0.0E+00	0.0E+00	0	9.8E-02
Total	**0.0E+00**	**0.0E+00**	**0.0E+00**	**$0**	**2.0E-01**

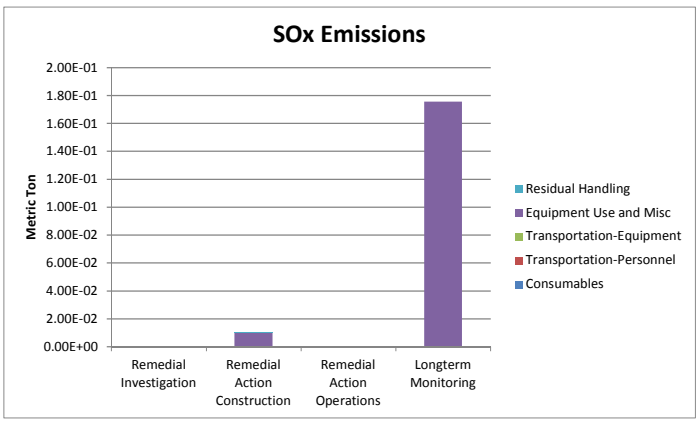
Total Cost with Footprint Reduction
$0

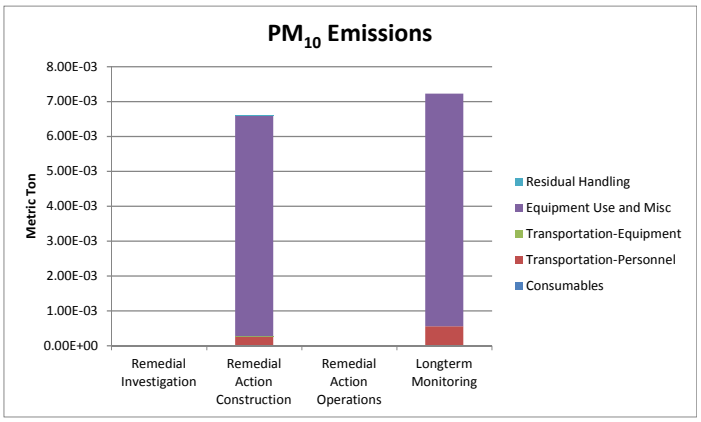

GHG Emissions
Metric Tons
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

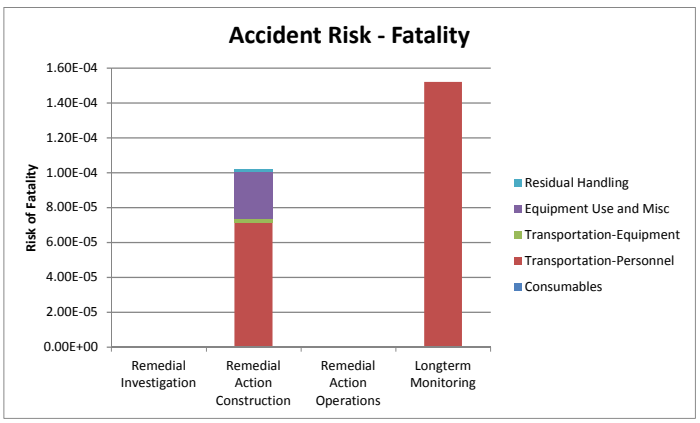

Total Energy Used
MMBTU
1.40E+03
1.20E+03
1.00E+03
8.00E+02
6.00E+02
4.00E+02
2.00E+02
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

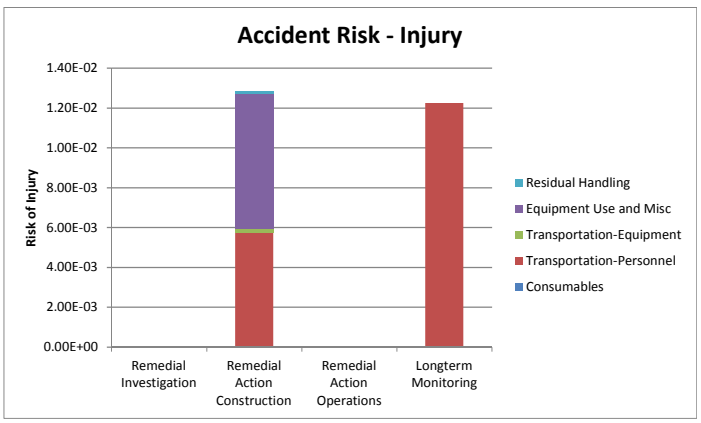

Water Consumption
Gallons
9.00E+00
8.00E+00
7.00E+00
6.00E+00
5.00E+00
4.00E+00
3.00E+00
2.00E+00
1.00E+00
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


NOx Emissions
Metric Ton
3.00E-01
2.50E-01
2.00E-01
1.50E-01
1.00E-01
5.00E-02
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


SOx Emissions
Metric Ton
2.00E-01
1.80E-01
1.60E-01
1.40E-01
1.20E-01
1.00E-01
8.00E-02
6.00E-02
4.00E-02
2.00E-02
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


PM10 Emissions
Metric Ton
8.00E-03
7.00E-03
6.00E-03
5.00E-03
4.00E-03
3.00E-03
2.00E-03
1.00E-03
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


Accident Risk - Fatality
Risk of Fatality
1.60E-04
1.40E-04
1.20E-04
1.00E-04
8.00E-05
6.00E-05
4.00E-05
2.00E-05
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


Accident Risk - Injury
Risk of Injury
1.40E-02
1.20E-02
1.00E-02
8.00E-03
6.00E-03
4.00E-03
2.00E-03
0.00E+00
Remedial Investigation
Remedial Action Construction
Remedial Action Operations
Longterm Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

Appendix G3

GSRx Outputs for Alternatives G2, G3, G4

	Technology Module / Phase	Module Components	Comments / Assumptions	Quantity	(Units)	Greenhouse Gas Emissions				Criteria Pollutant Emission			Energy Consumption	Water Consumption
						CO_2e	CO_2	N_20	CH_4	NO_x	SO_x	PM_{10}		
Stage	**Materials**					**Tonnes**							**MWhr**	**gal x 1000**
RAC	Well installation	PVC	2" diameter, 660 LF total, 0.72 lb/ft	334.80	lbs	0.75	0.38	0.00	0.00	0.00	0.00	0.00	13.84	0.58
RAC	well casing	PVC	hinged protective casing, 5 lb each, 22 total	65.00	lbs	0.15	0.07	0.00	0.00	0.00	0.00	0.00	2.69	0.11
RAC	well apron	General Concrete	Assume concrete apron, .15cy each	7,897.50	lbs	0.47	0.47	0.00	0.00	0.00	0.00	0.00	4.60	0.00
	Construction Equipment					**Tonnes**							**MWhr**	**gal x 1000**
RAC	drill rig	Drill Rig, HSA (diesel)	DPT + Auger Combo Rig, 8 days, 8 hours per day, 80% utilization	25.6	hrs	1.42	1.39	0.00	0.00	0.02	0.00	0.00	6.52	
	Subtotal					**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0**
	Operating Consumption						**Tonnes**						**MWhr**	**gal x 1000**
	Input Into Sitewise													0
						0	**0**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0**	**0**
				Total		**1**	**1**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**21**	**1**



Alternative 1
Values Input into SiteWise as "Other"

Module	Greenhouse Gas Emissions				Criteria Pollutant Emission			Energy Consumption	Water Consumption
	CO_2e	CO_2	N_20 (CO_2e)	CH_4 (CO_2e)	NO_x	SO_x	PM_{10}		
	Tonnes							**MMBTU**	**gal**
RI	-	-	-	-	-	-	-	-	-
RAC	2.79	2.31	0.34	0.14	0.02	0.00	0.00	94.32	0.69
RAO	-	-	-	-	-	-	-	-	-
LTM	-	-	-	-	-	-	-	-	-

Note: 1 MWhr = 3412141.4799 BTU, 1MMTBU = 10^6 BTU

OTHER KNOWN ONSITE ACTIVITIES	RI	RAC	RAO	LTM
Input energy usage (MMBTU)	0.0E+00	9.4E+01	0.0E+00	0.0E+00
Water consumption (gallon)	0.0E+00	6.9E-01	0.0E+00	0.0E+00
Input CO_2 emission (metric ton)	0.0E+00	2.3E+00	0.0E+00	0.0E+00
Input N_2O emission (metric ton CO_2 e)	0.0E+00	3.4E-01	0.0E+00	0.0E+00
Input CH_4 emissions (metric ton CO_2 e)	0.0E+00	1.4E-01	0.0E+00	0.0E+00
Input NOx emission (metric ton)	0.0E+00	1.6E-02	0.0E+00	0.0E+00
Input SOx emission (metric ton)	0.0E+00	2.1E-03	0.0E+00	0.0E+00
Input PM_{10} emission (metric ton)	0.0E+00	1.3E-03	0.0E+00	0.0E+00
Input fatality risk				
Input injury risk				

	Technology Module / Phase	Module Components	Comments / Assumptions	Quantity	(Units)	Greenhouse Gas Emissions				Criteria Pollutant Emission			Energy Consumption	Water Consumption
						CO_2e	CO_2	N_20	CH_4	NO_x	SO_x	PM_{10}		
Stage	**Materials**								**Tonnes**				**MWhr**	**gal x 1000**
RAC	Equipment Decon Pad Liner	HDPE	assume HDPE, Assume 30ftx40ft, 3 mm thick, 0.95 g/cm3	700.47	lbs	1.56	0.83	0.00	0.01	0.00	0.00	0.00	9.17	0.25
RAC	Equipment Decon Pad Frame	Wood	Assume wood, 4x4 in, (30ftx40ft pad) 140 ft of timber, density for pine 530 kg/m3	514.68	lbs	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00
RAC	ISCO Materials	Sodium Hypochlorite	sodium persulfate	93,000.00	lbs	62.42	62.42	0.00	0.00	0.00	0.06	0.00	1344.42	163.80
RAC	Well installation	PVC	2" diameter, 660 LF total, 0.72 lb/ft	334.80	lbs	0.75	0.38	0.00	0.00	0.00	0.00	0.00	13.84	0.58
RAC	Well casing and apron	PVC	hinged protective casing, 5 lb each, 22 total	65	lbs	0.15	0.07	0.00	0.00	0.00	0.00	0.00	2.69	0.11
RAC	Well casing and apron	General Concrete	Assume concrete apron, .15cy each	7,897.50	lbs	0.47	0.47	0.00	0.00	0.00	0.00	0.00	4.60	0.00
	Subtotal					**63.99**	**63.25**	**0.00**	**0.01**	**0.00**	**0.07**	**0.00**	**1353.60**	**164.06**
	Construction Equipment								**Tonnes**				**MWhr**	**gal x 1000**
RAC	Drill Rig	Drill Rig, HSA (diesel)	DPT + Auger Combo Rig, 8 days, 8 hours per day, 80% utilization	25.60	hrs	1.42	1.39	0.00	0.00	0.02	0.00	0.00	6.52	
RAC	DPT drill rig	Drill Rig, DPT (diesel)	DPT rig, 113 days, 1 drill rig, 6100 lb, 100 miles round trip	268.80	hrs	4.31	4.20	0.00	0.00	0.05	0.00	0.00	32.85	
	Subtotal					**5.73**	**5.60**	**0.00**	**0.01**	**0.06**	**0.00**	**0.01**	**39.37**	**0**
	Operating Consumption						**Tonnes**						**MWhr**	**gal x 1000**
	Input Into Sitewise													0
						0	**0**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0**	**0**
				Total		**70**	**69**	**0.00**	**0.01**	**0.06**	**0.07**	**0.01**	**1,393**	**164**



Alternative 1
Values Input into SiteWise as "Other"

Module	Greenhouse Gas Emissions				Criteria Pollutant Emission			Energy Consumption	Water Consumption
	CO_2e	CO_2	N_20 (CO_2e)	CH_4 (CO_2e)	NO_x	SO_x	PM_{10}		
	Tonnes							**MMBTU**	**gal**
RI	-	-	-	-	-	-	-	-	-
RAC	71.09	69.77	0.00	0.02	0.06	0.07	0.01	1,414.09	164.75
RAO	-	-	-	-	-	-	-	-	-
LTM	-	-	-	-	-	-	-	-	-

Note: 1 MWhr = 3412141.4799 BTU, 1MMTBU = 10^6 BTU

OTHER KNOWN ONSITE ACTIVITIES	RI	RAC	RAO	LTM
Input energy usage (MMBTU)	0.0E+00	1.4E+03	0.0E+00	0.0E+00
Water consumption (gallon)	0.0E+00	1.6E+02	0.0E+00	0.0E+00
Input CO_2 emission (metric ton)	0.0E+00	7.0E+01	0.0E+00	0.0E+00
Input N_2O emission (metric ton CO_2 e)	0.0E+00	3.1E-03	0.0E+00	0.0E+00
Input CH_4 emissions (metric ton CO_2 e)	0.0E+00	1.7E-02	0.0E+00	0.0E+00
Input NOx emission (metric ton)	0.0E+00	6.2E-02	0.0E+00	0.0E+00
Input SOx emission (metric ton)	0.0E+00	7.0E-02	0.0E+00	0.0E+00
Input PM_{10} emission (metric ton)	0.0E+00	6.6E-03	0.0E+00	0.0E+00
Input fatality risk				
Input injury risk				

	Technology Module / Phase	Module Components	Comments / Assumptions	Quantity	(Units)	Greenhouse Gas Emissions				Criteria Pollutant Emission			Energy Consumption	Water Consumption
						CO_2e	CO_2	N_20	CH_4	NO_x	SO_x	PM_{10}		
Stage	**Materials**								**Tonnes**				**MWhr**	**gal x 1000**
RAC	Equipment Decon Pad Liner	HDPE	assume HDPE, Assume 30ftx40ft, 3 mm thick, 0.95 g/cm3	700.47	lbs	1.56	0.83	0.00	0.01	0.00	0.00	0.00	9.17	0.25
RAC	Equipment Decon Pad Frame	Wood	Assume wood, 4x4 in, (30ftx40ft pad) 140 ft of timber, density for pine 530 kg/m3	514.68	lbs	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00
RAC	Enhanced Bio Materials	Vegetable Oil	sodium persulfate	16,000.00	lbs	2.39	2.39	0.00	0.00	0.00	0.00	0.00	83.31	7.23
RAC	Well installation	PVC	2" diameter, 660 LF total, 0.72 lb/ft	334.80	lbs	0.75	0.38	0.00	0.00	0.00	0.00	0.00	13.84	0.58
RAC	Well casing and apron	PVC	hinged protective casing, 5 lb each, 22 total	65	lbs	0.15	0.07	0.00	0.00	0.00	0.00	0.00	2.69	0.11
RAC	Well casing and apron	General Concrete	Assume concrete apron, .15cy each	7,897.50	lbs	0.47	0.47	0.00	0.00	0.00	0.00	0.00	4.60	0.00
	Subtotal					**3.96**	**3.23**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**92.48**	**7.48**
	Construction Equipment								**Tonnes**				**MWhr**	**gal x 1000**
RAC	Drill Rig	Drill Rig, HSA (diesel)	DPT + Auger Combo Rig, 8 days, 8 hours per day, 80% utilization	25.60	hrs	1.42	1.39	0.00	0.00	0.02	0.00	0.00	6.52	
RAC	DPT drill rig	Drill Rig, DPT (diesel)	DPT rig, 113 days, 1 drill rig, 6100 lb, 100 miles round trip	268.80	hrs	4.31	4.20	0.00	0.00	0.05	0.00	0.00	32.85	
	Subtotal					**5.73**	**5.60**	**0.00**	**0.01**	**0.06**	**0.00**	**0.01**	**39.37**	**0**
	Operating Consumption						**Tonnes**						**MWhr**	**gal x 1000**
	Input Into Sitewise													0
						0	**0**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0**	**0**
				Total		**10**	**9**	**0.00**	**0.01**	**0.06**	**0.01**	**0.01**	**132**	**7**



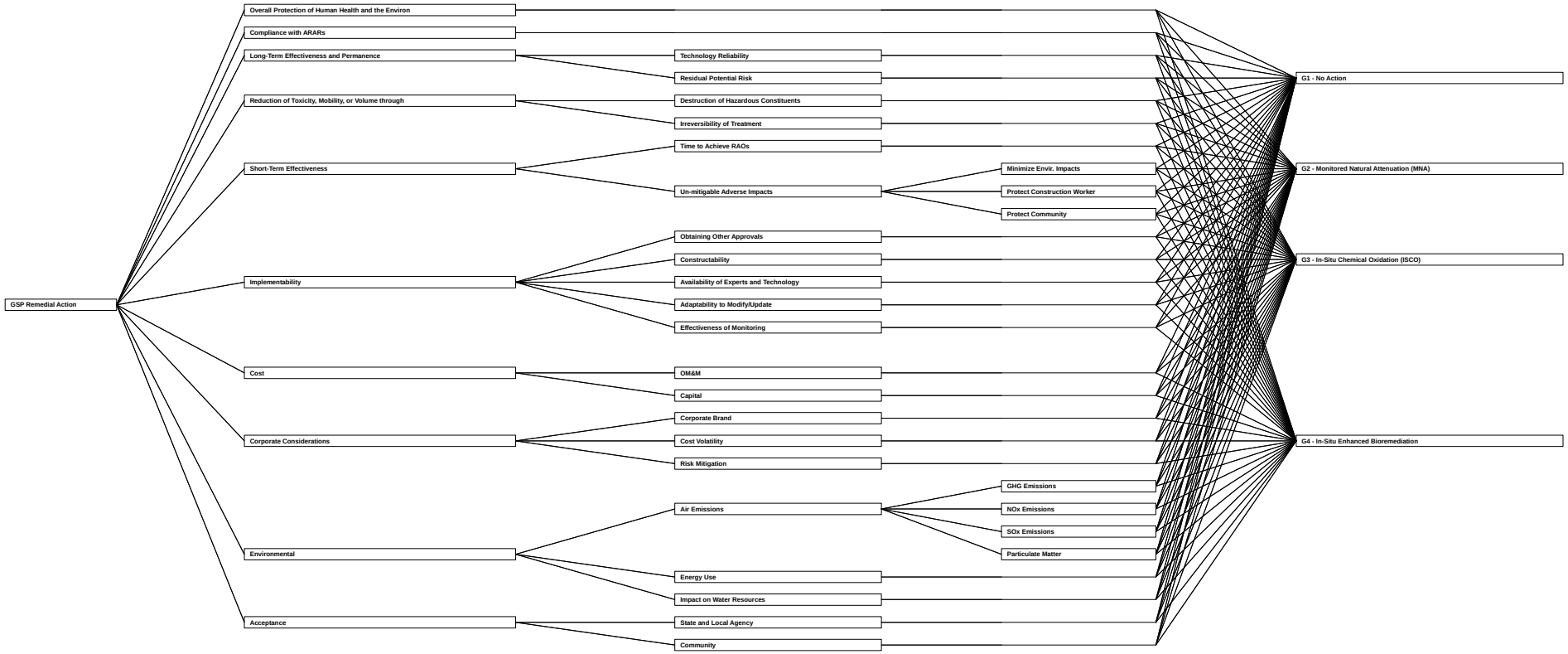
Alternative 1
Values Input into SiteWise as "Other"

Module	Greenhouse Gas Emissions				Criteria Pollutant Emission			Energy Consumption	Water Consumption
	CO_2e	CO_2	N_20 (CO_2e)	CH_4 (CO_2e)	NO_x	SO_x	PM_{10}		
	Tonnes							**MMBTU**	**gal**
RI	-	-	-	-	-	-	-	-	-
RAC	11.06	9.74	0.00	0.02	0.06	0.01	0.01	152.97	8.17
RAO	-	-	-	-	-	-	-	-	-
LTM	-	-	-	-	-	-	-	-	-

Note: 1 MWhr = 3412141.4799 BTU, 1MMTBU = 10^6 BTU

OTHER KNOWN ONSITE ACTIVITIES	RI	RAC	RAO	LTM
Input energy usage (MMBTU)	0.0E+00	1.5E+02	0.0E+00	0.0E+00
Water consumption (gallon)	0.0E+00	8.2E+00	0.0E+00	0.0E+00
Input CO_2 emission (metric ton)	0.0E+00	9.7E+00	0.0E+00	0.0E+00
Input N_2O emission (metric ton CO_2 e)	0.0E+00	3.1E-03	0.0E+00	0.0E+00
Input CH_4 emissions (metric ton CO_2 e)	0.0E+00	1.7E-02	0.0E+00	0.0E+00
Input NOx emission (metric ton)	0.0E+00	6.2E-02	0.0E+00	0.0E+00
Input SOx emission (metric ton)	0.0E+00	8.8E-03	0.0E+00	0.0E+00
Input PM_{10} emission (metric ton)	0.0E+00	6.3E-03	0.0E+00	0.0E+00
Input fatality risk				
Input injury risk				

APPENDIX H—CRITERIUM DECISION PLUS®



Attorney-Client Priveleged Information and/or Attorney Work Product

Goal Level	Weights	Priorities	Rating Set	Level 2	Weights	Priorities
GSP Remedial Act	90.00	0.123	Overall Protection of Human Health and	Overall Protection of Human Health and		
	90.00	0.123	Compliance with ARARs	Compliance with ARARs		
	90.00	0.123	Long-Term Effectiveness and Permanen	Long-Term Effectiveness and Permanen	90.00	0.692
	75.00	0.103	Reduction of Toxicity, Mobility, or Volume		40.00	0.308
	50.00	0.068	Short-Term Effectiveness	Reduction of Toxicity, Mobility, or Volume	50.00	0.556
	80.00	0.110	Implementability		40.00	0.444
	90.00	0.123	Cost	Short-Term Effectiveness	50.00	0.500
	40.00	0.055	Corporate Considerations		50.00	0.500
	50.00	0.068	Environmental	Implementability	75.00	0.254
	75.00	0.103	Acceptance		100.00	0.339
					25.00	0.085
					35.00	0.119
					60.00	0.203
				Cost	25.00	0.217
					90.00	0.783
				Corporate Considerations	25.00	0.333
					25.00	0.333
					25.00	0.333
				Environmental	25.00	0.132
					75.00	0.395
					90.00	0.474
				Acceptance	100.00	0.571
					75.00	0.429

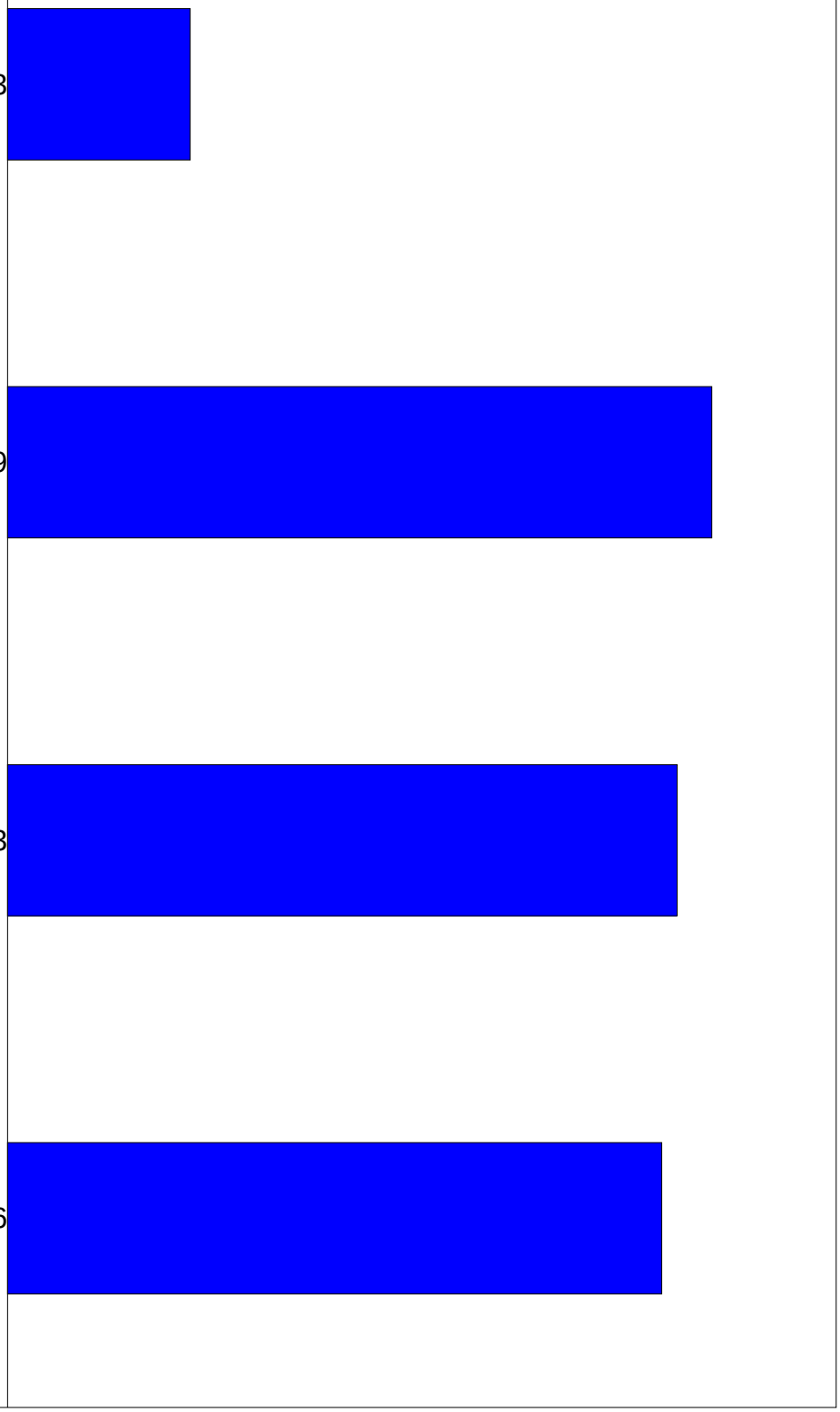
Rating Set	Level 3	Weights	Priorities	Rating Set	Lowest Criteria
Alternatives	Technology Reliability			Alternatives	Overall Protection of Human Health and
Alternatives	Residual Potential Risk			Alternatives	Compliance with ARARs
Technology Reliability	Destruction of Hazardous Cons			Alternatives	Technology Reliability
Residual Potential Risk	Irreversibility of Treatment			Alternatives	Residual Potential Risk
Destruction of Hazardous Cons	Time to Achieve RAOs			Alternatives	Destruction of Hazardous Constituents
Irreversibility of Treatment	Un-mitigable Adverse Impacts	90.00	0.375	Minimize Envir. Impacts	Irreversibility of Treatment
Time to Achieve RAOs		80.00	0.333	Protect Construction W	Time to Achieve RAOs
Un-mitigable Adverse Impacts		70.00	0.292	Protect Community	Minimize Envir. Impacts
Obtaining Other Approvals	Obtaining Other Approvals			Alternatives	Protect Construction Worker
Constructability	Constructability			Alternatives	Protect Community
Availability of Experts and Tech	Availability of Experts and Tech			Alternatives	Obtaining Other Approvals
Adaptability to Modify/Update	Adaptability to Modify/Update			Alternatives	Constructability
Effectiveness of Monitoring	Effectiveness of Monitoring			Alternatives	Availability of Experts and Technology
OM&M	OM&M			Alternatives	Adaptability to Modify/Update
Capital	Capital			Alternatives	Effectiveness of Monitoring
Corporate Brand	Corporate Brand			Alternatives	OM&M
Cost Volatility	Cost Volatility			Alternatives	Capital
Risk Mitigation	Risk Mitigation			Alternatives	Corporate Brand
Air Emissions	Air Emissions	80.00	0.340	GHG Emissions	Cost Volatility
Energy Use		75.00	0.319	NOx Emissions	Risk Mitigation
Impact on Water Resources		50.00	0.213	SOx Emissions	GHG Emissions
State and Local Agency		30.00	0.128	Particulate Matter	NOx Emissions
Community	Energy Use			Alternatives	SOx Emissions
	Impact on Water Resources			Alternatives	Particulate Matter
	State and Local Agency			Alternatives	Energy Use
	Community			Alternatives	Impact on Water Resources
					State and Local Agency
					Community

Attorney-Client Priveleged Information and/or Attorney Work Product

G1 - No Action Ra	G1 - No Action Pri	G2 - Monitored Natural Attenuation (M	G2 - Monitored Natural Attenuation (M
0.00	0.000	50.00	0.333
0.00	0.000	65.00	0.333
0.00	0.000	100.00	0.526
0.00	0.000	50.00	0.313
0.00	0.000	35.00	0.259
0.00	0.000	35.00	0.259
20.00	0.133	40.00	0.267
25.00	0.143	50.00	0.286
25.00	0.139	55.00	0.306
0.00	0.000	50.00	0.333
25.00	0.116	90.00	0.419
100.00	0.333	100.00	0.333
25.00	0.111	100.00	0.444
75.00	0.294	100.00	0.392
0.00	0.000	100.00	0.500
60.00	0.250	60.00	0.250
100.00	0.308	80.00	0.246
0.00	0.000	20.00	0.111
100.00	0.299	100.00	0.299
0.00	0.000	20.00	0.167
100.00	0.271	99.00	0.268
100.00	0.385	100.00	0.385
100.00	0.385	100.00	0.385
100.00	0.329	99.00	0.326
100.00	0.286	100.00	0.286
10.00	0.047	65.00	0.302
0.00	0.000	50.00	0.323
0.00	0.000	25.00	0.192

G3 - In-Situ Chemical Oxidation (IS	G3 - In-Situ Chemical Oxidation (IS	G4 - In-Situ Enhanced Bioremediati	G4 - In-Situ Enhanced Bioremediati
50.00	0.333	50.00	0.333
65.00	0.333	65.00	0.333
50.00	0.263	40.00	0.211
55.00	0.344	55.00	0.344
50.00	0.370	50.00	0.370
50.00	0.370	50.00	0.370
45.00	0.300	45.00	0.300
50.00	0.286	50.00	0.286
50.00	0.278	50.00	0.278
50.00	0.333	50.00	0.333
50.00	0.233	50.00	0.233
50.00	0.167	50.00	0.167
50.00	0.222	50.00	0.222
40.00	0.157	40.00	0.157
50.00	0.250	50.00	0.250
60.00	0.250	60.00	0.250
70.00	0.215	75.00	0.231
80.00	0.444	80.00	0.444
70.00	0.209	65.00	0.194
50.00	0.417	50.00	0.417
90.00	0.244	80.00	0.217
30.00	0.115	30.00	0.115
30.00	0.115	30.00	0.115
55.00	0.181	50.00	0.164
75.00	0.214	75.00	0.214
70.00	0.326	70.00	0.326
55.00	0.355	50.00	0.323
55.00	0.423	50.00	0.385

Alternatives	Value	Decision Scores
G1 - No Action	0.083	
G2 - Monitored Natura	0.319	
G3 - In-Situ Chemical	0.303	
G4 - In-Situ Enhanced	0.296	



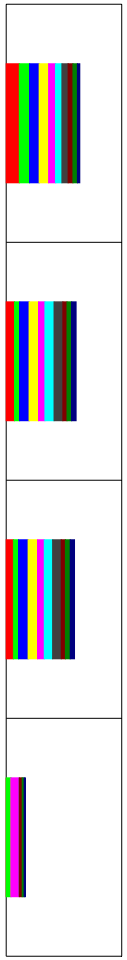
Attorney-Client Priveleged Information and/or Attorney Work Product

Criterion	G1 - No Action	G2 - Monitored Natural Attenuation (M	G3 - In-Situ Chemical Oxidation (ISC
Overall Protection of Human Health and the En	0.000	0.333	0.333
Compliance with ARARs	0.000	0.333	0.333
Technology Reliability	0.000	0.526	0.263
Residual Potential Risk	0.000	0.313	0.344
Destruction of Hazardous Constituents	0.000	0.259	0.370
Irreversibility of Treatment	0.000	0.259	0.370
Time to Achieve RAOs	0.133	0.267	0.300
Minimize Envir. Impacts	0.143	0.286	0.286
Protect Construction Worker	0.139	0.306	0.278
Protect Community	0.000	0.333	0.333
Obtaining Other Approvals	0.116	0.419	0.233
Constructability	0.333	0.333	0.167
Availability of Experts and Technology	0.111	0.444	0.222
Adaptability to Modify/Update	0.294	0.392	0.157
Effectiveness of Monitoring	0.000	0.500	0.250
Community	0.000	0.192	0.423
OM&M	0.250	0.250	0.250
Capital	0.308	0.246	0.215
Corporate Brand	0.000	0.111	0.444
Cost Volatility	0.299	0.299	0.209
Risk Mitigation	0.000	0.167	0.417
GHG Emissions	0.271	0.268	0.244
NOx Emissions	0.385	0.385	0.115
SOx Emissions	0.385	0.385	0.115
Particulate Matter	0.329	0.326	0.181
Energy Use	0.286	0.286	0.214
Impact on Water Resources	0.047	0.302	0.326
State and Local Agency	0.000	0.323	0.355
Results	0.083	0.319	0.303

G4 - In-Situ Enhanced Bioremediati	Model Weights
0.333	0.123
0.333	0.123
0.211	0.085
0.344	0.038
0.370	0.057
0.370	0.046
0.300	0.034
0.286	0.013
0.278	0.011
0.333	0.010
0.233	0.028
0.167	0.037
0.222	0.009
0.157	0.013
0.250	0.022
0.385	0.044
0.250	0.027
0.231	0.096
0.444	0.018
0.194	0.018
0.417	0.018
0.217	0.003
0.115	0.003
0.115	0.002
0.164	0.001
0.214	0.027
0.326	0.032
0.323	0.059
0.296	

Attorney-Client Priveleged Information and/or Attorney Work Product

Contributions to GSP Remedial Action from Level:Level 2



G:Long-Term Effectiveness and Permanence

G:Implementability

G:Compliance with ARARs

G:Overall Protection of Human Health and the Environ

G:Cost

G:Acceptance

G:Reduction of Toxicity, Mobility, or Volume through

G:Environmental

G:Short-Term Effectiveness

G:Corporate Considerations

Attorney-Client Priveleged Information and/or Attorney Work Product

Alternative Ratings

Criteria	Units	Minimum	Maximum	Value
G1 - No Action				
Overall Protection of Human Health and the Environ	Default	0	100	0
Compliance with ARARs	Default	0	100	0
Technology Reliability	Default	0	100	0
Residual Potential Risk	Default	0	100	0
Destruction of Hazardous Constituents	Default	0	100	0
Irreversibility of Treatment	Default	0	100	0
Time to Achieve RAOs	Default	0	100	20
Minimize Envir. Impacts	Default	0	100	25
Protect Construction Worker	Default	0	100	25
Protect Community	Default	0	100	0
Obtaining Other Approvals	Default	0	100	25
Constructability	Default	0	100	100
Availability of Experts and Technology	Default	0	100	25
Adaptability to Modify/Update	Default	0	100	75
Effectiveness of Monitoring	Default	0	100	0
OM&M	Default	0	100	60
Capital	Default	0	100	100
Corporate Brand	Default	0	100	0
Cost Volatility	Default	0	100	100
Risk Mitigation	Default	0	100	0
GHG Emissions	Default	0	100	100
NOx Emissions	Default	0	100	100
SOx Emissions	Default	0	100	100
Particulate Matter	Default	0	100	100
Energy Use	Default	0	100	100
Impact on Water Resources	Default	0	100	10
State and Local Agency	Default	0	100	0
Community	Default	0	100	0
G2 - Monitored Natural Attenuation (MNA)				

Attorney-Client Priveleged Information and/or Attorney Work Product

Alternative Ratings

Overall Protection of Human Health and the Environ	Default	0	100	50
Compliance with ARARs	Default	0	100	65
Technology Reliability	Default	0	100	100
Residual Potential Risk	Default	0	100	50
Destruction of Hazardous Constituents	Default	0	100	35
Irreversibility of Treatment	Default	0	100	35
Time to Achieve RAOs	Default	0	100	40
Minimize Envir. Impacts	Default	0	100	50
Protect Construction Worker	Default	0	100	55
Protect Community	Default	0	100	50
Obtaining Other Approvals	Default	0	100	90
Constructability	Default	0	100	100
Availability of Experts and Technology	Default	0	100	100
Adaptability to Modify/Update	Default	0	100	100
Effectiveness of Monitoring	Default	0	100	100
OM&M	Default	0	100	60
Capital	Default	0	100	80
Corporate Brand	Default	0	100	20
Cost Volatility	Default	0	100	100
Risk Mitigation	Default	0	100	20
GHG Emissions	Default	0	100	99
NOx Emissions	Default	0	100	100
SOx Emissions	Default	0	100	100
Particulate Matter	Default	0	100	99
Energy Use	Default	0	100	100
Impact on Water Resources	Default	0	100	65
State and Local Agency	Default	0	100	50
Community	Default	0	100	25
G3 - In-Situ Chemical Oxidation (ISCO)				
Overall Protection of Human Health and the Environ	Default	0	100	50

Alternative Ratings

Compliance with ARARs	Default	0	100	65
Technology Reliability	Default	0	100	50
Residual Potential Risk	Default	0	100	55
Destruction of Hazardous Constituents	Default	0	100	50
Irreversibility of Treatment	Default	0	100	50
Time to Achieve RAOs	Default	0	100	45
Minimize Envir. Impacts	Default	0	100	50
Protect Construction Worker	Default	0	100	50
Protect Community	Default	0	100	50
Obtaining Other Approvals	Default	0	100	50
Constructability	Default	0	100	50
Availability of Experts and Technology	Default	0	100	50
Adaptability to Modify/Update	Default	0	100	40
Effectiveness of Monitoring	Default	0	100	50
OM&M	Default	0	100	60
Capital	Default	0	100	70
Corporate Brand	Default	0	100	80
Cost Volatility	Default	0	100	70
Risk Mitigation	Default	0	100	50
GHG Emissions	Default	0	100	90
NOx Emissions	Default	0	100	30
SOx Emissions	Default	0	100	30
Particulate Matter	Default	0	100	55
Energy Use	Default	0	100	75
Impact on Water Resources	Default	0	100	70
State and Local Agency	Default	0	100	55
Community	Default	0	100	55
G4 - In-Situ Enhanced Bioremediation				
Overall Protection of Human Health and the Environ	Default	0	100	50
Compliance with ARARs	Default	0	100	65
Technology Reliability	Default	0	100	40

Alternative Ratings

Residual Potential Risk	Default	0	100	55
Destruction of Hazardous Constituents	Default	0	100	50
Irreversibility of Treatment	Default	0	100	50
Time to Achieve RAOs	Default	0	100	45
Minimize Envir. Impacts	Default	0	100	50
Protect Construction Worker	Default	0	100	50
Protect Community	Default	0	100	50
Obtaining Other Approvals	Default	0	100	50
Constructability	Default	0	100	50
Availability of Experts and Technology	Default	0	100	50
Adaptability to Modify/Update	Default	0	100	40
Effectiveness of Monitoring	Default	0	100	50
OM&M	Default	0	100	60
Capital	Default	0	100	75
Corporate Brand	Default	0	100	80
Cost Volatility	Default	0	100	65
Risk Mitigation	Default	0	100	50
GHG Emissions	Default	0	100	80
NOx Emissions	Default	0	100	30
SOx Emissions	Default	0	100	30
Particulate Matter	Default	0	100	50
Energy Use	Default	0	100	75
Impact on Water Resources	Default	0	100	70
State and Local Agency	Default	0	100	50
Community	Default	0	100	50