Block H Soil
Remedial Action Plan
Lockheed Martin Middle River Complex
2323 Eastern Boulevard
Middle River, Maryland

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Lockheed Martin Corporation

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ACRONYMS

AASHTO	American Association of State Highway and Transportation Officials
ARARs	applicable or relevant and appropriate requirements
ASTM	ASTM International, Inc.
ATC	anticipated typical concentration
BaPEq	benzo(a)pyrene equivalent
bgs	below ground surface
CDP	*Criterium® DecisionPlus®*
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	*Code of Federal Regulations*
CHS	Controlled Hazardous Substances
COC	chemical(s) of concern
COMAR	*Code of Maryland Regulations*
COPC	chemical(s) of potential concern
CSM	conceptual site model
DRO	diesel-range organics
EM	electromagnetic
EPC	exposure-point concentration
ESA	environmental site assessment
FRTR	Federal Remediation Technologies Roundtable
GPR	ground-penetrating radar
GRA	general response action
GRO	gasoline-range organics
HHRA	human health risk assessment
HI	hazard index
ILCR	incremental lifetime-cancer-risk
ITRC	Interstate Technology and Regulatory Council
LUCs	land use controls
LMCPI	LMC Properties, Inc.
Lockheed Martin	Lockheed Martin Corporation
MDE	Maryland Department of the Environment
MDSPGP	Maryland State Programmatic General Permit-4
µg/kg	microgram(s) per kilogram
mg/kg	milligram(s) per kilogram

MMBTU	million British thermal units
MRC	Middle River Complex
msl	mean sea level
NCP	*National Oil and Hazardous Substances Pollution Contingency Plan*
No.	number
NO_x	nitrogen oxides
O&M	operation and maintenance
OM&M	operation, maintenance, and monitoring
PAHs	polycyclic aromatic hydrocarbons
PCBs	polychlorinated biphenyls
pH	hydrogen ion content; a measure used to express the relative acidity or alkalinity of a solution
PM_{10}	particulate matter smaller than 10 microns
PPE	personal protective equipment
PRG	preliminary remedial goal
RAO	remedial action objective
RAP	remedial action plan
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RRA	residual-risk analysis
RSL	regional screening-level
SARA	Superfund Amendments and Reauthorization Act
SB	soil boring or subsurface (soil sample)
SIM	selected-ion monitoring
SO_x	sulfur oxides
SVOCs	semivolatile organic compounds
TBC	to be considered
TCA	total cost analysis
TCLP	toxicity characteristic leaching procedure
TEF	toxicity equivalence factor
Tetra Tech	Tetra Tech, Inc.
TPH	total petroleum hydrocarbons
TSDF	treatment, storage, and disposal facility
UCL	upper confidence limit
USEPA	United States Environmental Protection Agency
VCP	Voluntary Cleanup Program
VOCs	volatile organic compounds

GLOSSARY

alkyl polycyclic aromatic-hydrocarbons (PAHs)—Alkylated PAHs are PAHs (see glossary term) that contain carbon side chains appended at one or more location(s). The fundamental structure of the PAH parent compound and the number and location of the carbon side chains affects the mobility and toxicity of a PAH compound. Alkylated PAHs are named and characterized by the total number of alkyl carbon atoms on the parent PAH compound.

applicable or relevant and appropriate requirements (ARARs)—Environmental cleanup standards and requirements (i.e., federal and state laws and regulations) that must be attained during cleanup and maintained at project completion (required by the federal Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA]).

Aroclor— Aroclor is a polychlorinated biphenyl (PCB; see glossary term) mixture produced from approximately 1930 to 1979. It is one of the most commonly known trade names for PCB mixtures. There are many types of Aroclors and each has a distinguishing suffix number that indicates the degree of chlorination. The numbering standard for the different Aroclors is as follows: The first two digits generally refer to the number of carbon atoms in the phenyl rings (for PCBs this is 12), the second two numbers indicate the percentage of chlorine by mass in the mixture. For example, the name Aroclor 1254 means that the mixture contains approximately 54% chlorine by weight.

background (background level)—As defined by the United States Environmental Protection Agency (USEPA), "background" substances in the environment that are not influenced by releases from a site and are usually described as naturally occurring or anthropogenic. "Naturally occurring" is defined as substances in the environment in forms that have not been influenced by human activity. "Anthropogenic" is defined as natural and human-made substances that are in the environment because of human activities, but not specifically related to the site in question.

benzene ring—A chemical structure consisting of six carbon atoms with alternating single and double bonds between them, with each carbon atom bonded to a hydrogen atom in a closed-hexagon-configuration The benzene ring is the basic chemical structure of all aromatic compounds; benzene is the simplest aromatic compound and has one ring only, while PAHs are characterized by two or more fused benzene rings.

benzo(a)pyrene equivalent (BaPEq)—A risk-weighted concentration representing the additive effects of seven PAHs: benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, dibenz(a,h)anthracene, benzo(k)fluoranthene, indeno(1,2,3-cd)pyrene, and chrysene. The BaPEq value is a calculated concentration accounting for the combined toxicity of individual PAHs relative to benzo(a)pyrene. Toxicity equivalency factors (TEFs) are used to convert each individual PAH concentration into an equivalent concentration of benzo(a)pyrene; the sum of these equivalent concentrations for the six other PAHs (mentioned above) and benzo(a)pyrene is the calculated BaPEq concentration.

carcinogen—Any substance that can cause cancer.

chemical(s) of concern (COC)—Chemicals identified through the baseline risk assessment that, by regulatory definition, may potentially cause unacceptable adverse effects to human health and/or ecological receptors.

chemical(s) of potential concern (COPC)—Chemicals identified through a preliminary screening, typically the first step in a baseline risk assessment, that should be considered further in the site evaluation.

cleanup—Actions to address a release or threat of release of a hazardous substance that can affect humans and/or the environment. The term "cleanup" is sometimes used interchangeably with the terms remedial action, removal action, response action, or corrective action.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)— Commonly called Superfund, a federal law passed in 1980 and amended several times, most significantly in 1986 by the Superfund Amendments and Reauthorization Act (SARA). Among other things, this law addresses the remediation of sites where one or more hazardous substances have been disposed of or released to the environment. CERCLA is a cleanup statute, whereas RCRA (see glossary item) is a waste management statute that also includes cleanup provisions.

conceptual site model (CSM)—A written and/or schematic representation of an environmental system and the physical, chemical, and biological processes that affect the transport of chemicals from sources through environmental media (e.g., air, soil, water, sediment or tissue) to humans and ecological receptors in the system. The CSM is periodically revised as additional site data become available.

containment—A technology or design that prevents the movement of contaminants outside of an originating source or property, or onto an outside property, but does not necessarily treat or remove the contaminants.

Controlled Hazardous Substance (CHS) regulations—Regulatory requirements for management and disposal of hazardous waste in Maryland, , found in *Code of Maryland Regulations* (COMAR) 26.14. Remediation of hazardous waste sites is accomplished through a three-phase process: assessment; cleanup; and operation, maintenance, and monitoring.

***ex situ*—**Away from the original location or place where pollutants are found; in this report, *ex situ* means on-site and at the surface, but not in place. For example, an *ex situ* treatment of contaminated soil or groundwater will remove (through digging or pumping, for example) the soil or groundwater from where it was found and subsequently subject it to a treatment process. (See also *in situ*, below.)

exposure assessment—One step in the human or ecological risk assessment processes. An exposure assessment measures or estimates the magnitude, frequency, duration, and route of exposure for a receptor (human or ecological) that may come into contact with an environmental contaminant (for example, by touching contaminated soils). A quantitative result achieved by an exposure assessment is the calculation of an exposure dose or intake (i.e., the amount to which the receptor is exposed).

exposure pathway—The path from sources of chemicals to human and/or ecological receptors from contaminated media including air, soil, sediment, water, or food.

exposure route—The way a contaminant enters an organism after contact; i.e., by ingestion, inhalation, or dermal absorption.

exposure scenario—A tool to develop estimates of potential exposure, dose, and risk, typically for a specific group of people, such as construction workers or residents. An exposure scenario generally includes facts, data, assumptions, inferences, and, sometimes, professional judgment about how the specific group takes place.

hazard index (HI)—A numerical indicator of the potential for adverse non-carcinogenic health effects (i.e., any health effect other than cancer). It is derived by summing the individual-chemical hazard quotients. A hazard index greater than one suggests that adverse health effects are possible, whereas a hazard index equal to or less than one does not.

hazard quotient (HQ)—The ratio of estimated site-specific exposure to a single chemical to a selected toxicity threshold, which is either the level at which no adverse health effects are likely to occur (i.e., the no-observed-adverse-effect level) or at which effects are likely to occur (i.e., the lowest-observed-adverse-effect level).

hazardous substance—Under CERCLA, a hazardous substance is: "(A) any substance designated pursuant to Section 311(b)(2)(A) of the federal Water Pollution Control Act [33 U.S.C. 1321(b)(2)(A)], (B) any element, compound, mixture, solution, or substance designated pursuant to Section 9602 of this title [i.e., CERCLA], (C) any hazardous waste having the characteristics identified under or listed pursuant to Section 3001 of the federal Solid Waste Disposal Act [42 U.S.C. 6921] (but not including any waste the regulation of which under the Solid Waste Disposal Act [42 U.S.C. 6901 et seq.] has been suspended by Act of Congress), (D) any toxic pollutant listed under Section 307(a) of the federal Water Pollution Control Act [33 U.S.C. 1317(a)], (E) any hazardous air pollutant listed under Section 112 of the federal Clean Air Act [42 U.S.C. 7412], and (F) any imminently hazardous chemical substance or mixture with respect to which the (USEPA) Administrator has taken action pursuant to Section 7 of the federal Toxic Substances Control Act [15 U.S.C. 2606]. The term does not include petroleum, including crude oil or any fraction thereof, which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas)."

impacted soil—soils identified in the residual-risk analysis (RRA) that have chemical(s) of concern (COC) concentrations associated with an incremental lifetime-cancer-risk (ILCR) greater than one in 100,000 (i.e., $1{\times}10^{-5}$).

***in situ*—** In this report, *in situ* means on-site and in place. For example, an *in situ* treatment of contaminated soil or groundwater will treat these environmental media in place, without removing the soil or groundwater to treat it.

institutional controls—Non-engineering measures intended to affect human activities in such a way as to prevent or reduce exposure to hazardous substances. They are almost always used in conjunction with, or as a supplement to, other measures such as waste removal, treatment, or containment. Institutional controls fall into four categories: governmental controls, proprietary controls, enforcement tools, and informational devices.

iteratively—In the context of the residual-risk assessment, a step that is repeated over and over again until the desired outcome or goal is achieved.

land use controls (LUCs)—Engineered and non-engineered (administrative) controls formulated and enforced to regulate current and future land use options. Engineered controls include fencing and signs. Non-engineered controls typically consist of administrative restrictions that prohibit certain types of development and/or groundwater use.

leachability—The relative tendency of chemicals to be transferred from soil to groundwater based on the contaminant characteristics, soil properties, and groundwater conditions.

Middle River Complex (MRC)—The site of a Lockheed Martin Corporation (Lockheed Martin) Mission Systems and Training facility; Applied NanoStructured Solutions, which is a Lockheed Martin subsidiary; and General Electric Company's MRA Systems, Inc., subsidiary, ("Middle River Aircraft Systems"); also known locally as Plant 1.

naphthalene— Naphthalene is an aromatic volatile or semivolatile organic compound that occurs naturally in coal and oil. It has a strong odor that smells like tar or mothballs. Naphthalene is used to make products like moth balls, dyes, leather goods, and insecticides.

***National Oil and Hazardous Substances Pollution Contingency Plan* (NCP)—**A federal plan that determines the party or parties that will respond and how they will respond to a spill or release, or threat of release, of oil or a hazardous substance. It establishes a National Response Team, headed by USEPA, and outlines requirements for accident reporting, spill containment, and cleanup.

non-detect—Data point for which the chemical of interest was not detected in the chemical analysis of an environmental sample.

pH—A measure of the activity of the hydrogen ion in solution, used to express the relative acidity or alkalinity of a solution. A solution with a pH of 7 is neutral, whereas a solution with pH less than seven is acidic, and a solution with a pH greater than 7 is basic. Pure water has a pH very close to 7.

petrogenic—Originating from crude and/or refined petroleum products. For this site, petrogenic refers to PAHs originating from a petroleum source.

polychlorinated biphenyls (PCBs)—PCBs are certain man-made organic chemicals manufactured and used in construction materials and electrical products produced before 1979. PCBs belong to the broad family of organic chemicals known as chlorinated hydrocarbons, and vary in consistency from thin, light-colored liquids to yellow or black waxy solids. They reportedly have a range of toxicity, including carcinogenic and non-carcinogenic effects. Due to their non-flammability, chemical stability, high boiling point, and electrical insulating properties, PCBs were used in hundreds of industrial and commercial applications including electrical transformers, hydraulic equipment, thermal insulation, fluorescent lights, oil-based paint, carbonless copy paper, and many other industrial applications. The manufacture of PCBs was banned in 1979.

polycyclic aromatic hydrocarbons (PAHs)—A group of semivolatile organic chemicals often found together that are created when products like coal, oil, gas, and garbage are burned, but the burning process is not complete. PAHs can also be the result of natural processes such as wild fires. PAHs are a concern because they are persist in the environment, meaning they do not degrade readily and remain in the environment for long periods of time. A subset of PAHs are considered probable carcinogens, based on animal toxicity studies.

preliminary remedial goal (PRG)—An acceptable contaminant level or range of levels for a given medium that can be used to support an evaluation of remedial alternatives. PRGs are established based on readily available information, but final acceptable exposure levels should be determined based on baseline risk assessment results and the evaluation of the expected exposures and associated risks for each alternative.

pyrogenic—Formed by the incomplete combustion of organic matter such as wood, fossil fuels, asphalt, and industrial waste. For this site, pyrogenic refers to PAHs originating from asphalt or fill containing coal or wood ash.

recognized environmental condition (REC)—per ASTM International, Inc. (ASTM) E 1527-05, a REC is defined as "the presence or likely presence (as documented in public or other available records) of any hazardous substances or petroleum products on a property under conditions that indicate a potential for an existing release, a possible past release, or a material threat of a release of the hazardous materials into structures or into the soil, groundwater, or surface water of the property."

remediation—The process of correcting and/or cleaning up environmental contamination. This process is governed by various federal and state laws, regulations, and other requirements.

response action—A response action is an action or series of actions to reduce, isolate, or remove contamination from an environmental medium (e.g., soil, air, groundwater, surface water), with the goal of preventing harmful exposure to people or animals and reducing its impact to the environment.

remedial action objective (RAO)—Cleanup objective specifying contaminants to be cleaned up and the level (i.e., the reduction in contaminant concentrations), area, and the time required to achieve a cleanup that adequately protects human health and the environment.

remedial action plan (RAP)—Remedial action is defined in the USEPA *National Contingency Plan*, in part, as "those actions consistent with a permanent remedy taken instead of, or in addition to, a removal action(s) in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate or cause substantial danger to present or future public health or welfare, or the environment." The RAP presents an evaluation of remedial alternatives (i.e., a feasibility study) and details the remedial measures to be taken to minimize environmental and health risks associated with known release(s) of hazardous substances. Depending on known or anticipated risks to human health and the environment, appropriate action can include site closure, monitoring and data collection, active or passive remediation, containment, or imposition of institutional controls.

risk assessment—A qualitative or quantitative evaluation of the risk posed to human health and/or the environment by the actual or potential presence or release of hazardous substances, pollutants or contaminants.

site—The Middle River Complex, in this document, specifically, Tax Block H a 7.88 acre portion of the total property owned by LMC Properties, Inc. (LMCPI).

solubility—A measure of the amount of solute that will dissolve in a solution. It is the ability or tendency of one substance to dissolve into another at a given temperature and pressure and is generally expressed in terms of the amount of solute that will dissolve in a given amount of solvent to produce a saturated solution.

standard proctor—A standardized mechanical testing method used to determine the compaction property of soil. The test is described in American Association of State Highway and Transportation Officials (AASHTO) specifications T-99 and ASTM International, Inc. standard D698-12.

total petroleum hydrocarbons (TPH)—TPH refers to a measure of the concentration or mass of petroleum hydrocarbon constituents present in a given amount of air, soil, or water.

toxicity equivalency factor (TEF)—TEFs are estimates of compound-specific toxicity relative to the toxicity of an index chemical (e.g., benzo[a]pyrene). TEFs are used in a risk assessment to evaluate the risks associated with exposure to a mixture of similar compounds for human or ecological receptors.

volatile organic compounds (VOCs)—A group of organic chemicals that will vaporize or evaporate into the atmosphere at room temperature. They often have a sharp smell and can come from many products, such as office equipment, adhesives, carpeting, upholstery, paints, petroleum products, solvents, and cleaning products. Trichloroethene is an example of a VOC.

Voluntary Cleanup Program—A Maryland Department of the Environment (MDE) administered program providing State oversight for voluntary cleanups of properties contaminated with hazardous substances. The program was established in 1997 as an agreement between MDE and the USEPA. The program provides liability protection for participants such that USEPA will consider sites in the VCP of “no further interest” provided they are successful in cleanup and MDE issues a No Further Requirements Determination or Certificate of Completion. The goal of the program is to increase the number of sites cleaned by streamlining the cleanup process while ensuring compliance with existing environmental regulations.

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Executive Summary

Environmental stewardship of our activities is an important aspect of Lockheed Martin Corporation's (Lockheed Martin) commitment to the communities in which we operate. Accordingly, the Corporation has assumed responsibility for the assessment and cleanup of environmental impacts associated with the Lockheed Martin Corporation Middle River Complex (MRC) located at 2323 Eastern Boulevard in Middle River, Maryland. Tetra Tech, Inc. (Tetra Tech) has prepared this soil remedial action plan (RAP) for Lockheed Martin Corporation in accordance with the requirements of the Maryland Department of the Environment (MDE) Controlled Hazardous Substances (CHS) regulations (promulgated under Section 7-222 of the "Environment Article," *Annotated Code of Maryland*). This remedial action plan presents an evaluation of remedial alternatives (i.e., a feasibility study) for remediation of soils in Tax Block H. Block H is one of eight main land parcels that comprise the Middle River Complex.

Tax Block H, along with other portions of the Middle River Complex, was accepted into the Maryland Voluntary Cleanup Program (VCP) in 2006. They were withdrawn from the program in 2013 in order to combine all elements of the Middle River Complex remediation project including soils, groundwater, and offshore sediments into a single regulatory program. The goal for this remedial action plan is for Tax Block H to receive a "No Further Action" letter from the Maryland Department of the Environment under an industrial future land use category. The remediation proposed in this remedial action plan for soil is targeted for future industrial land use and will meet the current and projected future use of the property. This does not prohibit Tax Block H from other future development (e.g. residential, commercial, or recreational use); however, additional remediation may be required to meet the contemplated land use.

Lockheed Martin will submit the remedial action plans for Tax Blocks D, the Block D panhandle, and Blocks F, G, and H to the Maryland Department of the Environment in the fall of 2013. Block E is on a different overall schedule because the detection of polychlorinated biphenyls above 50 milligrams per kilogram in some soils, storm drains, and off-site shore sediment requires the review and approval of the United States Environmental Protection Agency, in addition to the reviews and approvals required by the Maryland Department of the

Environment. The Block E remedial action plan will be completed during the same period as that of other tax blocks, but remedial activities are expected to occur later than in the other blocks due to the additional agency reviews and approvals. A response action for groundwater at the Middle River Complex is presented in a separate groundwater response action plan. This plan was approved by Maryland Department of the Environment in September 2012. Design of the groundwater remedy is underway; construction completion is anticipated in early 2014.

Remediation of impacted creek sediments near the Middle River Complex is also being addressed within the bounds of the Controlled Hazardous Substances regulations, even though these sediments are within waters of the United States and are not Lockheed Martin Corporation property. A feasibility study for sediment remediation was submitted to the Maryland Department of the Environment and the United States Environmental Protection Agency in December 2012. Sediment remediation will likely occur in the near-shore sediments of Dark Head Cove and Cow Pen Creek, and will be completed pending regulatory approvals and extensive remediation permitting.

***Nature and extent of contamination*—**Investigations associated with Block H have been conducted since 2003 and include record reviews, discussions with Middle River Complex personnel, geophysical surveys, and soil and groundwater sampling. Most impacted soil at Block H appears to be associated with fill material historically placed within the Middle River Complex, or may possibly be from the historical use of the site as a vehicle parking lot. Polycyclic aromatic hydrocarbons are commonly found in asphalt and in fill material, particularly in the form of coal or wood ash. Investigation results show that site surface and subsurface soils are primarily contaminated with polycyclic aromatic hydrocarbons (PAHs) randomly distributed in the soil matrix. As presented in the *Human Health Risk Assessment (HHRA) for Blocks D, E, F, G, and H Soils* (Tetra Tech, 2012), polycyclic aromatic hydrocarbons are the primary risk drivers for industrial workers in Block H, and have been identified in soils at concentrations exceeding industrial risk-based preliminary remedial goals (PRGs).

***Exposure assessment*—**An exposure assessment has been completed for the site to predict human health risks associated with exposure to site contaminants under current and future exposure scenarios. The results indicate that in some areas contaminated site soils pose unacceptable risks to human receptors according to regulatory standards.

***Remedial goals*—**Remedial goals for Block H soil were established using a two-step process. First, a human health risk assessment (HHRA) identified contaminants of concern based on exposure to human receptors. The risk assessment also identified preliminary remedial goals for final chemicals of concern (COC). Risk is defined herein as the probability of adverse health effects resulting from exposure to contamination. A residual-risk analysis (RRA) was then conducted to identify areas in Block H with impacted soils that must be remediated to meet an industrial-use human-health residual-risk level of 1×10^{-5} (i.e., a one-in-100,000 increased probability of cancer). A 1×10^{-5} risk level is the Maryland Department of the Environment's upper end risk threshold for carcinogenic compounds. Preliminary remedial goals were based on cancer risk only because calculated noncancer risks for industrial workers exposed to chemicals of concern in surface soil was less than the acceptable regulatory noncancer risk limit (a hazard index of unity or one).

The risk assessment process resulted in identifying chemicals of concern that will require remediation if a typical industrial worker is the receptor of concern. The risk assessment consists of the following six components:

- data evaluation
- toxicity assessment
- uncertainty analysis
- exposure assessment
- risk characterization
- development of preliminary remedial goal options

Polycyclic aromatic hydrocarbons, expressed as benzo(a)pyrene equivalent concentrations (BaPEq), were identified in the risk assessment as the primary chemicals of concern for Block H soils. The residual-risk analysis identified impacted soil areas upon which remediation was required to meet an industrial risk-based preliminary remedial goal for BaPEq to within a 95% upper confidence level for Block H as a whole. Residual-risk analysis involves iteratively "removing" contaminated soil samples from the risk calculation, beginning with the highest concentration, until the average soil concentration is equal to or less than the industrial risk-based preliminary remedial goal with a 95% certainty. The residual-risk analysis on surface soils (soils from zero to two feet below ground surface) was performed separately from subsurface soils (soils two feet below ground surface to the water table). The residual-risk analysis entailed the following five steps:

- identify the chemicals of concern
- determine the preliminary remedial goals
- rank locations
- iteratively remove samples from the surface and subsurface data-set from highest concentration to lowest concentration and recalculate the industrial-based exposure and residual risk for the block as a whole
- once the 1×10^{-5} residual risk criterion has been achieved, examine the remaining areas of contamination and, using professional judgment, remove additional elevated-concentration samples from the data set to provide a margin of safety, and recalculate exposure and residual-risk

The areas identified for remediation in the residual-risk analysis are shown in Figure 4-1. Identification of these areas is based on BaPEq concentrations detected in site soils.

Remedial action objective—The following remedial action objective was developed to obtain a "No Further Action" letter for Block H impacted soils under an industrial future land use (see Section 4):

Remedial action objective	Description
1	Reduce site-related chemicals of concern in Block H soils to achieve a 1×10^{-5} human health cancer-risk limit for industrial workers exposed to contaminants of concern via ingestion, dermal contact, and inhalation.

Remedial action alternatives—After identifying the remedial action objective (RAO), remedial action alternatives for soil were identified and evaluated. Various technologies and process options were considered and separated into seven general response action (GRA) categories. The general remedial action categories include "no action," "limited action," "containment," "removal," "*in situ* treatment," "*ex situ* treatment," and "disposal." A detailed screening of process options was then conducted, which resulted in the selection of the following six remedial alternatives:

- **Alternative 1:** No action (baseline for comparison to remaining alternatives)
- **Alternative 2:** Institutional controls
- **Alternative 3:** Excavation and off-site disposal of impacted soils to a depth of two feet and institutional controls

- **Alternative 4:** Limited excavation and soil cover over impacted areas and institutional controls
- **Alternative 5**: Enhanced bioremediation of impacted surface soils and institutional controls
- **Alternative 6:** *In situ* stabilization of impacted soils down to the groundwater table and institutional controls

A detailed evaluation was performed upon each alternative according to the following criteria:

- long-term effectiveness and permanence
- reduction in toxicity, mobility, and volume through treatment
- short-term effectiveness
- implementability
- environmental impacts
- costs

The alternatives were then compared to each other qualitatively and quantitatively, based on these same criteria.

Proposed remedial action—For Lockheed Martin Corporation, success depends on how well we recognize and fulfill our responsibilities to the environment, to a safe workplace, to stewardship of scarce natural resources, and to our customers and shareholders. All of these responsibilities were considered in selecting the remedial action for Block H. This evaluation led to selection of Alternative 3 (excavation and disposal of impacted soils to a depth of two feet and institutional controls) as the soil remedial action for Block H at the Middle River Complex.

Alternative 3 will reduce human health risk (based on an industrial exposure scenario) to less than a 1×10^{-5} risk level (i.e., less than a one-in-100,000 probability) by removing soils to a depth of two feet below ground surface. Institutional controls will mitigate risk posed by soils remaining after remediation. The selected alternative will also ensure that the remedial action objective is met. Acceptance of the proposed remedial action by the Maryland Department of the Environment will be required. A “No Further Action” letter will be sought by Lockheed Martin Corporation from the Maryland Department of the Environment subsequent to completion of the soil remedial action (i.e., when the remedial action objective has been met). In that letter, the Maryland Department of the Environment will establish the institutional controls for Block H. The proposed remediation is based on human health risk under an industrial exposure scenario, and aligns with current and anticipated future land use. Remediation sufficient to achieve the remedial action objective is based on preliminary remedial goals to mitigate risks posed under an industrial exposure scenario; this does not prohibit the site from future development for residential, commercial, or recreational use. If Block H is developed for an alternative future land use, additional remedial activities may be required.

Schedule—A schedule for the remedial action implementation of Block H soil is provided in Section 10 of this document. Major activities include:

- submit final remedial action plan—fall 2013
- design—2014
- remedial action implementation—early 2015

Communication and community relations—Lockheed Martin Corporation is committed to its partnership with the Middle River community and to maintaining a high level of community outreach, stakeholder engagement, and communication as work progresses. The Corporation has and will continue to invest in the environmental, health, and economic needs of the community. Lockheed Martin Corporation also will provide remediation program updates to the civic association leadership and, upon request, will attend civic association meetings to provide updates, answer questions, and listen to issues and concerns. Lockheed Martin Corporation will also hold a public information-availability session before the remedial action begins to inform and educate the stakeholders interested in this project. Lockheed Martin Corporation remains committed to two-way communication with the community to ensure that questions are answered and issues and concerns are addressed in a timely manner.

Section 1
Introduction

This section presents the purpose, scope, and organization of the remedial action plan for Block H soils. A brief summary is provided for each subsequent section of this remedial action plan.

1.1 PURPOSE OF THE REMEDIAL ACTION PLAN

On behalf of Lockheed Martin Corporation (Lockheed Martin), Tetra Tech, Inc. (Tetra Tech) has prepared this remedial action plan (RAP) for Tax Block H (“Block H”) soil at the Lockheed Martin Middle River Complex (MRC) in Middle River, Maryland. The location of the Middle River Complex is shown in Figure 1-1. This remedial action plan was prepared in accordance with the requirements enforced by the Maryland Department of the Environment (MDE) Controlled Hazardous Substances (CHS) Enforcement Division (see Section 7-222 of the “Environment Article” and *Code of Maryland Regulations* [COMAR] 26.14).

Tax Block H, along with other portions of the Middle River Complex, was accepted into the Maryland Voluntary Cleanup Program (VCP) in 2006. They were withdrawn from the program in 2013; environmental restoration of the Middle River Complex soils, groundwater, and offshore sediments were consolidated under a Consent Order into a single regulatory program. Appendix A contains a copy of the withdrawal letter documenting this change.

The purpose of this remedial action plan is to provide the background, supporting documentation, and framework (i.e., goals, performance evaluation criteria, and schedule) for remediation of soils at Tax Block H. The plan details the remedial action objective (RAO), the screening of remedial technologies, and the selection of the proposed remedial action. The remedial actions and goals detailed herein are based on current and historical site data derived from the soil investigations described in Section 2, and from the current and anticipated future land use. This remedial action plan provides information necessary to support the decision to remove contaminated soil to achieve the following remedial action objective:

Soil remedial action objective—	*Reduce site-related chemicals of concern (COC) in Block H soils to achieve a 1×10^{-5} human health cancer-risk level for industrial workers exposed to chemicals of concern via ingestion, dermal contact, and inhalation*

1.2 SCOPE

Tax Block H consists of 7.88 acres in the northwestern portion of the Middle River Complex. The Maryland Department of the Environment classifies sites that have a cancer risk greater than 1×10^{-5} (i.e., a one-in-100,000 increased probability of cancer) or a hazard index greater than one as sites that require remedial action. Results of the *Human Health Risk Assessment (HHRA) for Blocks D, E, F, G, and H Soils* (Tetra Tech, 2012) indicate that industrial worker exposure to COC in surface soil in Block H would result in an excess cancer risk greater than the MDE threshold, indicating that some type of remedial action is necessary to reduce health risk.

This remedial action plan contains an evaluation of risk-based remedial actions based on industrial land use and identifies the preferred option that will achieve the remedial action objective established for Block H soils. The remedial actions for Middle River Complex groundwater are described under the separate cover in an approved groundwater response action plan. Planning to date for addressing impacts to offshore sediments is described in a separate sediment feasibility study.

1.3 ORGANIZATION

This Tax Block H soil remedial action plan is organized as follows:

Section 1—Introduction: Presents the purpose, scope, and organization of the remedial action plan.

Section 2—Middle River Complex Block H Overview: Briefly describes the Middle River Complex and Tax Block H background, site history, environmental investigations, and results, and presents the conceptual site model and a summary of the proposed soil remedial actions.

Section 3—Exposure Assessment: Presents the current and potential future land use and environmental media of concern and describes possible exposure pathways.

Section 4—Remedial Goals: Presents remedial action objectives, chemicals of concern, preliminary remedial goals, and protocols for attainment of cleanup goals.

Section 5—Remedial Action Alternatives Evaluation and Selection: Presents the screening of remediation technologies and process options, the development and analysis of remedial alternatives, a comparative analysis of alternatives, and describes the alternative selected to clean up contaminated soils in Tax Block H.

Section 6—Design Characterization Sampling: Presents the investigation that is required to address minor data gaps surrounding areas identified for remediation so that remedial action boundaries can be more accurately defined in a final design.

Section 7—Contingency Measures for the Selected Remedial Action: Presents the contingency measures to be employed in the event the selected alternative does not perform as expected.

Section 8—Proposed Remedial Actions: Presents the plan for the work and the controls that will be necessary to perform the proposed remedial action.

Section 9—Permits and Notifications: Presents the permits and approvals that will be required to implement the Maryland Department of the Environment-approved remedial action plan.

Section 10—Implementation Schedule: Presents the detailed schedule for the work necessary to implement the Maryland Department of the Environment-approved remedial action plan.

Section 11—References: Lists references and citations used in compiling this remedial action plan.

Appendices:

Appendix A—Voluntary Cleanup Program Withdrawal Letter

Appendix B—Table of Block H Industrial Exceedances of Risk-Based Screening Criteria

Appendix C—Table of Soil Data from Previous Investigations

Appendix D—Residual-Risk Analysis

Appendix E—BaPEq Calculation

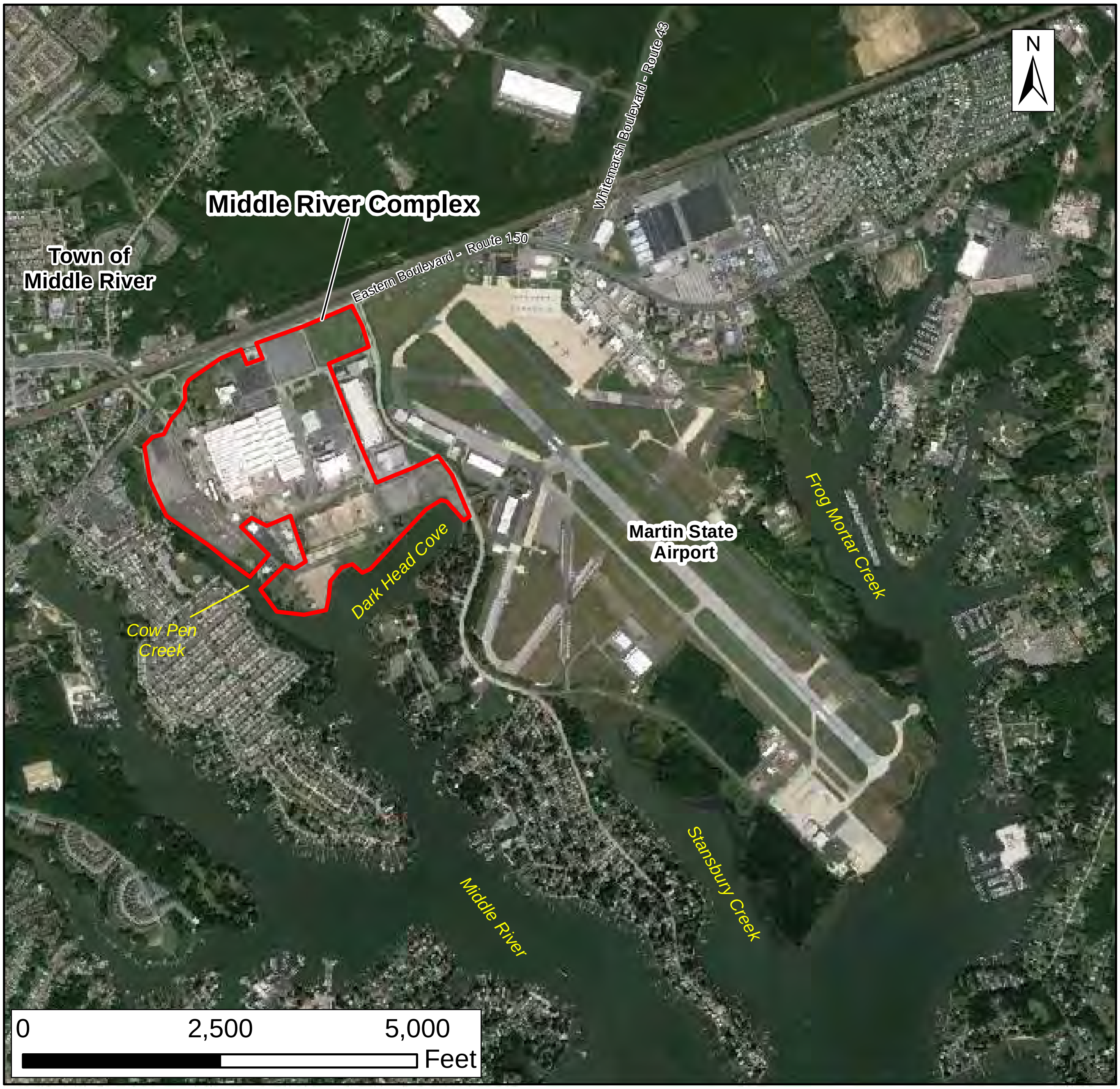
Appendix F—Block H Depth-to-Water Contours

Appendix G—*SiteWise*™ Information

Appendix H—Total Cost Analysis

Appendix I—*Criterium*® *DecisionPlus*® Results

Appendix J—Permits



Source: Google Earth, 2013

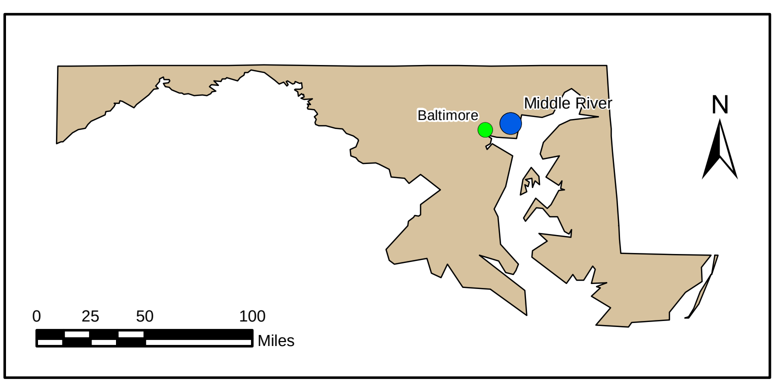


FIGURE 1-1

MIDDLE RIVER COMPLEX LOCATION MAP

Lockheed Martin Middle River Complex
Middle River, Maryland

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Section 2
Middle River Complex Block H Overview

The following presents an overview of the site background and site-specific chemicals of concern. Also summarized are the findings of previous site investigations, the nature and extent of site contaminants, their persistence and migration in the environment, and applicable exposure pathways, collectively known as the conceptual site model (CSM).

2.1 MIDDLE RIVER COMPLEX BACKGROUND

In 1929, the Glenn L. Martin Company, a predecessor entity of Lockheed Martin Corporation (Lockheed Martin), acquired contiguous parcels of undeveloped land in Middle River, Maryland to manufacture aircraft for the United States government and commercial clients. In the early 1960s, Glenn L. Martin Company merged with American-Marietta Company to form Martin Marietta Corporation. In the mid-1990s, Martin Marietta Corporation merged with Lockheed Corporation to form Lockheed Martin, and focused its on-site operations at MRC on equipment construction and testing for the United States government and commercial clients. Shortly after the merger, General Electric Company acquired most of Lockheed Martin's aeronautical business in Middle River and began operations under General Electric subsidiary MRA Systems, Inc., known as Middle River Aircraft Systems.

The Middle River Complex (MRC) is part of the Chesapeake Industrial Park located at 2323 Eastern Boulevard in Middle River, Maryland, approximately 11.5 miles northeast of downtown Baltimore. The MRC comprises several tax blocks and covers approximately 161 acres; it includes 12 main buildings, an active industrial area and yard, perimeter parking lots, an athletic field, vacant lots, and numerous grassy green spaces along its perimeter.

The MRC is bounded by Eastern Boulevard (Route 150) to the north, Dark Head Cove to the south, Cow Pen Creek to the west, and Martin State Airport to the east. Figure 2-1 is a layout map of the MRC, showing the active industrial facility (Block I) and external Blocks A, B, D, E, F, G, and H surrounding Block I. Three parcels comprising Block C (located directly east of Block I) were sold in 1975, 1977, and 1996, and are now occupied by the United States Postal Service (Middle River Post Office), Ace Logistics, Inc. (Annex Building), and Johnson and Towers, Inc. LMC Properties, Inc. (LMCPI) owns the MRC and periodically leases space to other parties for storage and parking.

2.2 BLOCK H BACKGROUND

Block H, consisting of 7.88 acres, is in the northwestern portion of the MRC. Block H is bounded to the north by Eastern Boulevard (Route 150), to the east by the industrial portion of the MRC (Block I), to the south by Parking Lot No. 3 (Block G), and to the west by Cow Pen Creek. Block H consists of Parking Lot No. 2, which is currently and has been historically used as an employees' automobile parking lot. The parking lot is paved with asphalt, and a paved access road and a grassy strip of land lie between the parking lot and Cow Pen Creek. Access to the parking lot is from Chesapeake Park Plaza. Historical aerial photographs suggest that Parking Lot No. 2 was constructed before 1954; it remains in use today for employee parking. No structures are known to have ever stood on this asphalt parking area.

2.3 BLOCK H PREVIOUS INVESTIGATIONS

Environmental investigations associated with Block H have been conducted since 2003 and include record reviews, discussions with MRC personnel, geophysical surveys, and soil and groundwater sampling. The primary findings of these investigations as they relate to this soil remedial action plan (RAP) are in Sections 2.3.1 through 2.3.11. Figures 2-2 and 2-3 show locations where Block H soil samples were collected during previous investigations. Table 2-1 provides a summary of previous investigations related to Block H soils. Appendix B includes a table with positive detections (only) for soil sampling results from all previous investigations discussed in this section (non-detect results are not listed). Chemical data in Appendix B are compared to the risk-based preliminary remedial goals (PRGs) developed for Block H based on a human health risk assessment (HHRA) that evaluated all Block H data (Tetra Tech, Inc. [Tetra Tech], 2012), as described in Section 2.4. A complete database of all existing Block H soils data (including non-detect results) is in Appendix C.

The screening criteria used for data comparison during previous investigations have varied over time due to revisions in the applicable Maryland Department of Environment (MDE) soil standards. In addition, residential screening criteria and, for some metals, MDE anticipated typical concentrations (ATCs) (regional background concentrations recognized by the MDE; [MDE, 2008]) have been used to screen data. However, based on the current projected future use of the property, using industrial soil-screening criteria is more appropriate. For clarity in the discussion below, previous investigation results are presented in general terms, with qualitative comparison to the preliminary residential or industrial screening criteria that were used at the time of those previous investigations (hereinafter referred to as “previously used” criteria).

Chemicals detected in soils that exceeded the more conservative MDE residential screening-criteria during the previous investigations were evaluated further in subsequent investigations. Exceedances of MDE residential and industrial criteria were collectively addressed in the HHRA as chemicals of potential concern (COPC), as discussed in Section 2.4. The COPC are further evaluated to produce a final list of chemicals of concern (COC) that result in regulatorily unacceptable risk levels for receptors at the site. Preliminary remedial goals (PRGs) are then developed for each selected COC and presented in Section 6 of the HHRA. The currently used screening criteria are MDE soil-cleanup levels, ATCs, and industrial PRGs; these values are listed in Table 2-2 and discussed in the following sections.

2.3.1 Phase I Environmental Site Assessment (2003)

A Phase I environmental site assessment (ESA) was conducted at the MRC in February 2003 in accordance with ASTM International, Inc. (ASTM) standard E 1527 (Earth Tech, 2003). The primary goal of the Phase I ESA was to identify recognized environmental conditions (RECs) through a desktop study of historical documents and a cursory site inspection. The Phase I ESA consisted of a historical review of the facility (i.e., a review of available facility documents, aerial photographs, and city directories); a review of federal, state, and local agency databases; interviews with MRC personnel; and a site visit. The Phase I ESA identified 13 specific RECs associated with the MRC, but no RECs were identified in Block H. In addition to identifying RECs, the Phase I ESA also recommended further investigation of MRC historical activities to identify other possible environmental concerns (Earth Tech, 2003).

2.3.2 Historical Survey (2004)

The MRC historical research investigation was conducted in summer 2004 to review all available historical information identified in the Phase I ESA (Tetra Tech, 2004a). The historical survey included a review of MRC maps (e.g., as-builts, proposed construction plans, and plot maps), interviews with Lockheed Martin and tenant personnel, and documentation of site visits. Data reviewed during this survey gave no indication that current or historical site activities have contributed, or pose the potential to contribute, to the release of hazardous substances or petroleum products in Block H. As in the previous year, no RECs were identified in Block H (Tetra Tech, 2004b).

2.3.3 Phase II Soil Investigation (Summer 2005)

A Phase II investigation consisting of a baseline sampling-event was conducted in the summer 2005 to confirm that no releases of any hazardous substances or petroleum products had occurred in the MRC. Four soil borings (SB-200 through SB-203) were advanced in Block H as part of this investigation. Surface soil samples and subsurface soil samples from five and 10 feet bgs were collected from each boring and analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), metals, and total petroleum hydrocarbons (TPH)-gasoline-range organics (GRO) and TPH-diesel-range organics (DRO). A summary of the samples and analyses from this investigation is included in Table 2-3. Locations of the four borings are shown in Figure 2-2.

VOCs, polycyclic aromatic hydrocarbons (PAHs), TPH-DRO, and metals were detected in the soil samples collected during the summer 2005 investigation. Arsenic, mercury, TPH-DRO, and benzo(a)pyrene were detected in surface and subsurface soil samples at concentrations greater than the previously applied MDE residential-soil screening levels. Chromium was detected at concentrations greater than the MDE soil-screening levels in subsurface soil samples only. Results of this investigation are in the *Site Characterization Report* (Tetra Tech, 2006). As shown on Figure 2-3 and Appendix B, no soil sampling results from 2005 exceeded the risk-based PRGs for future industrial land use developed in this RAP.

2.3.4 Geophysical Survey/Soil Investigation (Fall 2005)

An electromagnetic (EM) survey was conducted in fall 2005 to investigate subsurface features at Block H. Identified subsurface anomalies were further evaluated with ground-penetrating radar (GPR). The results of the geophysical surveys are presented in the *Site Characterization Report* (Tetra Tech, May 2006). Most anomalies were found in the southern portion of Block H. Several anomalies identified by the geophysical survey could not be related to known features (e.g., utilities) and were therefore further investigated.

Five additional soil borings (SB-282 through SB-286) were advanced at Block H. Two more borings (SB-293 and SB-294) were installed in the northwest corner of Block H. Although no geophysical anomalies were identified in this area, these borings were installed to investigate anecdotal reports that landfilling had occurred in this area. Subsurface soil samples were collected from three depths in each boring (0–1, 4–5 and 9–10 feet bgs) and samples were analyzed for VOCs, SVOCs, PCBs, metals, TPH-GRO, and TPH-DRO. A surface soil sample was also collected from soil boring SB-294 and analyzed for the same suite of parameters. A summary of the samples and analyses from this investigation is in Table 2-3. Locations of the borings are shown in Figure 2-2.

As with the Phase II soil investigation (summer 2005), VOCs, PAHs, TPH-DRO, and metals were detected in soil samples collected during this investigation. No exceedances of MDE soil screening levels were identified in the surface soil sample (SB-294); however, scattered detections of arsenic, chromium, and PAHs exceeded the previously applied MDE residential soil-screening levels in subsurface soil samples. Some metals exceedances were considered attributable to naturally occurring background concentrations (arsenic and vanadium) in local subsurface soils. As shown on Figure 2-3 and Appendix B, no soil sample results from 2005 exceeded the BaPEq risk-based PRG for future industrial land use developed in this RAP.

2.3.5 Site Characterization Report (May 2006)

The 2006 *Site Characterization Report* (Tetra Tech, 2006) also evaluated the results of samples collected between fall 2005 and May 2006. Chemicals detected in soil were screened against site-specific background concentrations collected in Block B in an area of the MRC historically used only for recreation. This report also includes an HHRA that identified potential adverse human health effects resulting from exposure to detected chemicals under a number of current and hypothetical future use scenarios. The 2006 risk assessment has been superseded by a more current human health risk assessment completed in 2012 (Tetra Tech, 2012); therefore, the 2006 HHRA results are not discussed in detail herein.

2.3.6 Additional Soil Characterization (Fall 2007)

Soil areas of concern based on the previously used residential exposure scenario were further delineated in Block H in 2007 to better define the boundaries of COC as defined in the May 2006 site characterization report (Tetra Tech, 2006). Characterization was completed both laterally and vertically (as determined by the depth to groundwater). Twenty-six soil borings were installed in the southern portion of Block H, as recommended in the *Site Characterization Report*; these borings were installed near several geophysical anomalies of unknown origin. Locations of the borings are shown in Figure 2-2.

Borings were spaced on a grid pattern across the previously identified geophysical anomaly area that had COC concentrations greater than screening levels. Borings were drilled to a depth of 8 feet bgs. Soil samples were collected continuously from the ground surface to the borehole termination depth, with samples submitted for chemical analyses from 1–2, 2–3, 3–4, 5–6 and 7-8 feet bgs. A summary of the samples and analyses from this investigation is in Table 2-4. Laboratory data from the 2007 soil characterization investigation confirmed benzo(a)pyrene and mercury in subsurface soils at varying concentrations and at different depths.

One-hundred-thirty soil samples were collected from these 26 soil borings and analyzed in the laboratory for benzo(a)pyrene and mercury. Benzo(a)pyrene concentrations were detected in soils, ranging from non-detect to a maximum concentration of 490 micrograms per kilogram (µg/kg) at soil boring SB-474 (3–4 feet bgs). The 19 samples in which benzo(a)pyrene was detected were scattered across various boring locations. PAHs (reported in terms of benzo[a]pyrene equivalents [BaPEq]) exceeded the previously used residential screening-level (150 µg/kg) in only one of 135 soil samples (SB-474-0304). Mercury concentrations in 15 soil samples ranged from non-detect to a maximum of 0.48 milligrams per kilogram (mg/kg) at soil boring location SB-470 (1–2 feet bgs); no samples contained mercury concentrations greater than its screening level (1.0 mg/kg). As shown on Figure 2-3 and Appendix B, no soil sample results from 2007 exceeded the BaPEq risk-based PRG for future industrial land use developed in this RAP.

2.3.7 Final Soil Delineation (Blocks D, F, G, and H, Fall 2009)

Some data gaps remained after the 2007 investigation, resulting in the 2009 delineation investigation (Tetra Tech, 2011). In this study, samples were collected in two tiers to help define the horizontal and vertical nature and extent of soil impacts. The vertical clean margin was defined by two clean intervals (e.g., concentrations less than previously used residential screening levels), spaced at one-foot increments beneath impacted intervals. Table 2-5 summarizes the samples collected and analyses completed for Block H samples collected as part of the 2009 investigation. Locations of the borings are shown in Figure 2-2.

Samples collected during the first tier of delineation sampling (the “inner tier” samples) came from previously completed, isolated sampling locations in areas where samples with non-detect or less-than-detection-limit results had been used to calculate BaPEq concentrations. BaPEq concentrations had been calculated using the conservative assumption that any non-detect sample with a detection limit greater than the screening level was an exceedance of the previously used residential screening level. Therefore, to more precisely calculate BaPEq concentrations, soil near these borings was resampled and analyzed using a lower quantitation limit (target quantitation limit of 6.7 µg/kg). BaPEq concentrations were then recalculated using the new inner tier data and compared to the previously used United States Environmental Protection Agency (USEPA) residential screening level for BaPEq. Inner tier sampling results were also used to identify the vertical clean-margin, as the resampling effort collected samples at more evenly spaced depth intervals.

If soil collected from inner tier samples exceeded the previously used residential screening levels, then an “outer tier” sample was collected at the next one-foot depth increment below the deepest exceedance in the inner tier. The outer tier delineation approach was to collect samples from borings at locations extended outward laterally from the area of contamination (as defined by the results of the inner tier sampling). In final delineation sampling, all data were considered in determining the location and depth for vertical and horizontal delineation of impacts. In some cases, the limit of impacts (as defined by COC concentrations above the residential screening levels used at the time) was sufficiently delineated in one or both directions such that the full scope of inner and/or outer tier sampling was unnecessary.

During the delineation investigation, 48 soil borings (36 inner tier and 12 outer tier) were advanced and 427 soil samples were collected from areas of concern throughout the MRC. In Block H, 191 soil samples were collected from inner tier borings and 59 soil samples were collected from outer tier borings. One-hundred-seventy soil samples (of which 11 were field duplicates) were analyzed: 158 samples were analyzed for PAHs (including nine duplicates), and 12 were analyzed for mercury (including two duplicates). One sample (H-SB-610-4) was also analyzed for TPH-GRO. Mercury and TPH-GRO concentrations did not exceed the MDE screening levels during the 2009 investigation.

BaPEq analytical results for both inner and outer tier delineation soil samples ranged from non-detect to 45,883 µg/kg (in H-SB-604D-1). BaPEq concentrations exceeding the previously applied residential screening level (150 µg/kg) were detected in shallow subsurface samples and in subsurface samples at depths approaching 15 feet bgs. The residential screening level for BaPEq was exceeded in 30 of 158 samples analyzed for PAHs. The 2009 soil sampling results exceeding risk-based BaPEq PRG developed for future industrial land use are shown in Figure 2-3 and Appendix B.

2.3.8 Data Gap Investigation (Fall 2010)

The 2010 data-gap sampling sought to refine the broad horizontal and vertical limits of contamination in Block H. A direct-push-technology drill rig advanced four soil borings (H-SB-814 through H-SB-817) in Block H areas requiring additional delineation. Block H soil borings were advanced to a maximum depth of 15 feet. Soil samples were collected at two-foot intervals from each boring. Eight samples (from 1-, 3-, 5-, 7-, 9-, 11-, 13-, and 15-feet bgs) were collected from each soil boring. All samples were analyzed for PAHs. Seven samples collected from two individual borings (H-SB-814 and H-SB-816) were also analyzed for alkyl PAHs to determine if the source of the impacted area was pyrogenic or petrogenic. Samples were collected at intervals of 1-, 7-, and 15-feet bgs to assess the vertical profile of alkyl PAHs across Block H. A summary of the samples and analyses from this investigation is in Table 2-6. Boring locations are shown in Figure 2-2.

PAHs (reported in terms of BaPEq) exceeded the screening level (150 µg/kg) in three of 30 samples analyzed. These samples were collected from lower depths of the soil borings (9 feet bgs and below). BaPEq concentrations ranged from non-detect to 722 µg/kg

(H-SB-814-09). Alkyl PAHs (which have no screening level) were detected in only one of seven samples analyzed (H-SB-816-11), at concentrations ranging between 100–290 μg/kg. As shown on Figure 2-3 and Appendix B, no soil sample results from 2010 exceeded the BaPEq risk-based PRG for future industrial land use developed in this RAP.

2.3.9 Human Health Risk Assessment

The *Human Health Risk Assessment for Blocks D, E, F, G, and H Soils* (Tetra Tech, 2012) was revised and finalized in 2012 to update the risk evaluations by incorporating current standards and in accord with planned property use. A significant volume of environmental data was collected from 2004 to 2010 to further characterize the nature and extent of impacts to soil in Block H; the collective MRC environmental-characterization data set was used in the 2012 risk assessment. The HHRA identified COC in Block H soils that will require remediation, assuming a typical industrial worker is the receptor of concern. The HHRA consisted of the following six components:

- data evaluation
- exposure assessment
- toxicity assessment
- risk characterization
- uncertainty analysis
- development of PRG options

The HHRA used validated soil data from the previous Block H investigations to assess risks to potential human receptors. Site contaminant concentrations were compared to conservative toxicity-screening values to compose a list of COPC. After the list of COPC had been developed, an exposure assessment evaluated the type and magnitude of human exposure to the chemicals at Block H (as described in Section 4). Following the exposure assessment, quantitative estimates of the relationship between the magnitude and type of exposures and the severity or probability of human health effects were defined for each identified COPC in a toxicity assessment. The quantitative toxicity values selected during the toxicity assessment were integrated with exposure assessment outputs to characterize the potential occurrence of adverse health effects for each receptor group.

Potential risks to human receptors were estimated based on the assumption that no action will be taken to control contaminant releases. Primary guidance sources used to prepare the HHRA include *Cleanup Standards for Soil and Groundwater, Interim Final Guidance* (MDE, 2008) and

Voluntary Cleanup Program Guidance (MDE, 2006). Current guidance and reports published by USEPA and USEPA Region 3 were also considered in preparing the risk assessment.

Historical land uses suggest that construction workers and industrial workers are the primary receptors that can potentially be exposed to contaminated soils at the MRC. Cancer and non-cancer risk estimates were calculated for these receptors using reasonable maximum-exposure assumptions, assuming that human exposure may occur via incidental ingestion, dermal contact, and inhalation exposure-routes. Cancer-risk estimates were presented in terms of incremental lifetime-cancer-risks (ILCR); non-cancer-risk estimates were presented in terms of hazard indices. Potential cancer effects were interpreted using the MDE cancer-risk benchmark (1×10^{-5}, or a one-in-100,000 probability of developing cancer) for cumulative risk and the USEPA target cancer-risk range (i.e., 1×10^{-4} to 1×10^{-6}, or a one-in-10,000 to a one-in-a-million probability of developing cancer). Non-cancer risks were evaluated using a total hazard index (HI) value of one (adverse non-cancer health effects are not anticipated when the estimated HI is equal to or less than one). The HHRA identified BaPEq as the only Block H COC, assuming future industrial use. No COC were identified based on non-cancer health effects.

As previously described, the Block H area is a motor vehicle parking lot. Much of the current Block H surface is paved or consists of grassy areas with shrubs and small trees. The planned future use of the Block H area continues to be industrial, so the amount and quality of habitat in Block H is and will continue to be limited. For these reasons, an ecological risk assessment was not conducted for Block H. Remedial action and risk management decisions described in subsequent sections of this RAP are based on the HHRA results.

2.4 CONCEPTUAL SITE MODEL

The action proposed in this RAP will address Block H soils. Block H is a relatively flat parcel of land consisting of Parking Lot No. 2, and has been historically (and currently) used primarily as an employees' vehicle parking lot. The parking lot is paved with asphalt, and a strip of grassy land with shrubs and small trees lies between the paved portion of the block and Cow Pen Creek. The following sections describe the sources of contamination at Block H, as well as land use scenarios and exposure pathways.

2.4.1 Contaminant Sources and Soil Contaminants of Concern

Most PAH-impacted soils at Block H are likely related to urban air deposition or fill material historically placed there as general fill for grading activities associated with development of the MRC in the 1930s and 1940s. The source(s) of historical fill at Block H are unknown. Soil sampling results suggest that PAHs are randomly distributed in the Block H soil matrix. Polycyclic aromatic hydrocarbons are commonly found in fill materials, particularly in the form of coal or wood ash, and they are found in asphalt as well. PAHs expressed as BaPEq are the primary risk drivers for industrial workers, and have been identified at concentrations exceeding risk-based criteria in Block H surface and subsurface soils.

2.4.2 Land Use Scenario and Exposure Pathways

Section 4 of this RAP provides details of the exposure pathways and receptors for Block H soils. Currently, the land use scenario at Block H is considered “Tier 3 Industrial” under the land use definition in MDE Voluntary Cleanup Program (VCP) guidelines. Under the industrial land use scenario, current and future industrial workers and construction workers are considered potential receptors.

The 2012 HHRA also evaluated different potential future land use scenarios for Block H, including future recreational use and hypothetical future residential use to determine if an institutional control such as a deed restriction might be required for the property. The deed restriction will not prohibit future recreational and residential development, but will indicate the need for additional remedial action for alternative development (other than industrial) to proceed. Possible exposure pathways associated with soil include dermal contact, inhalation of particulates, and incidental-ingestion exposure for all potential receptors.

Surface soils are accessible and may become exposed in the grassy areas of Block H and in areas not covered by impervious pavement. If exposed or disturbed, contaminants in surface soil can migrate to air through wind erosion; however, this is unlikely, since most of Block H is covered either by asphalt or by well-maintained grass. Subsurface soil is not currently exposed, but if future construction were to bring subsurface soil to the surface, contaminants in these soils can be transported into the air through wind erosion.

Surface water runoff generated in the grass-covered areas will generally infiltrate into the underlying soil or discharge to Cow Pen Creek as overland sheet-flow. Therefore, overland runoff and erosion can only be potential migration pathways if contaminated soil is exposed during future construction and runoff is not contained and controlled. PAHs generally adhere to soils, so migration of these contaminants from soils to groundwater is not considered a complete migration pathway. This assumption is supported by results of years of groundwater monitoring at the site. BaPEq and other chemical constituents in soil do not pose a threat of soil vapor intrusion due to the constituent’s low volatilization potential; this assumption is supported by results of sub-slab vapor monitoring in Block I.

Table 2-1

Historical Soil Investigations
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Investigation	Year	General scope	Reference
Phase I Environmental Site Investigation	2003	13 recognized environmental conditions (RECs) identified at the Middle River Complex (none at Block H)	Earth Tech, 2003
Historical Survey	2004	18 additional RECs identified (none at Block H)	Tetra Tech, 2004b
Phase II Soil Investigation	2005 and 2006	advanced four borings and soil sampling at three depths in each boring	Tetra Tech, 2006
Geophysical Survey/Soil Investigation	2005	geophysical survey and soil borings advanced in seven locations at Block H; soil sampling and analysis conducted for three depths in each boring	Tetra Tech, 2006
Additional Soil Characterization	2007	soil sampling at multiple depths in 27 soil borings throughout Block H	Tetra Tech, 2011
Final Delineation Investigation	2009	inner and outer tier soil sampling at 77 locations at Block H	Tetra Tech, 2011
Data Gap Investigation	2010	soil sampling in four soil borings at Block H	Tetra Tech, 2011

REC- recognized environmental condition

Table 2-2

Applicable Soil Screening Criteria
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Block H Applicable Soil Screening Criteria (µg/kg)				
Constituents Identified in Soils at Concentrations Exceeding Screening Levels	Current Maryland Residential Cleanup Level[1]	Current Maryland Industrial Screening Level[1]	Maryland Anticipated Typical Concentration[2]	Industrial, Risk-Based Preliminary Remedial Goal[3]
BaPEq	22	390	NA	2,890[4]
Arsenic	430	1,900	3,600	NA
Hexavalent chromium	23,000	310,000	2,800	NA
TPH-DRO	230,000	620,000	NA	NA

Notes:

" - " not available for mercury for the indicated region

BaPEq - benzo(a)pyrene equivalent

µg/kg - micrograms per kilogram, or parts per billion concentration in soil

NA - criteria not available or not applicable for corresponding contaminant

TPH-DRO - total petroleum hydrocarbons diesel-range organics

[Maryland does not haver a cleanup level available for BaPEq, so criteria for benzo(a)pyrene are shown.]

1. Cleanup Levels for soils from *State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater* , June 2008.
2. Anticipated Typical Concentration (ATC) for select metals in the Eastern region of Maryland as published in (1) above.
3. Site-specific, risk-based cleanup goal presented in the human health risk assessment for Block H (Tetra Tech, 2012; as discussed in Section 4.0).
4. The human health risk assessment identified BaPEq as the only Block H soil constituent posing risk under the future industrial land use scenario. Therefore, the only risk-based (industrial) preliminary cleanup goal developed was for BaPEq.

Table 2-3

Summary of 2005 Soil Samples
Block H Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Sample Identification	Depth Intervals (feet)	Analysis (analytical method)	Number of Samples Collected
SB-200	0, 5, 10	Metals (SW846 6020), SVOCs (8270), VOCs (8260B), PCBs (8082), and TPH-GRO/DRO (8015M)	3
SB-201	0, 5, 10		3
SB-202	0, 5, 10		3
SB-203	0, 5, 10		3
SB-282	1.5, 4.5, 9.5		3
SB-283	1.5, 4.5, 9.5		3
SB-284	1.5, 4.5, 9.5		3
SB-285	1.5, 4.5, 9.5		3
SB-286	1.5, 4.5, 9.5		3
SB-293	1.5, 4.5, 9.5		3
SB-294	0.5, 4.5, 9.5		3

DRO - diesl range organics
GRO- gasoline range organics
PCBs- polychlorinated biphenyls
SVOCs- semivolatile organic compounds
TPH- total petroluem hydrocarbons
VOCs- volatile organic compounds

Table 2-4

Summary of 2007 Soil Characterization Samples
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Sample Identification	Depth Intervals (feet)	Number of Samples Collected
SB-462	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-463	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-464	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-465	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-466	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-467	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-468	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-469	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-470	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-471	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-472	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-473	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-474	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-475	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-476	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-477	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-478	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-479	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-480	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-481	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-482	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5

Table 2-4

Summary of 2007 Soil Characterization Samples
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Sample Identification	Depth Intervals (feet)	Number of Samples Collected
SB-483	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-484	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-485	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-486	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5
SB-487	1- to 2-feet; 2- to 3-feet; 3- to 4-feet; 5- to 6-feet; and 7- to 8-feet	5

All samples were collected from Parking Lot No.2 in Block H.
All samples were analyzed for benzo(a)pyrene by United States Environmental Protection Agency (USEPA) Method SW-846 8270 and mercury by USEPA Method SW-486 7470A.

Table 2-5

Summary of 2009 Soil Delineation Samples
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Sample Identification	Locations	Depth Intervals (feet)	Analysis	Analytical Method	Number of Samples Collected
SB-200 Resampling					
H-SB-596	15 feet north of SB-200	11-15 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-597	15 feet east of SB-200	11-15 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-598	15 feet south of SB-200	11-15 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-599	15 feet west of SB-200	11-15 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-200RE	Resample	11-15 at one foot intervals	PAHs	SW-846 8270D	5
SB-201 Resampling					
H-SB-600	15 feet north of SB-201	1-5 at one foot intervals	Mercury	SW-846 7470A	5
H-SB-601	15 feet east of SB-201	1-5 at one foot intervals	Mercury	SW-846 7470A	5
H-SB-602	15 feet south of SB-201	1-5 at one foot intervals	Mercury	SW-846 7470A	5
H-SB-603	15 feet west of SB-201	1-5 at one foot intervals	Mercury	SW-846 7470A	5
H-SB-201RE	Resample	1-5 at one foot intervals	Mercury	SW-846 7470A	5
SB-282 Inner Tier					
H-SB-282RE	Resample	1-15 at two foot intervals	PAHs	SW-846 8270D	15
H-SB-282REA	Outer Tier- north	1-15 at two foot intervals	PAHs	SW-846 8270D	8
H-SB-282REB	Outer Tier- east	1-15 at two foot intervals	PAHs	SW-846 8270D	8
H-SB-282REC	Outer Tier- south	1-15 at two foot intervals	PAHs	SW-846 8270D	8
H-SB-282RED	Outer Tier- west	1-15 at two foot intervals	PAHs	SW-846 8270D	8
SB-283					
H-SB-604	15 feet north of SB-283	3-7 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-604A	Outer Tier- north	1-7 at two foot intervals	PAHs	SW-846 8270D	4
H-SB-604B	Outer Tier- east	1-7 at two foot intervals	PAHs	SW-846 8270D	4
H-SB-604D	Outer Tier- west	1-7 at two foot intervals	PAHs	SW-846 8270D	4
H-SB-605	15 feet east of SB-283	3-7 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-606	15 feet south of SB-283	3-7 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-607	15 feet west of SB-283	3-7 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-283RE	Resample	3-7 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-284 Resampling					
H-SB-608	15 feet north of SB-284	3-7 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-609	15 feet east of SB-284	3-7 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-610	15 feet south of SB-284	3-7 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-610B	Outer Tier- east	1-5 at two foot intervals	PAHs	SW-846 8270D	3
H-SB-610C	Outer Tier- south	1-5 at two foot intervals	PAHs	SW-846 8270D	3
H-SB-610D	Outer Tier- west	1-5 at two foot intervals	PAHs	SW-846 8270D	3
H-SB-611	15 feet west of SB-284	3-7 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-611A	Outer Tier- north	1-5 at two foot intervals	PAHs	SW-846 8270D	3
H-SB-611D	Outer Tier- west	1-5 at two foot intervals	PAHs	SW-846 8270D	3
H-SB-284RE	Resample	3-7 at one foot intervals	PAHs	SW-846 8270D	5

Table 2-5

Summary of 2009 Soil Delineation Samples
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Sample Identification	Locations	Depth Intervals (feet)	Analysis	Analytical Method	Number of Samples Collected
SB-285 Resampling					
H-SB-612	15 feet north of SB-285	11-15 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-613	15 feet east of SB-285	11-15 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-614	15 feet south of SB-285	11-15 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-615	15 feet west of SB-285	11-15 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-285RE	Resample	11-15 at one foot intervals	PAHs	SW-846 8270D	5
SB-286 Resampling					
H-SB-616	15 feet north of SB-286	11-15 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-617	15 feet east of SB-286	11-15 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-618	15 feet south of SB-286	11-15 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-619	15 feet west of SB-286	11-15 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-286RE	Resample	11-15 at one foot intervals	PAHs	SW-846 8270D	5
SB-474 Resampling					
H-SB-620	15 feet north of SB-474	5-9 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-621	15 feet east of SB-474	5-9 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-622	15 feet south of SB-474	5-9 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-623	15 feet west of SB-474	5-9 at one foot intervals	PAHs	SW-846 8270D	5
H-SB-474RE	Resample	5-9 at one foot intervals	PAHs	SW-846 8270D	5

PAHs - polycyclic aromatic hydrocarbons

Table 2-6

Summary of 2010 Data Gap Investigation Samples
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Sample Identification	Analysis (analytical method)	Depth interval (in feet)	Number of samples collected
H-SB-814	Total PAHs (SW-846 8270C)	at two foot intervals; (at 1-, 3-, 5-, 7-, 9-, 11-, 13-, 15-ft)	8
	Alkyl PAHs (SW-846 8270C)	at 1-, 7-, and 15-ft depths	3
H-SB-815	Total PAHs (SW-846 8270C)	at two foot intervals; (at 1-, 3-, 5-, 7-, 9-, 11-, 13-, 15-ft)	8
H-SB-816	Total PAHs (SW-846 8270C)	at two foot intervals; (at 1-, 3-, 5-, 7-, 9-, 11-, 13-, 15-ft)	8
	Alkyl PAHs (SW-846 8270C)	at 1-, 7-, and 15-ft depths	3
H-SB-817	Total PAHs (SW-846 8270C)	at two foot intervals; (at 1-, 3-, 5-, 7-, 9-, 11-, 13-, 15-ft)	8

ft - feet

PAHs - polycyclic aromatic hydrocarbons

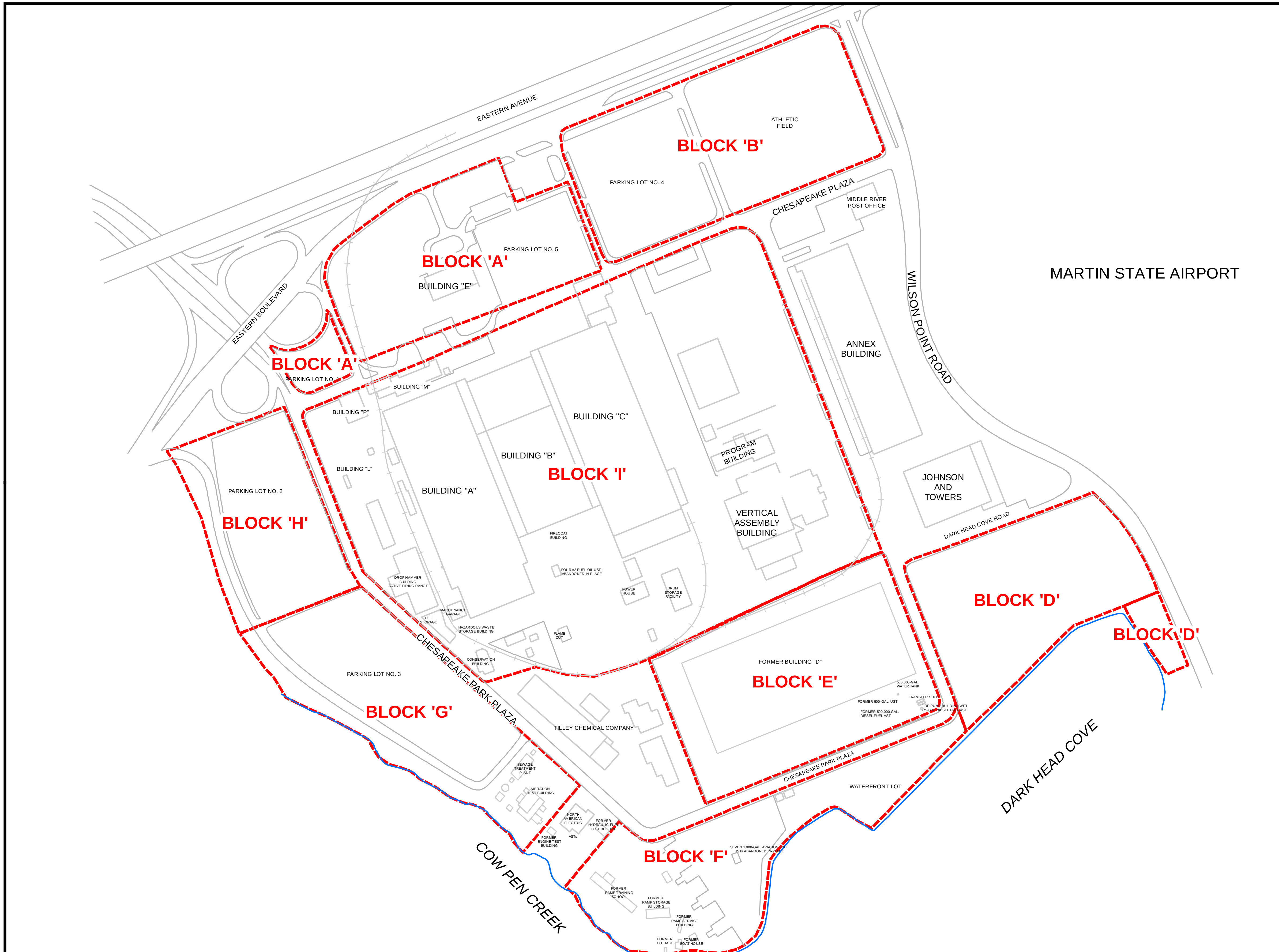

FIGURE 2-1

MIDDLE RIVER COMPLEX
TAX BLOCKS

LEGEND

TAX BLOCK

STRUCTURE

RAILROAD TRACKS

Lockheed Martin Middle River Complex
Middle River, Maryland

0 200 400 Feet

N

DATE MODIFIED: 6/20/13

CREATED BY: MP

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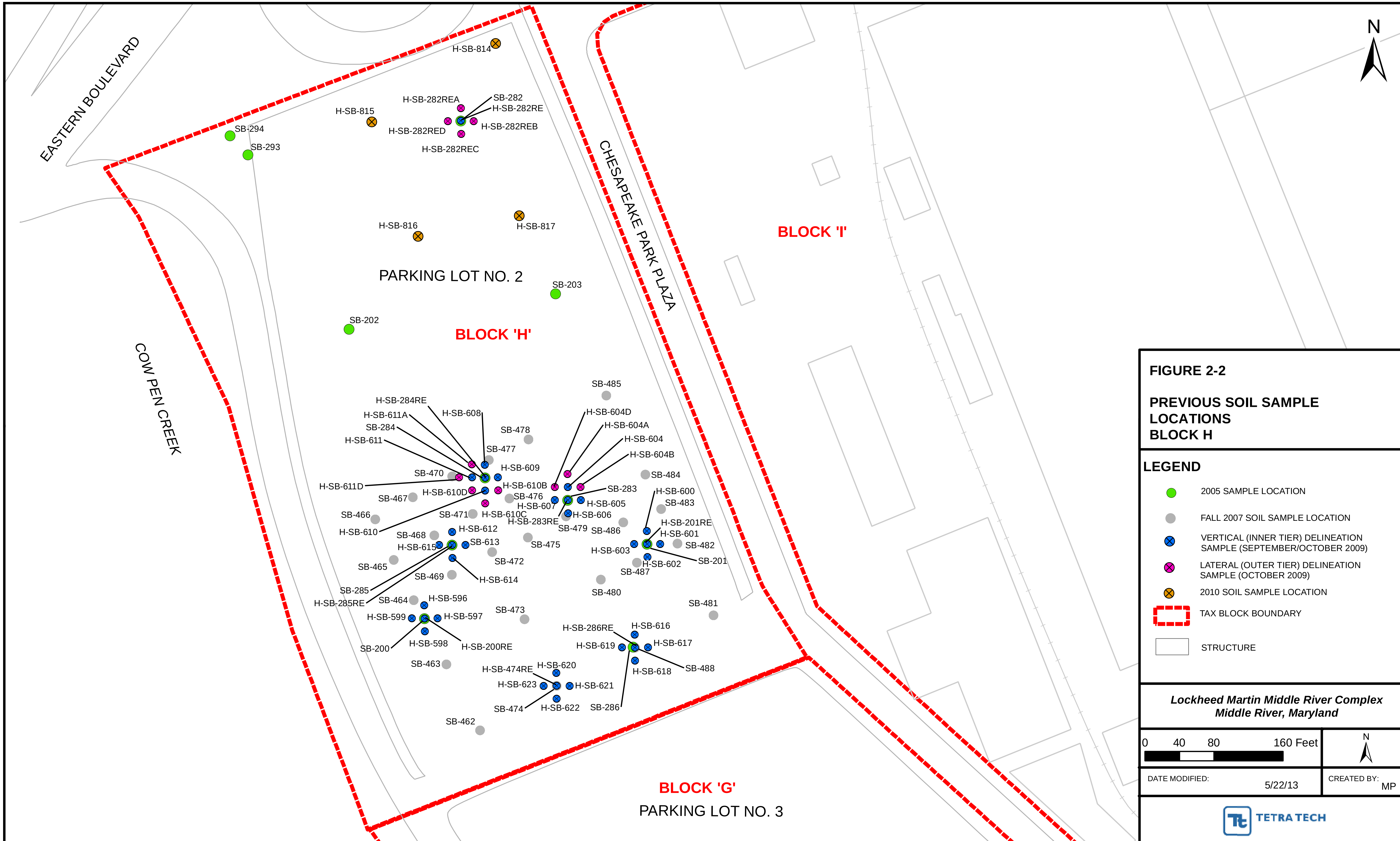

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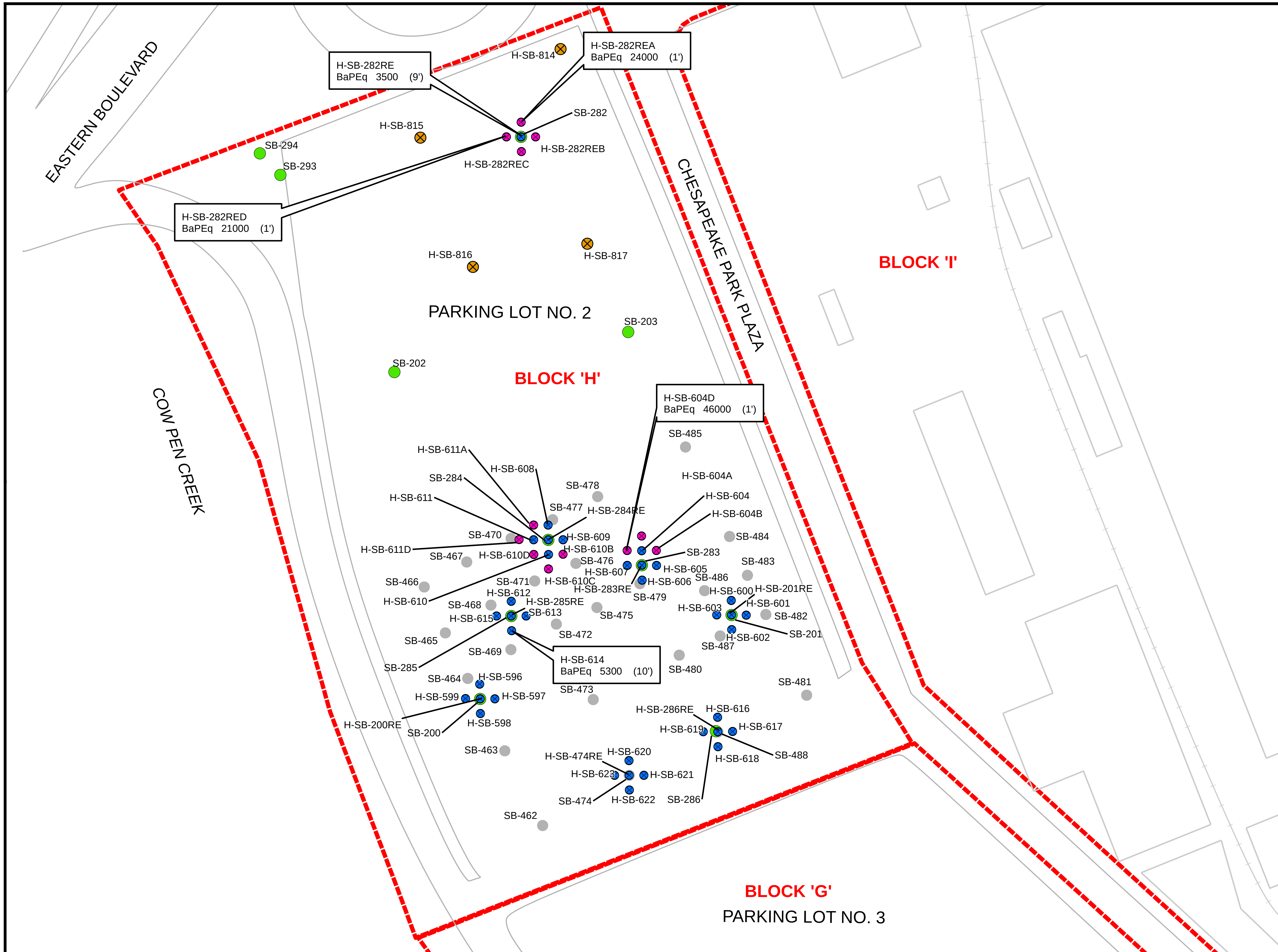

FIGURE 2-3

SUMMARY OF EXCEEDANCES OF INDUSTRIAL LAND USE SCREENING VALUES BLOCK H

LEGEND

- 2005 SOIL SAMPLE LOCATION
- FALL 2007 SOIL SAMPLE LOCATION
- VERTICAL (INNER TIER) DELINEATION SAMPLE (SEPTEMBER/OCTOBER 2009)
- LATERAL (OUTER TIER) DELINEATION SAMPLE (OCTOBER 2009)
- 2010 SOIL SAMPLE LOCATION
- TAX BLOCK BOUNDARY
- STRUCTURE

Sample Tag Key:

Soil Boring No.
Concentration (Depth: feet below grade)

BaPEq= Benzo(a)pyrene Equivalent

CONCENTRATIONS IN MICROGRAMS PER KILOGRAM (ug/kg)
INDUSTRIAL RISK-BASED PRELIMINARY REMEDIAL GOAL FOR BaPEq IS 2,890 ug/kg

Lockheed Martin Middle River Complex
Middle River, Maryland

0 40 80 160 Feet

N

DATE MODIFIED: 5/15/13

CREATED BY: MP

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Section 3
Exposure Assessment

An exposure assessment for the Middle River Complex (MRC) was conducted to evaluate potentially exposed human populations to chemicals of concern (COC), based on current and future land use. The exposure assessment provides the basis for developing the remedial action objective (RAO) that must be met to achieve industrial closure for soils in Block H.

3.1 CURRENT AND FUTURE LAND USE

Possible exposure pathways to COC in Block H soil were identified to determine soil preliminary remedial goals (PRGs) and to identify appropriate remedial measures and land use controls (LUCs). Possible complete exposure pathways include direct exposure (dermal contact, inhalation of particulates, and incidental ingestion) to site soils for current and future industrial workers. The goal of the selected remedial action is to most effectively reduce regulatorily unacceptable risk to the industrial worker (the most likely exposure scenario). Institutional controls will be required to manage and, as necessary, mitigate risk associated with future alternative reuse plans, including residential, recreational, or commercial development. The following sections detail the potential exposure pathways of COC in Block H soils.

3.2 POTENTIAL CONTAMINANT-RELEASE MECHANISMS AND TRANSPORT PATHWAYS

Most Block H soil is currently contained beneath asphalt paving. COC in exposed surface soil or in areas if paving were to be removed can move into air through wind erosion. Subsurface soil is not currently exposed; however, if future construction were to bring subsurface soil to the surface, contaminants can be transported into the air. Contaminants can migrate from both surface and subsurface soil to groundwater through leaching of chemicals in soil; however, leaching to groundwater is considered an incomplete exposure pathway for this site, given that the primary COC are polycyclic aromatic hydrocarbons (PAHs), which generally adhere to soil particles. Overland runoff at the site may be a significant contaminant transport mechanism if contaminated soils become exposed, due to site topography and asphalt paving.

3.3 FATE AND TRANSPORT OF PRIMARY SITE CHEMICALS OF CONCERN IN SOIL

PAHs are fairly immobile chemicals composed of large molecules with low solubilities, low vapor pressures, and high partitioning coefficients. PAHs in soil are much more likely to bind to soil and be transported via mass-transport mechanisms (e.g., gravity flow of PAH-containing product, runoff, etc.) rather than through dissolution; PAHs found in surface soil generally do not migrate vertically to a great extent. Instead, they are more likely to adhere to soil particles and be removed from the site via surface water runoff and erosion, especially in the absence of pavement or stabilizing vegetation, or if erosion controls are absent or not functioning properly. PAHs are not typically found in groundwater when only generally low concentrations are present in soils. Groundwater monitoring completed at the MRC provides evidence that PAHs are not mobile in groundwater; therefore, PAHs are not considered a COC in groundwater.

3.4 POTENTIAL CURRENT AND FUTURE RECEPTORS OF CONCERN AND EXPOSURE PATHWAYS

Industrial workers can be exposed to COC in surface soils (0–2 feet below grade) through incidental ingestion and dermal contact, and through inhalation of airborne particulates emanating from soil. Exposure to subsurface soil (2–10 feet below ground surface) via incidental ingestion, dermal contact, and inhalation is considered a potential exposure pathway for the future construction worker only, as it is unlikely that any other receptors will come into contact with subsurface soils at these depths.

Section 4
Remedial Goals

Section 4 identifies the chemical of concern (COC) for which further remedial action is necessary to reduce human health risk to future users of Block H. This section also presents the preliminary remedial goal (PRG) developed for Block H soils, and gives an overview of the residual-risk analysis (RRA) conducted to identify Block H soil locations requiring remediation to achieve the soil remedial action objective (RAO). The complete RRA conducted for Block H is in Appendix D.

4.1 REMEDIAL ACTION OBJECTIVE

RAOs are developed to mitigate potential exposure pathways identified in the conceptual site model (CSM) that can be complete under current or foreseeable future land use scenarios. Development of RAOs must consider applicable or relevant and appropriate requirements (ARARs). The following RAO has been developed for Block H.

Soil RAO— *Reduce site-related COC in Block H soils to achieve a 1×10^{-5} human health cancer-risk limit for industrial workers exposed to COC via ingestion, dermal contact, and inhalation.*

4.2 CHEMICALS OF CONCERN

The human health risk assessment (HHRA) identified polycyclic aromatic hydrocarbons (PAHs), expressed as benzo(a)pyrene equivalents (BaPEq)[1], as the COC for Block H soil, assuming a typical industrial worker is the receptor of concern.

[1] Per current United States Environmental Protection Agency (USEPA) guidance (USEPA, 1993), concentrations of benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-c,d)pyrene can be combined in an adjusted risk-weighted concentration that is expressed in terms of benzo(a)pyrene toxicity. This calculated value, called a *benzo(a)pyrene-equivalent concentration* (BaPEq), uses USEPA-recommended toxicity equivalency factors (TEFs) to estimate the potency of each of these polycyclic aromatic hydrocarbon (PAH) compounds relative to that of benzo(a)pyrene. The TEFs are then used to convert each individual PAH concentration into an equivalent concentration of benzo(a)pyrene; these values are summed to arrive at the calculated BaPEq concentration. Details outlining the BaPEq calculation are in Appendix E.

4.3 PRELIMINARY REMEDIAL GOAL

The PRG of 2,900 micrograms per kilogram (µg/kg) established for the Block H soil COC (BaPEq) satisfies the requirements of the Maryland Department of the Environment (MDE) Controlled Hazardous Substances (CHS) regulations, and is consistent with the requirements of the *National Oil and Hazardous Substances Pollution Contingency Plan* (NCP) (40 *Code of Federal Regulations* [CFR] Part 400.430) promulgated under the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

For the PAH constituents represented by BaPEq, the selection of a risk-based PRG representing the $1{\times}10^{-5}$ cancer-risk level is consistent with the RAO and the approach presented in previous documents published for MRC tax block soils (e.g., *Final Soil Response Action Plan, Block B, Lockheed Martin Middle River Complex* [Tetra Tech, 2009]). A PRG based on an incremental lifetime-cancer-risk (ILCR) of $1{\times}10^{-5}$ (versus a remedial goal based on an ILCR of $1{\times}10^{-6}$, i.e., a one-in-a-million risk) is used for the following reasons:

- BaPEq represents a group of chemicals (i.e., benzo(a)pyrene and related chemicals), not a single COC, and therefore risk analysis based on BaPEq accounts for cumulative risk
- non-site-related anthropogenic sources of benzo(a)pyrene (and other BaPEq associated with “fill material”) have contributed to study area soil concentrations
- PRGs set at the $1{\times}10^{-6}$ level for BaPEq constituents are often significantly less than typical anthropogenic background levels, particularly in highly developed areas

The $1{\times}10^{-5}$ risk-based PRG of 2,900 µg/kg was calculated using the methodology presented in the HHRA and verified using the United States Environmental Protection Agency (USEPA) regional screening-level (RSL) calculator (http://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search). The associated check-calculation spreadsheets are in Attachment A of Appendix D (“Residual-Risk Analysis”). Appendix D includes histograms showing BaPEq-concentration distributions in Block H. The histograms suggest that risk estimates are strongly influenced by elevated concentrations detected at relatively few of the many sampling locations within Block H.

4.4 RESIDUAL-RISK ANALYSIS

A RRA was conducted to identify those locations to be remediated to achieve “representative” soil concentrations that do not exceed the PRG established for the COC in the Block H soils. A “representative” soil concentration (also referred to as the exposure-point concentration) is defined as the 95% upper confidence limit (UCL) on the arithmetic mean (95% UCL) for a receptor in an exposure unit (in this case, an industrial worker within Block H). In overview, the RRA ranks locations from most contaminated to least contaminated, and then sequentially “removes” sampling results/locations from the calculation (i.e., to target sampling locations for remediation) until the 95% UCL concentration for a COC does not exceed its PRG.

The RRA for Block H soils from zero to two feet below ground surface [bgs] (i.e., surface soils) was performed separately from the RRA for soils two feet bgs to the water table (subsurface soils). Soils below the water table are not targeted for potential remediation and are addressed through land use controls (LUCs). Depth to groundwater at Block H ranges between two and five feet bgs, with an allowance of two feet for seasonal fluctuation (figures showing depth-to-groundwater contours are in Appendix F). The RRA was conducted as described in the following paragraphs:

Step 1: Identification of COC for the RRA—As discussed earlier, BaPEq was identified as the only Block H COC.

Step 2: Identification of PRGs—Risk-based PRGs for the industrial worker were calculated for all COC and presented in the *HHRA for Tax Block Soils* (Tetra Tech, 2012). The remedial goal selected for the evaluation of BaPEq constituents in the RRA (2,900 µg/kg) is the concentration representing the 1×10^{-5} cancer-risk level (i.e., a one-in-100,000 probability of cancer).

Step 3: Ranking of locations—Samples in Block H were ranked by BaPEq concentration (and therefore risk). Surface soil locations were ranked separately from subsurface (i.e., the vadose zone, above the water table) soil. If more than one soil sample was available for a given depth interval, the maximum concentration was used to rank the location.

Step 4: Iteratively remove samples and recalculate exposure-point concentrations (EPC)— Ranked samples were reviewed to select an initial set of locations to undergo RRA. Locations with cancer-risk estimates exceeding the 1×10^{-5} cancer-risk level for the typical industrial worker were selected as a starting point, because that level is the MDE cumulative cancer-risk benchmark. These locations contribute significantly to the risk estimates presented in the HHRA, and were considered a reasonable starting point for the analysis. The selected data points (assuming removal via excavation) were replaced by an assumed (clean fill) concentration of 10 micrograms per kilogram (µg/kg); the 95% UCL for BaPEq was then recalculated using the substituted concentrations. The 10-µg/kg concentration was selected as the replacement soil value instead of the non-detect value, to be conservative. If the recalculated 95% UCL exceeded the PRG for the industrial worker, additional locations were iteratively removed from the data set and replaced with the proxy for the non-detect concentration (10 µg/kg); the recalculation process was then repeated until the resultant 95% UCL was equal to or less than the PRG. BaPEq concentrations in the soil sampling locations targeted for removal range from 21,000 µg/kg (21 milligrams per kilogram [mg/kg]) to 46,000 µg/kg (46 mg/kg).

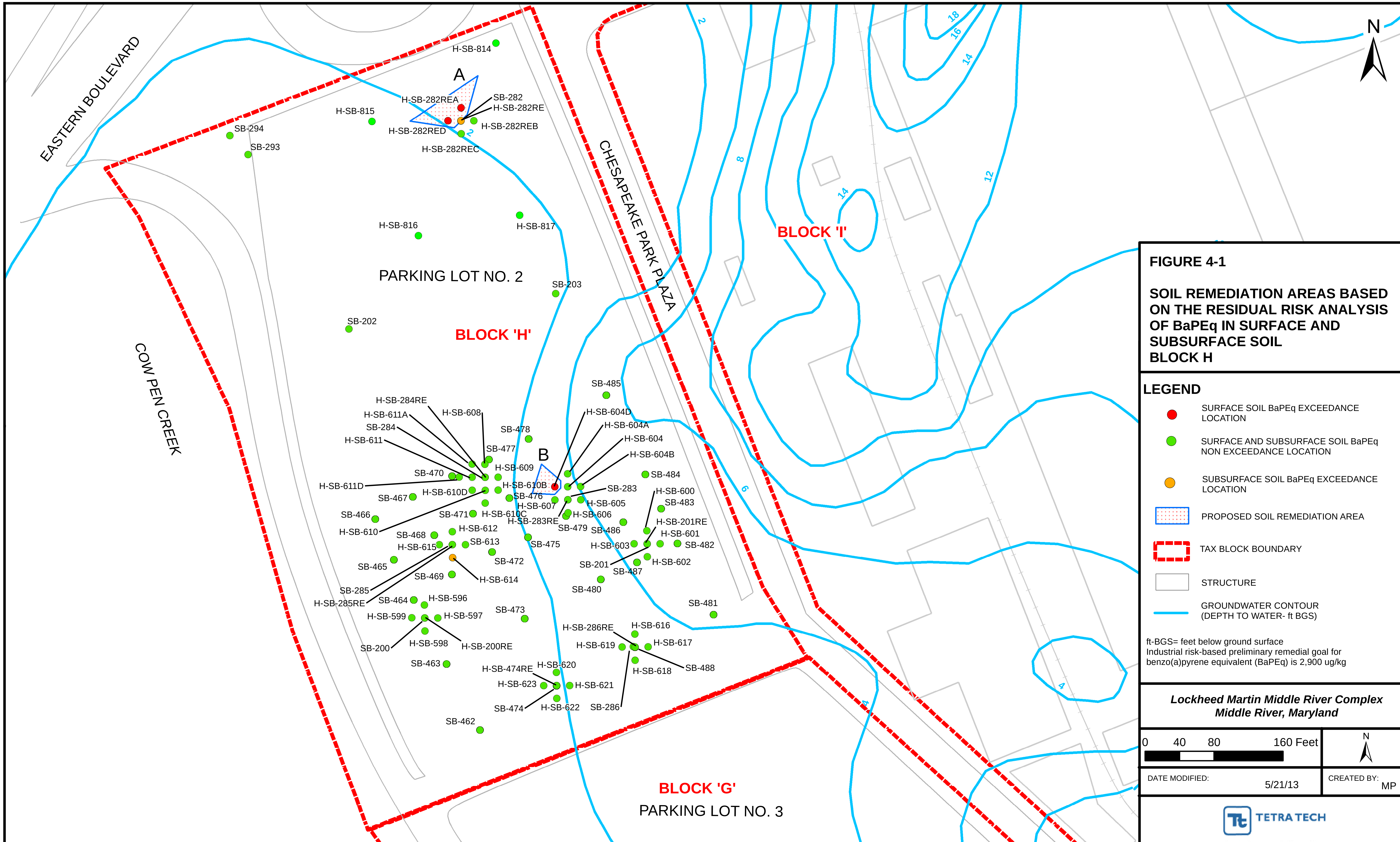
Step 5: Address cumulative risk issue—The RRA focused on the reduction of the BaPEq exposure-point concentration (EPC) and, thus, reducing risk. Since BaPEq represents a group of PAH compounds that have been adjusted to be the toxic equivalent of benzo(a)pyrene, excavation of soils such that the BaPEq EPC is less than the 2,900 µg/kg (2.9 mg/kg) PRG will result in a cumulative-risk estimate for the worker that is equal to or less than the 1×10^{-5} cancer-risk level.

Step 6: Margin of safety—The locations targeted for potential remediation based on the preceding steps were reviewed to determine if any additional locations should be targeted, so that the results of the residual-risk analysis will include a margin of safety (i.e., the cumulative health risk will be less than 1×10^{-5}). For example, if sampling location "*X*" was targeted for remediation and located near sampling location "*Y*," which was not targeted for remediation but had an elevated COC concentration, sampling location "*Y*" may have been added to the list of targeted locations. Professional judgment factors were used to select the "additional" sampling locations targeted for remediation. The most frequently considered factors were: (1) the concentrations at non-targeted locations near (horizontally or vertically) targeted locations, and (2) the spatial distribution of the data (e.g., the sample density, or lack thereof) in a particular area demonstrating exceedances. No additional sampling locations were needed to address a margin of safety for Block H soils.

Figure 4-1 represents the areas within Block H that need to be remediated to meet the PRG and RAO, as identified in the RRA.

4.5 ATTAINMENT OF PRELIMINARY REMEDIAL GOALS AND REMEDIAL ACTION OBJECTIVES

Section 5 of this RAP provides an evaluation of remedial alternatives needed to achieve the established RAO for soils at Block H. Following implementation of the remedial action, post-remediation attainment samples will be collected to ensure that the RAO is achieved and that soils requiring removal (per the RRA) from the ground surface to two feet below ground surface, or down to the groundwater table (whichever is encountered first) have been addressed. The BaPEq concentrations in confirmatory sidewall samples from the excavation will be used to recalculate the residual risk for BaPEq in Block H soils, and sampling will be considered finished when the required locations have been removed and the residual risk complies with the requirements of the RAO. Section 8 provides further details on the sampling required to demonstrate attainment of the PRG and RAO. MDE will issue a “No Further Action” letter once the RAO has been met. Institutional controls for groundwater and any remaining impacted soil will be established as part of site closure.



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Section 5
Remedial Action Alternatives Evaluation and Selection

Selected technologies and institutional controls for the proposed soil remedial action are presented in this section, as required by the Maryland Department of the Environment (MDE) Controlled Hazardous Substances (CHS) Enforcement Division. The *National Oil and Hazardous Substances Pollution Contingency Plan* (NCP) (40 *Code of Federal Regulations* [CFR] Part 400.430), promulgated under the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), guides the selection of remedial technologies. This section describes the identification, screening, and evaluation of potential technologies and process options, their preliminary screening and detailed evaluation, the selection of representative process options, development and detailed analysis of alternatives, the comparative analysis of alternatives, and identification of the proposed alternative.

Technology identification and screening is based on the following steps:

- identification of chemicals of concern (COC) (see Section 4)
- development of remedial action objectives (RAOs) (see Section 4)
- development of preliminary remedial goals (PRGs) (see Section 4)
- identification of applicable or relevant and appropriate requirements (ARARs) (this section)
- identification of general response actions (GRAs) (this section)

5.1 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS AND GENERAL RESPONSE ACTIONS

The ARARs in this remedial action plan (RAP) are state or federal statutes or regulations pertaining to protection of human health and the environment in addressing specific conditions or use of a particular cleanup technology at a site.

Other criteria considered are non-promulgated, non-enforceable guidelines or criteria that may be useful in developing a remedial action or may be necessary to determine levels that are protective of human health and/or the environment. Examples include United States Environmental Protection Agency (USEPA) industrial-exposure risk-based regional screening levels (RSLs) and similar MDE soil standards.

One of the primary concerns in developing remedial action alternatives for contaminated sites is the degree of human health and environmental protection offered by a remedy. CERCLA Section 121 requires that primary consideration be given to remedial alternatives that attain or exceed ARARs. The purpose of this requirement is to make CERCLA remedial actions consistent with other pertinent federal and state environmental requirements. The NCP identifies the following three categories of ARARs [40 CFR Section 300.400 (g)]:

- *Chemical-specific*—Health-risk-based numerical values or methodologies that establish concentration or discharge limits for particular contaminants. Table 5-1 presents a list of State of Maryland chemical-specific ARARs and to-be-considered (TBC) criteria. These ARARs and TBC criteria provide some medium-specific guidance on “acceptable” (by regulation) or “permissible” concentrations of contaminants.

- *Location-specific*—ARARs that restrict actions or contaminant concentrations in certain environmentally sensitive areas. Examples of areas regulated under various federal laws include floodplains, wetlands, and locations where endangered species or historically significant cultural resources are present. Table 5-2 presents a list of federal and Maryland location-specific ARARs and TBC criteria. These ARARs and TBC criteria restrict contaminant concentrations or the conduct of activities solely based on the site’s particular characteristics or location.

- *Action-specific*—Technology- or activity-based requirements, limitations on actions, or conditions involving special substances that control or restrict the remedial action. Examples of action-specific ARARs include wastewater-discharge standards and performance or design standards, controls, or restrictions on particular types of activities. Table 5-3 lists federal and Maryland action-specific ARARs and TBCs.

GRAs are broadly defined response approaches that may attain RAOs. GRAs describe categories of actions that can be implemented to satisfy or address a component of the RAOs for the site. GRAs corresponding to the Block H RAO are in Table 5-4. Response-action alternatives have been developed using the following GRAs individually or in combination to meet the RAO for contaminated soil in Block H:

- no action
- soil removal
- limited action: institutional controls
- containment
- *in situ* treatment

5.2 SCREENING OF TECHNOLOGIES AND PROCESS OPTIONS

This section provides an identification, screening, and evaluation of potential technologies and process options that may be applicable to remediating impacted Block H soil. The primary objective of this phase is to develop an appropriate range of remediation technologies and process options that will meet the RAO. The remediation technologies and process options are identified based on experience with similar projects, in addition to publicly available information from the Federal Remediation Technologies Roundtable (FRTR) technologies screening-matrix tool (FRTR, 2012) and the Interstate Technology and Regulatory Council (ITRC) screening tool (ITRC, 2012). The identified technologies and process options were screened in accordance with USEPA guidance (USEPA, 1988) and Lockheed Martin Corporation (Lockheed Martin)-specific considerations for environmental impacts and total cost analysis (TCA). Table 5-5 presents the results of the screening with respect to effectiveness, implementability, and relative cost. The following evaluation criteria were used in the screening:

- *Effectiveness:* This criterion screens out technologies as follows:
  - Technologies and process options that were not effective in eliminating potential exposure pathways (in particular, for current industrial workers), or were not effective in meeting the RAO, were screened out.
  - Unreliable technologies and process options were screened out.
- *Implementability*: Technologies that cannot be implemented in the area were screened out.
- *Relative cost*: Technologies with costs significantly higher than others that achieve similar performance or goals were screened out. Relative costs such as high, medium, and low are provided, based on experience with similar projects and publicly available information from the FRTR and ITRC screening tools (FRTR, 2012 and ITRC, 2012).

Technologies and process options that passed initial screening and detailed evaluation (Table 5-5) were selected for the next step in remedial alternative selection– the development of soil remedial alternatives. Table 5-6 lists the technologies that were retained.

5.3 DEVELOPMENT AND DETAILED ANALYSES OF ALTERNATIVES

This section discusses the development of the soil remedial action alternatives from the retained process options, and describes the conceptual design for the selected short list of alternatives. Impacted soil, as defined in the following discussion, is soil that the RRA identified for remediation. A two-step process for identifying and evaluating alternatives was used for this RAP. First, an initial list of seven potential remedial action alternatives was developed from the process options retained during the preliminary screening of technologies. Advantages and disadvantages of each were identified, and the alternatives' capital and operating costs were estimated. After the initial list of seven options was screened, six remedial alternatives were retained for further evaluation.

5.3.1 Development of Alternatives

Seven alternatives were developed from the technologies and process options retained in Section 5.2. The process for developing these alternatives is outlined in Table 5-7. The following paragraphs describe each alternative in detail:

Alternative 1: No action
This alternative will not meet the RAO and is presented only for comparison purposes.

Alternative 2: Institutional controls
This alternative will not mitigate impacted soils; institutional controls will be the sole means of managing and minimizing risks. This alternative involves no active remedy, but lowers risk as compared to the no-action alternative. This alternative, when used without other remedial technologies, will not meet the RAO because COC in site soils will remain above the 1×10^{-5} human health cancer-risk limit. This alternative is only reliable to the extent that institutional controls are effective.

Alternative 3: Excavation and off-site disposal of impacted soils to a depth of two feet and institutional controls
This alternative incorporates excavation and disposal of the top two feet of impacted soils with the post-removal placement and compaction of clean soil, followed by institutional controls. Soils below the groundwater table will remain in place. Institutional controls will still be required for soils that remain on-site and for soils below the groundwater table. The excavated areas will be finished to match existing grade and paved to match

existing conditions. This alternative includes post-excavation attainment sampling and sampling for disposal purposes. This alternative will meet the RAO.

<u>Alternative 4</u>: Asphalt pavement removal and soil cover over impacted areas and institutional controls.

This alternative incorporates removal of the asphalt pavement in the impacted footprint, with subsequent placement of a two-foot-thick soil cover over the impacted footprint. The soil cover will consist of six inches of topsoil and 1.5 feet of subgrade clean fill. The subgrade soils will be compacted to the required degree. The soil cover will raise surface grade by 1.5 feet within the 100-year floodplain. The 100-year floodplain elevation is nine feet above mean sea level (msl). This alternative will require institutional controls for soils that remain on-site and for soil beneath the groundwater. This alternative will not require any attainment sampling. This alternative will meet the RAO.

<u>Alternative 5</u>: Enhanced bioremediation of impacted surface soils and institutional controls.

This alternative will involve enhanced bioremediation of the top two feet of impacted soils, followed by institutional controls. Subsurface soils will not be treated. The *in situ* bioremediation method proposed will use a soil tilling technique to apply proprietary soil amendments and water to stimulate native organisms to biodegrade organic COC (e.g., polycyclic aromatic hydrocarbons [PAHs]). This alternative includes post-remedial-action attainment sampling. The remediated areas will be finished to match existing grade and conditions—grass and/or paving as required. Bench-scale testing will be required to establish the viability of this technology and to determine if the RAO can be achieved.

<u>Alternative 6</u>: *In situ* stabilization of impacted soils to the groundwater table and institutional controls.

This alternative consists of *in situ* stabilization of soils using an auger and cement-like material, resulting in COC becoming less mobile and less bio-available. Stabilization techniques can be applied *in situ* or *ex situ*. The *in situ* techniques are more cost-effective because the soil matrix is disturbed to a lesser degree. Therefore, only *in situ* techniques were considered. This alternative will require institutional controls for soils that remain on-site and for soils below the water table. Since stabilized materials may degrade over time, this alternative may still not meet the risk-based RAO. This alternative will also require bench-scale and pilot testing to ascertain its effectiveness in meeting the RAO and to finalize mix ratios.

<u>Alternative 7</u>: Phytoremediation in the impacted areas and institutional controls
This alternative consists of planting mulberry trees at a density of 1,000 trees per acre in impacted areas to enhance the biodegradation of COC. This alternative will require annual sampling to monitor the decrease in soil COC concentrations. This alternative will also require bench-scale and pilot testing to ascertain its effectiveness in meeting the RAO. This alternative will require institutional controls for soils that remain on-site and for soils below the water table. Phytoremediation is only effective when the rooting system is uniformly distributed throughout the soil matrix being treated; if this distribution is not be uniform, impacted soils can remain untreated. COC uptake by plants will have to be monitored in order to prevent inadvertent human exposure (such as through fruit consumption). Therefore, this alternative may not meet the RAO.

***Common aspects of institutional controls (Alternatives 2–7)*—**Institutional controls could include, but are not limited to, cover-maintenance requirements (if Alternative 4 is implemented), excavation notification, soil reuse restrictions, and limitations on future property use. MDE requires that these institutional controls be included on property deeds. Any excavation must meet the requirements of a site-specific health and safety plan to ensure that worker protection measures are met.

The MDE will document institutional controls and related environmental covenants applicable to the Block H property in the applicable “No Further Action” letter, which will be issued upon successful completion of soil remediation achieving the RAO in Block H. The “No Further Action” letter will be filed in the local land use records and will be passed to subsequent property owners as part of the deed documentation (i.e., the covenant “travels with the land”). The MDE regards all institutional controls as existing in perpetuity unless the related environmental covenants are eliminated or modified by mutual consent of the stakeholders. The MDE will present certain environmental covenants as part of the “No Further Action” letter documentation, and these covenants will provide stakeholders with legal standing for their enforcement. The MDE will determine the final disposition of any institutional controls.

Common aspects of Alternatives 3–4—Impacted soils are the soils identified in the RRA that have COC concentrations associated with an incremental lifetime-cancer-risk (ILCR) greater than one-in-100,000 (1×10^{-5}). For cost estimation purposes, we have assumed that soil will be shipped to the licensed and approved Waste Management GROWS North landfill facility in Morrisville, Pennsylvania. This facility is currently on Lockheed Martin's approved facility list. Following excavation of impacted soils, clean backfill will be placed in six-inch lifts and compacted to 95% of their dry density.

Each alternative was ranked after the analysis of the remedial goals, advantages, disadvantages, and costs for each. Based on analysis, Alternatives 1 through 6 were retained. Alternative 7 (phytoremediation in the impacted areas and institutional controls) was eliminated because its implementation may not meet the RAO. Alternative 7 depends on growing mulberry trees and an associated root structure that will enhance COC degradation; this technology is estimated to take approximately 15 years to meet the RAO. This time period, coupled with the uncertainty in the alternative's effectiveness, does not provide for immediate use of the site. Table 5-8 provides a ranking of the alternatives following the preliminary screening.

5.3.2 Evaluation Criteria

The six alternatives that passed the preliminary screening were evaluated in more detail using the nine evaluation criteria presented in the NCP. The NCP evaluation criteria are intended to provide a framework for assessing the risks, costs, and benefits of each remedial alternative. The first two criteria, or *threshold criteria*, include overall protection of human health and the environment and compliance with ARARs. All alternatives (excluding Alternative 1: No Action) meet these criteria, although several will require bench-scale and field-testing to determine if the RAO will be achieved. The next five criteria described in the NCP are *primary balancing criteria*. This RAP also adds a sixth balancing criterion: the environmental impacts of each alternative. Thus, the six primary *balancing criteria* considered are as follows:

- long-term effectiveness and permanence
- reduction in toxicity, mobility, and volume through treatment
- short-term effectiveness
- implementability
- environmental impacts
- cost

Long-term effectiveness and permanence**—**Alternatives must be assessed for the long-term effectiveness and permanence they offer, along with the degree of certainty that the alternative will succeed. Other considerations include, as appropriate, the magnitude of residual risk (e.g., risks posed by untreated waste or treatment residuals) and the adequacy and reliability of controls (e.g., controls needed to manage untreated waste or treatment residuals).

Reduction of toxicity, mobility, or volume through treatment**—**Alternatives must be assessed for the degree to which they employ recycling or treatment that reduces the toxicity, mobility, or volume of the waste being assessed, including how the treatment and associated reduction addresses principal site risks.

Short-term effectiveness**—**The short-term effects of the alternative must be assessed considering the following:

- short-term risks that might be posed to the community during implementation
- potential effects on workers during the remedial action and the effectiveness and reliability of protective measures
- potential environmental effects of the remedial action, and the effectiveness and reliability of mitigation measures during implementation
- time until protection is achieved

Implementability**—**The ease or difficulty of implementing the alternatives must be assessed by considering technical feasibility, administrative feasibility, and availability of services and materials.

Environmental impacts**—**The environmental impacts of the remedial alternatives were assessed using the *SiteWise*™ software tool (Appendix G). *SiteWise*™ is a spreadsheet-based tool developed by the United States Navy, United States Army Corps of Engineers, and Battelle Memorial Institute (United States Navy, 2011). It provides a model for assessing the environmental footprint of remedial alternatives in terms of a consistent set of metrics, including greenhouse gas emissions, particulate emissions, and energy usage. The components of Alternatives 3–6 were divided into four modules representing the remedial phases of most remedial actions, and their environmental footprint was then calculated. These results are then combined to determine the total footprint of each alternative and enable comparison among the set of alternatives. *SiteWise*™ can also be used to determine the primary footprint contributors of each alternative.

***Costs*—**Total cost analysis (TCA) considers the costs associated with implementing a program, including direct costs associated with implementation, environmental and health costs, risks and liabilities, and costs borne by others. Five cost categories considered in the TCA for Block H soil remediation alternatives are as follows:

- **I—Direct costs** (recurring and non-recurring), including:
    - remediation design
    - remediation construction, including capital, labor, material, and waste disposal
    - operating, maintenance, and monitoring for a 50-year time period
    - decommissioning and disposal upon remedy completion
    - worker safety measures
- **II—Indirect costs** (recurring and non-recurring) expended by Lockheed Martin to manage and support the remediation program
- **III—Future and contingent liability costs**, including:
    - fines and penalties
    - natural resource damage assessments under CERCLA
    - property damage
    - disposal or recycling facility failures
    - future development under institutional controls
    - currently unknown issues, such as:
        - unknown contamination in the remediation area or under the operating manufacturing facilities
        - future releases to groundwater
        - any effect that future modification or demolition of manufacturing facilities may have, including changes in groundwater flow and contaminant release
        - emerging contaminants of concern

- **IV—Internal intangible costs**, including:
    - community relations
    - regulatory relations
    - corporate and brand impacts
    - customer loyalty
    - worker wellness and morale
- **V—External costs** (borne by society), including:
    - environmental deterioration
    - resource depletion
    - protection of future residents and workers

The TCA, as applied in this soil RAP, includes quantitative estimates of Category I and II costs and qualitative assessments of Category III, IV, and V costs. Qualitative assessments are generally included in the other CERCLA evaluation criteria. Total cost analysis results are in Appendix H.

The NCP also includes two *modifying criteria*, state and local acceptance, that must be considered. Lockheed Martin has proactively interacted with both MDE and the local community to present potential alternatives and discuss the potential ramifications of each alternative. MDE approval of the RAP will constitute state acceptance, and Lockheed Martin is committed through its community outreach and public engagement program to provide the public an opportunity to provide comments on the RAP before its final approval and implementation. The two modifying criteria will not be scored during the evaluation of the remedial actions at this time, but will be incorporated after MDE has reviewed the document and community input on this RAP has been received.

5.3.3 Detailed Analyses of Alternatives

The following sections describe the six alternatives retained based on the preliminary screening using the evaluation criteria presented in Section 5.3.2. Table 5-8 provides a ranking of the alternatives following the preliminary screening.

5.3.3.1 Alternative 1: No Action

Description of Alternative 1—
This alternative will leave Block H in its current condition. This alternative is required to establish a basis for comparison with other alternatives.

Detailed analysis of Alternative 1—
Long-term effectiveness and permanence—Alternative 1 will not be effective in the long term in meeting the RAO because COC in site soils will remain above the 1×10^{-5} human health cancer-risk limit. Concentrations of soil COC might gradually decrease to acceptable levels in accord with regulations over a long period because of natural processes; however, it will take a very long time to reach the risk-based RAO if no action is performed.

Reduction of toxicity, mobility, and volume through treatment—Alternative 1 will not employ any treatment; therefore, there will be no reduction of toxicity, mobility, or volume of COC.

Short-term effectiveness—This alternative has no unmitigatable short-term adverse effects, because no action will be implemented.

Implementability—Alternative 1 has no implementability concerns because no action will be implemented.

Environmental impacts—No change in air emissions or impacts to water resources will be caused by this alternative, because no action will be implemented.

Cost—No costs will be associated with Alternative 1.

5.3.3.2 Alternative 2: Institutional Controls

Description of Alternative 2—
This alternative will leave Block H contaminated soils in their current condition but will institute institutional controls for soil at the site.

Detailed analysis of Alternative 2—
Long-term effectiveness and permanence—Alternative 2 will not be compatible with the desired current and future land use of the site. Alternative 2 will not be effective in the long term in meeting the RAO because COC in site soils will remain above the 1×10^{-5} human health cancer-risk limit. This alternative will not alter risk should institutional controls fail, but is only reliable to the

extent that institutional controls are effective. Concentrations of soil COC might gradually decrease to acceptable levels in accord with regulations over a long period because of natural processes; however, it will take a very long time to reach the risk-based RAO.

Reduction of toxicity, mobility, and volume through treatment—Alternative 2 will not employ any treatment; therefore, toxicity, mobility, and volume of COC will not be reduced.

Short-term effectiveness—This alternative has no unmitigatable short-term adverse effects because no action will be implemented.

Implementability—Alternative 2 will be easily implemented; however, monitoring will likely need to be incorporated into the institutional controls should land use change.

Environmental impacts—No air emissions or impacts to water resources will be caused by Alternative 2 because no treatment will be implemented.

Cost—The following costs for Alternative 2 were estimated via the TCA process:

- implementation: $139,155
- operations, maintenance, and monitoring: $162,000
- total cost: $301,155
- net present value cost: $187,000

5.3.3.3 Alternative 3: Excavation and Off-Site Disposal of Impacted Soils to a Depth of Two Feet, and Institutional Controls

Description of Alternative 3—
Alternative 3 consists of three major components: (1) soil excavation to achieve soil concentrations that meet RAO human health risk level for industrial use of 1×10^{-5}, (2) off-site disposal of soil, and (3) implementation of institutional controls. Figure 4-1 illustrates the areas to be excavated under Alternative 3.

> *Component 1: soil excavation*—Figure 4-1 shows the areas of Block H that will be excavated to meet the industrial risk-based RAO. As part of site preparation, a material handling pad, decontamination zones, and haul routes will be constructed to allow equipment access. All construction areas will be investigated for the presence of underground utilities and structures, in accordance with Lockheed Martin and LMCPI requirements. Following confirmation of the excavation boundaries by design-

characterization sampling (Figure 5-1), the top two feet of soils will be excavated in target areas.

Post-removal confirmation samples in excavation areas A and B (see Figure 5-1) will be collected from the excavation sidewalls (and from the excavation base as well, but only for informational purposes) and analyzed for benzo(a)pyrene-equivalent (BaPEq) PAHs. Following excavation, and after the overall site-wide BaPEq exposure-point concentration is less than 2,900 micrograms per kilogram (µg/kg), including sampling results from sidewall excavation areas A and B, the excavated areas will be backfilled with certified-clean material, graded to original contours, and restored to pre-response-action conditions.

Component 2: off-site soil disposal—The expected actions for excavated soils are as follows:

- Excavated material characterized as Resource Conservation and Recovery Act (RCRA) nonhazardous waste will be transported to a permitted RCRA Subtitle D facility for direct landfilling or to a permitted, Lockheed Martin-approved recycling facility.

- Excavated soil that fails toxicity characteristic leaching procedure (TCLP) standards will be characterized as RCRA hazardous waste and will be transported to a permitted RCRA Subtitle C treatment, storage, and disposal facility (TSDF) for treatment to meet TCLP limits, followed by direct landfilling.

The volumes estimated for disposal at the various facilities will need to be verified based on sampling and analysis of soil, followed by profiling (as necessary) for each facility. Estimated disposal volumes are presented in the TCA in Appendix H. An alternative to off-site disposal is off-site treatment and recycling. Lockheed Martin is investigating soil recyclers in the Baltimore region. If a facility acceptable to Lockheed Martin is identified, off-site recycling may be proposed as a partial or total replacement for off-site disposal.

Component 3: institutional controls—Institutional controls include documentation of residual soil contamination, restrictions on the use of groundwater, enforcement of the MRC soil management plan (e.g., excavation notification, soil reuse restrictions), and limitations on future property use.

Detailed analysis of Alternative 3—

Long-term effectiveness and permanence—Alternative 3 will be effective long-term in achieving target risk because impacted surface soils are removed.

Reduction of toxicity, mobility, and volume through treatment—No reduction of toxicity, mobility, or volume through treatment will be achieved for Alternative 3 because no treatment will be implemented.

Short-term effectiveness—Alternative 3 will generate environmental impacts during construction. Some construction impacts associated with this alternative can be mitigated with dust control, air monitoring, sidewall protection, and possibly dewatering to reduce risk to the surrounding community and on-site workers. Alternative 3 will take approximately one year to remove soils to achieve the RAO.

Implementability—Personnel and equipment to design and implement the proposed actions are readily available, and time to coordinate with stakeholders and obtain the necessary permits can be built into the schedule. Identification and field location of utilities and other features that may interfere with construction will also be required during the design process and before intrusive construction work begins. With these considerations, Alternative 3 is implementable.

Environmental impacts—The following environmental effects were estimated using *SiteWise*™ (Appendix G):

- greenhouse gas emissions—42 metric tons
- water impacts—no water impacts associated with Alternative 3
- nitrogen oxides (NO_x) emissions—0.064 metric tons
- sulfur oxides (SO_x) emissions—0.031 metric tons
- particulate matter (PM_{10}) emissions—0.184 metric tons
- total energy used—1,594 million British thermal units (MMBTUs)

Cost—The following costs for Alternative 3 were estimated via the TCA process:

- implementation: $507,681
- operations, maintenance, and monitoring: $168,750
- closure cost: $60,240
- total cost: $736,672
- net present value cost: $613,819

5.3.3.4 Alternative 4: Asphalt Pavement Removal and Soil Cover over Impacted Areas, and Institutional Controls

Description of Alternative 4—
Alternative 4 consists of the following four major components: (1) removal of asphalt pavement, (2) placement of soil cover, (3) off-site disposal of soil, and (4) implementation of institutional controls. Figure 4-1 illustrates the areas to be remediated under Alternative 4.

Components 1 and 2: asphalt pavement removal and placement of soil cover— Asphalt pavement will be removed from the remediation areas shown in Figure 4-1. As part of site preparation, a material handling pad, decontamination zones, and haul routes will be constructed to allow equipment to access the areas to be excavated. All construction areas will be investigated for the presence of underground utilities and structures in accordance with Lockheed Martin and LMCPI requirements.

The soil cover in the excavated areas will consist of six inches of topsoil over 1.5 feet of subgrade clean fill. Subgrade soils will be compacted to the required degree. This soil cover will raise the grade by 1.5 feet within the 100-year floodplain. Part of Block H is within the Chesapeake Bay Flood Plain Critical Area; therefore, the site elevation must stay within the 100-year floodplain elevation. The 100-year floodplain elevation is nine feet above msl, and most of Block H is currently within the 100-year floodplain elevation.

Component 3: off-site soil disposal—The expected actions for the excavated soil follow:

- Excavated material characterized as RCRA nonhazardous waste will be transported to a permitted RCRA Subtitle D facility for direct landfilling, or to a permitted, Lockheed Martin-approved recycling facility.
- Excavated soil that fails TCLP standards will be characterized as RCRA hazardous waste and will be transported to a permitted RCRA Subtitle C TSDF for treatment to meet TCLP limits, followed by direct landfilling.

The volumes estimated for disposal at the various facilities will need to be verified based on sampling and analysis of stockpiled soil, followed by profiling (as necessary) for each facility. Estimated disposal volumes are presented in the TCA in Appendix H.

Component 4: institutional controls—Institutional controls include, but are not limited to, cover-maintenance requirements, excavation notification, soil reuse restrictions, and limitations on future property use.

Detailed analysis of Alternative 4—

Long-term effectiveness and permanence**—**Alternative 4 will lower risk to potential receptors provided that the soil cover is maintained during future site use.

Reduction of toxicity, mobility, and volume through treatment**—**No reduction of toxicity, mobility, or volume through treatment will be achieved under Alternative 4 because no treatment will be implemented.

Short-term effectiveness**—**Alternative 4 will generate environmental impacts for the duration of construction. Construction impacts associated with this alternative can be mitigated by dust control and grading during construction to reduce risk to the surrounding community and on-site workers. Alternative 4 will take approximately one year to achieve the RAO.

Implementability**—**Personnel and equipment to design and implement the proposed actions are readily available, and time to coordinate with stakeholders and to obtain the necessary permits can be built into the schedule. This alternative will require placement of cover soils over disjointed, irregularly shaped areas, which will cause localized changes in elevation, making Alternative 4 undesirable for reasons including property use, storm-water management, and long-term maintenance. This alternative will thus pose significant critical-area permitting considerations, as well as storm-water-management issues. Identification and field location of utilities and other features that may interfere with construction will also be required during the design process and before intrusive construction work begins. With these considerations, Alternative 4 is implementable.

Environmental impacts**—**The following environmental effects were estimated using *SiteWise*™:

- greenhouse gas emissions—21 metric tons
- water impacts—no water impacts are associated with Alternative 4
- NO_x emissions—0.037 metric tons

- SO_x emissions—0.017 metric tons
- PM_{10} emissions—0.116 metric tons
- total energy used—486 MMBTUs

Cost—The following costs for Alternative 4 were estimated via the TCA process:

- implementation: $418,772
- operations, maintenance, and monitoring: $270,000
- closure cost: $49,691
- total cost: $738,462
- net present value cost: $544,952

5.3.3.5 Alternative 5: Enhanced Bioremediation of Impacted Surface Soils and Institutional Controls

Description of Alternative 5—
The *in situ* bioremediation technique proposed in this alternative involves the *in situ* application of soil amendments (e.g., DARAMEND® organic amendment) and water to stimulate native organisms to biodegrade organic material. Alternative 5 consists of four major components: (1) asphalt pavement removal and disposal, (2) bench-scale testing, (3) enhanced bioremediation, and (4) implementation of institutional controls. Figure 4-1 illustrates the areas to be remediated under Alternative 5.

> *Component 1: asphalt pavement removal and off-site disposal*—Asphalt pavement will be removed from the remediation areas shown in Figure 4-1. Site preparation will include a material-handling pad and decontamination zones, and haul routes will be constructed to allow equipment access to the areas being excavated; if required, these areas will be investigated for the presence of underground utilities and structures. Asphalt will be removed using a bulldozer, front-end loader, or similar equipment.

The expected actions for the asphalt are as follows:

- Excavated material characterized as RCRA nonhazardous waste will be transported to a permitted RCRA Subtitle D facility for direct landfilling or to a permitted, Lockheed Martin-approved recycling facility.

- Excavated soil that fails TCLP testing will be characterized as RCRA hazardous waste and will be transported to a permitted RCRA Subtitle C TSDF for treatment to meet TCLP limits, followed by direct landfilling.

The volumes estimated for disposal at the various facilities will need to be verified based on sampling and analysis of stockpiled material, followed by profiling (as necessary) for each facility. Estimated disposal volumes are presented in the TCA (Appendix H).

Component 2: bench-scale testing—To determine the appropriate dosage of soil amendment that will adequately treat the contaminated soil, a bench-scale test will be performed. Soil amendment will be added at a ratio of 2.5% to 100 tons of soil. The soil will be tilled using a specialized tiller, and water will be added to increase the soil moisture to 60% of the water-holding capacity, thus promoting COC degradation. After treatment, soil will be sampled for COC and analyzed by an off-site laboratory. A second application of 0.5% may subsequently be required, depending on laboratory results. Results of the bench-scale test will be used to modify the design requirements/dosing for the full-scale enhanced bioremediation.

Component 3: enhanced bioremediation—Soil amendments at the weight-percentage determined during the bench-scale testing will be added to soil in all treatment areas. Soil will be tilled using a specialized tiller and water will be added to increase the soil moisture to 60% of the water-holding capacity. The soil will be mixed twice per week for the first three months, and once every week thereafter to introduce oxygen into the soil to enhance the microbial process. Sampling will be conducted every 30 days to assess treatment progress and monitor pH. An estimated seven months will be required to treat soil in all treatment areas.

Adding an organic amendment will increase the total volume of soils treated by an estimated 3%. Some redistribution of treated soils will be necessary over areas larger than the areas planned treatment. Treatment areas will be repaved to like conditions following confirmation that the RAO has been met

Component 4: institutional controls—Institutional controls include, but are not limited to, cover-maintenance requirements, excavation notification, soil reuse restrictions, and limitations on future property use.

Detailed analysis of Alternative 5—

Long-term effectiveness and permanence—Commercial success has been shown with the technology used in Alternative 5; however, significant uncertainty surrounds the likelihood of success for this alternative at this site. For Alternative 5 to be effective, its removal efficiency will need to be confirmed at bench-scale testing, along with the appropriate dosage of additive needed to lower COC concentrations to required concentrations.

Reduction of toxicity, mobility, and volume through treatment—Treatment implemented by Alternative 5 will reduce the mobility, toxicity, and volume of contaminants through degradation of COC. A soil-sampling program will be needed to monitor COC degradation. The volume of contaminated soil will be reduced in the areas addressed by bioremediation, even though the overall volume of material requiring handling will be increased by the addition of the organic treatment material. The treatment is not expected to affect the mobility of compounds remaining in soil.

Short-term effectiveness—Alternative 5 will require dust control and grading during construction to reduce the risk of exposure to the surrounding community and on-site workers. The time to achieve the risk-based RAO cannot be estimated until the bench scale test is conducted.

Implementability—Personnel and equipment to design and implement the proposed actions are readily available and time to coordinate with stakeholders and to obtain the necessary permits can be built into the schedule. The effectiveness of the technology will have to be confirmed by a bench-scale study, which will also provide guidelines for the proper dosage of soil amendment. Utilities and other on-site features that may interfere with construction will also need to be identified during the design process and before intrusive construction work begins. A soil-sampling program will have to be implemented to monitor COC degradation. With these considerations, Alternative 5 is implementable.

Environmental impacts**—**The following environmental effects were estimated using *SiteWise*™:

- greenhouse gas emissions—28.5 metric tons
- water impacts—57,236 gallons
- NO_x emissions—4.86 metric tons
- SO_x emissions—0.018 metric tons
- PM_{10} emissions—0.096 metric tons
- total energy used—865 MMBTUs

Cost**—**The following costs for Alternative 5 were estimated via the TCA process:

- implementation: $550,856
- operations, maintenance, and monitoring: $223,865
- closure cost: $65,363
- total cost: $840,085
- net present value cost: $715,094

5.3.3.6 Alternative 6: *In situ* Stabilization of Impacted Soils to the Groundwater Table, and Institutional Controls

Description of Alternative 6—
Alternative 6 consists of four major components: (1) asphalt pavement removal and disposal, (2) bench-scale test, (3) *in situ* soil stabilization, and (4) implementation of institutional controls. Figure 4-1 illustrates the areas that will be remediated under Alternative 6.

> *Component 1: asphalt pavement removal and off-site disposal*—Asphalt pavement will be removed from the remediation areas shown in Figure 4-1. Site preparation will include a material-handling pad and decontamination zones, and haul routes will be constructed to allow equipment access to the areas being excavated; if required, these areas will be investigated for the presence of underground utilities and structures. Asphalt will be removed using a bulldozer, front-end loader, or similar equipment.

The expected actions for the asphalt are as follows:

- Excavated material characterized as RCRA nonhazardous waste will be transported to a permitted RCRA Subtitle D facility for direct landfilling or to a permitted, Lockheed Martin-approved recycling facility.

- Excavated soil that fails TCLP testing will be characterized as RCRA hazardous waste and will be transported to a permitted RCRA Subtitle C TSDF for treatment to meet TCLP limits, followed by direct landfilling.

The volumes estimated for disposal at the various facilities will need to be verified based on sampling and analysis of stockpiled material, followed by profiling (as necessary) for each facility. Estimated disposal volumes are presented in the TCA (Appendix H).

Component 2: bench-scale testing—To determine the appropriate dosage of lime, cement, or fly ash that will adequately stabilize the contaminated soil, a bench-scale test will be performed. Cement or fly ash will be mixed with the soils at a soil to stabilization-agent ratio of 1:7. Water will be added to the soil at 10% by weight. After stabilization, treated soil will be sampled and analyzed for COC by an off-site laboratory. Results of the bench-scale test will be used to modify the design requirements/dosing for the full-scale soil stabilization.

Component 3: in situ soil stabilization—Lime, cement, or fly ash will be added at the appropriate soil-to-additives weight ratio determined during the bench-scale test. Soil will be mixed using augers or tillers, resulting in a mass that will reduce the leachability and mobility of soil contaminants. Stabilized soils will be left in place. However, adding lime, cement, or fly ash will increase the total volume of treated soils by an estimated 13%. Therefore, redistribution of treated soils over areas larger than the original treatment areas will be necessary. Treatment areas will be repaved to like conditions following confirmation that the RAO has been met.

Component 4: institutional controls—Institutional controls include, but are not limited to, cover maintenance requirements, excavation notification, soil reuse restrictions, and limitations on future property use.

Detailed analysis of Alternative 6—

Long-term effectiveness and permanence**—**Alternative 6 binds COC in a cement-like material which makes the chemicals less mobile and less bioavailable, but the mass of COC will not be decreased. The stabilized material can eventually degrade over time and COC can then be remobilized in soil.

Reduction of toxicity, mobility, and volume through treatment—Alternative 6 will reduce the mobility of contaminants by binding COC in a cement-like material. The stabilized material can eventually degrade over time, enabling COC re-mobilization to some degree. The overall volume of material requiring handling will be increased by adding lime, cement, or fly ash stabilizers.

Short-term effectiveness—Implementation of Alternative 6 will take two years to achieve the risk-based RAO because of the large amount of soil that requires stabilization. Significant construction operations will be required for implementation, but negative effects can be mitigated with engineering controls.

Implementability—Personnel and equipment to design and implement the proposed actions are readily available, and time to coordinate with stakeholders and to obtain the necessary permits can be built into the schedule. The viability of technology will have to be ascertained by a bench-scale study to identify the proper dosage of soil amendment. Identification and field location of utilities and other features that may interfere with construction will also be required during the design process and before intrusive construction work begins. Soil sampling will be necessary to establish the level of soil stabilization. With these considerations, Alternative 6 is implementable.

Environmental impacts—The following environmental effects were estimated using *SiteWise*™:

- greenhouse gas emissions—73 metric tons
- water impacts—11,942 gallons
- NO_x emissions—0.022 metric tons
- SO_x emissions—0.013 metric tons
- PM_{10} emissions—0.094 metric tons
- total energy used—1,904 MMBTUs

Cost—The following costs for Alternative 6 were estimated via the TCA process:

- implementation: $505,745
- operations, maintenance, and monitoring: $168,750
- closure cost: $60,011
- total cost: $734,506
- net present value cost: $611,668

5.4 COMPARATIVE ANALYSIS OF ALTERNATIVES AND PROPOSED ALTERNATIVE

The six remedial-action alternatives to remediate soils in Block H were compared qualitatively and quantitatively. Both types of analysis use the same evaluation criteria described in previous sections. This evaluation does not directly consider state acceptance or community acceptance criteria; these will be evaluated through input from the community and MDE following submittal of this RAP.

A multi-criteria comparative decision-analysis tool was used to quantitatively screen the potential alternatives. This method is useful because criteria such as environmental benefits, impacts, risk, economics, and stakeholder participation cannot be easily condensed into simple evaluation matrices. Other benefits associated with using a multi-parameter analysis tool include having the decision criteria for remedy selection, the weighting of each criterion considered, and the score that is applied to each remedial alternative clearly defined and readily available for review. In addition, sensitivity analyses to explore the robustness of the alternative rankings and the criteria that are most important in the ranking determination is easily accomplished.

In this RAP, the multi-parameter analysis tool *Criterium® Decision Plus®* (CDP) was used to evaluate and rank the remedial alternatives for Block H. CDP is a decision analysis tool that uses decision-making techniques such as the analytical hierarchy process, the Multi-Attribute Utility Theory, and the simple multi-attribute rating technique that is incorporated into the tool (InfoHarvest, 2001). To build the decision hierarchy and incorporate all the decision factors, each NCP evaluation criterion is represented by one or more individual metrics. To account for these metrics, up to three levels of evaluation criteria were established:

- *Level 1* criteria are the major balancing and modifying criteria
- *Level 2* criteria have factors considered in the evaluation of Level 1 criteria
- *Level 3* has further subcomponents with which to evaluate the Level 2 criteria

The results of the CDP screening are in Appendix I. Table 5-9 summarizes the quantitative CDP analysis. Table 5-10 summarizes the weightings, rankings, and results of the CDP analyses. Higher scores indicate that the alternative is more highly ranked in that category.

All six alternatives evaluated meet the threshold criteria equally well; therefore, the six balancing criteria were used to differentiate between alternatives and determine the preferred alternative:

- *Long-term effectiveness and permanence*—Alternative 3 ranks highest in this category because the groundwater table at this site is approximately two feet below ground surface, and Alternative 3 excavates soil to a depth of two feet. This alternative will be very effective at reducing health risk associated with soil above the groundwater table.
- *Short-term effectiveness*—Alternative 6 ranks highest in this category because this alternative will achieve the RAO while posing the least risk to workers, the environment, and the community during implementation.
- *Reduction of toxicity, mobility, or volume by treatment*—Alternative 5 ranks highest in this category, because it is the only alternative that will both treat and degrade COC.
- *Implementability*—Alternative 2 ranks highest in this category, followed by Alternatives 3 and 6.
- *Environmental impacts*—Alternatives with no corrective action (Alternatives 1 and 2) rank highest in this category because no corrective action will be taken; therefore, no impacts to the environment will occur.
- *Cost*—Alternatives with no corrective action (Alternatives 1 and 2) rank highest (i.e., had the lowest cost) in this category. Of the alternatives with active remediation (Alternatives 3 through 6), Alternative 3 ranks the highest in this category.

The overall CDP scoring of the various alternatives resulted in Alternative 3 achieving the highest ranking. The CDP scoring is as follows (higher scores indicate that the alternative is more favorably ranked):

- Alternative 1—0.415
- Alternative 2—0.470
- Alternative 3—0.568

- Alternative 4—0.554
- Alternative 5—0.539
- Alternative 6—0.549

In the quantitative analysis, Alternative 3 ranks highest for several reasons. Most importantly, it ranks highest in long-term effectiveness at reducing risk to human health and the environment. The relatively short period required for active remediation to meet project goals is another advantage. Alternative 3 is easily implemented, and treatment and removal of contaminated soil from the site is irreversible. The final advantage of Alternative 3 as compared to the other top two alternatives (Alternatives 5 and 6) is that this alternative will be reach the RAO two to three years sooner than will Alternative 5. Furthermore, Alternative 3 is more adaptable and easier to modify than Alternative 6. Of the three alternatives, Alternative 3 is the most reliable and has the lowest potential for residual risk. Thus, Alternative 3 was selected as the proposed remedial action for soil at Block H, based on both the qualitative and quantitative analyses.

Table 5-1

Chemical-Specific Applicable or Relevant and Appropriate Requirements and To Be Considered Guidance
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Requirement	Citation	Status	Synopsis	Evaluation/Action to be Taken
State				
Cleanup Standards for Soil and Groundwater	Maryland Annotated Code 7-508	To be considered	This guidance document presents the approach and supporting documentation used to develop numeric cleanup standards for hazardous substances in soil and groundwater in the State of Maryland.	These non-promulgated standards may be considered for use in determining cleanup goals for soil in the absence of site-specific risk-based criteria.

Table 5-2

Location-Specific Applicable and Relevant and Appropriate Requirements and To Be Considered Guidance
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex,
Middle River, Maryland

Requirement	Citation	Status	Synopsis	Evaluation/Action to be Taken
Federal				
Endangered Species Act Regulations	50 CFR Parts 81, 225, and 402	Potentially Applicable	This act requires federal agencies to take action to avoid jeopardizing the continued existence of federally listed endangered or threatened species.	If a site investigation or remediation could potentially affect an endangered species or their habitat, these regulations would apply (No endangered species or habitats have been identified at the MRC.)
Historic Sites Act Regulations	36 CFR Part 62	Potentially Applicable	Requires federal agencies to consider to existence and location of landmarks on the National Registry of Natural Landmarks to avoid undesirable impacts on such landmarks.	The existence of national landmarks will be identified prior to remedial activities on site including remedial investigations (No national landmarks have been identified at the MRC.)
State				
Nongame and Endangered Species Conservation Act	Annotated Code of Maryland 10-2A-01; COMAR 08.03.08 and 08.02.12.	Potentially Applicable	Requires State agencies to use their authority to maintain and enhance nongame wildlife and endangered species populations.	If a site investigation or remediation could potentially affect an endangered species or their habitat, these regulations would apply (No endangered species or habitats have been identified at the MRC.)
Division of Historical and Cultural Programs	Annotated Code of Maryland 5A	Potentially Applicable	The Maryland Historic Trust formed in 1961 to preserve, protect, and enhance districts, sites, buildings, structures, and objects significant in the prehistory, history, upland and underwater archeology, architecture, engineering, and culture of the State.	The existence of Maryland historic sites would be identified prior to remedial activities on site including remedial investigations (No historic sites have been identified at the MRC.)

CFR- Code of Federal Regulations COMAR- Code of Maryland Regulations MRC- Middle River Complex

Table 5-3

Action-Specific Applicable or Relevant and Appropriate Requirements and To Be Considered Guidance
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Requirement	Citation	Status	Synopsis	Evaluation/Action to be Taken
Federal				
RCRA Regulations, Identification and Listing of Hazardous Wastes	40 CFR Part 261	Potentially applicable	Defines the listed and characteristic hazardous wastes subject to RCRA. Appendix II contains the TCLP.	These regulations would apply when determining whether or not a solid waste is hazardous, either by being listed or by exhibiting a hazardous characteristic, as described in the regulations.
CAA Regulations, NAAQSs	40 CFR Part 50	Potentially applicable	Establishes primary (health-based) and secondary (welfare-based) air quality standards for carbon monoxide, lead, nitrogen dioxide, particulate matter, ozone, and sulfur oxides emitted from a major source of air emissions. The NAAQSs form the basis for all regulations promulgated under the CAA. However, the NAAQSs themselves are non-enforceable and are not ARARs themselves.	Site remediation activities must comply with NAAQS. The principal application of these standards is during response action activities resulting in exposures through dust and vapors. In general, emissions from CERCLA activities are not expected to qualify as a major source and are therefore not expected to be applicable requirements. However, the requirements may be determined to be relevant and appropriate for non-major sources with significantly similar emissions.
RCRA Regulations, LDRs	40 CFR Part 268	Potentially applicable	This regulation prohibits the land disposal of untreated hazardous wastes and provides criteria for the treatment of hazardous waste prior to land disposal.	Response actions that involve excavating, treating, and redepositing hazardous soil would comply with LDRs.
OSHA Regulations, General Industry Standards	29 CFR Part 1910	Applicable	Requires establishment of programs to assure worker health and safety at hazardous waste sites, including employee training requirements.	These regulations would apply to all response activities.
OSHA Regulations, Occupational Health and Safety Regulations	29 CFR Part 1910, Subpart Z	Potentially applicable	Establishes permissible exposure limits for workplace exposure to a specific listing of chemicals.	Standards are applicable for worker exposure to OSHA hazardous chemicals during response action activities.

Table 5-3

Action-Specific Applicable or Relevant and Appropriate Requirements and To Be Considered Guidance
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Requirement	Citation	Status	Synopsis	Evaluation/Action to be Taken
Federal (continued)				
OSHA Regulations, Recordkeeping, Reporting, and Related Regulations	29 CFR Part 1904	Applicable	Provides recordkeeping and reporting requirements applicable to response action activities.	These requirements apply to all site contractors and subcontractors and must be followed during all site work.
OSHA Regulations, Health and Safety Standards	29 CFR Part 1926	Applicable	Specifies the type of safety training, equipment, and procedures to be used during the site investigation and response action.	All phases of the response action would be executed in compliance with this regulation.
RCRA Regulations, Contingency Plan and Emergency Procedures	40 CFR 264, Subpart D	Potentially relevant and appropriate	Outlines requirements for emergency procedures to be followed in case of an emergency	The administrative requirements established in this rule would be met for response actions involving the management of hazardous waste.
RCRA Regulations, Preparedness and Prevention	40 CFR Part 264, Subpart C	Potentially relevant and appropriate	Outlines requirements for safety equipment and spill control for hazardous waste facilities. Facilities must be designed, maintained, constructed, and operated to minimize the possibility of an unplanned release that could threaten human health or the environment.	Safety and communication equipment would be incorporated into all aspects of the response action process, and local authorities would be familiarized with site operations.

Table 5-3

Action-Specific Applicable or Relevant and Appropriate Requirements and To Be Considered Guidance
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Requirement	Citation	Status	Synopsis	Evaluation/Action to be Taken
Federal (continued)				
RCRA Regulations, Standards for Owners and Operators of Hazardous Waste TSDFs	40 CFR Part 264	Potentially relevant and appropriate	Establishes minimum national standards defining the acceptable management of hazardous wastes for owners and operators of facilities that treat, store, or dispose of hazardous wastes	If response actions involving management of RCRA wastes at an off-site TSDF, or if RCRA wastes are managed on-site, the requirements of this rule would be followed.
RCRA Regulations, Use and Management of Containers	40 CFR Part 264, Subpart I	Potentially relevant and appropriate	Sets standards for the storage of containers of hazardous waste	This requirement would apply if a response action alternative involves the storage of a hazardous waste (i.e., contaminated soil) in containers prior to treatment or disposal.
Migratory Bird Treaty Act	16 USC 703-711	Potentially applicable	Protects migratory birds and their nests	Proposed response action will not kill migratory birds or destroy their nests and eggs.
State				
Maryland Hazardous Waste Management System	Title 26, Subtitle 13 of the COMAR	Potentially applicable	Requires hazardous waste generators to ship their hazardous waste to a facility permitted to accept it or, with the appropriate permits, treat it themselves. Requires use of a certified hauler to ship hazardous waste off site, and shipment must be accompanied by a manifest. Requires compliance with regulations for the storage of the waste, and specifies procedures to prevent the occurrence of circumstances that would threaten human health or the environment.	These regulations would apply if waste on site was deemed hazardous and needed to be stored, transported, or disposed of properly.

Table 5-3

Action-Specific Applicable or Relevant and Appropriate Requirements and To Be Considered Guidance
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Requirement	Citation	Status	Synopsis	Evaluation/Action to be Taken
State (continued)				
Maryland Regulation of Water Supply, Sewage Disposal, and Solid Waste	Title 26, Subtitle 4 of the COMAR	Potentially applicable	Sets the requirements for construction and operation for solid waste disposal facilities.	These requirements would apply if on-site waste was deemed non-hazardous solid waste and needed to be stored, transported, or disposed of properly.
Maryland General Permit for Construction Activity	Title 26, Subtitle 17 of the COMAR	Relevant and appropriate	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.

ARARs – applicable or relevant and appropriate requirements
CAA – Clean Air Act
CERCLA – Comprehensive Environmental Response Compensation, and Liability Act
CFR – Code of Federal Regulations
COMAR – Code of Maryland Regulations
LDRs – land disposal restrictions
MDE – Maryland Department of the Environment
NAAQS – National Ambient Air Quality Standards
OSHA – Occupational Safety and Health Act
RCRA – Resource Conservation and Recovery Act
TCLP – toxicity characteristic leaching procedure
TSDF – treatment, storage, and disposal facility
USC – United States Code

Table 5-4

Remedial Action Objective and General Response Actions
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Remedial Action Objective	General Response Actions				
	No Action	Institutional Controls	Containment	Treatment – *In situ* or *Ex situ*	Removal and Disposal (off-site)
Reduce site-related chemical(s) of concern in Block H soils to achieve $1x10^{-5}$ human health cancer risk limits for industrial workers exposed to COC via ingestion, dermal contact and inhalation.			x	x	x

x - remedial action objective is acheived

Table 5-5

Results of Preliminary Technology Screening
Block H Soil Remedial Action Plan
Lockheed Martin, Middle River Complex
Middle River, Maryland

General response action	Response action technology	Process option	Description	Quantitative Screening Based on Criteria Below: Effectiveness (primary): Effectiveness in eliminating potential exposure pathways	Impacts during implementation	Reliability	Implementability	Relative cost	Results: Screening comment	Retain	Eliminate
No action	None	Not applicable	No activities conducted in the block to address contamination	Not applicable	Not applicable	Not reliable	Easy to implement	Low cost	Required by the *Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA);* retained for baseline comparison to other technologies.	✓	
Limited Action	Land use controls	Site use restrictions	Administrative action using excavation permits and other land use prohibitions to restrict future site activities.	Effective	No impacts during implementation	Technology is reliable provided land use restrictions and , excavation restrictions are well documented and implemented.	Easy to implement	Low cost	This technology would leave soil contaminants in place but will lower risk, and will meet response action objectives (RAOs) provided it is used with another treatment technology.	✓	
Containment	Cover/Barrier	Soil cover/cap that meets Maryland Department of the Environment (MDE) regulations (Code of Maryland Regulations [COMAR] 26.04.07.21)	Use of low permeability barriers to minimize direct exposure to contaminants and prevents sediment runoff	Effective in containing and covering impacted soils.	Large quantities of soil have to be transported the block.	Reliable	Technology is easily implemented; however, for this site, implementation will cause permitting issues and inhibit future use of the property.	Moderate cost	Retained; cover/cap can be placed over the impacted soils.	✓	

Table 5-5

Results of Preliminary Technology Screening
Block H Soil Remedial Action Plan
Lockheed Martin, Middle River Complex
Middle River, Maryland

General response action	Response action technology	Process option	Description	Quantitative Screening Based on Criteria Below: Effectiveness (primary): Effectiveness in eliminating potential exposure pathways	Impacts during implementation	Reliability	Implementability	Relative cost	Results: Screening comment	Retain	Eliminate
Removal	Excavation	Traditional excavation (with backhoe)	Means for removal of contaminated soils by backhoe, bulldozer, loader, etc.	Very effective in eliminating future risk and eliminating future exposure pathway	Large quantities of impacted soils have to be transported to the disposal facility and brought to the site for backfill.	Reliable	Easily implemented with traditional equipment. Depending on depth of excavation, may require dewatering of excavation and associated treatment of groundwater.	High cost; potential for large escalations in cost if area is not thoroughly characterized to ascertain impacted soil volumes.	Retained for removal of contaminated soil	✓	
In situ Treatment	Physical/ Chemical	Stabilization/ Solidification	Mixing of chemical agents in the soil to chemically bind, solidify, and reduce contaminant mobility.	Well understood technology, can be utilized in areas with target inorganic concentrations and polycyclic aromatic hydrocarbons (PAHs).	Large quantities of soils has to be processed. Large quantity of stabilizing agent such as cement may have to be transported to the site.	Reliable; will require bench-scale and possibly pilot testing to ascertain mix	Implementable with traditional equipment	Moderate cost	Retained.	✓	
		Soil mixing with zero valent iron (ZVI) or emulsified nano ZVI	ZVI has been used in the permeable reactive barrier (PRB) to treat halogenated compounds and heavy metals. Nano-scale ZVI was developed to further enhance its effectiveness and the clean-up time. This technology involves mixing soil with nano-scale ZVI and an environmentally benign (food grade) surfactant or emulsifier such as vegetable oil.	This technology is potentially applicable to volatile organic compounds (VOCs) such as trichloroethene (TCE). Applicability to PAHs unknown.	Large quantities of soils has to be processed. Large quantity of ZVI may have to be transported to the site.	Remediation with zero valence iron (Fe^0) is an emerging technology	Requires a bench-scale and/or a pilot-scale testing prior to implementation	High cost	Rejected; has never been used to treat PAHs		✓

Table 5-5

Results of Preliminary Technology Screening
Block H Soil Remedial Action Plan
Lockheed Martin, Middle River Complex
Middle River, Maryland

General response action	Response action technology	Process option	Description	Quantitative Screening Based on Criteria Below — Effectiveness (primary): Effectiveness in eliminating potential exposure pathways	Effectiveness (primary): Impacts during implementation	Effectiveness (primary): Reliability	Implementability	Relative cost	Results: Screening comment	Results: Retain	Results: Eliminate
In situ Treatment (continued)	Physical/ Chemical (continued)	Soil flushing	*In situ* flushing is accomplished by passing the extraction fluid (e.g., surfactants) through in-place soils using an injection or infiltration process. Extraction fluids must be recovered, treated, and possibly recycled.	This technology can be used to extract inorganics in soils and possibly organics such as PAHs.	Large quantities of soils have to be processed. A large quantity of surfactant may have to be transported to the site, and large volumes of extraction fluid have to be recovered.	There has been little commercial success with this technology. Not reliable since it mobilizes contaminants of and the extraction fluid has to be recovered to recover contaminants of concern (COC).	Requires a bench-scale and/or a pilot-scale testing prior to implementation. In addition, groundwater at the site is shallow which could cause mobilized COC to impact the groundwater at the site. Will require precise control of the flushing to recover all the surfactant and mobilized COC.	High cost	Eliminated – This technology has had little commercial success; technology is not reliable because it mobilizes contaminants and the extraction fluid has to be recovered to recover COC.		✓
		Soil vapor extraction (SVE)	Vacuum is applied through vapor extraction wells to create a pressure gradient that induces gas-phase volatiles to diffuse through soil to extraction wells. The process must include a system for handling off-gases.	This technology is typically applicable to VOCs and not PAHs since PAHs are not volatile.	No major impacts will require installation of SVE wells.	Not effective for PAHs and metals	Easily implemented	Moderate cost	Eliminated; not effective for PAHs		✓
	Biological	Enhanced bioremediation/ Landfarming	Nutrients and amendments are added to the soil to promote biodegradation of organic compounds.	Should land farming or similar technology be used, it will be effective in only the top 2 to 3 feet.	Bioremediation will take a long time to implement.	Commercial success has been shown with this technology; however, it is uncertain if it will work at this site. A pilot test will need to be conducted to determine reliability.	Easily implemented with standard construction techniques	Low to moderate cost	Retained	✓	

Table 5-5

Results of Preliminary Technology Screening
Block H Soil Remedial Action Plan
Lockheed Martin, Middle River Complex
Middle River, Maryland

General response action	Response action technology	Process option	Description	Quantitative Screening Based on Criteria Below: Effectiveness (primary): Effectiveness in eliminating potential exposure pathways	Effectiveness (primary): Impacts during implementation	Effectiveness (primary): Reliability	Implementability	Relative cost	Results: Screening comment	Results: Retain	Results: Eliminate
In situ Treatment (continued)	Biological (continued)	Bioventing	Oxygen is delivered to contaminated unsaturated soils by forced aeration (either extraction or injection of air) to increase oxygen concentrations and stimulate biodegradation. In contrast to soil vapor extraction, bioventing uses low air flow so as to provide only enough oxygen to sustain microbial activity.	Bioventing is an *in situ* technology that degrades compounds in soil by providing oxygen to existing soil microorganisms. Soil grain size and moisture content significantly affect its performance. Site geology indicates presence of some clayey soils, which reduce bioventing performance significantly.	Bioremediation will take a long time to implement.	May not be effective due to site geology.	Easily implemented with standard construction techniques	Low to moderate cost	Eliminated; site geology indicates the presence of some fine grain soils which would reduce biove+J12nting performance.		✓
		Phytoremediation	Use of selected plants cultivated in contaminated soil for uptake of metallic contaminants or enhancement of biodegradation of organic contaminants by indigenous microorganisms in the root zone.	Is effective only on soils that are in the root zone of plants that are used for phytoremediation.	Phytoremediation will take a long time to implement.	Will require plant screening studies to assess effectiveness	Moderately implementable; use of the block may have to be discontinued in the areas requiring treatment	Low to moderate cost	Retained	✓	

Table 5-5

Results of Preliminary Technology Screening
Block H Soil Remedial Action Plan
Lockheed Martin, Middle River Complex
Middle River, Maryland

General response action	Response action technology	Process option	Description	Quantitative Screening Based on Criteria Below					Results		
				Effectiveness (primary)			Implementability	Relative cost			
				Effectiveness in eliminating potential exposure pathways	Impacts during implementation	Reliability			Screening comment	Retain	Eliminate
Ex situ treatment	Physical/ Chemical	Chemical Fixation/ Stabilization/Solidification	Mixing of chemical agents to bind, solidify, and reduce contaminant mobility.	Well understood technology; can be utilized in areas with target inorganics, polycyclic aromatic hydrocarbons	Large quantities of soils have to be processed.	Reliable	Easily implemented with traditional construction techniques	Moderate to high cost	Eliminated; *ex situ* option is more expensive than *in situ* option.		✓
	Biological	Biopiles	Excavated soils are mixed with soil amendments and placed on a lined treatment area that includes leachate collection and aeration. This technology is used to treat organic contaminants in excavated soils through biodegradation. Moisture, heat, nutrient, oxygen, and pH need to be controlled. The designated treatment area will be covered or contained with an impermeable liner to minimize runoff and leaching contaminants into groundwater or other uncontaminated areas. Soil piles can be up to 20 feet high with an air distribution system buried under the soil piles.	Biopile technology has been used for treatment of halogenated and non-halogenated VOCs, semivolatile organic compounds (SVOCs), and pesticides. However, its performance varies significantly at sites. A bench-scale and a pilot-scale test should be conducted to determine the biodegradability of chemicals of concern (COC) at the site.	Substantial space will be required. Bioremediation will take a long time to implement.	Reliability has to be assessed through bench-scale testing. PAHs are comparatively slow to biodegrade.	Can be implemented using standard construction techniques.	Moderate Cost	Eliminated; this process option would take a significantly large amount of time to reach remedial action objectives. This technology will however require a large area to implement. Impacted areas that are excavated have to remain open and have to be managed until backfilled with treated soils.		✓

Table 5-5

Results of Preliminary Technology Screening
Block H Soil Remedial Action Plan
Lockheed Martin, Middle River Complex
Middle River, Maryland

General response action	Response action technology	Process option	Description	Quantitative Screening Based on Criteria Below					Results		
				Effectiveness (primary)			Implementability	Relative cost	Screening comment	Retain	Eliminate
				Effectiveness in eliminating potential exposure pathways	Impacts during implementation	Reliability					
Ex situ treatment (continued)	Biological (continued)	Composting	Composting is a biological process to convert organic contaminants to innocuous end products. Typically, thermophilic conditions (i.e., 54 to 65 Celsius) must be maintained. Soils are excavated and mixed with bulking agents such as wood chips and mixed to promote biodegradation.	Composting results in a volumetric increase because of the addition of amendment materials. Composting has been demonstrated to degrade many organic contaminants in soils, including PAHs. All materials and equipment used for composting are readily available.	Similar to biopiles, windrow composting requires substantial space. Bioremediation will take a long time to implement.	Reliability has to be assessed through bench-scale testing. PAHs are comparatively slow to biodegrade.	Easily implemented with standard construction techniques	Moderate cost	Eliminated. This process option would take a significantly large amount of time to reach the RAO. This technology will however require a large area to implement. Impacted areas that are excavated have to remain open and have to be managed until backfilled with treated soils.		✓
Disposal	Off-Site	Hazardous Waste Landfilling/ Non-Hazardous Waste Landfilling/Recycling	Disposal of excavated wastes and treatment residuals in a permitted Resource Conservation and Recovery Act (RCRA) Subtitle C or D facility or at a permitted recycling facility	Very effective in eliminating future risk and eliminating future exposure pathways, provided all areas with impacted soils have been identified	Large quantities of soil have to be transported.	Reliable	Easily implemented with traditional technology; has to be used in conjunction with excavation and removal	High cost	Retained landfilling or recycling, to be used in conjunction with other response action technologies	✓	

Table 5-5

Results of Preliminary Technology Screening
Block H Soil Remedial Action Plan
Lockheed Martin, Middle River Complex
Middle River, Maryland

General response action	Response action technology	Process option	Description	Quantitative Screening Based on Criteria Below: Effectiveness (primary): Effectiveness in eliminating potential exposure pathways	Impacts during implementation	Reliability	Implementability	Relative cost	Results: Screening comment	Retain	Eliminate
Disposal	Onsite	Consolidation	Excavation and relocation of contaminated soil to minimize space and closure requirements	Effective in eliminating future risk and eliminating future exposure pathways, provided all areas with impacted soils have been identified	No area within Middle River Complex has been identified for relocation of impacted soils.	Reliable	Technology can be implemented provided it is used in conjunction with *ex situ* stabilization and placement of a cover/cap over the impacted soils.	High cost	Eliminated; no area at Middle River Complex has been identified for consolidation.		✓

Table 5-6

Technologies and Process Options for Soil Remedial Action
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

General Response Action	Remedial Action Technology	Process Option
No Action	None	Not applicable
Limited Action	Institutional (Land Use) Controls	Site use restrictions
		Excavation restrictions
Containment	Cover/Barrier	Soil cover/cap that meets MDE regulations (COMAR 26.04.07.21)
Removal	Excavation	Traditional excavation (with backhoe)
In situ Treatment	Physical/Chemical	Stabilization/solidification
In situ Treatment	Biological	Enhanced bioremediation/landfarming
In situ Treatment	Biological	Phytoremediation
Disposal	Off-Site	Hazardous waste landfilling/non-hazardous waste landfilling /recycling

COMAR - Code of Maryland Regulations
MDE - Maryland Department of the Environment

Table 5-7

Development of Remedial Alternatives
Block H Soil Remedial Action Plan
Lockheed Martin Corporation, Middle River Complex
Middle River, Maryland

Remedial Action Objectives / Risk Pathways		Alternatives						
		1	2	3	4	5	6	7
Remedial Action Objective	**Risk Pathway**	**No Action**	**Institutional Controls**	**Excavation and off-site disposal of impacted soils* to a depth of two feet and institutional controls**	**Limited excavation and soil cover over impacted areas* and institutional controls**	**Enhanced bioremediation of impacted surface soils* and institutional controls**	***In situ* stabilization of impacted soils* to the groundwater table and institutional controls**	**Phytoremediaiton in impacted areas* and institutional controls**
Reduce site related COC in Block H soils to 1 x 10^{-5} human health cancer risk limits for industrial workers exposed to COC via ingestion, dermal contact and inhalation.	Ingestion, inhalation, and dermal contact	Not Applicable	Risk pathway mitigated via: -land use restrictions - access controls	Risk pathway mitigated via excavation and disposal of soils in the top 2 feet. Institutional controls will mitigate risk associated with soils at depths > 2 feet.	Risk pathway mitigated via: -Placement of a cover/ cap. -Institution controls required for maintenance of cover/cap.	Risk pathway mitigated via treatment of surface soils. Institutional controls will mitigate risk associated with soils at depths > 2 feet	Risk pathway mitigated via stabilization of soils down to the water table. Institutional controls will mitigate risk associated with saturated soils	While the phytoremediation technology may be promising, inconsistances in the rooting system can not guarantee the RAO will be met in the impacted areas; therefore, it is uncertain that the risk pathway will be mitigated in the implementation of this alternative.

*Impacted soils are soils identified in the residual risk analysis as having chemical(s) of concern (COC) concentrations associated with an incremental lifetime cancer risk (ILCR) greater than one in 100,000 (1×10^{-5}).

Table 5-8

Ranking of Remedial Alternatives Based on Preliminary Screening
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Ranking	Alternative	Retained?
1	Alternative 3: Excavation and off-site disposal of impacted soils* to a depth of two feet and institutional controls	yes
2	Alternative 2: Institutional controls	yes
3	Alternative 6: *In situ* stabilization of impacted soils* to the groundwater table and institutional controls	yes
4	Alternative 5: Enhanced bioremediation of impacted surface soils* and institutional controls	yes
5	Alternative 4: Limited excavation and soil cover over impacted areas* and institutional controls	yes
6	Alternative 7. Phytoremediaiton in impacted areas*, UST removal, and institutional controls	no
7	Alternative 1: No Action	Retained for Comparison

*Impacted soils are soils identified in the residual risk analysis as having chemical(s) of concern (COC) concentrations associated with an incremental lifetime cancer risk (ILCR) greater than one in 100,000 (1×10^{-5}).

Table 5-9

Comparative Analysis of Alternatives
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Evaluation Criteria	Evaluation Sub-Criteria	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
Long-term effectiveness and permanence	Residual potential long-term effectiveness and risk (assuming remedy failure)	Does not alter risk	Does not alter risk should institutional controls fail.	Lowers risk considerably provided subsurface soils are not brought to the surface during future construction	Lowers risk provided cover is maintained during future site use	Alternative is effective (for top 2-feet/surface soils) provided landfarming lower concentrations of chemicals of concern to the required degree.	Alternative does not lower concentrations. Stabilized material will eventually degrade.
	Technology reliability	Very unreliable	Reliable to the extent institutional controls are effective	Reliable technology	Reliable technology provided soil cover is maintained.	Reliability of technology to be ascertained by pilot testing.	Reliable technology. Stabilized material could degrade over time.
Reduction of toxicity, mobility, and volume through treatment	Destruction of hazardous constituents	No destruction	No destruction	No destruction, only removal and relocation to off-site landfill.	No Destruction	Some destruction of constituents is possible through degradation	No destruction, only stabilization
	Irreversibility of treatment	No treatment	No treatment	Impacted surface soils are removed.	Treatment can be reversed due to erosion or loss of soil cover.	Requires pilot testing to ascertain this.	Stabilized soils could eventually degrade.

Table 5-9

Comparative Analysis of Alternatives
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Evaluation Criteria	Evaluation Sub-Criteria	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
Short-term effectiveness	Time to achieve the RAO	Very long timeframe. COC may degrade naturally to reach the 1×10^{-5} risk level; however, it will take numerous years	Very long timeframe. COC may degrade naturally to reach the 1×10^{-5} risk level; however, it will take numerous years	Will require approximately 1 year to remove surface soil and reach RAO.	Will require approximately 1 year to cover remediation areas reach the RAO.	To be ascertained with a pilot test (4 or 5 years expected)	Will require a pilot test and likely take 2 years to implement
	Un-mitigable adverse impacts during construction and OM&M	None	None	Will require dust control and air monitoring	Grading and dust control will be required.	Will require dust control	Possible degradation of stabilized material over time
Implementability	Obtaining other approvals	It is likely this alternative will not get the required approvals.	Easy to obtain approvals and deed restrictions	Will require: critical area permits SEC permits air monitoring during RA implementation. Treatment & disposal facility requirements.	Will require: critical area permits SEC permits air monitoring during RA implementation.	Will require: critical area permits SEC permits air monitoring during RA implementation.	Will require: critical area permits SEC permits air monitoring during RA implementation.

Table 5-9

Comparative Analysis of Alternatives
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Evaluation Criteria	Evaluation Sub-Criteria	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
Implementability (continued)	Constructability	Easily Constructible	Easily Constructible	Easily constructible, but more involved than Alternative 4. Can be implemented using standard construction techniques.	Difficult to implement over large areas that are not contiguous.	Can be constructed with standard equipment and machinery for tilling and application of amendments.	Can be constructed with standard equipment and techniques.
	Availability of experts and technology	Does not require any expertise	Expertise is available.	Expertise and technology is readily available.	Expertise and technology is readily available.	Expertise and technology is available. Viability of technology to be ascertained by pilot testing.	Expertise and technology are readily available. Will require bench-scale testing to ascertain mix.
	Adaptability to modify/ update as necessary	Alternative can be modified as required.	Alternative can be modified as required.	Alternative can be modified as required. Additional excavations can be carried out.	Alternative can be modified as required.	Alternative can be modified by the addition of amendments and additional tilling; however, it is constrained because the degradation limits of chemicals of concern will dictate the final concentration.	Alternative can be modified as required.
	Effectiveness of monitoring	No Monitoring, very ineffective.	Monitoring has to be incorporated with Institutional Controls	Removal of impacted soils can be ascertained by sampling.	Monitoring of soil cover will ascertain removal of exposure pathway.	Degradation of chemicals of concern in impacted soils can be ascertained by sampling.	Sampling will ascertain level of stabilization of soils. However degradation of material over time cannot be ascertained unless monitored at a later stage.

Table 5-9

Comparative Analysis of Alternatives
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Evaluation Criteria	Evaluation Sub-Criteria	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
Environmental	Energy use	No energy usage	No energy usage	Less energy usage than Alternative 6	Less energy usage than Alternatives 3, 5 and 6	Less energy usage than Alternatives 3 and 6	More energy usage than all other alternatives
	Air emissions	No Emissions	No emissions	Less emissions than Alternative 6	Less emissions than Alternatives 3, 5, and 6	Emissions more than Alternative 2 and 4 but less than Alternative 3 and 6	High emissions during cement production and subsequent transportation of cement to the site.
	Impacts on water resources	No impacts	No impacts	Requires water for dust control	Requires water for dust control	Requires water for dust control	Requires water for mixing soils and stabilizing agents.
Costs	Capital	$0	$139,155	$1,786,099	$653,750	$1,331,466	$1,875,186
	O&M	$0	$168,750	$165,625	$270,000	$252,805	$165,625

COC - chemicals of concern
ICs - institutional controls
O&M - operation and maintenance
OM&M- operation, maintenance, and monitoring
RAOs - remedial action objectives
SEC - sediment and erosion control

Alternative 1: No Action
Alternative 2: Institutional Controls
Alternative 3: Excavation and off-site disposal of impacted soils* to a depth of two feet and institutional controls
Alternative 4: Asphalt removal and soil cover over impacted areas* and institutional controls
Alternative 5: Enhanced bioremediation of impacted surface soils* and institutional controls
Alternative 6: *In situ* stabilization of impacted soils* to the groundwater table and institutional controls.

* Impacted soils or areas are soils/areas that the residual risk analysis identified for remediation.

Table 5-10

Criteria Weighting and Ranking
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Weighting						Ranking						
Weight	*Criteria*	*Weight*	*Sub-Criteria 1*	*Weight*	*Sub-Criteria 2*	*Criteria/ Sub-Criteria*	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
100	Long-term effectiveness and permanence	50	Residual potential risk			Residual potential risk	0.00	3.00	7.00	5.00	6.00	6.00
		100	Technology reliability			Technology reliability	0.00	7.00	9.00	9.00	6.00	6.00
50	Reduction of toxicity, mobility and volume through treatment	50	Destruction of hazardous constituents			Destruction of hazardous constituents	0.00	0.00	0.00	0.00	7.00	7.00
		50	Irreversibility of treatment			Irreversibility of treatment	0.00	0.00	8.00	5.00	8.00	5.00
50	Short-term effectiveness	50	Time to achieve RAO			Time to achieve RAO	0.00	0.00	9.00	9.00	4.00	8.00
		75	Un-mitigable adverse impacts	100	Protect community	Protect community	10.00	10.00	5.00	7.00	7.00	8.00
				75	Protect construction workers	Protect construction workers	10.00	10.00	3.00	5.00	7.00	7.00
				50	Minimize environmental impacts	Minimize environmental impacts	10.00	10.00	3.00	5.00	7.00	7.00

Table 5-10

Criteria Weighting and Ranking
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Weighting						Ranking						
Weight	*Criteria*	*Weight*	*Sub-Criteria 1*	*Weight*	*Sub-Criteria 2*	*Criteria/ Sub-Criteria*	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
100	Implementability	75	Obtaining other approvals			Obtaining other approvals	10.00	8.00	6.00	3.00	6.00	7.00
		50	Constructability			Constructability	10.00	10.00	8.00	3.00	7.00	7.00
100	Implementability (continued)	50	Availability of experts and technology			Availability of experts and technology	10.00	10.00	10.00	10.00	5.00	5.00
		25	Adaptability to modify/update			Adaptability to modify/update	10.00	10.00	8.00	4.00	7.00	7.00
		75	Effectiveness of monitoring			Effectiveness of monitoring	0.00	2.00	6.00	4.00	6.00	6.00
50	Environmental	75	Energy use			Energy use	10.00	9.70	1.60	7.40	5.50	0.00
		50	Air emissions	50	GHG emissions	GHG emissions	10.00	9.60	4.20	7.10	6.10	0.00
				25	NO_x emissions	NO_x emissions	10.00	10.00	9.90	9.90	0.00	10.00
				75	SO_x emissions	SO_x emissions	10.00	10.00	0.00	4.50	4.20	5.80
				50	PM_{10} emissions	PM_{10} emissions	10.00	10.00	0.00	3.70	4.80	4.90
		25	Impacts on water resources			Impacts on water resources	10.00	10.00	10.00	10.00	0.00	7.90

Table 5-10

Criteria Weighting and Ranking
Block H Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Weighting						**Ranking**						
Weight	***Criteria***	***Weight***	***Sub-Criteria 1***	***Weight***	***Sub-Criteria 2***	***Criteria/ Sub-Criteria***	**Alternative 1**	**Alternative 2**	**Alternative 3**	**Alternative 4**	**Alternative 5**	**Alternative 6**
75	Costs	50	Capital			Capital	10.00	1.90	7.50	2.80	0.00	2.80
		50	O&M			O&M	10.00	6.40	0.90	2.40	0.00	1.20
						TOTAL SCORE	**0.415**	**0.470**	**0.568**	**0.554**	**0.539**	**0.549**

Notes:

GHG - greenhouse gases
NO_x - nitrogen oxides
SO_x - sulfur oxides

PM_{10} - respirable particulate matter
O&M - operation and maintenance
RAO - remedial action objectives

*Impacted soils are soils identified in the residual risk analysis as having chemical(s) of concern (COC) concentrations associated with an incremental lifetime cancer risk (ILCR) greater than one in 100,000 (1×10^{-5}).

Alternative 1: No Action

Alternative 2: Institutional Controls

Alternative 3: Excavation and off-site disposal of impacted soils* to a two-foot depth and institutional controls

Alternative 4: Limited excavation and soil cover over impacted areas* and institutional controls

Alternative 5: Enhanced bioremediation of impacted surface soils* and institutional controls

Alternative 6: *In situ* stabilization of impacted soils* to the groundwater table and institutional controls

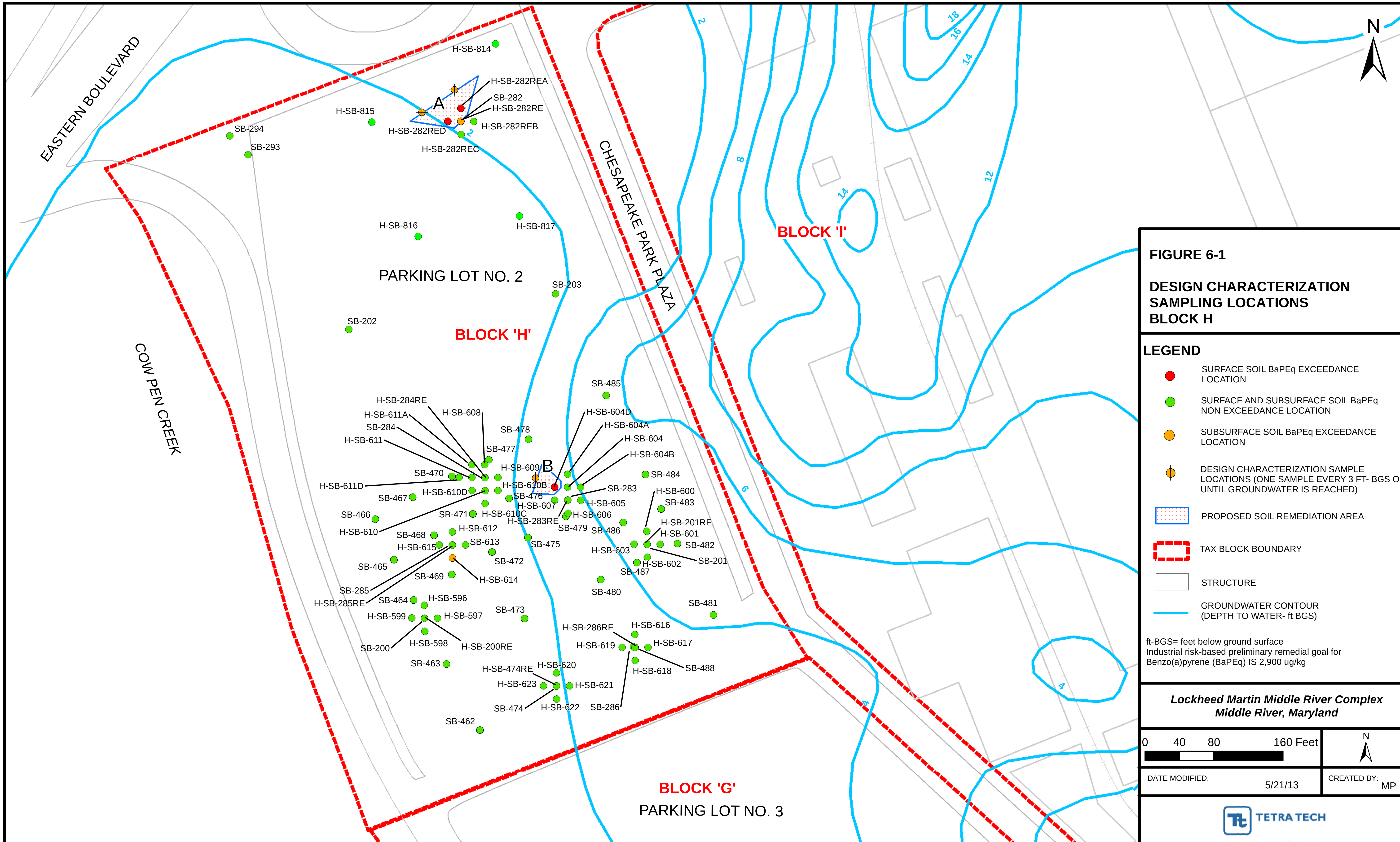
Section 6
Design Characterization Sampling

The residual-risk analysis (RRA) performed on Block H soils (see Section 4) identified areas that must be remediated to achieve a cancer risk less than 1×10^{-5} for the industrial worker scenario for benzo(a)pyrene-equivalent (BaPEq), the chemical of concern (COC) in Block H soils. The RRA was conducted using sample location data from all previous Block H investigations (see Section 2.3). The RRA process consists of ranking sample locations from most contaminated to least contaminated, then sequentially "removes" sampling results/locations from the upper confidence level (UCL) calculation until the 95% UCL concentration for the COC does not exceed the industrial risk-based PRG associated with the remedial action objective's (RAO) target residual-cancer-risk of 1×10^{-5}. A detailed description of the RRA process can be found in Section 4.

The remedial areas are comprised of sample locations that were identified for elimination during the RRA "removal" process. Some additional elevated soil-sampling results (e.g., exceeding 2,900 µg/kg for BaPEq) that did not require removal from the calculation were also included in the remedial action area to provide a margin of safety in attaining the target residual-risk. Limits of remediation, presented in Figure 4-1 in Section 4, were established along the midpoints between impacted soil samples and the nearest sample to remain in place.

Characterization sampling around selected areas will be conducted during design to better define the areas designated for remediation. Samples will be collected from three soil borings around areas A and B in Block H (see Figure 6-1). Soil samples will be collected in one-foot increments to a three-foot depth, or until groundwater is reached, whichever occurs first. Soils will be chemically analyzed for BaPEq. Figure 6-1 shows the proposed sampling locations for design characterization sampling. A complete sampling and analysis plan will be prepared during the design phase of this remedial action. Sampling will be completed before remediation begins.

After the design characterization-samples have been collected, the 95% UCL will be recalculated using the characterization sampling results. The recalculation will not include the sampling locations identified by the RRA to be removed. If the recalculation identifies individual design-characterization-sampling locations that fail to meet the 95% UCL, additional samples will be collected by stepping out from the original sampling location used in the calculation.



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Section 7
Contingency Measures for the Selected Remedial Action

The proposed remedial action for Block H (Alternative 3) will remove and dispose of soil with chemical of concern (COC) concentrations that result in cumulative residual human health risk associated with industrial use exposure to Block H soils will be less than the 1×10^{-5} risk level for benzo(a)pyrene-equivalents (BaPEq), based on the residual-risk analysis (RRA). Excavation dewatering will not be required for the actual remedy; however, contingencies must be included in the design to provide for excavation dewatering and handling of dewatering fluid, should that be required (e.g., due to heavy rainfall, unanticipated groundwater intrusion, etc.). Dewatering procedures are described in Section 8.1.2.

Following soil removal activities in the excavation areas A and B (Figure 4-1), soil from the excavation base and sidewalls will be sampled and analyzed for polycyclic aromatic hydrocarbons (PAHs). Confirmatory sampling results from sidewall samples will be used in the calculation of residual risk to confirm that any remaining soil BaPEq concentrations satisfy the remedial action objective (RAO). Residual risk is calculated using a 95% upper confidence limit (UCL) of residual COC concentrations. Once verification sampling has been performed, a new set of Block H chemical data will be available to incorporate into the residual-risk calculation. If a verification sample causes the 95% UCL to exceed the RAO, then an additional two feet of soil will be removed laterally, and verification sampling will be repeated until regulatorily acceptable results have been obtained in the residual-risk calculation.

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Section 8
Proposed Remedial Actions

This section presents the conceptual design for the proposed remedial action for soil at Block H. The selected remedial alternative, Alternative 3, involves excavation and disposal of impacted soils to a depth of two feet below ground surface (bgs) or to the groundwater table, whichever is encountered first; and implementation of institutional controls. A site plan presenting the layout of the preliminary remedial design is in Figure 4-1. This proposed conceptual design may be altered during the design characterization sampling presented in Section 5, or during the full detailed-design and permitting process that will precede implementation.

A final soil remedial action design will be developed following approval of this remedial action plan (RAP). It will provide the final design-basis for the remedial action, describe the areas and volumes of soil to be excavated, and describe the volume and type of fill material to be used. The remedial action implementation schedule is in Section 10.

8.1 SUMMARY OF MAJOR COMPONENTS

Major components of the remedial action necessary to achieve a "No Further Action" site closure from the Maryland Department of the Environment (MDE) include:

- *Removing soil with chemical of concern concentrations greater than the preliminary remedial goal in designated excavation areas to satisfy the remedial action objective*— The top two feet of soils (the designated depth) to achieve regulatorily acceptable residual risk based on known soil concentrations of benzo(a)pyrene-equivalents (BaPEq). Approximately 332 cubic yards of soil will be removed; soil-boring sampling and removal limits are indicated in Figure 4-1. The removal depth will be two feet bgs, or to groundwater, whichever is encountered first. The expected groundwater table is between two and four feet deep, based on depth-to groundwater data for Block H (see Appendix F); therefore, groundwater should not be encountered during excavation to two-foot depths. Soil removal actions were determined as recommended by the residual-risk analysis (RRA) to achieve a site-wide 95% upper confidence limit (UCL) less than the industrial PRG for BaPEq (2,900 micrograms per kilogram [μg/kg]), and include a margin of safety, as follows:

- *Area A*—remove soil associated with soil borings SB-282, SB-282A, and SB282-D
- *Area B*—remove soil associated with soil borings SB-604D.

- *Post-removal confirmation sampling and analysis*—To ensure that the removal action meets the RAO, exposed soil on the sidewalls of the removal areas will be sampled and analyzed to confirm that the residual risk (95% UCL of remaining soil COC concentrations) is less than the PRG. Post-removal sampling and analysis of the exposed soil at the base of the removal areas will be performed to obtain data for informational purposes only.

- *Characterization, transport, and off-site disposal of removed materials*—Excavated soil will be directly loaded into trucks for off-site disposal, when feasible. Soil stockpiling will be avoided or minimized as much as possible. We anticipate that all soil removed from Block H will be nonhazardous and can be disposed of at a Lockheed Martin Corporation (Lockheed Martin)-approved nonhazardous-waste disposal facility. Characterization sampling will be conducted to verify this assumption. Removed concrete, steel, and other construction/demolition materials will be characterized, as appropriate. A disposal quantity of approximately 500 tons is estimated, based on the removal limits indicated in Figure 4-1. Asphalt paving, concrete, and other construction/demolition materials resulting from removal of the pavement will either be recycled or disposed of in an off-site facility permitted to accept such materials.

- *Backfilling and regrading*—Removal areas will be backfilled and the final surface will be graded to match existing grades. The fill material will be certified-clean material obtained from an off-site borrow source and similar in grain size to the removed soils.

- *Restoration*—Disturbed areas will be restored to pre-existing conditions. Pavement will be used in previously paved areas. Block H includes an active facility parking lot, so details of paving and markings must be coordinated with LMC Properties, Inc.

- *Implementation of institutional controls*—Institutional controls include documentation of residual soil contamination, and may include restrictions on the use of groundwater, cover-maintenance requirements, implementation of the MRC soil management plan (including excavation notification, soil reuse restrictions, and limitations on future property use.

8.1.1 Excavation

Before excavation can start, the Baltimore County Soil Conservation District must approve the erosion and sedimentation controls specified in the grading plan. The installed controls must be inspected by the County. If the County approves the installation, they will issue a grading permit. Excavation can then proceed after all other permits associated with the project have been issued.

Block H soil in the areas designated for excavation in Figure 4-1 will be removed to the proposed depth. The removal limits presented in this RAP are based on review of the existing soil boring sampling results (see Figure 2-3). The design and final limits of removal will be determined after pre-design characterization sampling data and post-removal confirmation sampling data acquisition activities are complete. Removal limits may extend in some cases to the water table. Sediments with COC concentrations greater than cleanup goals that accumulate in erosion and sediment-control devices during remedial activities will be disposed of off-site, along with removed soils. Erosion and sediment-control devices will be described under separate cover in the Block H remedial action design that will be prepared before implementation of the remedial action.

8.1.2 Dewatering

Dewatering of removal areas may be required to facilitate excavation and backfilling. Water from excavation dewatering will be characterized and managed in one of the following ways:

- contained, characterized as required, and disposed of at an off-site permitted treatment, storage, and disposal facility (TSDF)
- filtered using a sediment-removal device, treated as necessary, and discharged to surface water through the Middle River Complex (MRC)-permitted storm-drain and outfall system, which is regulated by MDE and the United States Environmental Protection Agency (USEPA)
- filtered using a sediment-removal device, treated as necessary, and discharged to the local sanitary sewer system, which is regulated by Baltimore County

Solids trapped in the filter will be analyzed and, depending on the results, transported to an off-site nonhazardous-waste disposal facility, or, if necessary, to an off-site hazardous waste TSDF. Permits required for the proposed remedial action are described in Section 9.2.

8.1.3 Confirmation Soil-Sampling

To satisfy the RAO, post-removal confirmation samples will be collected from the excavation sidewalls of removal areas A and B and analyzed for polycyclic aromatic hydrocarbons (PAHs) before backfilling. Sampling will confirm that the 95% UCL of remaining soil COC concentrations (residual risk) is less than the BaPEq PRG (2,900 µg/kg, or 2.9 milligrams per kilogram [mg/kg]). Sidewall samples will be collected as a composite sample. One composite sample will be collected and analyzed for every 100-foot segment of sidewall. A minimum of 15 soil samples of equal volume, collected at distances of approximately 6 feet per 100 feet of sidewall, will be composited manually in a stainless-steel bowl. The single composite sample will then be submitted for laboratory analysis.

The result of the composite sample for each segment of sidewall will be used to recalculate residual risk to determine if the RAO has been achieved. If not, additional removal will be performed until the RAO is met. For either full-depth removal or removal areas where the proposed removal depth cannot be achieved due to shallow groundwater, post-removal samples will also be collected from the exposed soil on the base of the removal areas at a frequency of one sample per 625 square feet of excavated soil. These data will be obtained for informational purposes only and may be used in considering final land use controls (LUCs).

8.1.4 Waste Characterization and Disposal

Soil in the proposed excavation areas will be sampled and analyzed for waste disposal characterization before remedial activities. Soil will be sampled at a minimum frequency of one sample per 500 cubic yards. Sampling frequency may be increased depending on the volume of the removed soil and waste disposal facility requirements. Samples will be analyzed for toxicity characteristic leaching procedure (TCLP) and other parameters as required by the waste disposal facility. Samples analyzed for volatile organic compounds (VOCs) will be collected as discrete grab-samples from each excavation area; composite samples consisting of three of these samples will be used for all other required analyses.

Excavated soil will be transported for off-site disposal after waste characterization has been completed and the waste disposal or recycling facility has approved acceptance of the waste. It is anticipated that the removed soil will be disposed of at the GROWS North Landfill in Morrisville, Pennsylvania. Approximately 500 tons of soil is expected to be excavated, direct-loaded at a rate of approximately 15 tons per truck, and transported to the GROWS North Landfill during this remedial action. Removal of contaminated soils during this remedial action is anticipated at approximately 34 truckloads (truck trips). The number of trucks may vary depending on the availability. Approximately two to three trucks per hour may be filled using direct-load techniques. The trucks will access Eastern Boulevard through the MRC and Chesapeake Park Plaza. Details concerning the trucking route will be finalized during the remedial design.

8.1.5 Backfilling

Removal areas will be backfilled after post-removal confirmation sampling and excavation dewatering. Backfill soil will be certified-clean soil from an off-site borrow source and will be similar in grain size to the soils removed, if appropriate. Backfill-material acceptance-criteria are in Table 8-1. The off-site borrow-source material will be evaluated according to procedures described in the MDE document *Facts about (Voluntary Cleanup Program) VCP—Clean Imported Fill Material* (MDE, undated). The off-site borrow source will be identified and the environmental site-assessment documentation obtained, if available. The documentation will be reviewed by an environmental professional to determine its suitability. If the borrow source is judged acceptable, soil samples will be obtained and analyzed using the methods listed in Table 8-1.

The minimum sampling frequency will be as recommended in the MDE clean-fill document and will be based on the size (i.e., area and volume) of the borrow source. Constituents detected in the samples will be compared to MDE cleanup levels, to anticipated typical concentrations for Eastern Maryland (MDE, 2008), or other MDE-approved risk-based concentrations. The off-site borrow source must be approved by MDE before transporting any backfill material onto the site. Backfill material will be compacted to at least 90% of the maximum dry density as determined by the standard proctor test using the ASTM International, Inc. (ASTM) method D698-12 and/or American Association of State Highway and Transportation Officials (AASHTO) specification T-99.

8.1.6 Restoration

Backfilled and regraded areas, along with other areas disturbed during implementation of the remedial action, will be restored/stabilized using permanent stabilization practices. Pavement areas disturbed by remedial action activities will be restored with asphalt. Pavement restoration procedures will be described in the Block H remedial design documents that will be prepared before the remedial action is implemented.

8.2 INSTITUTIONAL CONTROLS

The MDE Controlled Hazardous Substances (CHS) Enforcement Division will document institutional controls applicable to Block H in the “No Further Action” letter, which will be issued once the RAO has been met. The “No Further Action” letter will be filed in local land use records and passed to subsequent property owners as part of the deed documentation. The MDE regards all institutional controls as existing in perpetuity unless the related environmental covenants are eliminated or modified by mutual consent of the stakeholders. As part of the “No Further Action” letter and supporting documentation, MDE will present certain environmental covenants that will give stakeholders legal standing for covenants enforcement. The MDE will determine final disposition of any institutional controls. Examples of institutional controls include the following:

- documenting the nature and extent of soil contamination remaining in the Block
- requiring implementation of the MRC soil management plan in the performance of any intrusive repair or development work.
- prohibiting use of groundwater beneath the property for any purpose
- restricting future property use to industrial use only (unless additional remediation to suit proposed development is conducted consistent with proposed site use)
- requiring implementation of sub-slab soil-vapor mitigation technology beneath all buildings with the potential for soil-vapor intrusion into indoor air. For new-footprint buildings, a vapor-mitigation system might, for example, consist of slotted polyvinyl chloride tubing arranged in such a manner as to passively exhaust soil vapors from beneath the building slab to the atmosphere. Any passive vent system will have to be readily convertible to an active remedial system, if necessary. Other regulatorily acceptable remedial alternatives exist. Regardless of remedial choice, indoor air will need to be tested before occupancy, and concentrations of any detected contaminant must not exceed the applicable indoor air standards.

Table 8-1

Backfill-Material Acceptance-Criteria
Block H Soil Remedial Action Plan
Lockheed Martin Middle River Complex, Middle River, Maryland
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Parameter	Criteria	Test method
Volatile organic compounds	MDE residential cleanup standards or ATCs[(1)] or associated approved risk-based concentrations	USEPA SW-846 8260B
Semivolatile organic compounds	MDE residential cleanup standards or ATCs[(1)] or associated approved risk-based concentrations	USEPA SW-846 8270C[(2)]
Polychlorinated biphenyls	MDE residential cleanup standards or ATCs[(1)] or associated approved risk-based concentrations	USEPA SW-846 8082
Metals	MDE residential cleanup standards or ATCs[(1)] or associated approved risk-based concentrations	USEPA SW-846 6020
Pesticides (organochlorine)	MDE residential cleanup standards or ATCs[(1)] or associated approved risk-based concentrations	USEPA SW-846 8081A or 8080A
Pesticides (organophosphorus)	MDE residential cleanup standards or ATCs[(1)] or associated approved risk-based concentrations	USEPA SW-846 8141A
Chlorinated herbicides	MDE residential cleanup standards or ATCs[(1)] or associated approved risk-based concentrations	USEPA SW-846 8151A
Total petroleum hydrocarbons	MDE residential cleanup standards or ATCs[(1)] or associated approved risk-based concentrations	USEPA SW-846 8015

[(1)]Residential cleanup standards and anticipated typical concentration (ATCs) provided in *Cleanup Standards for Soil and Groundwater* (MDE, June 2008).
[(2)]PAHs using USEPA SW-846 8270C or D with selected ion monitoring (SIM).
[(3)]The off-site borrow source must be approved before transporting any backfill material onto the site.

ASTM	American Society for Testing and Materials International
ATC	anticipated typical concentration
MDE	Maryland Department of the Environment
PAHs	polycyclic aromatic hydrocarbons
RBC	risk-based concentration
SIM	selected-ion monitoring
USEPA	United States Environmental Protection Agency

Table 8-1

Backfill-Material Acceptance-Criteria
Block H Soil Remedial Action Plan
Lockheed Martin Middle River Complex, Middle River, Maryland
Page 1 of 2

Parameter	Criteria	Test method
Unified Soil Classification System classification	GW, GP, GM, SW, SP, and SM	ASTM D 2487
Atterberg Limits	—	ASTM D 4318
—Liquid limit	35 maximum	
—Plasticity index	12 maximum	
Amount finer than the No. 200 United States standard sieve	25% maximum	ASTM D 1140
Maximum particle size	1 inch maximum	ASTM D 422

(1)Residential cleanup standards and anticipated typical concentration (ATCs) provided in *Cleanup Standards for Soil and Groundwater* (MDE, June 2008).
(2)PAHs using USEPA SW-846 8270C or D with selected ion monitoring (SIM).
(3)The off-site borrow source must be approved before transporting any backfill material onto the site.

ASTM	ASTM International, Inc.
ATC	anticipated typical concentration
GM	silty gravel
GP	poorly graded gravel
GW	well-graded gravel
MDE	Maryland Department of the Environment
SIM	selected-ion monitoring
SM	silty sand
SP	poorly graded sand
SW	well-graded sand

Section 9
Permits and Notifications

This section describes the permits that will be required for the proposed Block H soil remedial action and the required notifications and contingencies if unexpected conditions are encountered during implementation of this remedial action plan (RAP).

9.1 PERMITS

Lockheed Martin Corporation (Lockheed Martin) will meet federal, state, and local permitting requirements for the proposed soil remedial action described in Section 8. Permitting requirements for this RAP relate to soil excavation and off-site disposal and will be subject to Maryland Department of the Environment (MDE) and Baltimore County Department of Environmental Protection and Natural Resources soil management requirements. A list of permit requirements with contact information and review periods is in Appendix J. Permits that may potentially be required to implement the remedial action include the following:

- A Baltimore County grading permit for any land disturbance and grading that disturbs greater than 5,000 square feet, or uses more than 100 cubic yards of fill material, will be required. Grading plans will be submitted to Baltimore County for review and approval.
- As a condition of receiving a grading permit, a storm-water management plan will be submitted to Baltimore County Stormwater Engineering for their review and approval. The storm-water management plan will be prepared in accordance with the *Maryland Storm-Water Design Manual, Volumes I and II* (MDE, 2000), including the 2009 revisions and subsequent supplements. Since post-construction contours will match pre-construction conditions, a storm-water management variance may be granted by Baltimore County under Section 33-4-113 (a)(2) of Title 4 of the *Baltimore County Code*.
- An erosion and sediment-control plan will be submitted to the Baltimore County Soil Conservation District. It will be prepared in accordance with the *1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control* (MDE, 1994), the *2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control* (MDE, 2011), and the *1999 Policy and Guidelines for Erosion and Sediment Control, Storm-Water Management, Sediment Basin, and Small-Pond Review Manual*. The Soil Conservation District review of erosion and sediment-control plans will be coordinated

with and incorporated into the Baltimore County review of the storm-water management and grading plans.

- Baltimore County Environmental Impact Review will also be consulted to determine if any conservation or mitigation measures will be required for work within the critical area, including compliance with the 10% rule for storm water and to address impacts to the tidal buffer. The 10% rule for Baltimore County specifies that storm-water management practices must be capable of reducing storm-water pollutant loads from a construction site to a level at least 10% below the load generated by the same site prior to development.

- If the final total ground disturbance exceeds one acre, an application for a “Notice of Intent for a Permit for Storm Water Associated with Construction Activity” will be submitted to MDE along with the erosion and sediment-control plan approval from the Baltimore County Soil Conservation District.

- A Section 106 project review by the Maryland Heritage Trust will also be conducted as part of the federal/state Maryland State Programmatic General Permit-4 (MDSPGP-4) joint-permit application.

- As part of the federal/state MDSPGP-4 joint-permit application, the Maryland Department of Natural Resources, the United States Fish and Wildlife Services, and the National Oceanic and Atmospheric Administration will review the project for potential impacts to listed species and critical/essential fish habitat.

- Lockheed Martin Corporation Properties, Inc. (LMCPI) will be kept informed of work progress and schedule. Potable water will have to be obtained at locations, volumes, and rates approved by LMCPI.

9.2 NOTIFICATIONS

Lockheed Martin will follow appropriate MDE and United States Environmental Protection Agency (USEPA) notification requirements regarding previously undiscovered contamination, changes in the RAP schedule, citations from regulators related to health and safety practices associated with implementation of the proposed remedial action, and discharges to the environment.

Section 10
Implementation Schedule

The projected sequence of events for this project, including the expected completion schedule of various milestones, appears below. All dates below are estimated and subject to change:

1) Submit draft remedial action plan (RAP) to the Maryland Department of the Environment (MDE) (November 2013)
2) Design characterization sampling (2014)
3) Submit final remedial action plan (November 2014)
4) Obtain required permits (January 2015)
5) Begin implementation of remedial action (January 2015)
6) Complete implementation of remedial action and meet the remedial action objective (RAO) (April 2015)
7) Request a "No Further Action" letter (July 2015)

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Section 11
References

1. Baltimore County Soil Conservation District, 1999. *Policy and Guidelines for Erosion and Sediment Control, Storm-Water Management, Sediment Basin, and Small-Pond Review Manual*. January

2. Earth Tech, 2003. *Phase I Environmental Site Assessment, Chesapeake Industrial Park, Middle River, Maryland.* May.

3. FRTR (Federal Remediation Technologies Roundtable), 2012. FRTR technologies screening-matrix tool: http://www.frtr.gov/matrix2/top_page.html.

4. InfoHarvest, Inc., 2001. *Criterium® DecisionPlus®: The Complete Decision Formulation, Analysis, and Presentation for Windows Version 3.0, User's Guide Tutorial*. Seattle, Washington.

5. ITRC (Interstate Technology and Regulatory Council), 2012. ITRC technology-screening tool: http://www.itrcweb.org/.

6. MDE (Maryland Department of the Environment), undated. *Facts about (Voluntary Cleanup Program) VCP—Clean Imported Fill-Material.* Information pamphlet.

7. MDE (Maryland Department of the Environment), 1994. *1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control*. Maryland Department of the Environment, Water Management Administration, in association with the United States Department of Agriculture Natural Resources Conservation Service (formerly known as the Soil Conservation Service) and (Maryland) State Soil Conservation Committee. July.

8. MDE (Maryland Department of the Environment), 2000. *2000 Maryland Storm-Water Design Manual, Volumes I and II*. Prepared by the Center for Watershed Protection and the Maryland Department of the Environment, Water Management Administration. Effective October 2000, revised May 2009.

9. MDE (Maryland Department of the Environment), 2006. *Voluntary Cleanup Program Guidance Document.* MDE Land Restoration Program, Maryland Department of the Environment, Baltimore, Maryland. March.

10. MDE (Maryland Department of the Environment), 2008. *Cleanup Standards for Soil and Groundwater, Interim Final Guidance (Update No. 2.1)*. June.

11. MDE (Maryland Department of the Environment), 2011. *Maryland Standards and Specifications for Soil Erosion and Sediment Control*. Maryland Department of the Environment, Water Management Administration, in association with United States Department of Agriculture Natural Resources Conservation Service (formerly known as the Soil Conservation Service) and Maryland Association of Soil Conservation Districts. December.

12. United States Navy, 2011. *SiteWise™ Version 2 User Guide.* Naval Facilities Engineering Command Engineering Service Center, Port Hueneme, California, UG-2092-ENV. June.

13. Tetra Tech (Tetra Tech, Inc.), 2004a. *Phase II Environmental Site Investigation, Middle River Complex*. February.

14. Tetra Tech (Tetra Tech, Inc.), 2004b. *Historical Research Report, Lockheed Martin Middle River Complex*. August.

15. Tetra Tech (Tetra Tech, Inc.), 2006. *Site Characterization Report, Revision 1.0, Lockheed Martin Middle River Complex*. Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. May.

16. Tetra Tech (Tetra Tech, Inc.), 2009. *Final Soil Response Action Plan, Block B, Lockheed Martin Middle River Complex.* Report prepared by Tetra Tech Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. November.

17. Tetra Tech (Tetra Tech, Inc.), 2011. *Final Block H Data Summary Report, Lockheed Martin Middle River Complex, Middle River, Maryland*. Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. January.

18. Tetra Tech (Tetra Tech, Inc.), 2012. *Human Health Risk Assessment for Blocks D, E, F, G, and H Soils, Lockheed Martin Middle River Complex, Middle River, Maryland*. Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. September.

19. USEPA (United States Environmental Protection Agency), 1988. *Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA, Interim Final EPA/540/G-89/004*. Office of Emergency and Remedial Response, Washington, D.C. October.

20. USEPA (United States Environmental Protection Agency), 1993. *Provisional Guidance for Quantitative Risk Assessment of Polycyclic Aromatic Hydrocarbons*. Office of Health and Environmental Assessment. EPA/600/R-93/089. July.

21. United States Navy, 2011. *SiteWise™ Version 2 User Guide.* Naval Facilities Engineering Command Engineering Service Center, Port Hueneme, California, UG-2092-ENV. June.

APPENDIX A—VOLUNTARY CLEANUP PROGRAM WITHDRAWAL LETTER

Lockheed Martin Corporation
6801 Rockledge Drive MP: CCT-246
Bethesda, MD 20817
Telephone 301-548-2212

August 29, 2013

VIA E-MAIL AND PRIVATE CARRIER

VIA E-mail: James.carroll@maryland.gov
Mr. James Carroll
Program Administrator
Land Restoration Program
Maryland Department of the Environment
1800 Washington Boulevard, Suite 625
Baltimore, Maryland 21230

Subject: Withdrawal of VCP Applications for Tax Parcel Blocks D, E, E (Lot 3), F, G (Lot 1), H and I
Chesapeake Park Plaza (Middle River Complex)
2323 Eastern Boulevard, Middle River, Baltimore County, Maryland

Dear Mr. Carroll:

The purpose of this letter is to notify the Maryland Department of the Environment ("MDE" or "Department") that Lockheed Martin Corporation is withdrawing the below referenced tax parcels and block numbers, generally referred to as the Chesapeake Park Plaza, from the Voluntary Cleanup Program ("VCP") pursuant to Md. Code Ann. Envir. § 7-512 (2007 Repl. Vol.).

The subject Chesapeake Park Plaza tax parcels were previously accepted into MDE's VCP. This notice of withdrawal will affect the following identified tax parcels:

	Tax Parcel Number	**Acreage**
1	Map 90 Grid 18 Parcel 964 Block D	12.775
2	Map 90 Grid 18 Parcel 964 Block E	15.433
	Map 90 Grid 18 Parcel 964 Block E Lot 3	0.533
3	Map 90 Grid 18 Parcel 964 Block F	11.941
4	Map 90 Grid 18 Parcel 964 Block G Lot 1	13.461
5	Map 90 Grid 18 Parcel 964 Block H	7.877
6	Map 90 Grid 18 Parcel 964 Block I	66.104

We understand this notice will take effect upon ten (10) days of MDE's receipt. Please be advised that the tax parcels subject to this notice are currently stable and secure, and that Lockheed Martin has agreed in principle to negotiate an administrative consent order with the Department to address environmental conditions at Tax Parcels D, E, F, G, and H, and I. Please acknowledge receipt of this notice in writing.

Please let me know if you have any questions. My office phone is (301) 548-2212.

Sincerely,

Carol B. Cala
Vice President, Energy, Environment, Safety & Health
Lockheed Martin Corporation

cc:
Brad Owens, Lockheed Martin
Christine Kline, Lockheed Martin
Glenda Smith, Lockheed Martin
Norm Varney, Lockheed Martin
Michael Martin, Tetra Tech
Cannon Silver, CDM Smith

APPENDIX B—TABLE OF BLOCK H INDUSTRIAL EXCEEDANCES OF RISK-BASED SCREENING CRITERIA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	METALS (MG/KG) ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-11	SB-200	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-12	SB-200	12	12	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-13	SB-200	13	13	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-14	SB-200	14	14	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-15	SB-200	15	15	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-201RE-1	SB-201	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15
H-SB-201RE-2	SB-201	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
H-SB-282RE-1	SB-282	1	1	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-10	SB-282	10	10	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-11	SB-282	11	11	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-12	SB-282	12	12	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-13	SB-282	13	13	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-14	SB-282	14	14	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-15	SB-282	15	15	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-2	SB-282	2	2	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-3	SB-282	3	3	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-4	SB-282	4	4	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-5	SB-282	5	5	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-6	SB-282	6	6	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-7	SB-282	7	7	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-7-AVG	SB-282	7	7	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-7-D	SB-282	7	7	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-8	SB-282	8	8	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-9	SB-282	9	9	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-1	SB-282A	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-11	SB-282A	11	11	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-13	SB-282A	13	13	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-15	SB-282A	15	15	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-3	SB-282A	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	METALS (MG/KG) ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-5	SB-282A	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-7	SB-282A	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-9	SB-282A	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-9-AVG	SB-282A	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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H-SB-282REB-15	SB-282B	15	15	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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H-SB-282REC-5	SB-282C	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-7	SB-282C	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-9	SB-282C	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-9-AVG	SB-282C	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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H-SB-282RED-1	SB-282D	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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H-SB-282RED-13	SB-282D	13	13	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-15	SB-282D	15	15	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-3	SB-282D	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-5	SB-282D	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	METALS (MG/KG) ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-7	SB-282D	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-9	SB-282D	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-283RE-3	SB-283	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-283RE-4	SB-283	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-284RE-3	SB-284	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-284RE-4	SB-284	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-285RE-11	SB-285	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-285RE-12	SB-285	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-286RE-11	SB-286	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-286RE-12	SB-286	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-286RE-15	SB-286	15	15	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-474RE-5	SB-474	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-474RE-6	SB-474	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-596-11	SB-596	11	11	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-596-12	SB-596	12	12	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-597-11	SB-597	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-597-12	SB-597	12	12	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-598-11	SB-598	11	11	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-598-12	SB-598	12	12	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-599-11	SB-599	11	11	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-599-12	SB-599	12	12	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-600-1	SB-600	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.034
H-SB-600-2	SB-600	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
H-SB-601-1	SB-601	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.039
H-SB-601-2	SB-601	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.023
H-SB-602-1	SB-602	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.034
H-SB-602-2	SB-602	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.029
H-SB-603-1	SB-603	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.31
H-SB-603-2	SB-603	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.025

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	METALS (MG/KG) ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-3	SB-604	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-4	SB-604	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-5	SB-604	5	5	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-6	SB-604	6	6	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-7	SB-604	7	7	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-1	SB-604A	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-3	SB-604A	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-5	SB-604A	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-7	SB-604A	7	7	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-1	SB-604B	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-3	SB-604B	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-5	SB-604B	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-7	SB-604B	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-1	SB-604D	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-3	SB-604D	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-3-AVG	SB-604D	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-3-D	SB-604D	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-5	SB-604D	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-7	SB-604D	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-605-3	SB-605	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-605-4	SB-605	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-606-3	SB-606	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-606-4	SB-606	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-607-3	SB-607	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-607-4	SB-607	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-608-3	SB-608	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-608-4	SB-608	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-608-4-AVG	SB-608	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-608-4-D	SB-608	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	METALS (MG/KG) ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-609-3	SB-609	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-609-4	SB-609	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610-3	SB-610	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610-4	SB-610	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610-5	SB-610	5	5	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610-6	SB-610	6	6	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610-7	SB-610	7	7	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-1	SB-610B	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-3	SB-610B	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-5	SB-610B	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-5-AVG	SB-610B	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-5-D	SB-610B	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610C-1	SB-610C	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610C-3	SB-610C	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610C-5	SB-610C	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610D-1	SB-610D	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610D-3	SB-610D	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610D-5	SB-610D	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-3	SB-611	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-4	SB-611	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-5	SB-611	5	5	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-6	SB-611	6	6	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-7	SB-611	7	7	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611A-1	SB-611A	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611A-3	SB-611A	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611A-5	SB-611A	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-1	SB-611D	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-3	SB-611D	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-5	SB-611D	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	METALS (MG/KG)									
					ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-5-AVG	SB-611D	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-5-D	SB-611D	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-612-11	SB-612	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-612-11-AVG	SB-612	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-612-11-D	SB-612	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-612-12	SB-612	12	12	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-613-11	SB-613	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-613-12	SB-613	12	12	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-614-10	SB-614	10	10	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-614-11	SB-614	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-614-12	SB-614	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-615-11	SB-615	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-615-12	SB-615	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-616-11	SB-616	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-616-11-AVG	SB-616	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-616-11-D	SB-616	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-616-12	SB-616	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-617-11	SB-617	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-617-11-AVG	SB-617	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-617-11-D	SB-617	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-617-12	SB-617	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-618-11	SB-618	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-618-12	SB-618	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-619-11	SB-619	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-619-12	SB-619	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-620-5	SB-620	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-620-6	SB-620	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-620-6-AVG	SB-620	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-620-6-D	SB-620	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	METALS (MG/KG)									
					ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-621-5	SB-621	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-621-6	SB-621	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-622-5	SB-622	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-622-6	SB-622	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-623-5	SB-623	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-623-6	SB-623	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-03	SB-814	3	3	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-05	SB-814	5	5	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-07	SB-814	7	7	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-09	SB-814	9	9	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-11	SB-814	11	11	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-13	SB-814	13	13	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-15	SB-814	15	15	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-SS	SB-814	1	1	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-03	SB-815	3	3	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-05	SB-815	5	5	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-07	SB-815	7	7	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-09	SB-815	9	9	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-11	SB-815	11	11	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-13	SB-815	13	13	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-15	SB-815	15	15	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-SS	SB-815	1	1	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-03	SB-816	3	3	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-03-AVG	SB-816	3	3	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-03-D	SB-816	3	3	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-05	SB-816	5	5	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-07	SB-816	7	7	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-09	SB-816	9	9	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-11	SB-816	11	11	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	METALS (MG/KG) ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-SS	SB-816	1	1	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-SS-AVG	SB-816	1	1	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-SS-D	SB-816	1	1	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-03	SB-817	3	3	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-05	SB-817	5	5	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-07	SB-817	7	7	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-07-AVG	SB-817	7	7	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-07-D	SB-817	7	7	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-09	SB-817	9	9	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-11	SB-817	11	11	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-13	SB-817	13	13	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-15	SB-817	15	15	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-SS	SB-817	1	1	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MRC-MW08[0809]	MRC-MW08A	8	9	20050524	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-200-05	SB-200	5	5	20050513	--	5	36	1.9	0.1	39.4	27.1	14	14	0.02 L
SB-200-10	SB-200	10	10	20050513	--	4	79	3.6	0.09	38.9	10.8	17	17	0.01 L
SB-200-SS	SB-200	0	1	20050513	0.9	--	25	0.5	0.09	8.8	2.8	6	7	0.4 L
SB-201-05	SB-201	5	5	20050513	0.9	3	26	0.6	0.08	18	2.4	10	4 B	0.24 L
SB-201-10	SB-201	10	10	20050513	--	1	15	0.6	--	14.4	8.1	6	5	0.17 L
SB-201-SS	SB-201	0	1	20050513	1	6	74	1.4	0.5	24.8	19.7	9	18	1.14 L
SB-202-05	SB-202	5	5	20050513	--	4	25	3.3	0.2	31.8	14.9	12	17	--
SB-202-10	SB-202	10	10	20050513	--	2	20	4.5	0.2	32.1	10.4	10	11	--
SB-202-SS	SB-202	0	1	20050513	0.6	0.7	23	0.3	0.2	7.8	3.3	6	6	0.06 L
SB-203-05	SB-203	5	5	20050513	--	3	22	1.6	0.08	31.9	30.8	23	13	0.02 L
SB-203-10	SB-203	10	10	20050513	0.8	4	15	0.5	0.09	20.6	8.3	12	5	0.03 L
SB-203-SS	SB-203	0	1	20050513	1	1	38	0.6	0.06	12.1	8.5	5	6	0.04 L
SB-282-0102	SB-282	1	2	20051026	--	6.1	29.2	1.2	--	23.9 K	6	7.3 K	7.5	0.01
SB-282-0405	SB-282	4	5	20051026	--	3.5	11.6	1.8	--	18.5 K	6.7	23 K	5.7	--
SB-282-0910	SB-282	9	10	20051026	--	5.2	2.8	0.33 L	--	19.6 K	4	6.7 K	3.6	--

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	METALS (MG/KG) ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-283-0102	SB-283	1	2	20051027	--	2 B	39.8	0.23	--	11.2	4.5	8.2	4	--
SB-283-0405	SB-283	4	5	20051027	--	1.6 B	22.7	0.9	--	39.2	8.4	5 K	5	--
SB-283-0910	SB-283	9	10	20051027	--	7.4	19.7	2.1	--	27	18.4	14.5	9.4	--
SB-284-0102	SB-284	1	2	20051027	--	1.2 B	16.3	0.46	--	8.9	5.4	5.4	3.4	0.02
SB-284-0405	SB-284	4	5	20051027	--	5.3 B	20	2.6	--	28.9	8.4	16.2	9.3	--
SB-284-0910	SB-284	9	10	20051027	--	1.9 B	46.6	2	--	24.5	17.5	10.7	7.1	--
SB-285-0102	SB-285	1	2	20051027	--	4.8 B	19.9	1.3	--	22.4	6.6	13.6	5.9	--
SB-285-0405	SB-285	4	5	20051027	--	4.9 B	13.8	1.7	--	31.4	8.1	14.8	6.6	--
SB-285-0910	SB-285	9	10	20051027	--	5.2 B	41.2	2.2	--	27	7.6	18.2	8.9	--
SB-286-0102	SB-286	1	2	20051027	--	2.8 B	38.4	0.56	--	30.7	7.4	4.5	7.3	0.01
SB-286-0405	SB-286	4	5	20051027	--	0.54 B	28.9	0.51	--	90.4	1.8	4.1	5.9	--
SB-286-0910	SB-286	9	10	20051027	--	0.77 B	17.5	0.34	--	54.1	3	2.3 B	1.8	--
SB-293-0102	SB-293	1	2	20051028	--	1.7	20.9	0.43	--	11.7	4.4	5.8	5	0.03
SB-293-0405	SB-293	4	5	20051028	--	2.7	11.7	0.48	--	12.6	3.3	8.3	3.7	0.02
SB-293-0910	SB-293	9	10	20051028	--	1.7	2.9	0.14 B	--	7.5	1.8	6.6	1.6	--
SB-294-0001	SB-294	0	1	20051028	--	2	20.1	0.37 B	--	11.1	2.9	4.7	4.8	0.01
SB-294-0405	SB-294	4	5	20051028	--	2.4	8.7	0.31 B	--	9.4	2.6	5.3	2.6	0.01
SB-294-0910	SB-294	9	10	20051028	--	3.4	11	0.37 B	--	16.6	3	9.3	3.5	--
SB-462-0102	SB-462	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.091
SB-462-0203	SB-462	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21
SB-462-0304	SB-462	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-462-0506	SB-462	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-462-0708	SB-462	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-463-0102	SB-463	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.036
SB-463-0203	SB-463	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.063
SB-463-0304	SB-463	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-463-0506	SB-463	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-463-0708	SB-463	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-464-0102	SB-464	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	METALS (MG/KG)									
					ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-464-0203	SB-464	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-464-0304	SB-464	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-464-0506	SB-464	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-464-0708	SB-464	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-465-0102	SB-465	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04
SB-465-0203	SB-465	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-465-0304	SB-465	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-465-0506	SB-465	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-465-0708	SB-465	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-466-0102	SB-466	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-466-0203	SB-466	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-466-0304	SB-466	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-466-0506	SB-466	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-466-0708	SB-466	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-467-0102	SB-467	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-467-0203	SB-467	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-467-0304	SB-467	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-467-0506	SB-467	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-467-0708	SB-467	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-468-0102	SB-468	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-468-0203	SB-468	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-468-0304	SB-468	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-468-0506	SB-468	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-468-0708	SB-468	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-469-0102	SB-469	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-469-0203	SB-469	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-469-0304	SB-469	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-469-0506	SB-469	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-469-0708	SB-469	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	METALS (MG/KG) ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-470-0102	SB-470	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.48
SB-470-0203	SB-470	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.023 L
SB-470-0304	SB-470	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-470-0506	SB-470	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-470-0708	SB-470	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-471-0102	SB-471	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-471-0203	SB-471	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-471-0304	SB-471	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-471-0506	SB-471	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-471-0708	SB-471	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-472-0102	SB-472	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-472-0203	SB-472	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-472-0304	SB-472	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-472-0506	SB-472	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-472-0708	SB-472	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-473-0102	SB-473	1	2	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-473-0203	SB-473	2	3	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-473-0304	SB-473	3	4	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-473-0506	SB-473	5	6	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-473-0708	SB-473	7	8	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-474-0102	SB-474	1	2	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-474-0203	SB-474	2	3	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.025
SB-474-0304	SB-474	3	4	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.095
SB-474-0506	SB-474	5	6	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-474-0708	SB-474	7	8	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-475-0102	SB-475	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-475-0203	SB-475	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-475-0304	SB-475	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-475-0506	SB-475	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	METALS (MG/KG) ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-475-0708	SB-475	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-476-0102	SB-476	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-476-0203	SB-476	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-476-0304	SB-476	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-476-0506	SB-476	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-476-0708	SB-476	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-477-0102	SB-477	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-477-0203	SB-477	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-477-0304	SB-477	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-477-0506	SB-477	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-477-0708	SB-477	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-478-0102	SB-478	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-478-0203	SB-478	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-478-0304	SB-478	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-478-0506	SB-478	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-478-0708	SB-478	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-479-0102	SB-479	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-479-0203	SB-479	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-479-0304	SB-479	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-479-0506	SB-479	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-479-0708	SB-479	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-480-0102	SB-480	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-480-0203	SB-480	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-480-0304	SB-480	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-480-0506	SB-480	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-480-0708	SB-480	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-481-0102	SB-481	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.036
SB-481-0203	SB-481	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21
SB-481-0304	SB-481	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	METALS (MG/KG)									
					ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-481-0506	SB-481	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-481-0708	SB-481	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-482-0102	SB-482	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.063
SB-482-0203	SB-482	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-482-0304	SB-482	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-482-0506	SB-482	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-482-0708	SB-482	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-483-0102	SB-483	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.054
SB-483-0203	SB-483	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.035
SB-483-0304	SB-483	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-483-0506	SB-483	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-483-0708	SB-483	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-484-0102	SB-484	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.028
SB-484-0203	SB-484	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-484-0304	SB-484	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-484-0506	SB-484	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-484-0708	SB-484	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-485-0102	SB-485	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-485-0203	SB-485	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-485-0304	SB-485	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-485-0506	SB-485	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-485-0708	SB-485	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-486-0102	SB-486	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-486-0203	SB-486	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-486-0304	SB-486	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-486-0506	SB-486	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-486-0708	SB-486	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-487-0102	SB-487	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-487-0203	SB-487	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	METALS (MG/KG) ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-487-0304	SB-487	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-487-0506	SB-487	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-487-0708	SB-487	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-488-0102	SB-488	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-488-0203	SB-488	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-488-0304	SB-488	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-488-0506	SB-488	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
SB-488-0708	SB-488	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	--

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MOLYBDENUM	NICKEL	SELENIUM	SILVER	VANADIUM	ZINC	MISCELLANEOUS PERCENT SOLIDS	MISCELLANEOUS TOTAL SOLIDS	MISCELLANEOUS HEXAVALENT CHROMIUM	MISCELLANEOUS TOTAL ORGANIC CARBON
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	%	%	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-11	SB-200	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-12	SB-200	12	12	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-13	SB-200	13	13	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-14	SB-200	14	14	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-15	SB-200	15	15	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-201RE-1	SB-201	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-201RE-2	SB-201	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-1	SB-282	1	1	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-10	SB-282	10	10	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-11	SB-282	11	11	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-12	SB-282	12	12	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-13	SB-282	13	13	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-14	SB-282	14	14	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-15	SB-282	15	15	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-2	SB-282	2	2	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-3	SB-282	3	3	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-4	SB-282	4	4	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-5	SB-282	5	5	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-6	SB-282	6	6	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-7	SB-282	7	7	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-7-AVG	SB-282	7	7	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-7-D	SB-282	7	7	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-8	SB-282	8	8	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-9	SB-282	9	9	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-1	SB-282A	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-11	SB-282A	11	11	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-13	SB-282A	13	13	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-15	SB-282A	15	15	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-3	SB-282A	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MOLYBDENUM	NICKEL	SELENIUM	SILVER	VANADIUM	ZINC	MISCELLANEOUS PERCENT SOLIDS	MISCELLANEOUS TOTAL SOLIDS	MISCELLANEOUS HEXAVALENT CHROMIUM	MISCELLANEOUS TOTAL ORGANIC CARBON
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	%	%	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-5	SB-282A	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-7	SB-282A	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-9	SB-282A	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-9-AVG	SB-282A	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-9-D	SB-282A	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-1	SB-282B	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-11	SB-282B	11	11	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-13	SB-282B	13	13	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-15	SB-282B	15	15	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-3	SB-282B	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-5	SB-282B	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-7	SB-282B	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-9	SB-282B	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-1	SB-282C	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-11	SB-282C	11	11	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-13	SB-282C	13	13	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-15	SB-282C	15	15	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-3	SB-282C	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-5	SB-282C	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-7	SB-282C	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-9	SB-282C	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-9-AVG	SB-282C	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-9-D	SB-282C	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-1	SB-282D	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-11	SB-282D	11	11	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-13	SB-282D	13	13	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-15	SB-282D	15	15	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-3	SB-282D	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-5	SB-282D	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE							MISCELLANEOUS		MISCELLANEOUS	
					MOLYBDENUM	NICKEL	SELENIUM	SILVER	VANADIUM	ZINC	PERCENT SOLIDS	TOTAL SOLIDS	HEXAVALENT CHROMIUM	TOTAL ORGANIC CARBON
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	%	%	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-7	SB-282D	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-9	SB-282D	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-283RE-3	SB-283	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-283RE-4	SB-283	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-284RE-3	SB-284	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-284RE-4	SB-284	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-285RE-11	SB-285	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-285RE-12	SB-285	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-286RE-11	SB-286	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-286RE-12	SB-286	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-286RE-15	SB-286	15	15	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-474RE-5	SB-474	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-474RE-6	SB-474	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-596-11	SB-596	11	11	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-596-12	SB-596	12	12	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-597-11	SB-597	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-597-12	SB-597	12	12	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-598-11	SB-598	11	11	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-598-12	SB-598	12	12	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-599-11	SB-599	11	11	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-599-12	SB-599	12	12	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-600-1	SB-600	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-600-2	SB-600	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-601-1	SB-601	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-601-2	SB-601	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-602-1	SB-602	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-602-2	SB-602	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-603-1	SB-603	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-603-2	SB-603	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MOLYBDENUM	NICKEL	SELENIUM	SILVER	VANADIUM	ZINC	MISCELLANEOUS PERCENT SOLIDS	MISCELLANEOUS TOTAL SOLIDS	MISCELLANEOUS HEXAVALENT CHROMIUM	MISCELLANEOUS TOTAL ORGANIC CARBON
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	%	%	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-3	SB-604	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-4	SB-604	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-5	SB-604	5	5	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-6	SB-604	6	6	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-7	SB-604	7	7	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-1	SB-604A	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-3	SB-604A	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-5	SB-604A	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-7	SB-604A	7	7	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-1	SB-604B	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-3	SB-604B	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-5	SB-604B	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-7	SB-604B	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-1	SB-604D	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-3	SB-604D	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-3-AVG	SB-604D	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-3-D	SB-604D	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-5	SB-604D	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-7	SB-604D	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-605-3	SB-605	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-605-4	SB-605	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-606-3	SB-606	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-606-4	SB-606	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-607-3	SB-607	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-607-4	SB-607	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-608-3	SB-608	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-608-4	SB-608	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-608-4-AVG	SB-608	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-608-4-D	SB-608	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MOLYBDENUM	NICKEL	SELENIUM	SILVER	VANADIUM	ZINC	MISCELLANEOUS PERCENT SOLIDS	MISCELLANEOUS TOTAL SOLIDS	MISCELLANEOUS HEXAVALENT CHROMIUM	MISCELLANEOUS TOTAL ORGANIC CARBON
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	%	%	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-609-3	SB-609	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-609-4	SB-609	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610-3	SB-610	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610-4	SB-610	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610-5	SB-610	5	5	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610-6	SB-610	6	6	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610-7	SB-610	7	7	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-1	SB-610B	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-3	SB-610B	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-5	SB-610B	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-5-AVG	SB-610B	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-5-D	SB-610B	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610C-1	SB-610C	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610C-3	SB-610C	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610C-5	SB-610C	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610D-1	SB-610D	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610D-3	SB-610D	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610D-5	SB-610D	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-3	SB-611	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-4	SB-611	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-5	SB-611	5	5	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-6	SB-611	6	6	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-7	SB-611	7	7	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611A-1	SB-611A	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611A-3	SB-611A	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611A-5	SB-611A	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-1	SB-611D	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-3	SB-611D	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-5	SB-611D	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MOLYBDENUM	NICKEL	SELENIUM	SILVER	VANADIUM	ZINC	MISCELLANEOUS PERCENT SOLIDS	MISCELLANEOUS TOTAL SOLIDS	MISCELLANEOUS HEXAVALENT CHROMIUM	MISCELLANEOUS TOTAL ORGANIC CARBON
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	%	%	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-5-AVG	SB-611D	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-5-D	SB-611D	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-612-11	SB-612	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-612-11-AVG	SB-612	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-612-11-D	SB-612	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-612-12	SB-612	12	12	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-613-11	SB-613	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-613-12	SB-613	12	12	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-614-10	SB-614	10	10	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-614-11	SB-614	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-614-12	SB-614	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-615-11	SB-615	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-615-12	SB-615	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-616-11	SB-616	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-616-11-AVG	SB-616	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-616-11-D	SB-616	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-616-12	SB-616	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-617-11	SB-617	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-617-11-AVG	SB-617	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-617-11-D	SB-617	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-617-12	SB-617	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-618-11	SB-618	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-618-12	SB-618	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-619-11	SB-619	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-619-12	SB-619	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-620-5	SB-620	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-620-6	SB-620	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-620-6-AVG	SB-620	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-620-6-D	SB-620	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MOLYBDENUM	NICKEL	SELENIUM	SILVER	VANADIUM	ZINC	MISCELLANEOUS PERCENT SOLIDS	MISCELLANEOUS TOTAL SOLIDS	MISCELLANEOUS HEXAVALENT CHROMIUM	MISCELLANEOUS TOTAL ORGANIC CARBON
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	%	%	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-621-5	SB-621	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-621-6	SB-621	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-622-5	SB-622	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-622-6	SB-622	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-623-5	SB-623	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-623-6	SB-623	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-03	SB-814	3	3	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-05	SB-814	5	5	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-07	SB-814	7	7	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-09	SB-814	9	9	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-11	SB-814	11	11	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-13	SB-814	13	13	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-15	SB-814	15	15	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-SS	SB-814	1	1	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-03	SB-815	3	3	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-05	SB-815	5	5	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-07	SB-815	7	7	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-09	SB-815	9	9	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-11	SB-815	11	11	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-13	SB-815	13	13	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-15	SB-815	15	15	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-SS	SB-815	1	1	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-03	SB-816	3	3	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-03-AVG	SB-816	3	3	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-03-D	SB-816	3	3	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-05	SB-816	5	5	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-07	SB-816	7	7	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-09	SB-816	9	9	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-11	SB-816	11	11	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

											MISCELLANEOUS		MISCELLANEOUS	
SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MOLYBDENUM	NICKEL	SELENIUM	SILVER	VANADIUM	ZINC	PERCENT SOLIDS	TOTAL SOLIDS	HEXAVALENT CHROMIUM	TOTAL ORGANIC CARBON
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	%	%	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-SS	SB-816	1	1	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-SS-AVG	SB-816	1	1	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-SS-D	SB-816	1	1	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-03	SB-817	3	3	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-05	SB-817	5	5	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-07	SB-817	7	7	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-07-AVG	SB-817	7	7	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-07-D	SB-817	7	7	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-09	SB-817	9	9	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-11	SB-817	11	11	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-13	SB-817	13	13	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-15	SB-817	15	15	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-SS	SB-817	1	1	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MRC-MW08[0809]	MRC-MW08A	8	9	20050524	NA	NA	NA	NA	NA	NA	NA	NA	NA	1350
SB-200-05	SB-200	5	5	20050513	--	22	--	0.2 B	45.9	44	NA	NA	--	NA
SB-200-10	SB-200	10	10	20050513	--	27	3	0.3 B	52.9	62	NA	NA	--	NA
SB-200-SS	SB-200	0	1	20050513	--	7	--	--	14.5	20	NA	NA	NA	NA
SB-201-05	SB-201	5	5	20050513	--	5	--	--	33.9	25	NA	NA	NA	NA
SB-201-10	SB-201	10	10	20050513	0.5 B	10	3	0.3 B	25.7	30	NA	NA	NA	NA
SB-201-SS	SB-201	0	1	20050513	0.9 B	11	--	--	34.7	45	NA	NA	--	NA
SB-202-05	SB-202	5	5	20050513	--	35	--	--	52.2	51	NA	NA	--	NA
SB-202-10	SB-202	10	10	20050513	--	33	--	--	39.7	68	NA	NA	--	NA
SB-202-SS	SB-202	0	1	20050513	0.4 B	7	2	--	13.1	18	NA	NA	NA	NA
SB-203-05	SB-203	5	5	20050513	--	44	--	0.3 B	49.2	55	NA	NA	0.78	NA
SB-203-10	SB-203	10	10	20050513	--	19	--	--	39.2	26	NA	NA	NA	NA
SB-203-SS	SB-203	0	1	20050513	--	13	--	0.1 B	20.4	35	NA	NA	NA	NA
SB-282-0102	SB-282	1	2	20051026	0.6 B	11.6	--	--	32.8 K	38.8 K	NA	87	NA	NA
SB-282-0405	SB-282	4	5	20051026	0.43 B	17.7	--	--	27.2 K	28.1 K	NA	86	NA	NA
SB-282-0910	SB-282	9	10	20051026	0.53 B	6.8	--	--	34.4 K	9.5 K	NA	87	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MOLYBDENUM	NICKEL	SELENIUM	SILVER	VANADIUM	ZINC	MISCELLANEOUS PERCENT SOLIDS	MISCELLANEOUS TOTAL SOLIDS	MISCELLANEOUS HEXAVALENT CHROMIUM	MISCELLANEOUS TOTAL ORGANIC CARBON
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	%	%	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-283-0102	SB-283	1	2	20051027	0.3	6	--	--	19.3	18.6	NA	85	NA	NA
SB-283-0405	SB-283	4	5	20051027	--	13.5	--	--	20.4	40.2	NA	83	NA	NA
SB-283-0910	SB-283	9	10	20051027	0.34	43.1	--	--	45.9	83.1	NA	84	NA	NA
SB-284-0102	SB-284	1	2	20051027	0.2	8.1	--	--	14.2	18.2	NA	88	NA	NA
SB-284-0405	SB-284	4	5	20051027	--	37.2	--	--	43.8	65.5	NA	70	NA	NA
SB-284-0910	SB-284	9	10	20051027	--	23.5	--	--	30.6	47.3	NA	85	NA	NA
SB-285-0102	SB-285	1	2	20051027	0.38	15	--	--	37.9	33.4	NA	82	NA	NA
SB-285-0405	SB-285	4	5	20051027	0.33	22.2	--	--	35.6	45.1	NA	81	NA	NA
SB-285-0910	SB-285	9	10	20051027	0.74	30.9	--	--	42.6	79.2	NA	84	NA	NA
SB-286-0102	SB-286	1	2	20051027	0.54	5.1	--	--	18.7	16.3	NA	89	NA	NA
SB-286-0405	SB-286	4	5	20051027	--	5.9	--	--	24.6	11.8	NA	75	NA	NA
SB-286-0910	SB-286	9	10	20051027	0.28	2.7	--	--	5.7	21	NA	82	NA	NA
SB-293-0102	SB-293	1	2	20051028	0.34	9.3	--	0.41 L	17.4	20	NA	92	NA	NA
SB-293-0405	SB-293	4	5	20051028	0.46	5.2	--	--	28.6	11.9	NA	83	NA	NA
SB-293-0910	SB-293	9	10	20051028	0.17	3	--	0.44 L	13.7	4	NA	84	NA	NA
SB-294-0001	SB-294	0	1	20051028	0.55 K	7.5	--	--	15.7	15.9	NA	91	NA	NA
SB-294-0405	SB-294	4	5	20051028	0.3 K	3.4	--	--	17.8	9	NA	84	NA	NA
SB-294-0910	SB-294	9	10	20051028	1.2	5.1	--	--	26.3	10.5	NA	81	NA	NA
SB-462-0102	SB-462	1	2	20071023	NA	NA	NA	NA	NA	NA	89.1	NA	NA	NA
SB-462-0203	SB-462	2	3	20071023	NA	NA	NA	NA	NA	NA	87.1	NA	NA	NA
SB-462-0304	SB-462	3	4	20071023	NA	NA	NA	NA	NA	NA	87.1	NA	NA	NA
SB-462-0506	SB-462	5	6	20071023	NA	NA	NA	NA	NA	NA	79.1	NA	NA	NA
SB-462-0708	SB-462	7	8	20071023	NA	NA	NA	NA	NA	NA	81.5	NA	NA	NA
SB-463-0102	SB-463	1	2	20071023	NA	NA	NA	NA	NA	NA	86.3	NA	NA	NA
SB-463-0203	SB-463	2	3	20071023	NA	NA	NA	NA	NA	NA	73.9	NA	NA	NA
SB-463-0304	SB-463	3	4	20071023	NA	NA	NA	NA	NA	NA	78.8	NA	NA	NA
SB-463-0506	SB-463	5	6	20071023	NA	NA	NA	NA	NA	NA	81.1	NA	NA	NA
SB-463-0708	SB-463	7	8	20071023	NA	NA	NA	NA	NA	NA	80	NA	NA	NA
SB-464-0102	SB-464	1	2	20071023	NA	NA	NA	NA	NA	NA	89.9	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MOLYBDENUM	NICKEL	SELENIUM	SILVER	VANADIUM	ZINC	MISCELLANEOUS PERCENT SOLIDS	MISCELLANEOUS TOTAL SOLIDS	MISCELLANEOUS HEXAVALENT CHROMIUM	MISCELLANEOUS TOTAL ORGANIC CARBON
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	%	%	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-464-0203	SB-464	2	3	20071023	NA	NA	NA	NA	NA	NA	89.4	NA	NA	NA
SB-464-0304	SB-464	3	4	20071023	NA	NA	NA	NA	NA	NA	81	NA	NA	NA
SB-464-0506	SB-464	5	6	20071023	NA	NA	NA	NA	NA	NA	79.3	NA	NA	NA
SB-464-0708	SB-464	7	8	20071023	NA	NA	NA	NA	NA	NA	84.7	NA	NA	NA
SB-465-0102	SB-465	1	2	20071023	NA	NA	NA	NA	NA	NA	88.4	NA	NA	NA
SB-465-0203	SB-465	2	3	20071023	NA	NA	NA	NA	NA	NA	89.9	NA	NA	NA
SB-465-0304	SB-465	3	4	20071023	NA	NA	NA	NA	NA	NA	84.7	NA	NA	NA
SB-465-0506	SB-465	5	6	20071023	NA	NA	NA	NA	NA	NA	83.9	NA	NA	NA
SB-465-0708	SB-465	7	8	20071023	NA	NA	NA	NA	NA	NA	84.2	NA	NA	NA
SB-466-0102	SB-466	1	2	20071023	NA	NA	NA	NA	NA	NA	85	NA	NA	NA
SB-466-0203	SB-466	2	3	20071023	NA	NA	NA	NA	NA	NA	89.8	NA	NA	NA
SB-466-0304	SB-466	3	4	20071023	NA	NA	NA	NA	NA	NA	88.6	NA	NA	NA
SB-466-0506	SB-466	5	6	20071023	NA	NA	NA	NA	NA	NA	82.9	NA	NA	NA
SB-466-0708	SB-466	7	8	20071023	NA	NA	NA	NA	NA	NA	84.4	NA	NA	NA
SB-467-0102	SB-467	1	2	20071023	NA	NA	NA	NA	NA	NA	89.5	NA	NA	NA
SB-467-0203	SB-467	2	3	20071023	NA	NA	NA	NA	NA	NA	88.6	NA	NA	NA
SB-467-0304	SB-467	3	4	20071023	NA	NA	NA	NA	NA	NA	88.5	NA	NA	NA
SB-467-0506	SB-467	5	6	20071023	NA	NA	NA	NA	NA	NA	83.6	NA	NA	NA
SB-467-0708	SB-467	7	8	20071023	NA	NA	NA	NA	NA	NA	86.4	NA	NA	NA
SB-468-0102	SB-468	1	2	20071023	NA	NA	NA	NA	NA	NA	88.8	NA	NA	NA
SB-468-0203	SB-468	2	3	20071023	NA	NA	NA	NA	NA	NA	85.5	NA	NA	NA
SB-468-0304	SB-468	3	4	20071023	NA	NA	NA	NA	NA	NA	85.1	NA	NA	NA
SB-468-0506	SB-468	5	6	20071023	NA	NA	NA	NA	NA	NA	83.9	NA	NA	NA
SB-468-0708	SB-468	7	8	20071023	NA	NA	NA	NA	NA	NA	84.6	NA	NA	NA
SB-469-0102	SB-469	1	2	20071023	NA	NA	NA	NA	NA	NA	89.1	NA	NA	NA
SB-469-0203	SB-469	2	3	20071023	NA	NA	NA	NA	NA	NA	87.4	NA	NA	NA
SB-469-0304	SB-469	3	4	20071023	NA	NA	NA	NA	NA	NA	82.2	NA	NA	NA
SB-469-0506	SB-469	5	6	20071023	NA	NA	NA	NA	NA	NA	83.6	NA	NA	NA
SB-469-0708	SB-469	7	8	20071023	NA	NA	NA	NA	NA	NA	84.6	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MOLYBDENUM	NICKEL	SELENIUM	SILVER	VANADIUM	ZINC	MISCELLANEOUS PERCENT SOLIDS	MISCELLANEOUS TOTAL SOLIDS	MISCELLANEOUS HEXAVALENT CHROMIUM	MISCELLANEOUS TOTAL ORGANIC CARBON
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	%	%	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-470-0102	SB-470	1	2	20071023	NA	NA	NA	NA	NA	NA	88.9	NA	NA	NA
SB-470-0203	SB-470	2	3	20071023	NA	NA	NA	NA	NA	NA	88.5	NA	NA	NA
SB-470-0304	SB-470	3	4	20071023	NA	NA	NA	NA	NA	NA	86.8	NA	NA	NA
SB-470-0506	SB-470	5	6	20071023	NA	NA	NA	NA	NA	NA	82.3	NA	NA	NA
SB-470-0708	SB-470	7	8	20071023	NA	NA	NA	NA	NA	NA	83.7	NA	NA	NA
SB-471-0102	SB-471	1	2	20071023	NA	NA	NA	NA	NA	NA	80.5	NA	NA	NA
SB-471-0203	SB-471	2	3	20071023	NA	NA	NA	NA	NA	NA	81.1	NA	NA	NA
SB-471-0304	SB-471	3	4	20071023	NA	NA	NA	NA	NA	NA	80.7	NA	NA	NA
SB-471-0506	SB-471	5	6	20071023	NA	NA	NA	NA	NA	NA	82.7	NA	NA	NA
SB-471-0708	SB-471	7	8	20071023	NA	NA	NA	NA	NA	NA	83.7	NA	NA	NA
SB-472-0102	SB-472	1	2	20071023	NA	NA	NA	NA	NA	NA	86.3	NA	NA	NA
SB-472-0203	SB-472	2	3	20071023	NA	NA	NA	NA	NA	NA	86.6	NA	NA	NA
SB-472-0304	SB-472	3	4	20071023	NA	NA	NA	NA	NA	NA	81.5	NA	NA	NA
SB-472-0506	SB-472	5	6	20071023	NA	NA	NA	NA	NA	NA	83.1	NA	NA	NA
SB-472-0708	SB-472	7	8	20071023	NA	NA	NA	NA	NA	NA	83.2	NA	NA	NA
SB-473-0102	SB-473	1	2	20071024	NA	NA	NA	NA	NA	NA	89.3	NA	NA	NA
SB-473-0203	SB-473	2	3	20071024	NA	NA	NA	NA	NA	NA	87.9	NA	NA	NA
SB-473-0304	SB-473	3	4	20071024	NA	NA	NA	NA	NA	NA	85.1	NA	NA	NA
SB-473-0506	SB-473	5	6	20071024	NA	NA	NA	NA	NA	NA	76.1	NA	NA	NA
SB-473-0708	SB-473	7	8	20071024	NA	NA	NA	NA	NA	NA	80.5	NA	NA	NA
SB-474-0102	SB-474	1	2	20071024	NA	NA	NA	NA	NA	NA	85.1	NA	NA	NA
SB-474-0203	SB-474	2	3	20071024	NA	NA	NA	NA	NA	NA	86	NA	NA	NA
SB-474-0304	SB-474	3	4	20071024	NA	NA	NA	NA	NA	NA	77.6	NA	NA	NA
SB-474-0506	SB-474	5	6	20071024	NA	NA	NA	NA	NA	NA	90.9	NA	NA	NA
SB-474-0708	SB-474	7	8	20071024	NA	NA	NA	NA	NA	NA	86.3	NA	NA	NA
SB-475-0102	SB-475	1	2	20071025	NA	NA	NA	NA	NA	NA	88.4	NA	NA	NA
SB-475-0203	SB-475	2	3	20071025	NA	NA	NA	NA	NA	NA	87	NA	NA	NA
SB-475-0304	SB-475	3	4	20071025	NA	NA	NA	NA	NA	NA	81.8	NA	NA	NA
SB-475-0506	SB-475	5	6	20071025	NA	NA	NA	NA	NA	NA	81.4	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MOLYBDENUM	NICKEL	SELENIUM	SILVER	VANADIUM	ZINC	MISCELLANEOUS PERCENT SOLIDS	MISCELLANEOUS TOTAL SOLIDS	MISCELLANEOUS HEXAVALENT CHROMIUM	MISCELLANEOUS TOTAL ORGANIC CARBON
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	%	%	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-475-0708	SB-475	7	8	20071025	NA	NA	NA	NA	NA	NA	83.3	NA	NA	NA
SB-476-0102	SB-476	1	2	20071025	NA	NA	NA	NA	NA	NA	87.7	NA	NA	NA
SB-476-0203	SB-476	2	3	20071025	NA	NA	NA	NA	NA	NA	85.8	NA	NA	NA
SB-476-0304	SB-476	3	4	20071025	NA	NA	NA	NA	NA	NA	79.9	NA	NA	NA
SB-476-0506	SB-476	5	6	20071025	NA	NA	NA	NA	NA	NA	83.3	NA	NA	NA
SB-476-0708	SB-476	7	8	20071025	NA	NA	NA	NA	NA	NA	83.6	NA	NA	NA
SB-477-0102	SB-477	1	2	20071025	NA	NA	NA	NA	NA	NA	88.6	NA	NA	NA
SB-477-0203	SB-477	2	3	20071025	NA	NA	NA	NA	NA	NA	78.2	NA	NA	NA
SB-477-0304	SB-477	3	4	20071025	NA	NA	NA	NA	NA	NA	79.8	NA	NA	NA
SB-477-0506	SB-477	5	6	20071025	NA	NA	NA	NA	NA	NA	84.6	NA	NA	NA
SB-477-0708	SB-477	7	8	20071025	NA	NA	NA	NA	NA	NA	84.9	NA	NA	NA
SB-478-0102	SB-478	1	2	20071025	NA	NA	NA	NA	NA	NA	90.3	NA	NA	NA
SB-478-0203	SB-478	2	3	20071025	NA	NA	NA	NA	NA	NA	87.7	NA	NA	NA
SB-478-0304	SB-478	3	4	20071025	NA	NA	NA	NA	NA	NA	85.1	NA	NA	NA
SB-478-0506	SB-478	5	6	20071025	NA	NA	NA	NA	NA	NA	86.7	NA	NA	NA
SB-478-0708	SB-478	7	8	20071025	NA	NA	NA	NA	NA	NA	83.8	NA	NA	NA
SB-479-0102	SB-479	1	2	20071025	NA	NA	NA	NA	NA	NA	88	NA	NA	NA
SB-479-0203	SB-479	2	3	20071025	NA	NA	NA	NA	NA	NA	85.9	NA	NA	NA
SB-479-0304	SB-479	3	4	20071025	NA	NA	NA	NA	NA	NA	83.8	NA	NA	NA
SB-479-0506	SB-479	5	6	20071025	NA	NA	NA	NA	NA	NA	84.6	NA	NA	NA
SB-479-0708	SB-479	7	8	20071025	NA	NA	NA	NA	NA	NA	85.9	NA	NA	NA
SB-480-0102	SB-480	1	2	20071025	NA	NA	NA	NA	NA	NA	88.9	NA	NA	NA
SB-480-0203	SB-480	2	3	20071025	NA	NA	NA	NA	NA	NA	89.5	NA	NA	NA
SB-480-0304	SB-480	3	4	20071025	NA	NA	NA	NA	NA	NA	88.1	NA	NA	NA
SB-480-0506	SB-480	5	6	20071025	NA	NA	NA	NA	NA	NA	84.1	NA	NA	NA
SB-480-0708	SB-480	7	8	20071025	NA	NA	NA	NA	NA	NA	85.6	NA	NA	NA
SB-481-0102	SB-481	1	2	20071029	NA	NA	NA	NA	NA	NA	85	NA	NA	NA
SB-481-0203	SB-481	2	3	20071029	NA	NA	NA	NA	NA	NA	85.8	NA	NA	NA
SB-481-0304	SB-481	3	4	20071029	NA	NA	NA	NA	NA	NA	84.3	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MOLYBDENUM	NICKEL	SELENIUM	SILVER	VANADIUM	ZINC	MISCELLANEOUS PERCENT SOLIDS	MISCELLANEOUS TOTAL SOLIDS	MISCELLANEOUS HEXAVALENT CHROMIUM	MISCELLANEOUS TOTAL ORGANIC CARBON
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	%	%	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-481-0506	SB-481	5	6	20071029	NA	NA	NA	NA	NA	NA	82.2	NA	NA	NA
SB-481-0708	SB-481	7	8	20071029	NA	NA	NA	NA	NA	NA	82.6	NA	NA	NA
SB-482-0102	SB-482	1	2	20071029	NA	NA	NA	NA	NA	NA	78.1	NA	NA	NA
SB-482-0203	SB-482	2	3	20071029	NA	NA	NA	NA	NA	NA	82.7	NA	NA	NA
SB-482-0304	SB-482	3	4	20071029	NA	NA	NA	NA	NA	NA	85.1	NA	NA	NA
SB-482-0506	SB-482	5	6	20071029	NA	NA	NA	NA	NA	NA	84	NA	NA	NA
SB-482-0708	SB-482	7	8	20071029	NA	NA	NA	NA	NA	NA	82.7	NA	NA	NA
SB-483-0102	SB-483	1	2	20071029	NA	NA	NA	NA	NA	NA	86.2	NA	NA	NA
SB-483-0203	SB-483	2	3	20071029	NA	NA	NA	NA	NA	NA	82.9	NA	NA	NA
SB-483-0304	SB-483	3	4	20071029	NA	NA	NA	NA	NA	NA	81.6	NA	NA	NA
SB-483-0506	SB-483	5	6	20071029	NA	NA	NA	NA	NA	NA	83.5	NA	NA	NA
SB-483-0708	SB-483	7	8	20071029	NA	NA	NA	NA	NA	NA	82.9	NA	NA	NA
SB-484-0102	SB-484	1	2	20071029	NA	NA	NA	NA	NA	NA	82.9	NA	NA	NA
SB-484-0203	SB-484	2	3	20071029	NA	NA	NA	NA	NA	NA	86.2	NA	NA	NA
SB-484-0304	SB-484	3	4	20071029	NA	NA	NA	NA	NA	NA	82.7	NA	NA	NA
SB-484-0506	SB-484	5	6	20071029	NA	NA	NA	NA	NA	NA	86.5	NA	NA	NA
SB-484-0708	SB-484	7	8	20071029	NA	NA	NA	NA	NA	NA	84.2	NA	NA	NA
SB-485-0102	SB-485	1	2	20071029	NA	NA	NA	NA	NA	NA	88	NA	NA	NA
SB-485-0203	SB-485	2	3	20071029	NA	NA	NA	NA	NA	NA	88.7	NA	NA	NA
SB-485-0304	SB-485	3	4	20071029	NA	NA	NA	NA	NA	NA	84.4	NA	NA	NA
SB-485-0506	SB-485	5	6	20071029	NA	NA	NA	NA	NA	NA	85	NA	NA	NA
SB-485-0708	SB-485	7	8	20071029	NA	NA	NA	NA	NA	NA	84.8	NA	NA	NA
SB-486-0102	SB-486	1	2	20071029	NA	NA	NA	NA	NA	NA	89.4	NA	NA	NA
SB-486-0203	SB-486	2	3	20071029	NA	NA	NA	NA	NA	NA	86.3	NA	NA	NA
SB-486-0304	SB-486	3	4	20071029	NA	NA	NA	NA	NA	NA	84.9	NA	NA	NA
SB-486-0506	SB-486	5	6	20071029	NA	NA	NA	NA	NA	NA	81.3	NA	NA	NA
SB-486-0708	SB-486	7	8	20071029	NA	NA	NA	NA	NA	NA	85.6	NA	NA	NA
SB-487-0102	SB-487	1	2	20071029	NA	NA	NA	NA	NA	NA	89.6	NA	NA	NA
SB-487-0203	SB-487	2	3	20071029	NA	NA	NA	NA	NA	NA	82.4	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MOLYBDENUM	NICKEL	SELENIUM	SILVER	VANADIUM	ZINC	MISCELLANEOUS PERCENT SOLIDS	MISCELLANEOUS TOTAL SOLIDS	MISCELLANEOUS HEXAVALENT CHROMIUM	MISCELLANEOUS TOTAL ORGANIC CARBON
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	%	%	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-487-0304	SB-487	3	4	20071029	NA	NA	NA	NA	NA	NA	88	NA	NA	NA
SB-487-0506	SB-487	5	6	20071029	NA	NA	NA	NA	NA	NA	83.8	NA	NA	NA
SB-487-0708	SB-487	7	8	20071029	NA	NA	NA	NA	NA	NA	85.3	NA	NA	NA
SB-488-0102	SB-488	1	2	20071029	NA	NA	NA	NA	NA	NA	88.9	NA	NA	NA
SB-488-0203	SB-488	2	3	20071029	NA	NA	NA	NA	NA	NA	88.5	NA	NA	NA
SB-488-0304	SB-488	3	4	20071029	NA	NA	NA	NA	NA	NA	86.3	NA	NA	NA
SB-488-0506	SB-488	5	6	20071029	NA	NA	NA	NA	NA	NA	82.1	NA	NA	NA
SB-488-0708	SB-488	7	8	20071029	NA	NA	NA	NA	NA	NA	85.2	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MISCELLANE	MISCELLANE	PETROLEUM HYDROCARBONS (UG/KG)							
					PH	MERCURY (METHYL)	DIESEL RANGE ORGANICS	GASOLINE RANGE ORGANICS	TPH (C09-C36)	1-METHYLNAPHTHALENE	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE
				Units	S.U.	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-11	SB-200	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-12	SB-200	12	12	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-13	SB-200	13	13	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-14	SB-200	14	14	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-15	SB-200	15	15	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-201RE-1	SB-201	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-201RE-2	SB-201	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-1	SB-282	1	1	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-10	SB-282	10	10	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-11	SB-282	11	11	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-12	SB-282	12	12	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-13	SB-282	13	13	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-14	SB-282	14	14	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-15	SB-282	15	15	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-2	SB-282	2	2	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-3	SB-282	3	3	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-4	SB-282	4	4	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-5	SB-282	5	5	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-6	SB-282	6	6	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-7	SB-282	7	7	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-7-AVG	SB-282	7	7	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-7-D	SB-282	7	7	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-8	SB-282	8	8	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-9	SB-282	9	9	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-1	SB-282A	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-11	SB-282A	11	11	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-13	SB-282A	13	13	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-15	SB-282A	15	15	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-3	SB-282A	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MISCELLANE	MISCELLANE	PETROLEUM HYDROCARBONS (UG/KG)							
					PH	MERCURY (METHYL)	DIESEL RANGE ORGANICS	GASOLINE RANGE ORGANICS	TPH (C09-C36)	1-METHYLNAPHTHALENE	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE
				Units	S.U.	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-5	SB-282A	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-7	SB-282A	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-9	SB-282A	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-9-AVG	SB-282A	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-9-D	SB-282A	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-1	SB-282B	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-11	SB-282B	11	11	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-13	SB-282B	13	13	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-15	SB-282B	15	15	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-3	SB-282B	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-5	SB-282B	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-7	SB-282B	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-9	SB-282B	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-1	SB-282C	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-11	SB-282C	11	11	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-13	SB-282C	13	13	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-15	SB-282C	15	15	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-3	SB-282C	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-5	SB-282C	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-7	SB-282C	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-9	SB-282C	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-9-AVG	SB-282C	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-9-D	SB-282C	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-1	SB-282D	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-11	SB-282D	11	11	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-13	SB-282D	13	13	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-15	SB-282D	15	15	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-3	SB-282D	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-5	SB-282D	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

					MISCELLANE	MISCELLANE	PETROLEUM HYDROCARBONS (UG/KG)							
SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	PH	MERCURY (METHYL)	DIESEL RANGE ORGANICS	GASOLINE RANGE ORGANICS	TPH (C09-C36)	1-METHYLNAPHTHALENE	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE
				Units	S.U.	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-7	SB-282D	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-9	SB-282D	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-283RE-3	SB-283	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-283RE-4	SB-283	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-284RE-3	SB-284	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-284RE-4	SB-284	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-285RE-11	SB-285	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-285RE-12	SB-285	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-286RE-11	SB-286	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-286RE-12	SB-286	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-286RE-15	SB-286	15	15	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-474RE-5	SB-474	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-474RE-6	SB-474	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-596-11	SB-596	11	11	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-596-12	SB-596	12	12	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-597-11	SB-597	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-597-12	SB-597	12	12	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-598-11	SB-598	11	11	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-598-12	SB-598	12	12	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-599-11	SB-599	11	11	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-599-12	SB-599	12	12	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-600-1	SB-600	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-600-2	SB-600	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-601-1	SB-601	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-601-2	SB-601	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-602-1	SB-602	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-602-2	SB-602	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-603-1	SB-603	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-603-2	SB-603	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MISCELLANE	MISCELLANE	PETROLEUM HYDROCARBONS (UG/KG)							
					PH	MERCURY (METHYL)	DIESEL RANGE ORGANICS	GASOLINE RANGE ORGANICS	TPH (C09-C36)	1-METHYLNAPHTHALENE	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE
				Units	S.U.	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-3	SB-604	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-4	SB-604	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-5	SB-604	5	5	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-6	SB-604	6	6	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-7	SB-604	7	7	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-1	SB-604A	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-3	SB-604A	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-5	SB-604A	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-7	SB-604A	7	7	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-1	SB-604B	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-3	SB-604B	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-5	SB-604B	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-7	SB-604B	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-1	SB-604D	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-3	SB-604D	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-3-AVG	SB-604D	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-3-D	SB-604D	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-5	SB-604D	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-7	SB-604D	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-605-3	SB-605	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-605-4	SB-605	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-606-3	SB-606	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-606-4	SB-606	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-607-3	SB-607	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-607-4	SB-607	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-608-3	SB-608	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-608-4	SB-608	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-608-4-AVG	SB-608	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-608-4-D	SB-608	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MISCELLANE	MISCELLANE	PETROLEUM HYDROCARBONS (UG/KG)							
					PH	MERCURY (METHYL)	DIESEL RANGE ORGANICS	GASOLINE RANGE ORGANICS	TPH (C09-C36)	1-METHYLNAPHTHALENE	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE
				Units	S.U.	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-609-3	SB-609	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-609-4	SB-609	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610-3	SB-610	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610-4	SB-610	4	4	20090925	NA	NA	NA	36 J	NA	NA	NA	NA	NA	NA
H-SB-610-5	SB-610	5	5	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610-6	SB-610	6	6	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610-7	SB-610	7	7	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-1	SB-610B	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-3	SB-610B	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-5	SB-610B	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-5-AVG	SB-610B	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-5-D	SB-610B	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610C-1	SB-610C	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610C-3	SB-610C	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610C-5	SB-610C	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610D-1	SB-610D	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610D-3	SB-610D	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610D-5	SB-610D	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-3	SB-611	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-4	SB-611	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-5	SB-611	5	5	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-6	SB-611	6	6	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-7	SB-611	7	7	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611A-1	SB-611A	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611A-3	SB-611A	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611A-5	SB-611A	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-1	SB-611D	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-3	SB-611D	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-5	SB-611D	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MISCELLANE	MISCELLANE	PETROLEUM HYDROCARBONS (UG/KG)							
					PH	MERCURY (METHYL)	DIESEL RANGE ORGANICS	GASOLINE RANGE ORGANICS	TPH (C09-C36)	1-METHYLNAPHTHALENE	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE
				Units	S.U.	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-5-AVG	SB-611D	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-5-D	SB-611D	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-612-11	SB-612	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-612-11-AVG	SB-612	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-612-11-D	SB-612	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-612-12	SB-612	12	12	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-613-11	SB-613	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-613-12	SB-613	12	12	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-614-10	SB-614	10	10	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-614-11	SB-614	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-614-12	SB-614	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-615-11	SB-615	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-615-12	SB-615	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-616-11	SB-616	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-616-11-AVG	SB-616	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-616-11-D	SB-616	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-616-12	SB-616	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-617-11	SB-617	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-617-11-AVG	SB-617	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-617-11-D	SB-617	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-617-12	SB-617	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-618-11	SB-618	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-618-12	SB-618	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-619-11	SB-619	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-619-12	SB-619	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-620-5	SB-620	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-620-6	SB-620	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-620-6-AVG	SB-620	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-620-6-D	SB-620	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MISCELLANE	MISCELLANE	PETROLEUM HYDROCARBONS (UG/KG)							
					PH	MERCURY (METHYL)	DIESEL RANGE ORGANICS	GASOLINE RANGE ORGANICS	TPH (C09-C36)	1-METHYLNAPHTHALENE	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE
				Units	S.U.	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-621-5	SB-621	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-621-6	SB-621	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-622-5	SB-622	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-622-6	SB-622	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-623-5	SB-623	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-623-6	SB-623	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-03	SB-814	3	3	20100826	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-814-05	SB-814	5	5	20100826	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-814-07	SB-814	7	7	20100826	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-814-09	SB-814	9	9	20100826	NA	NA	NA	NA	NA	40	37	34	100	170
H-SB-814-11	SB-814	11	11	20100826	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-814-13	SB-814	13	13	20100826	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-814-15	SB-814	15	15	20100826	NA	NA	NA	NA	NA	--	--	--	8	12
H-SB-814-SS	SB-814	1	1	20100826	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-815-03	SB-815	3	3	20100826	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-815-05	SB-815	5	5	20100826	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-815-07	SB-815	7	7	20100826	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-815-09	SB-815	9	9	20100826	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-815-11	SB-815	11	11	20100826	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-815-13	SB-815	13	13	20100826	NA	NA	NA	NA	NA	--	--	10	9	45
H-SB-815-15	SB-815	15	15	20100826	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-815-SS	SB-815	1	1	20100826	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-816-03	SB-816	3	3	20100827	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-816-03-AVG	SB-816	3	3	20100827	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-816-03-D	SB-816	3	3	20100827	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-816-05	SB-816	5	5	20100827	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-816-07	SB-816	7	7	20100827	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-816-09	SB-816	9	9	20100827	NA	NA	NA	NA	NA	--	--	30 J	--	34 J
H-SB-816-11	SB-816	11	11	20100827	NA	NA	NA	NA	NA	11	13	38 J	--	58 J

					MISCELLANE	MISCELLANE	PETROLEUM HYDROCARBONS (UG/KG)							
SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	PH	MERCURY (METHYL)	DIESEL RANGE ORGANICS	GASOLINE RANGE ORGANICS	TPH (C09-C36)	1-METHYLNAPHTHALENE	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE
				Units	S.U.	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-SS	SB-816	1	1	20100827	NA	NA	NA	NA	NA	10	11	43 J	--	31 J
H-SB-816-SS-AVG	SB-816	1	1	20100827	NA	NA	NA	NA	NA	10	11	43 J	--	31 J
H-SB-816-SS-D	SB-816	1	1	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-03	SB-817	3	3	20100827	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-817-05	SB-817	5	5	20100827	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-817-07	SB-817	7	7	20100827	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-817-07-AVG	SB-817	7	7	20100827	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-817-07-D	SB-817	7	7	20100827	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-817-09	SB-817	9	9	20100827	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-817-11	SB-817	11	11	20100827	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-817-13	SB-817	13	13	20100827	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-817-15	SB-817	15	15	20100827	NA	NA	NA	NA	NA	--	--	--	--	--
H-SB-817-SS	SB-817	1	1	20100827	NA	NA	NA	NA	NA	--	--	--	--	--
MRC-MW08[0809]	MRC-MW08A	8	9	20050524	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-200-05	SB-200	5	5	20050513	4.9	NA	64400	--	NA	41.7 J	39 J	36 J	--	72 J
SB-200-10	SB-200	10	10	20050513	5	NA	173000	--	NA	452	412	381	--	595
SB-200-SS	SB-200	0	1	20050513	6	NA	168000	6130 B	NA	183	161	125	--	283
SB-201-05	SB-201	5	5	20050513	NA	NA	11100	--	NA	--	--	--	--	--
SB-201-10	SB-201	10	10	20050513	NA	NA	30000	--	NA	--	--	--	--	--
SB-201-SS	SB-201	0	1	20050513	NA	0.219 J	242000	--	NA	--	--	--	--	--
SB-202-05	SB-202	5	5	20050513	NA	NA	3800 B	--	NA	--	--	--	--	--
SB-202-10	SB-202	10	10	20050513	NA	NA	15900	--	NA	--	--	--	--	--
SB-202-SS	SB-202	0	1	20050513	NA	NA	223000	--	NA	--	--	--	--	--
SB-203-05	SB-203	5	5	20050513	NA	NA	13000	--	NA	--	--	--	--	--
SB-203-10	SB-203	10	10	20050513	NA	NA	2400 B	--	NA	--	--	--	--	--
SB-203-SS	SB-203	0	1	20050513	NA	NA	37300	6480 B	NA	--	--	--	--	40 J
SB-282-0102	SB-282	1	2	20051026	NA	NA	NA	12000	3300 J	--	--	--	--	--
SB-282-0405	SB-282	4	5	20051026	NA	NA	NA	--	4600 J	--	--	--	--	--
SB-282-0910	SB-282	9	10	20051026	NA	NA	NA	--	130000	--	--	--	--	70 J

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MISCELLANE	MISCELLANE	PETROLEUM HYDROCARBONS (UG/KG)							
					PH	MERCURY (METHYL)	DIESEL RANGE ORGANICS	GASOLINE RANGE ORGANICS	TPH (C09-C36)	1-METHYLNAPHTHALENE	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE
				Units	S.U.	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-283-0102	SB-283	1	2	20051027	NA	NA	NA	3200	22000	--	--	130 J	--	210 J
SB-283-0405	SB-283	4	5	20051027	NA	NA	NA	--	19000	--	--	--	--	--
SB-283-0910	SB-283	9	10	20051027	NA	NA	NA	--	4900 B	--	--	--	--	--
SB-284-0102	SB-284	1	2	20051027	NA	NA	NA	--	34000	210 J	180 J	110 J	--	170 J
SB-284-0405	SB-284	4	5	20051027	NA	NA	NA	3600	8700 B	340 J	260 J	140 J	--	120 J
SB-284-0910	SB-284	9	10	20051027	NA	NA	NA	--	2200 B	--	--	--	--	--
SB-285-0102	SB-285	1	2	20051027	NA	NA	NA	--	--	--	--	--	--	--
SB-285-0405	SB-285	4	5	20051027	NA	NA	NA	--	200000	700	1100	430	--	580
SB-285-0910	SB-285	9	10	20051027	NA	NA	NA	--	54000	340 J	410	240 J	--	310 J
SB-286-0102	SB-286	1	2	20051027	NA	NA	NA	--	30000	--	--	--	--	--
SB-286-0405	SB-286	4	5	20051027	NA	NA	NA	--	4500 B	--	--	--	--	--
SB-286-0910	SB-286	9	10	20051027	NA	NA	NA	6100	110000	220 J	84 J	190 J	--	290 J
SB-293-0102	SB-293	1	2	20051028	NA	NA	NA	--	12000	--	--	--	--	--
SB-293-0405	SB-293	4	5	20051028	NA	NA	NA	9000	2900 J	--	--	--	--	--
SB-293-0910	SB-293	9	10	20051028	NA	NA	NA	--	3800 J	--	--	--	--	--
SB-294-0001	SB-294	0	1	20051028	NA	NA	NA	--	14000	--	--	--	--	--
SB-294-0405	SB-294	4	5	20051028	NA	NA	NA	--	--	--	--	--	--	--
SB-294-0910	SB-294	9	10	20051028	NA	NA	NA	--	--	--	--	--	--	--
SB-462-0102	SB-462	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-462-0203	SB-462	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-462-0304	SB-462	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-462-0506	SB-462	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-462-0708	SB-462	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-463-0102	SB-463	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-463-0203	SB-463	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-463-0304	SB-463	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-463-0506	SB-463	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-463-0708	SB-463	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-464-0102	SB-464	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MISCELLANE	MISCELLANE	PETROLEUM HYDROCARBONS (UG/KG)							
					PH	MERCURY (METHYL)	DIESEL RANGE ORGANICS	GASOLINE RANGE ORGANICS	TPH (C09-C36)	1-METHYLNAPHTHALENE	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE
				Units	S.U.	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-464-0203	SB-464	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-464-0304	SB-464	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-464-0506	SB-464	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-464-0708	SB-464	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-465-0102	SB-465	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-465-0203	SB-465	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-465-0304	SB-465	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-465-0506	SB-465	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-465-0708	SB-465	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-466-0102	SB-466	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-466-0203	SB-466	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-466-0304	SB-466	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-466-0506	SB-466	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-466-0708	SB-466	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-467-0102	SB-467	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-467-0203	SB-467	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-467-0304	SB-467	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-467-0506	SB-467	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-467-0708	SB-467	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-468-0102	SB-468	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-468-0203	SB-468	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-468-0304	SB-468	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-468-0506	SB-468	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-468-0708	SB-468	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-469-0102	SB-469	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-469-0203	SB-469	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-469-0304	SB-469	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-469-0506	SB-469	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-469-0708	SB-469	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MISCELLANE	MISCELLANE	PETROLEUM HYDROCARBONS (UG/KG)							
					PH	MERCURY (METHYL)	DIESEL RANGE ORGANICS	GASOLINE RANGE ORGANICS	TPH (C09-C36)	1-METHYLNAPHTHALENE	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE
				Units	S.U.	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-470-0102	SB-470	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-470-0203	SB-470	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-470-0304	SB-470	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-470-0506	SB-470	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-470-0708	SB-470	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-471-0102	SB-471	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-471-0203	SB-471	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-471-0304	SB-471	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-471-0506	SB-471	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-471-0708	SB-471	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-472-0102	SB-472	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-472-0203	SB-472	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-472-0304	SB-472	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-472-0506	SB-472	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-472-0708	SB-472	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-473-0102	SB-473	1	2	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-473-0203	SB-473	2	3	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-473-0304	SB-473	3	4	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-473-0506	SB-473	5	6	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-473-0708	SB-473	7	8	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-474-0102	SB-474	1	2	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-474-0203	SB-474	2	3	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-474-0304	SB-474	3	4	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-474-0506	SB-474	5	6	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-474-0708	SB-474	7	8	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-475-0102	SB-475	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-475-0203	SB-475	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-475-0304	SB-475	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-475-0506	SB-475	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MISCELLANE	MISCELLANE	PETROLEUM HYDROCARBONS (UG/KG)							
					PH	MERCURY (METHYL)	DIESEL RANGE ORGANICS	GASOLINE RANGE ORGANICS	TPH (C09-C36)	1-METHYLNAPHTHALENE	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE
				Units	S.U.	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-475-0708	SB-475	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-476-0102	SB-476	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-476-0203	SB-476	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-476-0304	SB-476	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-476-0506	SB-476	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-476-0708	SB-476	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-477-0102	SB-477	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-477-0203	SB-477	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-477-0304	SB-477	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-477-0506	SB-477	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-477-0708	SB-477	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-478-0102	SB-478	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-478-0203	SB-478	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-478-0304	SB-478	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-478-0506	SB-478	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-478-0708	SB-478	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-479-0102	SB-479	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-479-0203	SB-479	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-479-0304	SB-479	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-479-0506	SB-479	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-479-0708	SB-479	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-480-0102	SB-480	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-480-0203	SB-480	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-480-0304	SB-480	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-480-0506	SB-480	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-480-0708	SB-480	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-481-0102	SB-481	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-481-0203	SB-481	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-481-0304	SB-481	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MISCELLANE	MISCELLANE	PETROLEUM HYDROCARBONS (UG/KG)							
					PH	MERCURY (METHYL)	DIESEL RANGE ORGANICS	GASOLINE RANGE ORGANICS	TPH (C09-C36)	1-METHYLNAPHTHALENE	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE
				Units	S.U.	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-481-0506	SB-481	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-481-0708	SB-481	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-482-0102	SB-482	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-482-0203	SB-482	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-482-0304	SB-482	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-482-0506	SB-482	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-482-0708	SB-482	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-483-0102	SB-483	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-483-0203	SB-483	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-483-0304	SB-483	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-483-0506	SB-483	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-483-0708	SB-483	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-484-0102	SB-484	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-484-0203	SB-484	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-484-0304	SB-484	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-484-0506	SB-484	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-484-0708	SB-484	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-485-0102	SB-485	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-485-0203	SB-485	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-485-0304	SB-485	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-485-0506	SB-485	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-485-0708	SB-485	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-486-0102	SB-486	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-486-0203	SB-486	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-486-0304	SB-486	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-486-0506	SB-486	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-486-0708	SB-486	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-487-0102	SB-487	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-487-0203	SB-487	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	MISCELLANE	MISCELLANE	PETROLEUM HYDROCARBONS (UG/KG)							
					PH	MERCURY (METHYL)	DIESEL RANGE ORGANICS	GASOLINE RANGE ORGANICS	TPH (C09-C36)	1-METHYLNAPHTHALENE	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE
				Units	S.U.	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-487-0304	SB-487	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-487-0506	SB-487	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-487-0708	SB-487	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-488-0102	SB-488	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-488-0203	SB-488	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-488-0304	SB-488	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-488-0506	SB-488	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-488-0708	SB-488	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BAP EQUIVALENT-UCL	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE	C1-CHRYSENES	C1-FLUORANTHENES/PYRENES
					POLYCYCLIC AROMATIC HYDROCARBONS									
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	2890	2890	2890	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-11	SB-200	11	11	20090928	66.873	66.073	NA	59	53	46	NA	31	NA	NA
H-SB-200RE-12	SB-200	12	12	20090928	164.78	164.78	NA	140	120	110	NA	44	NA	NA
H-SB-200RE-13	SB-200	13	13	20090928	848.43	847.63	NA	700	680	630	NA	290	NA	NA
H-SB-200RE-14	SB-200	14	14	20090928	14.162	13.262	NA	13	11	9.5	NA	--	NA	NA
H-SB-200RE-15	SB-200	15	15	20090928	119.77	118.97	NA	110	95	82	NA	46	NA	NA
H-SB-201RE-1	SB-201	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-201RE-2	SB-201	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-1	SB-282	1	1	20090929	165.25	165.25	NA	120	98	130	NA	41	NA	NA
H-SB-282RE-10	SB-282	10	10	20090929	1079.96	1079.96	NA	810	700	920	NA	300	NA	NA
H-SB-282RE-11	SB-282	11	11	20090929	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282RE-12	SB-282	12	12	20090929	15.525	14.715	NA	15	10	13	NA	--	NA	NA
H-SB-282RE-13	SB-282	13	13	20090929	1462.3	1462.3	NA	1400	930	1200	NA	470	NA	NA
H-SB-282RE-14	SB-282	14	14	20090929	5.261	3.751	NA	10	--	9.4	NA	--	NA	NA
H-SB-282RE-15	SB-282	15	15	20090929	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282RE-2	SB-282	2	2	20090929	144.87	144.87	NA	110	84	100	NA	45	NA	NA
H-SB-282RE-3	SB-282	3	3	20090929	148.92	148.92	NA	110	88	110	NA	41	NA	NA
H-SB-282RE-4	SB-282	4	4	20090929	182.04	182.04	NA	140	110	120	NA	68	NA	NA
H-SB-282RE-5	SB-282	5	5	20090929	1062.7	1062.7	NA	910	670	840	NA	270	NA	NA
H-SB-282RE-6	SB-282	6	6	20090929	539.02	539.02	NA	470	330	470	NA	150	NA	NA
H-SB-282RE-7	SB-282	7	7	20090929	180.17	180.17	NA	160 J	100 J	160 J	NA	60 J	NA	NA
H-SB-282RE-7-AVG	SB-282	7	7	20090929	105.2325	104.8575	NA	95.5	60.5	94	NA	35.5	NA	NA
H-SB-282RE-7-D	SB-282	7	7	20090929	30.295	29.545	NA	31 J	21 J	28 J	NA	11 J	NA	NA
H-SB-282RE-8	SB-282	8	8	20090929	71.29	71.29	NA	58	38	62	NA	12	NA	NA
H-SB-282RE-9	SB-282	9	9	20090929	3533.7	3533.7	NA	3300	2300	3200	NA	980	NA	NA
H-SB-282REA-1	SB-282A	1	1	20091110	23981	23981	NA	16000	17000	19000	NA	6500	NA	NA
H-SB-282REA-11	SB-282A	11	11	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282REA-13	SB-282A	13	13	20091110	408.73	408.73	NA	250	290	230	NA	150	NA	NA
H-SB-282REA-15	SB-282A	15	15	20091110	32.912	32.212	NA	14	27	17	NA	9.8	NA	NA
H-SB-282REA-3	SB-282A	3	3	20091110	--	--	NA	--	--	--	NA	--	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	POLYCYCLIC AROMATIC HYDROCARBONS									
					BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BAP EQUIVALENT-UCL	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE	C1-CHRYSENES	C1-FLUORANTHENES/PYRENES
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	2890	2890	2890	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-5	SB-282A	5	5	20091110	24.473	23.713	NA	15	18	18	NA	--	NA	NA
H-SB-282REA-7	SB-282A	7	7	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282REA-9	SB-282A	9	9	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282REA-9-AVG	SB-282A	9	9	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282REA-9-D	SB-282A	9	9	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282REB-1	SB-282B	1	1	20091110	31.316	30.566	NA	32	23	26	NA	13	NA	NA
H-SB-282REB-11	SB-282B	11	11	20091110	48.563	47.813	NA	53	35	50	NA	25	NA	NA
H-SB-282REB-13	SB-282B	13	13	20091110	372.6	372.6	NA	350	240	290	NA	120	NA	NA
H-SB-282REB-15	SB-282B	15	15	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282REB-3	SB-282B	3	3	20091110	3.495	1.9	NA	11	--	7.9	NA	--	NA	NA
H-SB-282REB-5	SB-282B	5	5	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282REB-7	SB-282B	7	7	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282REB-9	SB-282B	9	9	20091110	1658.4	1656.7	NA	2000	1200	1700	NA	740	NA	NA
H-SB-282REC-1	SB-282C	1	1	20091110	68.366	67.616	NA	54	54	51	NA	25	NA	NA
H-SB-282REC-11	SB-282C	11	11	20091110	2122.8	2121.2	NA	1800	1700	1500	NA	620	NA	NA
H-SB-282REC-13	SB-282C	13	13	20091110	1250.15	1248.5	NA	1100	990	970	NA	440	NA	NA
H-SB-282REC-15	SB-282C	15	15	20091110	288.96	288.21	NA	250	230	210	NA	94	NA	NA
H-SB-282REC-3	SB-282C	3	3	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282REC-5	SB-282C	5	5	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282REC-7	SB-282C	7	7	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282REC-9	SB-282C	9	9	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282REC-9-AVG	SB-282C	9	9	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282REC-9-D	SB-282C	9	9	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282RED-1	SB-282D	1	1	20091110	21481.5	21468	NA	20000	17000	16000	NA	7700	NA	NA
H-SB-282RED-11	SB-282D	11	11	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282RED-13	SB-282D	13	13	20091110	224.69	224.69	NA	160	150	150	NA	61	NA	NA
H-SB-282RED-15	SB-282D	15	15	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282RED-3	SB-282D	3	3	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282RED-5	SB-282D	5	5	20091110	--	--	NA	--	--	--	NA	--	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	POLYCYCLIC AROMATIC HYDROCARBONS									
					BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BAP EQUIVALENT-UCL	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE	C1-CHRYSENES	C1-FLUORANTHENES/PYRENES
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	2890	2890	2890	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-7	SB-282D	7	7	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-282RED-9	SB-282D	9	9	20091110	307.13	307.13	NA	220	210	210	NA	90	NA	NA
H-SB-283RE-3	SB-283	3	3	20090924	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-283RE-4	SB-283	4	4	20090924	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-284RE-3	SB-284	3	3	20090925	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-284RE-4	SB-284	4	4	20090925	13.2125	12.312	NA	12	10	11	NA	--	NA	NA
H-SB-285RE-11	SB-285	11	11	20090925	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-285RE-12	SB-285	12	12	20090925	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-286RE-11	SB-286	11	11	20090925	33.873	32.213	NA	--	--	220	NA	140	NA	NA
H-SB-286RE-12	SB-286	12	12	20090925	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-286RE-15	SB-286	15	15	20090925	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-474RE-5	SB-474	5	5	20090928	15.799	15.049	NA	13	11	8.6	NA	7.8	NA	NA
H-SB-474RE-6	SB-474	6	6	20090928	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-596-11	SB-596	11	11	20090929	2.63055	0.96	NA	9.6	--	--	NA	--	NA	NA
H-SB-596-12	SB-596	12	12	20090929	129.99	129.99	NA	120	83	80	NA	37	NA	NA
H-SB-597-11	SB-597	11	11	20090928	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-597-12	SB-597	12	12	20090928	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-598-11	SB-598	11	11	20090929	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-598-12	SB-598	12	12	20090929	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-599-11	SB-599	11	11	20090929	14.832	13.971	NA	12	10	9.6	NA	--	NA	NA
H-SB-599-12	SB-599	12	12	20090929	35.662	34.862	NA	30	27	24	NA	13	NA	NA
H-SB-600-1	SB-600	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-600-2	SB-600	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-601-1	SB-601	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-601-2	SB-601	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-602-1	SB-602	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-602-2	SB-602	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-603-1	SB-603	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-603-2	SB-603	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	POLYCYCLIC AROMATIC HYDROCARBONS									
					BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BAP EQUIVALENT-UCL	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE	C1-CHRYSENES	C1-FLUORANTHENES/PYRENES
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	2890	2890	2890	NA	NA	NA	NA	NA	NA	NA
H-SB-604-3	SB-604	3	3	20090924	194.59	194.59	NA	130	130	110	NA	64	NA	NA
H-SB-604-4	SB-604	4	4	20090924	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-604-5	SB-604	5	5	20090924	364.18	364.18	NA	270	260	260	NA	91	NA	NA
H-SB-604-6	SB-604	6	6	20090924	125.12	124.37	NA	110	98	100	NA	36	NA	NA
H-SB-604-7	SB-604	7	7	20090924	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-604A-1	SB-604A	1	1	20091109	16.915	16	NA	--	16	--	NA	--	NA	NA
H-SB-604A-3	SB-604A	3	3	20091109	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-604A-5	SB-604A	5	5	20091109	34.331	33.531	NA	19	28	16	NA	11	NA	NA
H-SB-604A-7	SB-604A	7	7	20091109	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-604B-1	SB-604B	1	1	20091110	163.3	163.3	NA	120	110	90	NA	48	NA	NA
H-SB-604B-3	SB-604B	3	3	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-604B-5	SB-604B	5	5	20091110	1727.6	1727.6	NA	1400	1200	1200	NA	530	NA	NA
H-SB-604B-7	SB-604B	7	7	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-604D-1	SB-604D	1	1	20091110	45883	45883	NA	38000	33000	31000	NA	15000	NA	NA
H-SB-604D-3	SB-604D	3	3	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-604D-3-AVG	SB-604D	3	3	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-604D-3-D	SB-604D	3	3	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-604D-5	SB-604D	5	5	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-604D-7	SB-604D	7	7	20091110	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-605-3	SB-605	3	3	20090924	23.354	22.604	NA	21	17	15	NA	8.3	NA	NA
H-SB-605-4	SB-605	4	4	20090924	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-606-3	SB-606	3	3	20090924	2.565	0.9	NA	9	--	--	NA	--	NA	NA
H-SB-606-4	SB-606	4	4	20090924	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-607-3	SB-607	3	3	20090924	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-607-4	SB-607	4	4	20090924	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-608-3	SB-608	3	3	20090925	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-608-4	SB-608	4	4	20090925	2.68105	0.9	NA	9	--	--	NA	--	NA	NA
H-SB-608-4-AVG	SB-608	4	4	20090925	1.765525	0.9	NA	4.8	--	--	NA	--	NA	NA
H-SB-608-4-D	SB-608	4	4	20090925	--	--	NA	--	--	--	NA	--	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	POLYCYCLIC AROMATIC HYDROCARBONS BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BAP EQUIVALENT-UCL	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE	C1-CHRYSENES	C1-FLUORANTHENES/PYRENES
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	2890	2890	2890	NA	NA	NA	NA	NA	NA	NA
H-SB-609-3	SB-609	3	3	20090925	20.4255	19.52	NA	19	16	16	NA	--	NA	NA
H-SB-609-4	SB-609	4	4	20090925	46.746	45.946	NA	44	36	37	NA	20	NA	NA
H-SB-610-3	SB-610	3	3	20090925	476.8	476.8	NA	410	320	320	NA	140	NA	NA
H-SB-610-4	SB-610	4	4	20090925	62.129	61.329	NA	54	47	50	NA	17	NA	NA
H-SB-610-5	SB-610	5	5	20090925	19.65	18.81	NA	22 J	15 J	15 J	NA	8.7 J	NA	NA
H-SB-610-6	SB-610	6	6	20090925	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-610-7	SB-610	7	7	20090925	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-610B-1	SB-610B	1	1	20091109	14.905	14	NA	--	14	--	NA	--	NA	NA
H-SB-610B-3	SB-610B	3	3	20091109	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-610B-5	SB-610B	5	5	20091109	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-610B-5-AVG	SB-610B	5	5	20091109	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-610B-5-D	SB-610B	5	5	20091109	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-610C-1	SB-610C	1	1	20091109	31.04	30.34	NA	19	25	14	NA	12	NA	NA
H-SB-610C-3	SB-610C	3	3	20091109	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-610C-5	SB-610C	5	5	20091109	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-610D-1	SB-610D	1	1	20091109	24.6957	23.9957	NA	11	20	11	NA	8.6	NA	NA
H-SB-610D-3	SB-610D	3	3	20091109	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-610D-5	SB-610D	5	5	20091109	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-611-3	SB-611	3	3	20090925	735.5	735.5	NA	570	520	520	NA	190	NA	NA
H-SB-611-4	SB-611	4	4	20090925	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-611-5	SB-611	5	5	20090925	10.2865	9.311	NA	11	8.2	--	NA	--	NA	NA
H-SB-611-6	SB-611	6	6	20090925	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-611-7	SB-611	7	7	20090925	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-611A-1	SB-611A	1	1	20091109	53.216	52.516	NA	45	41	40	NA	17	NA	NA
H-SB-611A-3	SB-611A	3	3	20091109	29.828	29.028	NA	17	24	14	NA	11	NA	NA
H-SB-611A-5	SB-611A	5	5	20091109	323.23	323.23	NA	310	210	270	NA	90	NA	NA
H-SB-611D-1	SB-611D	1	1	20091109	616.36	616.36	NA	320	440	390	NA	200	NA	NA
H-SB-611D-3	SB-611D	3	3	20091109	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-611D-5	SB-611D	5	5	20091109	--	--	NA	--	--	--	NA	--	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	POLYCYCLIC AROMATIC HYDROCARBONS									
					BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BAP EQUIVALENT-UCL	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE	C1-CHRYSENES	C1-FLUORANTHENES/PYRENES
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	2890	2890	2890	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-5-AVG	SB-611D	5	5	20091109	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-611D-5-D	SB-611D	5	5	20091109	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-612-11	SB-612	11	11	20090928	9.4425	8.412	NA	--	8.4 J	--	NA	--	NA	NA
H-SB-612-11-AVG	SB-612	11	11	20090928	58.61475	57.6995	NA	50.275	46.2	43.375	NA	25.025	NA	NA
H-SB-612-11-D	SB-612	11	11	20090928	107.787	106.987	NA	100 J	84 J	86 J	NA	49 J	NA	NA
H-SB-612-12	SB-612	12	12	20090928	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-613-11	SB-613	11	11	20090928	88.777	87.977	NA	77	68	84	NA	29	NA	NA
H-SB-613-12	SB-613	12	12	20090928	43.189	42.389	NA	41	33	34	NA	15	NA	NA
H-SB-614-10	SB-614	10	10	20090925	5337.1	5329.6	NA	3900	4300	4100	NA	1600	NA	NA
H-SB-614-11	SB-614	11	11	20090925	35.214	34.464	NA	22	28	25	NA	14	NA	NA
H-SB-614-12	SB-614	12	12	20090925	100.193	99.443	NA	53	81	83	NA	37	NA	NA
H-SB-615-11	SB-615	11	11	20090925	11.326	10.411	NA	13	9.1	--	NA	--	NA	NA
H-SB-615-12	SB-615	12	12	20090925	21.472	20.622	NA	20	17	16	NA	--	NA	NA
H-SB-616-11	SB-616	11	11	20090925	116.492	114.747	NA	--	--	1100 J	NA	470 J	NA	NA
H-SB-616-11-AVG	SB-616	11	11	20090925	60.20275	58.48	NA	5.775	--	555.5	NA	235.525	NA	NA
H-SB-616-11-D	SB-616	11	11	20090925	3.9135	2.213	NA	11	--	11 J	NA	--	NA	NA
H-SB-616-12	SB-616	12	12	20090925	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-617-11	SB-617	11	11	20090925	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-617-11-AVG	SB-617	11	11	20090925	6.701	6.251	NA	6.775	5.15	4.8	NA	--	NA	NA
H-SB-617-11-D	SB-617	11	11	20090925	12.602	11.702	NA	13	9.5	8.9	NA	--	NA	NA
H-SB-617-12	SB-617	12	12	20090925	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-618-11	SB-618	11	11	20090925	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-618-12	SB-618	12	12	20090925	2.865	0.979	NA	9.7	--	--	NA	--	NA	NA
H-SB-619-11	SB-619	11	11	20090925	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-619-12	SB-619	12	12	20090925	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-620-5	SB-620	5	5	20090928	22.674	21.914	NA	21	17	20	NA	--	NA	NA
H-SB-620-6	SB-620	6	6	20090928	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-620-6-AVG	SB-620	6	6	20090928	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-620-6-D	SB-620	6	6	20090928	--	--	NA	--	--	--	NA	--	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BAP EQUIVALENT-UCL	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE	C1-CHRYSENES	C1-FLUORANTHENES/PYRENES
					POLYCYCLIC AROMATIC HYDROCARBONS									
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	2890	2890	2890	NA	NA	NA	NA	NA	NA	NA
H-SB-621-5	SB-621	5	5	20090928	21.678	20.918	NA	17	16	14	NA	--	NA	NA
H-SB-621-6	SB-621	6	6	20090928	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-622-5	SB-622	5	5	20090928	3.546	1.951	NA	11	--	8.4	NA	--	NA	NA
H-SB-622-6	SB-622	6	6	20090928	--	--	NA	--	--	--	NA	--	NA	NA
H-SB-623-5	SB-623	5	5	20090928	34.106	33.356	NA	22	27	25	NA	13	NA	NA
H-SB-623-6	SB-623	6	6	20090928	44.044	43.294	NA	26	35	34	NA	16	NA	NA
H-SB-814-03	SB-814	3	3	20100826	--	--	NA	--	--	--	--	--	NA	NA
H-SB-814-05	SB-814	5	5	20100826	--	--	NA	--	--	--	--	--	NA	NA
H-SB-814-07	SB-814	7	7	20100826	--	--	NA	--	--	--	--	--	--	--
H-SB-814-09	SB-814	9	9	20100826	722.01	722.01	NA	470	520	480	360	250	NA	NA
H-SB-814-11	SB-814	11	11	20100826	--	--	NA	--	--	--	--	--	NA	NA
H-SB-814-13	SB-814	13	13	20100826	48.316	46.266	NA	27	38	34	29	14	NA	NA
H-SB-814-15	SB-814	15	15	20100826	16.41065	14.46	NA	11	11	9.2	9	14	--	--
H-SB-814-SS	SB-814	1	1	20100826	--	--	NA	--	--	--	--	--	--	--
H-SB-815-03	SB-815	3	3	20100826	--	--	NA	--	--	--	--	--	NA	NA
H-SB-815-05	SB-815	5	5	20100826	11.25515	8.7	NA	--	8.7	--	--	--	NA	NA
H-SB-815-07	SB-815	7	7	20100826	--	--	NA	--	--	--	--	--	NA	NA
H-SB-815-09	SB-815	9	9	20100826	58.323	56.273	NA	38	45	45	40	23	NA	NA
H-SB-815-11	SB-815	11	11	20100826	15.46015	13.1	NA	--	12	11	9.9	--	NA	NA
H-SB-815-13	SB-815	13	13	20100826	267.96	267.96	NA	140	190	180	160	79	NA	NA
H-SB-815-15	SB-815	15	15	20100826	--	--	NA	--	--	--	--	--	NA	NA
H-SB-815-SS	SB-815	1	1	20100826	--	--	NA	--	--	--	--	--	NA	NA
H-SB-816-03	SB-816	3	3	20100827	--	--	NA	--	--	--	--	--	NA	NA
H-SB-816-03-AVG	SB-816	3	3	20100827	--	--	NA	--	--	--	--	--	NA	NA
H-SB-816-03-D	SB-816	3	3	20100827	--	--	NA	--	--	--	--	--	NA	NA
H-SB-816-05	SB-816	5	5	20100827	25.48965	23	NA	--	23 J	--	--	--	NA	NA
H-SB-816-07	SB-816	7	7	20100827	--	--	NA	--	--	--	--	--	--	--
H-SB-816-09	SB-816	9	9	20100827	79.358	77.308	NA	42	62 J	61 J	56 J	26 J	NA	NA
H-SB-816-11	SB-816	11	11	20100827	203.17	201.22	NA	140 J	160 J	170 J	140 J	68 J	240 J	290 J

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	POLYCYCLIC AROMATIC HYDROCARBONS									
					BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BAP EQUIVALENT-UCL	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE	C1-CHRYSENES	C1-FLUORANTHENES/PYRENES
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	2890	2890	2890	NA	NA	NA	NA	NA	NA	NA
H-SB-816-SS	SB-816	1	1	20100827	57.55	55.631	NA	29	45 J	42 J	38 J	--	--	--
H-SB-816-SS-AVG	SB-816	1	1	20100827	57.55	55.631	NA	29	45 J	42 J	38 J	--	--	--
H-SB-816-SS-D	SB-816	1	1	20100827	NA	NA	NA	NA	NA	NA	NA	NA	--	--
H-SB-817-03	SB-817	3	3	20100827	--	--	NA	--	--	--	--	--	NA	NA
H-SB-817-05	SB-817	5	5	20100827	37.934	35.714	NA	16	32 J	21 J	--	--	NA	NA
H-SB-817-07	SB-817	7	7	20100827	--	--	NA	--	--	--	--	--	NA	NA
H-SB-817-07-AVG	SB-817	7	7	20100827	--	--	NA	--	--	--	--	--	NA	NA
H-SB-817-07-D	SB-817	7	7	20100827	--	--	NA	--	--	--	--	--	NA	NA
H-SB-817-09	SB-817	9	9	20100827	--	--	NA	--	--	--	--	--	NA	NA
H-SB-817-11	SB-817	11	11	20100827	--	--	NA	--	--	--	--	--	NA	NA
H-SB-817-13	SB-817	13	13	20100827	--	--	NA	--	--	--	--	--	NA	NA
H-SB-817-15	SB-817	15	15	20100827	--	--	NA	--	--	--	--	--	NA	NA
H-SB-817-SS	SB-817	1	1	20100827	--	--	NA	--	--	--	--	--	NA	NA
MRC-MW08[0809]	MRC-MW08A	8	9	20050524	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-200-05	SB-200	5	5	20050513	165.098	123.598	138.001	111	100	61 J	69 J	78 J	NA	NA
SB-200-10	SB-200	10	10	20050513	942.979	942.979	942.979	752	671	435	337	536	NA	NA
SB-200-SS	SB-200	0	1	20050513	498.647	498.647	498.647	372	367	205	159	284	NA	NA
SB-201-05	SB-201	5	5	20050513	--	--	38.80812	--	--	--	--	--	NA	NA
SB-201-10	SB-201	10	10	20050513	99.57	2.33	73.91055	23 J	--	--	--	--	NA	NA
SB-201-SS	SB-201	0	1	20050513	99.719	48.569	94.95195	35 J	40 J	46 J	--	42 J	NA	NA
SB-202-05	SB-202	5	5	20050513	--	--	30.65871	--	--	--	--	--	NA	NA
SB-202-10	SB-202	10	10	20050513	119.663	75.113	91.11179	54 J	63 J	61 J	--	55 J	NA	NA
SB-202-SS	SB-202	0	1	20050513	--	--	27.22672	--	--	--	--	--	NA	NA
SB-203-05	SB-203	5	5	20050513	--	--	50.66463	--	--	--	--	--	NA	NA
SB-203-10	SB-203	10	10	20050513	--	--	44.11291	--	--	--	--	--	NA	NA
SB-203-SS	SB-203	0	1	20050513	108.449	69.949	98.66329	60 J	57 J	30 J	37 J	48 J	NA	NA
SB-282-0102	SB-282	1	2	20051026	--	--	14.05659	--	--	--	--	--	NA	NA
SB-282-0405	SB-282	4	5	20051026	--	--	17.30468	--	--	--	--	--	NA	NA
SB-282-0910	SB-282	9	10	20051026	397.21	188.21	204.6304	200 J	150 J	170 J	--	97 J	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	POLYCYCLIC AROMATIC HYDROCARBONS									
					BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BAP EQUIVALENT-UCL	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE	C1-CHRYSENES	C1-FLUORANTHENES/PYRENES
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	2890	2890	2890	NA	NA	NA	NA	NA	NA	NA
SB-283-0102	SB-283	1	2	20051027	564.37	367.42	380.2996	350 J	290 J	250 J	180 J	--	NA	NA
SB-283-0405	SB-283	4	5	20051027	--	--	22.54483	--	--	--	--	--	NA	NA
SB-283-0910	SB-283	9	10	20051027	--	--	19.27829	--	--	--	--	--	NA	NA
SB-284-0102	SB-284	1	2	20051027	414.97	205.97	224.8815	200 J	170 J	150 J	--	75 J	NA	NA
SB-284-0405	SB-284	4	5	20051027	--	--	80.09487	--	--	--	--	--	NA	NA
SB-284-0910	SB-284	9	10	20051027	--	--	21.56723	--	--	--	--	--	NA	NA
SB-285-0102	SB-285	1	2	20051027	--	--	25.42415	--	--	--	--	--	NA	NA
SB-285-0405	SB-285	4	5	20051027	1414.8	1209.8	1217.443	900	960	960	650	360 J	NA	NA
SB-285-0910	SB-285	9	10	20051027	898.51	703.51	720.6977	520	560	570	340 J	86 J	NA	NA
SB-286-0102	SB-286	1	2	20051027	--	--	16.72616	--	--	--	--	--	NA	NA
SB-286-0405	SB-286	4	5	20051027	--	--	52.90278	--	--	--	--	--	NA	NA
SB-286-0910	SB-286	9	10	20051027	635.49	433.49	454.1848	400 J	340 J	340 J	210 J	--	NA	NA
SB-293-0102	SB-293	1	2	20051028	--	--	30.2478	--	--	--	--	--	NA	NA
SB-293-0405	SB-293	4	5	20051028	--	--	30.42081	--	--	--	--	--	NA	NA
SB-293-0910	SB-293	9	10	20051028	--	--	35.28529	--	--	--	--	--	NA	NA
SB-294-0001	SB-294	0	1	20051028	--	--	71.32272	--	--	--	--	--	NA	NA
SB-294-0405	SB-294	4	5	20051028	--	--	38.10073	--	--	--	--	--	NA	NA
SB-294-0910	SB-294	9	10	20051028	--	--	33.60655	--	--	--	--	--	NA	NA
SB-462-0102	SB-462	1	2	20071023	26	26	26	NA	26 J	NA	NA	NA	NA	NA
SB-462-0203	SB-462	2	3	20071023	--	--	3.105083	NA	--	NA	NA	NA	NA	NA
SB-462-0304	SB-462	3	4	20071023	--	--	3.172409	NA	--	NA	NA	NA	NA	NA
SB-462-0506	SB-462	5	6	20071023	--	--	2.431019	NA	--	NA	NA	NA	NA	NA
SB-462-0708	SB-462	7	8	20071023	--	--	2.523448	NA	--	NA	NA	NA	NA	NA
SB-463-0102	SB-463	1	2	20071023	69	69	69	NA	69 J	NA	NA	NA	NA	NA
SB-463-0203	SB-463	2	3	20071023	--	--	4.415007	NA	--	NA	NA	NA	NA	NA
SB-463-0304	SB-463	3	4	20071023	--	--	2.618985	NA	--	NA	NA	NA	NA	NA
SB-463-0506	SB-463	5	6	20071023	--	--	2.717738	NA	--	NA	NA	NA	NA	NA
SB-463-0708	SB-463	7	8	20071023	--	--	2.819819	NA	--	NA	NA	NA	NA	NA
SB-464-0102	SB-464	1	2	20071023	--	--	6.177587	NA	--	NA	NA	NA	NA	NA

APPENDIX B
BLOCK H INDUSTRIAL EXCEEDANCES OF RISK-BASED SCREENING CRITERIA
ALL BLOCK H SOIL SAMPLES
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	POLYCYCLIC AROMATIC HYDROCARBONS									
					BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BAP EQUIVALENT-UCL	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE	C1-CHRYSENES	C1-FLUORANTHENES/PYRENES
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	2890	2890	2890	NA	NA	NA	NA	NA	NA	NA
SB-464-0203	SB-464	2	3	20071023	--	--	3.241071	NA	--	NA	NA	NA	NA	NA
SB-464-0304	SB-464	3	4	20071023	--	--	2.925346	NA	--	NA	NA	NA	NA	NA
SB-464-0506	SB-464	5	6	20071023	--	--	3.034441	NA	--	NA	NA	NA	NA	NA
SB-464-0708	SB-464	7	8	20071023	--	--	3.311097	NA	--	NA	NA	NA	NA	NA
SB-465-0102	SB-465	1	2	20071023	--	--	3.382516	NA	--	NA	NA	NA	NA	NA
SB-465-0203	SB-465	2	3	20071023	--	--	6.780494	NA	--	NA	NA	NA	NA	NA
SB-465-0304	SB-465	3	4	20071023	--	--	3.455358	NA	--	NA	NA	NA	NA	NA
SB-465-0506	SB-465	5	6	20071023	--	--	3.147231	NA	--	NA	NA	NA	NA	NA
SB-465-0708	SB-465	7	8	20071023	--	--	3.529652	NA	--	NA	NA	NA	NA	NA
SB-466-0102	SB-466	1	2	20071023	11	11	11	NA	11 J	NA	NA	NA	NA	NA
SB-466-0203	SB-466	2	3	20071023	--	--	7.443048	NA	--	NA	NA	NA	NA	NA
SB-466-0304	SB-466	3	4	20071023	--	--	3.60543	NA	--	NA	NA	NA	NA	NA
SB-466-0506	SB-466	5	6	20071023	--	--	3.263848	NA	--	NA	NA	NA	NA	NA
SB-466-0708	SB-466	7	8	20071023	--	--	3.682724	NA	--	NA	NA	NA	NA	NA
SB-467-0102	SB-467	1	2	20071023	--	--	3.761566	NA	--	NA	NA	NA	NA	NA
SB-467-0203	SB-467	2	3	20071023	--	--	3.841989	NA	--	NA	NA	NA	NA	NA
SB-467-0304	SB-467	3	4	20071023	--	--	3.924029	NA	--	NA	NA	NA	NA	NA
SB-467-0506	SB-467	5	6	20071023	--	--	3.384431	NA	--	NA	NA	NA	NA	NA
SB-467-0708	SB-467	7	8	20071023	--	--	4.00772	NA	--	NA	NA	NA	NA	NA
SB-468-0102	SB-468	1	2	20071023	--	--	4.093097	NA	--	NA	NA	NA	NA	NA
SB-468-0203	SB-468	2	3	20071023	--	--	4.180199	NA	--	NA	NA	NA	NA	NA
SB-468-0304	SB-468	3	4	20071023	--	--	4.269063	NA	--	NA	NA	NA	NA	NA
SB-468-0506	SB-468	5	6	20071023	--	--	4.359727	NA	--	NA	NA	NA	NA	NA
SB-468-0708	SB-468	7	8	20071023	--	--	4.452233	NA	--	NA	NA	NA	NA	NA
SB-469-0102	SB-469	1	2	20071023	15	15	15	NA	15 J	NA	NA	NA	NA	NA
SB-469-0203	SB-469	2	3	20071023	--	--	4.54662	NA	--	NA	NA	NA	NA	NA
SB-469-0304	SB-469	3	4	20071023	--	--	3.509124	NA	--	NA	NA	NA	NA	NA
SB-469-0506	SB-469	5	6	20071023	--	--	3.638076	NA	--	NA	NA	NA	NA	NA
SB-469-0708	SB-469	7	8	20071023	--	--	4.64293	NA	--	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BAP EQUIVALENT-UCL	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE	C1-CHRYSENES	C1-FLUORANTHENES/PYRENES
					POLYCYCLIC AROMATIC HYDROCARBONS									
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	2890	2890	2890	NA	NA	NA	NA	NA	NA	NA
SB-470-0102	SB-470	1	2	20071023	52	52	52	NA	52 J	NA	NA	NA	NA	NA
SB-470-0203	SB-470	2	3	20071023	--	--	4.741208	NA	--	NA	NA	NA	NA	NA
SB-470-0304	SB-470	3	4	20071023	--	--	4.841497	NA	--	NA	NA	NA	NA	NA
SB-470-0506	SB-470	5	6	20071023	--	--	3.771443	NA	--	NA	NA	NA	NA	NA
SB-470-0708	SB-470	7	8	20071023	--	--	3.90939	NA	--	NA	NA	NA	NA	NA
SB-471-0102	SB-471	1	2	20071023	--	--	4.052085	NA	--	NA	NA	NA	NA	NA
SB-471-0203	SB-471	2	3	20071023	21	21	21	NA	21 J	NA	NA	NA	NA	NA
SB-471-0304	SB-471	3	4	20071023	--	--	4.199706	NA	--	NA	NA	NA	NA	NA
SB-471-0506	SB-471	5	6	20071023	--	--	4.352439	NA	--	NA	NA	NA	NA	NA
SB-471-0708	SB-471	7	8	20071023	--	--	4.510478	NA	--	NA	NA	NA	NA	NA
SB-472-0102	SB-472	1	2	20071023	--	--	4.943842	NA	--	NA	NA	NA	NA	NA
SB-472-0203	SB-472	2	3	20071023	--	--	5.048291	NA	--	NA	NA	NA	NA	NA
SB-472-0304	SB-472	3	4	20071023	--	--	4.674025	NA	--	NA	NA	NA	NA	NA
SB-472-0506	SB-472	5	6	20071023	--	--	4.84329	NA	--	NA	NA	NA	NA	NA
SB-472-0708	SB-472	7	8	20071023	--	--	5.018496	NA	--	NA	NA	NA	NA	NA
SB-473-0102	SB-473	1	2	20071024	--	--	5.15489	NA	--	NA	NA	NA	NA	NA
SB-473-0203	SB-473	2	3	20071024	--	--	5.26369	NA	--	NA	NA	NA	NA	NA
SB-473-0304	SB-473	3	4	20071024	--	--	5.374741	NA	--	NA	NA	NA	NA	NA
SB-473-0506	SB-473	5	6	20071024	--	--	5.048291	NA	--	NA	NA	NA	NA	NA
SB-473-0708	SB-473	7	8	20071024	--	--	5.199873	NA	--	NA	NA	NA	NA	NA
SB-474-0102	SB-474	1	2	20071024	24	24	24	NA	24 J	NA	NA	NA	NA	NA
SB-474-0203	SB-474	2	3	20071024	31	31	31	NA	31 J	NA	NA	NA	NA	NA
SB-474-0304	SB-474	3	4	20071024	490	490	490	NA	490	NA	NA	NA	NA	NA
SB-474-0506	SB-474	5	6	20071024	--	--	8.172069	NA	--	NA	NA	NA	NA	NA
SB-474-0708	SB-474	7	8	20071024	--	--	5.488095	NA	--	NA	NA	NA	NA	NA
SB-475-0102	SB-475	1	2	20071025	--	--	5.603805	NA	--	NA	NA	NA	NA	NA
SB-475-0203	SB-475	2	3	20071025	--	--	5.721925	NA	--	NA	NA	NA	NA	NA
SB-475-0304	SB-475	3	4	20071025	--	--	5.387664	NA	--	NA	NA	NA	NA	NA
SB-475-0506	SB-475	5	6	20071025	--	--	5.58212	NA	--	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	POLYCYCLIC AROMATIC HYDROCARBONS									
					BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BAP EQUIVALENT-UCL	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE	C1-CHRYSENES	C1-FLUORANTHENES/PYRENES
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	2890	2890	2890	NA	NA	NA	NA	NA	NA	NA
SB-475-0708	SB-475	7	8	20071025	--	--	5.783508	NA	--	NA	NA	NA	NA	NA
SB-476-0102	SB-476	1	2	20071025	--	--	5.842513	NA	--	NA	NA	NA	NA	NA
SB-476-0203	SB-476	2	3	20071025	--	--	5.965626	NA	--	NA	NA	NA	NA	NA
SB-476-0304	SB-476	3	4	20071025	--	--	5.992105	NA	--	NA	NA	NA	NA	NA
SB-476-0506	SB-476	5	6	20071025	--	--	6.208201	NA	--	NA	NA	NA	NA	NA
SB-476-0708	SB-476	7	8	20071025	--	--	6.432102	NA	--	NA	NA	NA	NA	NA
SB-477-0102	SB-477	1	2	20071025	--	--	6.091324	NA	--	NA	NA	NA	NA	NA
SB-477-0203	SB-477	2	3	20071025	--	--	7.048938	NA	--	NA	NA	NA	NA	NA
SB-477-0304	SB-477	3	4	20071025	--	--	6.664126	NA	--	NA	NA	NA	NA	NA
SB-477-0506	SB-477	5	6	20071025	--	--	6.219667	NA	--	NA	NA	NA	NA	NA
SB-477-0708	SB-477	7	8	20071025	--	--	6.350719	NA	--	NA	NA	NA	NA	NA
SB-478-0102	SB-478	1	2	20071025	--	--	8.975325	NA	--	NA	NA	NA	NA	NA
SB-478-0203	SB-478	2	3	20071025	--	--	6.484545	NA	--	NA	NA	NA	NA	NA
SB-478-0304	SB-478	3	4	20071025	--	--	6.62121	NA	--	NA	NA	NA	NA	NA
SB-478-0506	SB-478	5	6	20071025	--	--	6.760783	NA	--	NA	NA	NA	NA	NA
SB-478-0708	SB-478	7	8	20071025	--	--	6.90461	NA	--	NA	NA	NA	NA	NA
SB-479-0102	SB-479	1	2	20071025	15	15	15	NA	15 J	NA	NA	NA	NA	NA
SB-479-0203	SB-479	2	3	20071025	--	--	6.903335	NA	--	NA	NA	NA	NA	NA
SB-479-0304	SB-479	3	4	20071025	--	--	7.153904	NA	--	NA	NA	NA	NA	NA
SB-479-0506	SB-479	5	6	20071025	--	--	7.048938	NA	--	NA	NA	NA	NA	NA
SB-479-0708	SB-479	7	8	20071025	--	--	7.197666	NA	--	NA	NA	NA	NA	NA
SB-480-0102	SB-480	1	2	20071025	--	--	7.349596	NA	--	NA	NA	NA	NA	NA
SB-480-0203	SB-480	2	3	20071025	--	--	7.504808	NA	--	NA	NA	NA	NA	NA
SB-480-0304	SB-480	3	4	20071025	--	--	7.663382	NA	--	NA	NA	NA	NA	NA
SB-480-0506	SB-480	5	6	20071025	--	--	7.825402	NA	--	NA	NA	NA	NA	NA
SB-480-0708	SB-480	7	8	20071025	--	--	7.990955	NA	--	NA	NA	NA	NA	NA
SB-481-0102	SB-481	1	2	20071029	31	31	31	NA	31 J	NA	NA	NA	NA	NA
SB-481-0203	SB-481	2	3	20071029	--	--	8.160129	NA	--	NA	NA	NA	NA	NA
SB-481-0304	SB-481	3	4	20071029	10	10	10	NA	10 J	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	POLYCYCLIC AROMATIC HYDROCARBONS									
					BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BAP EQUIVALENT-UCL	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE	C1-CHRYSENES	C1-FLUORANTHENES/PYRENES
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	2890	2890	2890	NA	NA	NA	NA	NA	NA	NA
SB-481-0506	SB-481	5	6	20071029	--	--	7.412379	NA	--	NA	NA	NA	NA	NA
SB-481-0708	SB-481	7	8	20071029	--	--	7.680423	NA	--	NA	NA	NA	NA	NA
SB-482-0102	SB-482	1	2	20071029	13	13	13	NA	13 J	NA	NA	NA	NA	NA
SB-482-0203	SB-482	2	3	20071029	--	--	7.958442	NA	--	NA	NA	NA	NA	NA
SB-482-0304	SB-482	3	4	20071029	--	--	8.333015	NA	--	NA	NA	NA	NA	NA
SB-482-0506	SB-482	5	6	20071029	--	--	8.509708	NA	--	NA	NA	NA	NA	NA
SB-482-0708	SB-482	7	8	20071029	--	--	8.246867	NA	--	NA	NA	NA	NA	NA
SB-483-0102	SB-483	1	2	20071029	32	32	32	NA	32 J	NA	NA	NA	NA	NA
SB-483-0203	SB-483	2	3	20071029	28	28	28	NA	28 J	NA	NA	NA	NA	NA
SB-483-0304	SB-483	3	4	20071029	--	--	8.546147	NA	--	NA	NA	NA	NA	NA
SB-483-0506	SB-483	5	6	20071029	--	--	8.856757	NA	--	NA	NA	NA	NA	NA
SB-483-0708	SB-483	7	8	20071029	--	--	9.179196	NA	--	NA	NA	NA	NA	NA
SB-484-0102	SB-484	1	2	20071029	21	21	21	NA	21 J	NA	NA	NA	NA	NA
SB-484-0203	SB-484	2	3	20071029	--	--	8.690305	NA	--	NA	NA	NA	NA	NA
SB-484-0304	SB-484	3	4	20071029	--	--	9.513992	NA	--	NA	NA	NA	NA	NA
SB-484-0506	SB-484	5	6	20071029	--	--	8.874906	NA	--	NA	NA	NA	NA	NA
SB-484-0708	SB-484	7	8	20071029	--	--	9.063614	NA	--	NA	NA	NA	NA	NA
SB-485-0102	SB-485	1	2	20071029	10	10	10	NA	10 J	NA	NA	NA	NA	NA
SB-485-0203	SB-485	2	3	20071029	43	43	43	NA	43 J	NA	NA	NA	NA	NA
SB-485-0304	SB-485	3	4	20071029	--	--	9.256536	NA	--	NA	NA	NA	NA	NA
SB-485-0506	SB-485	5	6	20071029	--	--	9.453781	NA	--	NA	NA	NA	NA	NA
SB-485-0708	SB-485	7	8	20071029	--	--	9.655462	NA	--	NA	NA	NA	NA	NA
SB-486-0102	SB-486	1	2	20071029	--	--	2.433979	NA	--	NA	NA	NA	NA	NA
SB-486-0203	SB-486	2	3	20071029	--	--	2.195778	NA	--	NA	NA	NA	NA	NA
SB-486-0304	SB-486	3	4	20071029	--	--	3.532614	NA	--	NA	NA	NA	NA	NA
SB-486-0506	SB-486	5	6	20071029	--	--	0.885807	NA	--	NA	NA	NA	NA	NA
SB-486-0708	SB-486	7	8	20071029	--	--	4.007672	NA	--	NA	NA	NA	NA	NA
SB-487-0102	SB-487	1	2	20071029	--	--	4.764818	NA	--	NA	NA	NA	NA	NA
SB-487-0203	SB-487	2	3	20071029	--	--	2.634174	NA	--	NA	NA	NA	NA	NA

APPENDIX B
BLOCK H INDUSTRIAL EXCEEDANCES OF RISK-BASED SCREENING CRITERIA
ALL BLOCK H SOIL SAMPLES
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	POLYCYCLIC AROMATIC HYDROCARBONS									
					BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BAP EQUIVALENT-UCL	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE	C1-CHRYSENES	C1-FLUORANTHENES/PYRENES
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	2890	2890	2890	NA	NA	NA	NA	NA	NA	NA
SB-487-0304	SB-487	3	4	20071029	--	--	2.623667	NA	--	NA	NA	NA	NA	NA
SB-487-0506	SB-487	5	6	20071029	--	--	4.542752	NA	--	NA	NA	NA	NA	NA
SB-487-0708	SB-487	7	8	20071029	--	--	5.146217	NA	--	NA	NA	NA	NA	NA
SB-488-0102	SB-488	1	2	20071029	9	9	9	NA	9 J	NA	NA	NA	NA	NA
SB-488-0203	SB-488	2	3	20071029	--	--	9.195247	NA	--	NA	NA	NA	NA	NA
SB-488-0304	SB-488	3	4	20071029	--	--	3.124505	NA	--	NA	NA	NA	NA	NA
SB-488-0506	SB-488	5	6	20071029	--	--	3.07763	NA	--	NA	NA	NA	NA	NA
SB-488-0708	SB-488	7	8	20071029	--	--	--	NA	--	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	(UG/KG) C1-PHENANTHRENES/ANTHRACENES	C2-CHRYSENES	C2-PHENANTHRENES/ANTHRACENES	C3-PHENANTHRENES/ANTHRACENES	CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-11	SB-200	11	11	20090928	NA	NA	NA	NA	63	--	NA	NA	22	NA
H-SB-200RE-12	SB-200	12	12	20090928	NA	NA	NA	NA	140	14	NA	NA	52	NA
H-SB-200RE-13	SB-200	13	13	20090928	NA	NA	NA	NA	730	--	NA	NA	310	NA
H-SB-200RE-14	SB-200	14	14	20090928	NA	NA	NA	NA	12	--	NA	NA	--	NA
H-SB-200RE-15	SB-200	15	15	20090928	NA	NA	NA	NA	110	--	NA	NA	42	NA
H-SB-201RE-1	SB-201	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-201RE-2	SB-201	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-1	SB-282	1	1	20090929	NA	NA	NA	NA	140	35	NA	NA	67	NA
H-SB-282RE-10	SB-282	10	10	20090929	NA	NA	NA	NA	960	160	NA	NA	430	NA
H-SB-282RE-11	SB-282	11	11	20090929	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282RE-12	SB-282	12	12	20090929	NA	NA	NA	NA	15	--	NA	NA	19	NA
H-SB-282RE-13	SB-282	13	13	20090929	NA	NA	NA	NA	1600	210	NA	NA	560	NA
H-SB-282RE-14	SB-282	14	14	20090929	NA	NA	NA	NA	11	--	NA	NA	18	NA
H-SB-282RE-15	SB-282	15	15	20090929	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282RE-2	SB-282	2	2	20090929	NA	NA	NA	NA	120	33	NA	NA	63	NA
H-SB-282RE-3	SB-282	3	3	20090929	NA	NA	NA	NA	110	32	NA	NA	64	NA
H-SB-282RE-4	SB-282	4	4	20090929	NA	NA	NA	NA	160	37	NA	NA	82	NA
H-SB-282RE-5	SB-282	5	5	20090929	NA	NA	NA	NA	1000	170	NA	NA	440	NA
H-SB-282RE-6	SB-282	6	6	20090929	NA	NA	NA	NA	520	91	NA	NA	220	NA
H-SB-282RE-7	SB-282	7	7	20090929	NA	NA	NA	NA	170 J	39 J	NA	NA	84 J	NA
H-SB-282RE-7-AVG	SB-282	7	7	20090929	NA	NA	NA	NA	102.5	19.875	NA	NA	54.5	NA
H-SB-282RE-7-D	SB-282	7	7	20090929	NA	NA	NA	NA	35 J	--	NA	NA	25 J	NA
H-SB-282RE-8	SB-282	8	8	20090929	NA	NA	NA	NA	70	18	NA	NA	31	NA
H-SB-282RE-9	SB-282	9	9	20090929	NA	NA	NA	NA	3900	430	NA	NA	1400	NA
H-SB-282REA-1	SB-282A	1	1	20091110	NA	NA	NA	NA	16000	2600	NA	NA	8000	NA
H-SB-282REA-11	SB-282A	11	11	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282REA-13	SB-282A	13	13	20091110	NA	NA	NA	NA	230	54	NA	NA	150	NA
H-SB-282REA-15	SB-282A	15	15	20091110	NA	NA	NA	NA	14	--	NA	NA	20	NA
H-SB-282REA-3	SB-282A	3	3	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	C1-PHENANTHRENES/ANTHRACENES (UG/KG)	C2-CHRYSENES	C2-PHENANTHRENES/ANTHRACENES	C3-PHENANTHRENES/ANTHRACENES	CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-5	SB-282A	5	5	20091110	NA	NA	NA	NA	13	--	NA	NA	24	NA
H-SB-282REA-7	SB-282A	7	7	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282REA-9	SB-282A	9	9	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282REA-9-AVG	SB-282A	9	9	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282REA-9-D	SB-282A	9	9	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282REB-1	SB-282B	1	1	20091110	NA	NA	NA	NA	36	--	NA	NA	16	NA
H-SB-282REB-11	SB-282B	11	11	20091110	NA	NA	NA	NA	63	--	NA	NA	22	NA
H-SB-282REB-13	SB-282B	13	13	20091110	NA	NA	NA	NA	400	51	NA	NA	160	NA
H-SB-282REB-15	SB-282B	15	15	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282REB-3	SB-282B	3	3	20091110	NA	NA	NA	NA	10	--	NA	NA	--	NA
H-SB-282REB-5	SB-282B	5	5	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282REB-7	SB-282B	7	7	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282REB-9	SB-282B	9	9	20091110	NA	NA	NA	NA	2300	--	NA	NA	770	NA
H-SB-282REC-1	SB-282C	1	1	20091110	NA	NA	NA	NA	66	--	NA	NA	28	NA
H-SB-282REC-11	SB-282C	11	11	20091110	NA	NA	NA	NA	2000	--	NA	NA	830	NA
H-SB-282REC-13	SB-282C	13	13	20091110	NA	NA	NA	NA	1100	--	NA	NA	460	NA
H-SB-282REC-15	SB-282C	15	15	20091110	NA	NA	NA	NA	270	--	NA	NA	110	NA
H-SB-282REC-3	SB-282C	3	3	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282REC-5	SB-282C	5	5	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282REC-7	SB-282C	7	7	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282REC-9	SB-282C	9	9	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282REC-9-AVG	SB-282C	9	9	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282REC-9-D	SB-282C	9	9	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282RED-1	SB-282D	1	1	20091110	NA	NA	NA	NA	21000	--	NA	NA	7700	NA
H-SB-282RED-11	SB-282D	11	11	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282RED-13	SB-282D	13	13	20091110	NA	NA	NA	NA	180	35	NA	NA	79	NA
H-SB-282RED-15	SB-282D	15	15	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282RED-3	SB-282D	3	3	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282RED-5	SB-282D	5	5	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	C1-PHENANTHRENES/ANTHRACENES (UG/KG)	C2-CHRYSENES	C2-PHENANTHRENES/ANTHRACENES	C3-PHENANTHRENES/ANTHRACENES	CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-7	SB-282D	7	7	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-282RED-9	SB-282D	9	9	20091110	NA	NA	NA	NA	230	42	NA	NA	110	NA
H-SB-283RE-3	SB-283	3	3	20090924	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-283RE-4	SB-283	4	4	20090924	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-284RE-3	SB-284	3	3	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-284RE-4	SB-284	4	4	20090925	NA	NA	NA	NA	12	--	NA	NA	--	NA
H-SB-285RE-11	SB-285	11	11	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-285RE-12	SB-285	12	12	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-286RE-11	SB-286	11	11	20090925	NA	NA	NA	NA	13	--	NA	NA	88	NA
H-SB-286RE-12	SB-286	12	12	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-286RE-15	SB-286	15	15	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-474RE-5	SB-474	5	5	20090928	NA	NA	NA	NA	11	--	NA	NA	18	NA
H-SB-474RE-6	SB-474	6	6	20090928	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-596-11	SB-596	11	11	20090929	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-596-12	SB-596	12	12	20090929	NA	NA	NA	NA	120	22	NA	NA	45	NA
H-SB-597-11	SB-597	11	11	20090928	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-597-12	SB-597	12	12	20090928	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-598-11	SB-598	11	11	20090929	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-598-12	SB-598	12	12	20090929	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-599-11	SB-599	11	11	20090929	NA	NA	NA	NA	11	--	NA	NA	18	NA
H-SB-599-12	SB-599	12	12	20090929	NA	NA	NA	NA	32	--	NA	NA	23	NA
H-SB-600-1	SB-600	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-600-2	SB-600	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-601-1	SB-601	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-601-2	SB-601	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-602-1	SB-602	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-602-2	SB-602	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-603-1	SB-603	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-603-2	SB-603	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	(UG/KG) C1-PHENANTHRENES/ANTHRACENES	C2-CHRYSENES	C2-PHENANTHRENES/ANTHRACENES	C3-PHENANTHRENES/ANTHRACENES	CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-3	SB-604	3	3	20090924	NA	NA	NA	NA	150	33	NA	NA	68	NA
H-SB-604-4	SB-604	4	4	20090924	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-604-5	SB-604	5	5	20090924	NA	NA	NA	NA	270	37	NA	NA	130	NA
H-SB-604-6	SB-604	6	6	20090924	NA	NA	NA	NA	110	--	NA	NA	49	NA
H-SB-604-7	SB-604	7	7	20090924	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-604A-1	SB-604A	1	1	20091109	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-604A-3	SB-604A	3	3	20091109	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-604A-5	SB-604A	5	5	20091109	NA	NA	NA	NA	21	--	NA	NA	19	NA
H-SB-604A-7	SB-604A	7	7	20091109	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-604B-1	SB-604B	1	1	20091110	NA	NA	NA	NA	120	26	NA	NA	57	NA
H-SB-604B-3	SB-604B	3	3	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-604B-5	SB-604B	5	5	20091110	NA	NA	NA	NA	1300	210	NA	NA	510	NA
H-SB-604B-7	SB-604B	7	7	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-604D-1	SB-604D	1	1	20091110	NA	NA	NA	NA	33000	4500	NA	NA	13000	NA
H-SB-604D-3	SB-604D	3	3	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-604D-3-AVG	SB-604D	3	3	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-604D-3-D	SB-604D	3	3	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-604D-5	SB-604D	5	5	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-604D-7	SB-604D	7	7	20091110	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-605-3	SB-605	3	3	20090924	NA	NA	NA	NA	21	--	NA	NA	19	NA
H-SB-605-4	SB-605	4	4	20090924	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-606-3	SB-606	3	3	20090924	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-606-4	SB-606	4	4	20090924	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-607-3	SB-607	3	3	20090924	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-607-4	SB-607	4	4	20090924	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-608-3	SB-608	3	3	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-608-4	SB-608	4	4	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-608-4-AVG	SB-608	4	4	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-608-4-D	SB-608	4	4	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	C1-PHENANTHRENES/ANTHRACENES (UG/KG)	C2-CHRYSENES	C2-PHENANTHRENES/ANTHRACENES	C3-PHENANTHRENES/ANTHRACENES	CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-609-3	SB-609	3	3	20090925	NA	NA	NA	NA	20	--	NA	NA	--	NA
H-SB-609-4	SB-609	4	4	20090925	NA	NA	NA	NA	46	--	NA	NA	16	NA
H-SB-610-3	SB-610	3	3	20090925	NA	NA	NA	NA	400	66	NA	NA	160	NA
H-SB-610-4	SB-610	4	4	20090925	NA	NA	NA	NA	59	--	NA	NA	37	NA
H-SB-610-5	SB-610	5	5	20090925	NA	NA	NA	NA	23 J	--	NA	NA	--	NA
H-SB-610-6	SB-610	6	6	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-610-7	SB-610	7	7	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-610B-1	SB-610B	1	1	20091109	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-610B-3	SB-610B	3	3	20091109	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-610B-5	SB-610B	5	5	20091109	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-610B-5-AVG	SB-610B	5	5	20091109	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-610B-5-D	SB-610B	5	5	20091109	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-610C-1	SB-610C	1	1	20091109	NA	NA	NA	NA	20	--	NA	NA	19	NA
H-SB-610C-3	SB-610C	3	3	20091109	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-610C-5	SB-610C	5	5	20091109	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-610D-1	SB-610D	1	1	20091109	NA	NA	NA	NA	9.7	--	NA	NA	17	NA
H-SB-610D-3	SB-610D	3	3	20091109	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-610D-5	SB-610D	5	5	20091109	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-611-3	SB-611	3	3	20090925	NA	NA	NA	NA	600	80	NA	NA	240	NA
H-SB-611-4	SB-611	4	4	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-611-5	SB-611	5	5	20090925	NA	NA	NA	NA	11	--	NA	NA	--	NA
H-SB-611-6	SB-611	6	6	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-611-7	SB-611	7	7	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-611A-1	SB-611A	1	1	20091109	NA	NA	NA	NA	46	--	NA	NA	28	NA
H-SB-611A-3	SB-611A	3	3	20091109	NA	NA	NA	NA	18	--	NA	NA	18	NA
H-SB-611A-5	SB-611A	5	5	20091109	NA	NA	NA	NA	330	43	NA	NA	110	NA
H-SB-611D-1	SB-611D	1	1	20091109	NA	NA	NA	NA	360	81	NA	NA	220	NA
H-SB-611D-3	SB-611D	3	3	20091109	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-611D-5	SB-611D	5	5	20091109	NA	NA	NA	NA	--	--	NA	NA	--	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	(UG/KG) C1-PHENANTHRENES/ANTHRACENES	C2-CHRYSENES	C2-PHENANTHRENES/ANTHRACENES	C3-PHENANTHRENES/ANTHRACENES	CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-5-AVG	SB-611D	5	5	20091109	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-611D-5-D	SB-611D	5	5	20091109	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-612-11	SB-612	11	11	20090928	NA	NA	NA	NA	12 J	--	NA	NA	--	NA
H-SB-612-11-AVG	SB-612	11	11	20090928	NA	NA	NA	NA	54.5	--	NA	NA	19.45	NA
H-SB-612-11-D	SB-612	11	11	20090928	NA	NA	NA	NA	97 J	--	NA	NA	38 J	NA
H-SB-612-12	SB-612	12	12	20090928	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-613-11	SB-613	11	11	20090928	NA	NA	NA	NA	87	--	NA	NA	35	NA
H-SB-613-12	SB-613	12	12	20090928	NA	NA	NA	NA	39	--	NA	NA	17	NA
H-SB-614-10	SB-614	10	10	20090925	NA	NA	NA	NA	3600	--	NA	NA	2100	NA
H-SB-614-11	SB-614	11	11	20090925	NA	NA	NA	NA	24	--	NA	NA	16	NA
H-SB-614-12	SB-614	12	12	20090925	NA	NA	NA	NA	73	--	NA	NA	44	NA
H-SB-615-11	SB-615	11	11	20090925	NA	NA	NA	NA	11	--	NA	NA	--	NA
H-SB-615-12	SB-615	12	12	20090925	NA	NA	NA	NA	22	--	NA	NA	--	NA
H-SB-616-11	SB-616	11	11	20090925	NA	NA	NA	NA	47 J	--	NA	NA	--	NA
H-SB-616-11-AVG	SB-616	11	11	20090925	NA	NA	NA	NA	30	--	NA	NA	--	NA
H-SB-616-11-D	SB-616	11	11	20090925	NA	NA	NA	NA	13 J	--	NA	NA	--	NA
H-SB-616-12	SB-616	12	12	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-617-11	SB-617	11	11	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-617-11-AVG	SB-617	11	11	20090925	NA	NA	NA	NA	6.275	--	NA	NA	--	NA
H-SB-617-11-D	SB-617	11	11	20090925	NA	NA	NA	NA	12	--	NA	NA	--	NA
H-SB-617-12	SB-617	12	12	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-618-11	SB-618	11	11	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-618-12	SB-618	12	12	20090925	NA	NA	NA	NA	9	--	NA	NA	--	NA
H-SB-619-11	SB-619	11	11	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-619-12	SB-619	12	12	20090925	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-620-5	SB-620	5	5	20090928	NA	NA	NA	NA	24	--	NA	NA	7.9	NA
H-SB-620-6	SB-620	6	6	20090928	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-620-6-AVG	SB-620	6	6	20090928	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-620-6-D	SB-620	6	6	20090928	NA	NA	NA	NA	--	--	NA	NA	--	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	C1-PHENANTHRENES/ANTHRACENES	C2-CHRYSENES	C2-PHENANTHRENES/ANTHRACENES	C3-PHENANTHRENES/ANTHRACENES	CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE
					(UG/KG)									
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-621-5	SB-621	5	5	20090928	NA	NA	NA	NA	18	--	NA	NA	18	NA
H-SB-621-6	SB-621	6	6	20090928	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-622-5	SB-622	5	5	20090928	NA	NA	NA	NA	11	--	NA	NA	--	NA
H-SB-622-6	SB-622	6	6	20090928	NA	NA	NA	NA	--	--	NA	NA	--	NA
H-SB-623-5	SB-623	5	5	20090928	NA	NA	NA	NA	26	--	NA	NA	15	NA
H-SB-623-6	SB-623	6	6	20090928	NA	NA	NA	NA	34	--	NA	NA	21	NA
H-SB-814-03	SB-814	3	3	20100826	NA	NA	NA	NA	--	--	--	--	--	--
H-SB-814-05	SB-814	5	5	20100826	NA	NA	NA	NA	--	--	--	--	--	--
H-SB-814-07	SB-814	7	7	20100826	--	--	--	--	--	--	--	--	--	--
H-SB-814-09	SB-814	9	9	20100826	NA	NA	NA	NA	510	76	720	63	280	28
H-SB-814-11	SB-814	11	11	20100826	NA	NA	NA	NA	--	--	--	--	--	--
H-SB-814-13	SB-814	13	13	20100826	NA	NA	NA	NA	26 J	--	42	--	20	--
H-SB-814-15	SB-814	15	15	20100826	--	--	--	--	--	--	12	8.7	13	--
H-SB-814-SS	SB-814	1	1	20100826	--	--	--	--	--	--	--	--	--	--
H-SB-815-03	SB-815	3	3	20100826	NA	NA	NA	NA	--	--	--	--	--	--
H-SB-815-05	SB-815	5	5	20100826	NA	NA	NA	NA	--	--	10	--	--	--
H-SB-815-07	SB-815	7	7	20100826	NA	NA	NA	NA	--	--	--	--	--	--
H-SB-815-09	SB-815	9	9	20100826	NA	NA	NA	NA	43 J	--	54	--	27	--
H-SB-815-11	SB-815	11	11	20100826	NA	NA	NA	NA	--	--	9.7	--	--	--
H-SB-815-13	SB-815	13	13	20100826	NA	NA	NA	NA	170	33	210	16	120	10
H-SB-815-15	SB-815	15	15	20100826	NA	NA	NA	NA	--	--	--	--	--	--
H-SB-815-SS	SB-815	1	1	20100826	NA	NA	NA	NA	--	--	--	--	--	--
H-SB-816-03	SB-816	3	3	20100827	NA	NA	NA	NA	--	--	--	--	--	--
H-SB-816-03-AVG	SB-816	3	3	20100827	NA	NA	NA	NA	--	--	--	--	--	--
H-SB-816-03-D	SB-816	3	3	20100827	NA	NA	NA	NA	--	--	--	--	--	--
H-SB-816-05	SB-816	5	5	20100827	NA	NA	NA	NA	--	--	24 J	--	--	--
H-SB-816-07	SB-816	7	7	20100827	--	--	--	--	--	--	--	--	--	--
H-SB-816-09	SB-816	9	9	20100827	NA	NA	NA	NA	48	--	81 J	32 J	47 J	--
H-SB-816-11	SB-816	11	11	20100827	220 J	140 J	180 J	100 J	140 J	--	200 J	42 J	94 J	--

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	C1-PHENANTHRENES/ANTHRACENES (UG/KG)	C2-CHRYSENES	C2-PHENANTHRENES/ANTHRACENES	C3-PHENANTHRENES/ANTHRACENES	CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-SS	SB-816	1	1	20100827	--	--	--	--	31	--	55 J	31 J	35 J	42
H-SB-816-SS-AVG	SB-816	1	1	20100827	--	--	--	--	31	--	55 J	31 J	35 J	42
H-SB-816-SS-D	SB-816	1	1	20100827	--	--	--	--	NA	NA	NA	NA	NA	NA
H-SB-817-03	SB-817	3	3	20100827	NA	NA	NA	NA	--	--	--	--	--	--
H-SB-817-05	SB-817	5	5	20100827	NA	NA	NA	NA	14	--	33 J	--	--	--
H-SB-817-07	SB-817	7	7	20100827	NA	NA	NA	NA	--	--	--	--	--	--
H-SB-817-07-AVG	SB-817	7	7	20100827	NA	NA	NA	NA	--	--	--	--	--	--
H-SB-817-07-D	SB-817	7	7	20100827	NA	NA	NA	NA	--	--	--	--	--	--
H-SB-817-09	SB-817	9	9	20100827	NA	NA	NA	NA	--	--	21 J	--	--	--
H-SB-817-11	SB-817	11	11	20100827	NA	NA	NA	NA	--	--	17 J	--	--	--
H-SB-817-13	SB-817	13	13	20100827	NA	NA	NA	NA	--	--	--	--	--	--
H-SB-817-15	SB-817	15	15	20100827	NA	NA	NA	NA	--	--	--	--	--	--
H-SB-817-SS	SB-817	1	1	20100827	NA	NA	NA	NA	--	--	--	--	--	--
MRC-MW08[0809]	MRC-MW08A	8	9	20050524	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-200-05	SB-200	5	5	20050513	NA	NA	NA	NA	118	--	253	52 J	55 J	--
SB-200-10	SB-200	10	10	20050513	NA	NA	NA	NA	819	116	1770	507	311	260
SB-200-SS	SB-200	0	1	20050513	NA	NA	NA	NA	407	56 J	840	159	147	239
SB-201-05	SB-201	5	5	20050513	NA	NA	NA	NA	--	--	--	--	--	--
SB-201-10	SB-201	10	10	20050513	NA	NA	NA	NA	30 J	--	42 J	--	--	--
SB-201-SS	SB-201	0	1	20050513	NA	NA	NA	NA	49 J	--	80 J	--	--	--
SB-202-05	SB-202	5	5	20050513	NA	NA	NA	NA	--	--	--	--	--	--
SB-202-10	SB-202	10	10	20050513	NA	NA	NA	NA	63 J	--	86	--	--	--
SB-202-SS	SB-202	0	1	20050513	NA	NA	NA	NA	--	--	--	--	--	--
SB-203-05	SB-203	5	5	20050513	NA	NA	NA	NA	--	--	--	--	--	--
SB-203-10	SB-203	10	10	20050513	NA	NA	NA	NA	--	--	--	--	--	--
SB-203-SS	SB-203	0	1	20050513	NA	NA	NA	NA	69 J	--	132	28 J	34 J	--
SB-282-0102	SB-282	1	2	20051026	NA	NA	NA	NA	--	--	--	--	--	--
SB-282-0405	SB-282	4	5	20051026	NA	NA	NA	NA	--	--	--	--	--	--
SB-282-0910	SB-282	9	10	20051026	NA	NA	NA	NA	240 J	--	430	--	--	--

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	C1-PHENANTHRENES/ANTHRACENES	C2-CHRYSENES	C2-PHENANTHRENES/ANTHRACENES	C3-PHENANTHRENES/ANTHRACENES	CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE
					(UG/KG)									
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-283-0102	SB-283	1	2	20051027	NA	NA	NA	NA	420	--	590	180 J	170 J	--
SB-283-0405	SB-283	4	5	20051027	NA	NA	NA	NA	--	--	110 J	--	--	--
SB-283-0910	SB-283	9	10	20051027	NA	NA	NA	NA	--	--	--	--	--	--
SB-284-0102	SB-284	1	2	20051027	NA	NA	NA	NA	220 J	--	450	170 J	--	200 J
SB-284-0405	SB-284	4	5	20051027	NA	NA	NA	NA	--	--	140 J	210 J	--	250 J
SB-284-0910	SB-284	9	10	20051027	NA	NA	NA	NA	--	--	--	--	--	--
SB-285-0102	SB-285	1	2	20051027	NA	NA	NA	NA	--	--	--	--	--	--
SB-285-0405	SB-285	4	5	20051027	NA	NA	NA	NA	1200	--	1400	480	590	1200
SB-285-0910	SB-285	9	10	20051027	NA	NA	NA	NA	650	--	820	280 J	330 J	460
SB-286-0102	SB-286	1	2	20051027	NA	NA	NA	NA	--	--	--	--	--	--
SB-286-0405	SB-286	4	5	20051027	NA	NA	NA	NA	--	--	--	--	--	--
SB-286-0910	SB-286	9	10	20051027	NA	NA	NA	NA	490	--	620	250 J	190 J	110 J
SB-293-0102	SB-293	1	2	20051028	NA	NA	NA	NA	--	--	--	--	--	--
SB-293-0405	SB-293	4	5	20051028	NA	NA	NA	NA	--	--	--	--	--	--
SB-293-0910	SB-293	9	10	20051028	NA	NA	NA	NA	--	--	--	--	--	--
SB-294-0001	SB-294	0	1	20051028	NA	NA	NA	NA	--	--	--	--	--	--
SB-294-0405	SB-294	4	5	20051028	NA	NA	NA	NA	--	--	--	--	--	--
SB-294-0910	SB-294	9	10	20051028	NA	NA	NA	NA	--	--	--	--	--	--
SB-462-0102	SB-462	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-462-0203	SB-462	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-462-0304	SB-462	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-462-0506	SB-462	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-462-0708	SB-462	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-463-0102	SB-463	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-463-0203	SB-463	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-463-0304	SB-463	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-463-0506	SB-463	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-463-0708	SB-463	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-464-0102	SB-464	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	(UG/KG) C1-PHENANTHRENES/ANTHRACENES	C2-CHRYSENES	C2-PHENANTHRENES/ANTHRACENES	C3-PHENANTHRENES/ANTHRACENES	CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-464-0203	SB-464	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-464-0304	SB-464	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-464-0506	SB-464	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-464-0708	SB-464	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-465-0102	SB-465	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-465-0203	SB-465	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-465-0304	SB-465	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-465-0506	SB-465	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-465-0708	SB-465	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-466-0102	SB-466	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-466-0203	SB-466	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-466-0304	SB-466	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-466-0506	SB-466	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-466-0708	SB-466	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-467-0102	SB-467	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-467-0203	SB-467	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-467-0304	SB-467	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-467-0506	SB-467	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-467-0708	SB-467	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-468-0102	SB-468	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-468-0203	SB-468	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-468-0304	SB-468	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-468-0506	SB-468	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-468-0708	SB-468	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-469-0102	SB-469	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-469-0203	SB-469	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-469-0304	SB-469	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-469-0506	SB-469	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-469-0708	SB-469	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	(UG/KG) C1-PHENANTHRENES/ANTHRACENES	C2-CHRYSENES	C2-PHENANTHRENES/ANTHRACENES	C3-PHENANTHRENES/ANTHRACENES	CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-470-0102	SB-470	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-470-0203	SB-470	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-470-0304	SB-470	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-470-0506	SB-470	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-470-0708	SB-470	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-471-0102	SB-471	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-471-0203	SB-471	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-471-0304	SB-471	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-471-0506	SB-471	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-471-0708	SB-471	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-472-0102	SB-472	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-472-0203	SB-472	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-472-0304	SB-472	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-472-0506	SB-472	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-472-0708	SB-472	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-473-0102	SB-473	1	2	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-473-0203	SB-473	2	3	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-473-0304	SB-473	3	4	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-473-0506	SB-473	5	6	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-473-0708	SB-473	7	8	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-474-0102	SB-474	1	2	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-474-0203	SB-474	2	3	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-474-0304	SB-474	3	4	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-474-0506	SB-474	5	6	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-474-0708	SB-474	7	8	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-475-0102	SB-475	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-475-0203	SB-475	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-475-0304	SB-475	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-475-0506	SB-475	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	(UG/KG) C1-PHENANTHRENES/ANTHRACENES	C2-CHRYSENES	C2-PHENANTHRENES/ANTHRACENES	C3-PHENANTHRENES/ANTHRACENES	CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-475-0708	SB-475	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-476-0102	SB-476	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-476-0203	SB-476	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-476-0304	SB-476	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-476-0506	SB-476	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-476-0708	SB-476	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-477-0102	SB-477	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-477-0203	SB-477	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-477-0304	SB-477	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-477-0506	SB-477	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-477-0708	SB-477	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-478-0102	SB-478	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-478-0203	SB-478	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-478-0304	SB-478	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-478-0506	SB-478	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-478-0708	SB-478	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-479-0102	SB-479	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-479-0203	SB-479	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-479-0304	SB-479	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-479-0506	SB-479	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-479-0708	SB-479	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-480-0102	SB-480	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-480-0203	SB-480	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-480-0304	SB-480	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-480-0506	SB-480	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-480-0708	SB-480	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-481-0102	SB-481	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-481-0203	SB-481	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-481-0304	SB-481	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	C1-PHENANTHRENES/ANTHRACENES (UG/KG)	C2-CHRYSENES	C2-PHENANTHRENES/ANTHRACENES	C3-PHENANTHRENES/ANTHRACENES	CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-481-0506	SB-481	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-481-0708	SB-481	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-482-0102	SB-482	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-482-0203	SB-482	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-482-0304	SB-482	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-482-0506	SB-482	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-482-0708	SB-482	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-483-0102	SB-483	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-483-0203	SB-483	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-483-0304	SB-483	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-483-0506	SB-483	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-483-0708	SB-483	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-484-0102	SB-484	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-484-0203	SB-484	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-484-0304	SB-484	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-484-0506	SB-484	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-484-0708	SB-484	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-485-0102	SB-485	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-485-0203	SB-485	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-485-0304	SB-485	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-485-0506	SB-485	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-485-0708	SB-485	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-486-0102	SB-486	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-486-0203	SB-486	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-486-0304	SB-486	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-486-0506	SB-486	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-486-0708	SB-486	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-487-0102	SB-487	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-487-0203	SB-487	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	(UG/KG) C1-PHENANTHRENES/ANTHRACENES	C2-CHRYSENES	C2-PHENANTHRENES/ANTHRACENES	C3-PHENANTHRENES/ANTHRACENES	CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-487-0304	SB-487	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-487-0506	SB-487	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-487-0708	SB-487	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-488-0102	SB-488	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-488-0203	SB-488	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-488-0304	SB-488	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-488-0506	SB-488	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-488-0708	SB-488	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	SEMIVOLATILES (UG/KG) PHENANTHRENE	PYRENE	TOTAL PAHS	BENZOIC ACID	DIBENZOFURAN	DI-N-BUTYL PHTHALATE	N-NITROSODIPHENYLAMINE	1,2,3-TRIMETHYLBENZENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-11	SB-200	11	11	20090928	NA	NA	274	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-12	SB-200	12	12	20090928	NA	NA	620	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-13	SB-200	13	13	20090928	NA	NA	3340	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-14	SB-200	14	14	20090928	NA	NA	45.5	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-15	SB-200	15	15	20090928	NA	NA	485	NA	NA	NA	NA	NA	NA	NA
H-SB-201RE-1	SB-201	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-201RE-2	SB-201	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-1	SB-282	1	1	20090929	NA	NA	631	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-10	SB-282	10	10	20090929	NA	NA	4280	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-11	SB-282	11	11	20090929	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-12	SB-282	12	12	20090929	NA	NA	72	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-13	SB-282	13	13	20090929	NA	NA	6370	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-14	SB-282	14	14	20090929	NA	NA	48.4	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-15	SB-282	15	15	20090929	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-2	SB-282	2	2	20090929	NA	NA	555	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-3	SB-282	3	3	20090929	NA	NA	555	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-4	SB-282	4	4	20090929	NA	NA	717	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-5	SB-282	5	5	20090929	NA	NA	4300	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-6	SB-282	6	6	20090929	NA	NA	2251	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-7	SB-282	7	7	20090929	NA	NA	773	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-7-AVG	SB-282	7	7	20090929	NA	NA	462	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-7-D	SB-282	7	7	20090929	NA	NA	151	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-8	SB-282	8	8	20090929	NA	NA	289	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-9	SB-282	9	9	20090929	NA	NA	15510	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-1	SB-282A	1	1	20091110	NA	NA	85100	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-11	SB-282A	11	11	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-13	SB-282A	13	13	20091110	NA	NA	1354	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-15	SB-282A	15	15	20091110	NA	NA	101.8	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-3	SB-282A	3	3	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	SEMIVOLATILES (UG/KG) PHENANTHRENE	PYRENE	TOTAL PAHS	BENZOIC ACID	DIBENZOFURAN	DI-N-BUTYL PHTHALATE	N-NITROSODIPHENYLAMINE	1,2,3-TRIMETHYLBENZENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-5	SB-282A	5	5	20091110	NA	NA	88	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-7	SB-282A	7	7	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-9	SB-282A	9	9	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-9-AVG	SB-282A	9	9	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-9-D	SB-282A	9	9	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-1	SB-282B	1	1	20091110	NA	NA	146	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-11	SB-282B	11	11	20091110	NA	NA	248	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-13	SB-282B	13	13	20091110	NA	NA	1611	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-15	SB-282B	15	15	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-3	SB-282B	3	3	20091110	NA	NA	28.9	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-5	SB-282B	5	5	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-7	SB-282B	7	7	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-9	SB-282B	9	9	20091110	NA	NA	8710	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-1	SB-282C	1	1	20091110	NA	NA	278	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-11	SB-282C	11	11	20091110	NA	NA	8450	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-13	SB-282C	13	13	20091110	NA	NA	5060	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-15	SB-282C	15	15	20091110	NA	NA	1164	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-3	SB-282C	3	3	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-5	SB-282C	5	5	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-7	SB-282C	7	7	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-9	SB-282C	9	9	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-9-AVG	SB-282C	9	9	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-9-D	SB-282C	9	9	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-1	SB-282D	1	1	20091110	NA	NA	89400	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-11	SB-282D	11	11	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-13	SB-282D	13	13	20091110	NA	NA	815	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-15	SB-282D	15	15	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-3	SB-282D	3	3	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-5	SB-282D	5	5	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	SEMIVOLATILES (UG/KG)									
					PHENANTHRENE	PYRENE	TOTAL PAHS	BENZOIC ACID	DIBENZOFURAN	DI-N-BUTYL PHTHALATE	N-NITROSODIPHENYLAMINE	1,2,3-TRIMETHYLBENZENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-7	SB-282D	7	7	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-9	SB-282D	9	9	20091110	NA	NA	1112	NA	NA	NA	NA	NA	NA	NA
H-SB-283RE-3	SB-283	3	3	20090924	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-283RE-4	SB-283	4	4	20090924	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-284RE-3	SB-284	3	3	20090925	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-284RE-4	SB-284	4	4	20090925	NA	NA	45	NA	NA	NA	NA	NA	NA	NA
H-SB-285RE-11	SB-285	11	11	20090925	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-285RE-12	SB-285	12	12	20090925	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-286RE-11	SB-286	11	11	20090925	NA	NA	461	NA	NA	NA	NA	NA	NA	NA
H-SB-286RE-12	SB-286	12	12	20090925	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-286RE-15	SB-286	15	15	20090925	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-474RE-5	SB-474	5	5	20090928	NA	NA	69.4	NA	NA	NA	NA	NA	NA	NA
H-SB-474RE-6	SB-474	6	6	20090928	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-596-11	SB-596	11	11	20090929	NA	NA	9.6	NA	NA	NA	NA	NA	NA	NA
H-SB-596-12	SB-596	12	12	20090929	NA	NA	507	NA	NA	NA	NA	NA	NA	NA
H-SB-597-11	SB-597	11	11	20090928	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-597-12	SB-597	12	12	20090928	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-598-11	SB-598	11	11	20090929	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-598-12	SB-598	12	12	20090929	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-599-11	SB-599	11	11	20090929	NA	NA	60.6	NA	NA	NA	NA	NA	NA	NA
H-SB-599-12	SB-599	12	12	20090929	NA	NA	149	NA	NA	NA	NA	NA	NA	NA
H-SB-600-1	SB-600	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-600-2	SB-600	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-601-1	SB-601	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-601-2	SB-601	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-602-1	SB-602	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-602-2	SB-602	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-603-1	SB-603	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-603-2	SB-603	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	SEMIVOLATILES (UG/KG)									
					PHENANTHRENE	PYRENE	TOTAL PAHS	BENZOIC ACID	DIBENZOFURAN	DI-N-BUTYL PHTHALATE	N-NITROSODIPHENYLAMINE	1,2,3-TRIMETHYLBENZENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-3	SB-604	3	3	20090924	NA	NA	685	NA	NA	NA	NA	NA	NA	NA
H-SB-604-4	SB-604	4	4	20090924	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-604-5	SB-604	5	5	20090924	NA	NA	1318	NA	NA	NA	NA	NA	NA	NA
H-SB-604-6	SB-604	6	6	20090924	NA	NA	503	NA	NA	NA	NA	NA	NA	NA
H-SB-604-7	SB-604	7	7	20090924	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-1	SB-604A	1	1	20091109	NA	NA	16	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-3	SB-604A	3	3	20091109	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-5	SB-604A	5	5	20091109	NA	NA	114	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-7	SB-604A	7	7	20091109	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-1	SB-604B	1	1	20091110	NA	NA	571	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-3	SB-604B	3	3	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-5	SB-604B	5	5	20091110	NA	NA	6350	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-7	SB-604B	7	7	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-1	SB-604D	1	1	20091110	NA	NA	167500	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-3	SB-604D	3	3	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-3-AVG	SB-604D	3	3	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-3-D	SB-604D	3	3	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-5	SB-604D	5	5	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-7	SB-604D	7	7	20091110	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-605-3	SB-605	3	3	20090924	NA	NA	101.3	NA	NA	NA	NA	NA	NA	NA
H-SB-605-4	SB-605	4	4	20090924	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-606-3	SB-606	3	3	20090924	NA	NA	9	NA	NA	NA	NA	NA	NA	NA
H-SB-606-4	SB-606	4	4	20090924	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-607-3	SB-607	3	3	20090924	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-607-4	SB-607	4	4	20090924	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-608-3	SB-608	3	3	20090925	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-608-4	SB-608	4	4	20090925	NA	NA	9	NA	NA	NA	NA	NA	NA	NA
H-SB-608-4-AVG	SB-608	4	4	20090925	NA	NA	4.5	NA	NA	NA	NA	NA	NA	NA
H-SB-608-4-D	SB-608	4	4	20090925	NA	NA	--	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	SEMIVOLATILES (UG/KG)									
					PHENANTHRENE	PYRENE	TOTAL PAHS	BENZOIC ACID	DIBENZOFURAN	DI-N-BUTYL PHTHALATE	N-NITROSODIPHENYLAMINE	1,2,3-TRIMETHYLBENZENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-609-3	SB-609	3	3	20090925	NA	NA	71	NA	NA	NA	NA	NA	NA	NA
H-SB-609-4	SB-609	4	4	20090925	NA	NA	199	NA	NA	NA	NA	NA	NA	NA
H-SB-610-3	SB-610	3	3	20090925	NA	NA	1816	NA	NA	NA	NA	NA	NA	NA
H-SB-610-4	SB-610	4	4	20090925	NA	NA	264	NA	NA	NA	NA	NA	NA	NA
H-SB-610-5	SB-610	5	5	20090925	NA	NA	83.7	NA	NA	NA	NA	NA	NA	NA
H-SB-610-6	SB-610	6	6	20090925	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-610-7	SB-610	7	7	20090925	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-1	SB-610B	1	1	20091109	NA	NA	14	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-3	SB-610B	3	3	20091109	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-5	SB-610B	5	5	20091109	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-5-AVG	SB-610B	5	5	20091109	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-5-D	SB-610B	5	5	20091109	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-610C-1	SB-610C	1	1	20091109	NA	NA	109	NA	NA	NA	NA	NA	NA	NA
H-SB-610C-3	SB-610C	3	3	20091109	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-610C-5	SB-610C	5	5	20091109	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-610D-1	SB-610D	1	1	20091109	NA	NA	77.3	NA	NA	NA	NA	NA	NA	NA
H-SB-610D-3	SB-610D	3	3	20091109	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-610D-5	SB-610D	5	5	20091109	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-611-3	SB-611	3	3	20090925	NA	NA	2720	NA	NA	NA	NA	NA	NA	NA
H-SB-611-4	SB-611	4	4	20090925	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-611-5	SB-611	5	5	20090925	NA	NA	30.2	NA	NA	NA	NA	NA	NA	NA
H-SB-611-6	SB-611	6	6	20090925	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-611-7	SB-611	7	7	20090925	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-611A-1	SB-611A	1	1	20091109	NA	NA	217	NA	NA	NA	NA	NA	NA	NA
H-SB-611A-3	SB-611A	3	3	20091109	NA	NA	102	NA	NA	NA	NA	NA	NA	NA
H-SB-611A-5	SB-611A	5	5	20091109	NA	NA	1363	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-1	SB-611D	1	1	20091109	NA	NA	2011	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-3	SB-611D	3	3	20091109	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-5	SB-611D	5	5	20091109	NA	NA	--	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	SEMIVOLATILES (UG/KG) PHENANTHRENE	PYRENE	TOTAL PAHS	BENZOIC ACID	DIBENZOFURAN	DI-N-BUTYL PHTHALATE	N-NITROSODIPHENYLAMINE	1,2,3-TRIMETHYLBENZENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-5-AVG	SB-611D	5	5	20091109	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-5-D	SB-611D	5	5	20091109	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-612-11	SB-612	11	11	20090928	NA	NA	20.4	NA	NA	NA	NA	NA	NA	NA
H-SB-612-11-AVG	SB-612	11	11	20090928	NA	NA	237.2	NA	NA	NA	NA	NA	NA	NA
H-SB-612-11-D	SB-612	11	11	20090928	NA	NA	454	NA	NA	NA	NA	NA	NA	NA
H-SB-612-12	SB-612	12	12	20090928	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-613-11	SB-613	11	11	20090928	NA	NA	380	NA	NA	NA	NA	NA	NA	NA
H-SB-613-12	SB-613	12	12	20090928	NA	NA	179	NA	NA	NA	NA	NA	NA	NA
H-SB-614-10	SB-614	10	10	20090925	NA	NA	19600	NA	NA	NA	NA	NA	NA	NA
H-SB-614-11	SB-614	11	11	20090925	NA	NA	129	NA	NA	NA	NA	NA	NA	NA
H-SB-614-12	SB-614	12	12	20090925	NA	NA	371	NA	NA	NA	NA	NA	NA	NA
H-SB-615-11	SB-615	11	11	20090925	NA	NA	33.1	NA	NA	NA	NA	NA	NA	NA
H-SB-615-12	SB-615	12	12	20090925	NA	NA	75	NA	NA	NA	NA	NA	NA	NA
H-SB-616-11	SB-616	11	11	20090925	NA	NA	1617	NA	NA	NA	NA	NA	NA	NA
H-SB-616-11-AVG	SB-616	11	11	20090925	NA	NA	826	NA	NA	NA	NA	NA	NA	NA
H-SB-616-11-D	SB-616	11	11	20090925	NA	NA	35	NA	NA	NA	NA	NA	NA	NA
H-SB-616-12	SB-616	12	12	20090925	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-617-11	SB-617	11	11	20090925	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-617-11-AVG	SB-617	11	11	20090925	NA	NA	21.7	NA	NA	NA	NA	NA	NA	NA
H-SB-617-11-D	SB-617	11	11	20090925	NA	NA	43.4	NA	NA	NA	NA	NA	NA	NA
H-SB-617-12	SB-617	12	12	20090925	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-618-11	SB-618	11	11	20090925	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-618-12	SB-618	12	12	20090925	NA	NA	18.7	NA	NA	NA	NA	NA	NA	NA
H-SB-619-11	SB-619	11	11	20090925	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-619-12	SB-619	12	12	20090925	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-620-5	SB-620	5	5	20090928	NA	NA	89.9	NA	NA	NA	NA	NA	NA	NA
H-SB-620-6	SB-620	6	6	20090928	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-620-6-AVG	SB-620	6	6	20090928	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-620-6-D	SB-620	6	6	20090928	NA	NA	--	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	SEMIVOLATILES (UG/KG) PHENANTHRENE	PYRENE	TOTAL PAHS	BENZOIC ACID	DIBENZOFURAN	DI-N-BUTYL PHTHALATE	N-NITROSODIPHENYLAMINE	1,2,3-TRIMETHYLBENZENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-621-5	SB-621	5	5	20090928	NA	NA	83	NA	NA	NA	NA	NA	NA	NA
H-SB-621-6	SB-621	6	6	20090928	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-622-5	SB-622	5	5	20090928	NA	NA	30.4	NA	NA	NA	NA	NA	NA	NA
H-SB-622-6	SB-622	6	6	20090928	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
H-SB-623-5	SB-623	5	5	20090928	NA	NA	128	NA	NA	NA	NA	NA	NA	NA
H-SB-623-6	SB-623	6	6	20090928	NA	NA	166	NA	NA	NA	NA	NA	NA	NA
H-SB-814-03	SB-814	3	3	20100826	--	--	--	NA	NA	NA	NA	NA	NA	NA
H-SB-814-05	SB-814	5	5	20100826	--	--	--	NA	NA	NA	NA	NA	NA	NA
H-SB-814-07	SB-814	7	7	20100826	--	--	--	NA	NA	NA	NA	NA	NA	NA
H-SB-814-09	SB-814	9	9	20100826	460	1400	5958	NA	NA	NA	NA	NA	NA	NA
H-SB-814-11	SB-814	11	11	20100826	--	--	--	NA	NA	NA	NA	NA	NA	NA
H-SB-814-13	SB-814	13	13	20100826	19	82	331	NA	NA	NA	NA	NA	NA	NA
H-SB-814-15	SB-814	15	15	20100826	11	12	130.9	NA	NA	NA	NA	NA	NA	NA
H-SB-814-SS	SB-814	1	1	20100826	--	--	--	NA	NA	NA	NA	NA	NA	NA
H-SB-815-03	SB-815	3	3	20100826	--	--	--	NA	NA	NA	NA	NA	NA	NA
H-SB-815-05	SB-815	5	5	20100826	--	16	34.7	NA	NA	NA	NA	NA	NA	NA
H-SB-815-07	SB-815	7	7	20100826	--	--	--	NA	NA	NA	NA	NA	NA	NA
H-SB-815-09	SB-815	9	9	20100826	28	88	431	NA	NA	NA	NA	NA	NA	NA
H-SB-815-11	SB-815	11	11	20100826	--	17	59.6	NA	NA	NA	NA	NA	NA	NA
H-SB-815-13	SB-815	13	13	20100826	120	320	1812	NA	NA	NA	NA	NA	NA	NA
H-SB-815-15	SB-815	15	15	20100826	--	--	--	NA	NA	NA	NA	NA	NA	NA
H-SB-815-SS	SB-815	1	1	20100826	--	8.5	8.5	NA	NA	NA	NA	NA	NA	NA
H-SB-816-03	SB-816	3	3	20100827	--	--	--	NA	NA	NA	NA	NA	NA	NA
H-SB-816-03-AVG	SB-816	3	3	20100827	--	--	--	NA	NA	NA	NA	NA	NA	NA
H-SB-816-03-D	SB-816	3	3	20100827	--	--	--	NA	NA	NA	NA	NA	NA	NA
H-SB-816-05	SB-816	5	5	20100827	16 J	15	78	NA	NA	NA	NA	NA	NA	NA
H-SB-816-07	SB-816	7	7	20100827	--	--	--	NA	NA	NA	NA	NA	NA	NA
H-SB-816-09	SB-816	9	9	20100827	77 J	110	706	NA	NA	NA	NA	NA	NA	NA
H-SB-816-11	SB-816	11	11	20100827	170 J	340 J	1773	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	PHENANTHRENE	PYRENE	TOTAL PAHS	BENZOIC ACID	DIBENZOFURAN	DI-N-BUTYL PHTHALATE	N-NITROSODIPHENYLAMINE	1,2,3-TRIMETHYLBENZENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE
								SEMIVOLATILES (UG/KG)						
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-SS	SB-816	1	1	20100827	42 J	65	540	NA	NA	NA	NA	NA	NA	NA
H-SB-816-SS-AVG	SB-816	1	1	20100827	42 J	65	540	NA	NA	NA	NA	NA	NA	NA
H-SB-816-SS-D	SB-816	1	1	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-03	SB-817	3	3	20100827	--	--	--	NA	NA	NA	NA	NA	NA	NA
H-SB-817-05	SB-817	5	5	20100827	--	36	152	NA	NA	NA	NA	NA	NA	NA
H-SB-817-07	SB-817	7	7	20100827	--	--	--	NA	NA	NA	NA	NA	NA	NA
H-SB-817-07-AVG	SB-817	7	7	20100827	--	--	--	NA	NA	NA	NA	NA	NA	NA
H-SB-817-07-D	SB-817	7	7	20100827	--	--	--	NA	NA	NA	NA	NA	NA	NA
H-SB-817-09	SB-817	9	9	20100827	--	11	32	NA	NA	NA	NA	NA	NA	NA
H-SB-817-11	SB-817	11	11	20100827	--	--	17	NA	NA	NA	NA	NA	NA	NA
H-SB-817-13	SB-817	13	13	20100827	--	--	--	NA	NA	NA	NA	NA	NA	NA
H-SB-817-15	SB-817	15	15	20100827	--	--	--	NA	NA	NA	NA	NA	NA	NA
H-SB-817-SS	SB-817	1	1	20100827	--	9.2	9.2	NA	NA	NA	NA	NA	NA	NA
MRC-MW08[0809]	MRC-MW08A	8	9	20050524	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-200-05	SB-200	5	5	20050513	329	269	1642	--	--	--	--	NA	1.1 B	--
SB-200-10	SB-200	10	10	20050513	2610	1960	12472	--	91 J	--	34 J	NA	3.3	0.94 J
SB-200-SS	SB-200	0	1	20050513	1020	869	5693	100 J	27 J	--	--	NA	--	--
SB-201-05	SB-201	5	5	20050513	--	--	--	48.7 J	--	38 J	--	NA	0.62 B	--
SB-201-10	SB-201	10	10	20050513	--	34 J	129	51 J	--	--	--	NA	1.7 B	--
SB-201-SS	SB-201	0	1	20050513	46 J	66 J	404	723 J	--	--	--	NA	1.3 B	--
SB-202-05	SB-202	5	5	20050513	--	--	--	--	--	--	--	NA	0.81 B	--
SB-202-10	SB-202	10	10	20050513	48 J	128	558	--	--	--	--	NA	0.55 B	--
SB-202-SS	SB-202	0	1	20050513	--	32 J	32	--	--	--	--	NA	2 B	--
SB-203-05	SB-203	5	5	20050513	--	--	--	43.1 J	--	--	--	NA	0.8 B	--
SB-203-10	SB-203	10	10	20050513	--	--	--	43 J	--	--	--	NA	1.3 B	--
SB-203-SS	SB-203	0	1	20050513	130	131	796	67.4 J	--	31 J	--	NA	1.3 B	--
SB-282-0102	SB-282	1	2	20051026	--	--	--	--	--	--	--	--	--	NA
SB-282-0405	SB-282	4	5	20051026	--	--	--	--	--	--	--	--	--	NA
SB-282-0910	SB-282	9	10	20051026	530	720	2607	--	--	--	--	--	--	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	SEMIVOLATILES (UG/KG) PHENANTHRENE	PYRENE	TOTAL PAHS	BENZOIC ACID	DIBENZOFURAN	DI-N-BUTYL PHTHALATE	N-NITROSODIPHENYLAMINE	1,2,3-TRIMETHYLBENZENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-283-0102	SB-283	1	2	20051027	1000	970	4740	--	--	--	--	--	--	NA
SB-283-0405	SB-283	4	5	20051027	120 J	180 J	410	--	--	--	--	--	--	NA
SB-283-0910	SB-283	9	10	20051027	--	--	--	--	--	--	--	--	--	NA
SB-284-0102	SB-284	1	2	20051027	840	590	3525	--	--	--	--	0.4 J	--	NA
SB-284-0405	SB-284	4	5	20051027	570	220 J	1910	--	--	--	--	--	--	NA
SB-284-0910	SB-284	9	10	20051027	--	--	--	--	--	--	--	--	--	NA
SB-285-0102	SB-285	1	2	20051027	--	--	--	--	--	--	--	--	--	NA
SB-285-0405	SB-285	4	5	20051027	2200	2900	15910	--	110 J	--	--	0.8 J	--	NA
SB-285-0910	SB-285	9	10	20051027	1300	1700	8576	--	--	--	--	--	--	NA
SB-286-0102	SB-286	1	2	20051027	--	--	--	--	--	--	--	--	--	NA
SB-286-0405	SB-286	4	5	20051027	--	--	--	--	--	--	--	--	--	NA
SB-286-0910	SB-286	9	10	20051027	1300	1100	5914	--	--	--	--	--	--	NA
SB-293-0102	SB-293	1	2	20051028	--	--	--	--	--	--	--	--	--	NA
SB-293-0405	SB-293	4	5	20051028	--	--	--	--	--	--	--	--	--	NA
SB-293-0910	SB-293	9	10	20051028	--	--	--	--	--	--	--	--	--	NA
SB-294-0001	SB-294	0	1	20051028	--	--	--	--	--	--	--	--	--	NA
SB-294-0405	SB-294	4	5	20051028	--	--	--	--	--	--	--	--	--	NA
SB-294-0910	SB-294	9	10	20051028	--	--	--	--	--	--	--	--	--	NA
SB-462-0102	SB-462	1	2	20071023	NA	NA	26	NA	NA	NA	NA	NA	NA	NA
SB-462-0203	SB-462	2	3	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-462-0304	SB-462	3	4	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-462-0506	SB-462	5	6	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-462-0708	SB-462	7	8	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-463-0102	SB-463	1	2	20071023	NA	NA	69	NA	NA	NA	NA	NA	NA	NA
SB-463-0203	SB-463	2	3	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-463-0304	SB-463	3	4	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-463-0506	SB-463	5	6	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-463-0708	SB-463	7	8	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-464-0102	SB-464	1	2	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	SEMIVOLATILES (UG/KG)									
					PHENANTHRENE	PYRENE	TOTAL PAHS	BENZOIC ACID	DIBENZOFURAN	DI-N-BUTYL PHTHALATE	N-NITROSODIPHENYLAMINE	1,2,3-TRIMETHYLBENZENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-464-0203	SB-464	2	3	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-464-0304	SB-464	3	4	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-464-0506	SB-464	5	6	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-464-0708	SB-464	7	8	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-465-0102	SB-465	1	2	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-465-0203	SB-465	2	3	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-465-0304	SB-465	3	4	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-465-0506	SB-465	5	6	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-465-0708	SB-465	7	8	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-466-0102	SB-466	1	2	20071023	NA	NA	11	NA	NA	NA	NA	NA	NA	NA
SB-466-0203	SB-466	2	3	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-466-0304	SB-466	3	4	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-466-0506	SB-466	5	6	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-466-0708	SB-466	7	8	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-467-0102	SB-467	1	2	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-467-0203	SB-467	2	3	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-467-0304	SB-467	3	4	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-467-0506	SB-467	5	6	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-467-0708	SB-467	7	8	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-468-0102	SB-468	1	2	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-468-0203	SB-468	2	3	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-468-0304	SB-468	3	4	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-468-0506	SB-468	5	6	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-468-0708	SB-468	7	8	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-469-0102	SB-469	1	2	20071023	NA	NA	15	NA	NA	NA	NA	NA	NA	NA
SB-469-0203	SB-469	2	3	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-469-0304	SB-469	3	4	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-469-0506	SB-469	5	6	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-469-0708	SB-469	7	8	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	SEMIVOLATILES (UG/KG)									
					PHENANTHRENE	PYRENE	TOTAL PAHS	BENZOIC ACID	DIBENZOFURAN	DI-N-BUTYL PHTHALATE	N-NITROSODIPHENYLAMINE	1,2,3-TRIMETHYLBENZENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-470-0102	SB-470	1	2	20071023	NA	NA	52	NA	NA	NA	NA	NA	NA	NA
SB-470-0203	SB-470	2	3	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-470-0304	SB-470	3	4	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-470-0506	SB-470	5	6	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-470-0708	SB-470	7	8	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-471-0102	SB-471	1	2	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-471-0203	SB-471	2	3	20071023	NA	NA	21	NA	NA	NA	NA	NA	NA	NA
SB-471-0304	SB-471	3	4	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-471-0506	SB-471	5	6	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-471-0708	SB-471	7	8	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-472-0102	SB-472	1	2	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-472-0203	SB-472	2	3	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-472-0304	SB-472	3	4	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-472-0506	SB-472	5	6	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-472-0708	SB-472	7	8	20071023	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-473-0102	SB-473	1	2	20071024	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-473-0203	SB-473	2	3	20071024	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-473-0304	SB-473	3	4	20071024	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-473-0506	SB-473	5	6	20071024	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-473-0708	SB-473	7	8	20071024	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-474-0102	SB-474	1	2	20071024	NA	NA	24	NA	NA	NA	NA	NA	NA	NA
SB-474-0203	SB-474	2	3	20071024	NA	NA	31	NA	NA	NA	NA	NA	NA	NA
SB-474-0304	SB-474	3	4	20071024	NA	NA	490	NA	NA	NA	NA	NA	NA	NA
SB-474-0506	SB-474	5	6	20071024	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-474-0708	SB-474	7	8	20071024	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-475-0102	SB-475	1	2	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-475-0203	SB-475	2	3	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-475-0304	SB-475	3	4	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-475-0506	SB-475	5	6	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	SEMIVOLATILES (UG/KG)									
					PHENANTHRENE	PYRENE	TOTAL PAHS	BENZOIC ACID	DIBENZOFURAN	DI-N-BUTYL PHTHALATE	N-NITROSODIPHENYLAMINE	1,2,3-TRIMETHYLBENZENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-475-0708	SB-475	7	8	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-476-0102	SB-476	1	2	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-476-0203	SB-476	2	3	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-476-0304	SB-476	3	4	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-476-0506	SB-476	5	6	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-476-0708	SB-476	7	8	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-477-0102	SB-477	1	2	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-477-0203	SB-477	2	3	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-477-0304	SB-477	3	4	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-477-0506	SB-477	5	6	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-477-0708	SB-477	7	8	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-478-0102	SB-478	1	2	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-478-0203	SB-478	2	3	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-478-0304	SB-478	3	4	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-478-0506	SB-478	5	6	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-478-0708	SB-478	7	8	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-479-0102	SB-479	1	2	20071025	NA	NA	15	NA	NA	NA	NA	NA	NA	NA
SB-479-0203	SB-479	2	3	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-479-0304	SB-479	3	4	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-479-0506	SB-479	5	6	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-479-0708	SB-479	7	8	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-480-0102	SB-480	1	2	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-480-0203	SB-480	2	3	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-480-0304	SB-480	3	4	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-480-0506	SB-480	5	6	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-480-0708	SB-480	7	8	20071025	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-481-0102	SB-481	1	2	20071029	NA	NA	31	NA	NA	NA	NA	NA	NA	NA
SB-481-0203	SB-481	2	3	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-481-0304	SB-481	3	4	20071029	NA	NA	10	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	SEMIVOLATILES (UG/KG) PHENANTHRENE	PYRENE	TOTAL PAHS	BENZOIC ACID	DIBENZOFURAN	DI-N-BUTYL PHTHALATE	N-NITROSODIPHENYLAMINE	1,2,3-TRIMETHYLBENZENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-481-0506	SB-481	5	6	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-481-0708	SB-481	7	8	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-482-0102	SB-482	1	2	20071029	NA	NA	13	NA	NA	NA	NA	NA	NA	NA
SB-482-0203	SB-482	2	3	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-482-0304	SB-482	3	4	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-482-0506	SB-482	5	6	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-482-0708	SB-482	7	8	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-483-0102	SB-483	1	2	20071029	NA	NA	32	NA	NA	NA	NA	NA	NA	NA
SB-483-0203	SB-483	2	3	20071029	NA	NA	28	NA	NA	NA	NA	NA	NA	NA
SB-483-0304	SB-483	3	4	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-483-0506	SB-483	5	6	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-483-0708	SB-483	7	8	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-484-0102	SB-484	1	2	20071029	NA	NA	21	NA	NA	NA	NA	NA	NA	NA
SB-484-0203	SB-484	2	3	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-484-0304	SB-484	3	4	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-484-0506	SB-484	5	6	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-484-0708	SB-484	7	8	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-485-0102	SB-485	1	2	20071029	NA	NA	10	NA	NA	NA	NA	NA	NA	NA
SB-485-0203	SB-485	2	3	20071029	NA	NA	43	NA	NA	NA	NA	NA	NA	NA
SB-485-0304	SB-485	3	4	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-485-0506	SB-485	5	6	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-485-0708	SB-485	7	8	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-486-0102	SB-486	1	2	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-486-0203	SB-486	2	3	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-486-0304	SB-486	3	4	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-486-0506	SB-486	5	6	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-486-0708	SB-486	7	8	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-487-0102	SB-487	1	2	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-487-0203	SB-487	2	3	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	SEMIVOLATILES (UG/KG)									
					PHENANTHRENE	PYRENE	TOTAL PAHS	BENZOIC ACID	DIBENZOFURAN	DI-N-BUTYL PHTHALATE	N-NITROSODIPHENYLAMINE	1,2,3-TRIMETHYLBENZENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-487-0304	SB-487	3	4	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-487-0506	SB-487	5	6	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-487-0708	SB-487	7	8	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-488-0102	SB-488	1	2	20071029	NA	NA	9	NA	NA	NA	NA	NA	NA	NA
SB-488-0203	SB-488	2	3	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-488-0304	SB-488	3	4	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-488-0506	SB-488	5	6	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
SB-488-0708	SB-488	7	8	20071029	NA	NA	--	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	VOLATILES (UG/KG)									
					2-BUTANONE	ACETONE	CARBON DISULFIDE	CHLOROMETHANE	ETHYLBENZENE	M+P-XYLENES	METHYLENE CHLORIDE	NAPHTHALENE	N-BUTYLBENZENE	O-XYLENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-11	SB-200	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-12	SB-200	12	12	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-13	SB-200	13	13	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-14	SB-200	14	14	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-200RE-15	SB-200	15	15	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-201RE-1	SB-201	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-201RE-2	SB-201	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-1	SB-282	1	1	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-10	SB-282	10	10	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-11	SB-282	11	11	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-12	SB-282	12	12	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-13	SB-282	13	13	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-14	SB-282	14	14	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-15	SB-282	15	15	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-2	SB-282	2	2	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-3	SB-282	3	3	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-4	SB-282	4	4	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-5	SB-282	5	5	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-6	SB-282	6	6	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-7	SB-282	7	7	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-7-AVG	SB-282	7	7	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-7-D	SB-282	7	7	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-8	SB-282	8	8	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RE-9	SB-282	9	9	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-1	SB-282A	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-11	SB-282A	11	11	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-13	SB-282A	13	13	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-15	SB-282A	15	15	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-3	SB-282A	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	VOLATILES (UG/KG)									
					2-BUTANONE	ACETONE	CARBON DISULFIDE	CHLOROMETHANE	ETHYLBENZENE	M+P-XYLENES	METHYLENE CHLORIDE	NAPHTHALENE	N-BUTYLBENZENE	O-XYLENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-5	SB-282A	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-7	SB-282A	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-9	SB-282A	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-9-AVG	SB-282A	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REA-9-D	SB-282A	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-1	SB-282B	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-11	SB-282B	11	11	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-13	SB-282B	13	13	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-15	SB-282B	15	15	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-3	SB-282B	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-5	SB-282B	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-7	SB-282B	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REB-9	SB-282B	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-1	SB-282C	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-11	SB-282C	11	11	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-13	SB-282C	13	13	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-15	SB-282C	15	15	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-3	SB-282C	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-5	SB-282C	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-7	SB-282C	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-9	SB-282C	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-9-AVG	SB-282C	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282REC-9-D	SB-282C	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-1	SB-282D	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-11	SB-282D	11	11	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-13	SB-282D	13	13	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-15	SB-282D	15	15	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-3	SB-282D	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-5	SB-282D	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	VOLATILES (UG/KG)									
					2-BUTANONE	ACETONE	CARBON DISULFIDE	CHLOROMETHANE	ETHYLBENZENE	M+P-XYLENES	METHYLENE CHLORIDE	NAPHTHALENE	N-BUTYLBENZENE	O-XYLENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-7	SB-282D	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-282RED-9	SB-282D	9	9	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-283RE-3	SB-283	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-283RE-4	SB-283	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-284RE-3	SB-284	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-284RE-4	SB-284	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-285RE-11	SB-285	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-285RE-12	SB-285	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-286RE-11	SB-286	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-286RE-12	SB-286	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-286RE-15	SB-286	15	15	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-474RE-5	SB-474	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-474RE-6	SB-474	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-596-11	SB-596	11	11	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-596-12	SB-596	12	12	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-597-11	SB-597	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-597-12	SB-597	12	12	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-598-11	SB-598	11	11	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-598-12	SB-598	12	12	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-599-11	SB-599	11	11	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-599-12	SB-599	12	12	20090929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-600-1	SB-600	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-600-2	SB-600	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-601-1	SB-601	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-601-2	SB-601	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-602-1	SB-602	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-602-2	SB-602	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-603-1	SB-603	1	1	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-603-2	SB-603	2	2	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	VOLATILES (UG/KG)									
					2-BUTANONE	ACETONE	CARBON DISULFIDE	CHLOROMETHANE	ETHYLBENZENE	M+P-XYLENES	METHYLENE CHLORIDE	NAPHTHALENE	N-BUTYLBENZENE	O-XYLENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-3	SB-604	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-4	SB-604	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-5	SB-604	5	5	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-6	SB-604	6	6	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604-7	SB-604	7	7	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-1	SB-604A	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-3	SB-604A	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-5	SB-604A	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604A-7	SB-604A	7	7	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-1	SB-604B	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-3	SB-604B	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-5	SB-604B	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604B-7	SB-604B	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-1	SB-604D	1	1	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-3	SB-604D	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-3-AVG	SB-604D	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-3-D	SB-604D	3	3	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-5	SB-604D	5	5	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-604D-7	SB-604D	7	7	20091110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-605-3	SB-605	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-605-4	SB-605	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-606-3	SB-606	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-606-4	SB-606	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-607-3	SB-607	3	3	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-607-4	SB-607	4	4	20090924	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-608-3	SB-608	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-608-4	SB-608	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-608-4-AVG	SB-608	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-608-4-D	SB-608	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	VOLATILES (UG/KG)									
					2-BUTANONE	ACETONE	CARBON DISULFIDE	CHLOROMETHANE	ETHYLBENZENE	M+P-XYLENES	METHYLENE CHLORIDE	NAPHTHALENE	N-BUTYLBENZENE	O-XYLENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-609-3	SB-609	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-609-4	SB-609	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610-3	SB-610	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610-4	SB-610	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610-5	SB-610	5	5	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610-6	SB-610	6	6	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610-7	SB-610	7	7	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-1	SB-610B	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-3	SB-610B	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-5	SB-610B	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-5-AVG	SB-610B	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610B-5-D	SB-610B	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610C-1	SB-610C	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610C-3	SB-610C	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610C-5	SB-610C	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610D-1	SB-610D	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610D-3	SB-610D	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-610D-5	SB-610D	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-3	SB-611	3	3	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-4	SB-611	4	4	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-5	SB-611	5	5	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-6	SB-611	6	6	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611-7	SB-611	7	7	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611A-1	SB-611A	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611A-3	SB-611A	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611A-5	SB-611A	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-1	SB-611D	1	1	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-3	SB-611D	3	3	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-5	SB-611D	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	VOLATILES (UG/KG) 2-BUTANONE	ACETONE	CARBON DISULFIDE	CHLOROMETHANE	ETHYLBENZENE	M+P-XYLENES	METHYLENE CHLORIDE	NAPHTHALENE	N-BUTYLBENZENE	O-XYLENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-5-AVG	SB-611D	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-611D-5-D	SB-611D	5	5	20091109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-612-11	SB-612	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-612-11-AVG	SB-612	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-612-11-D	SB-612	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-612-12	SB-612	12	12	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-613-11	SB-613	11	11	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-613-12	SB-613	12	12	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-614-10	SB-614	10	10	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-614-11	SB-614	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-614-12	SB-614	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-615-11	SB-615	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-615-12	SB-615	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-616-11	SB-616	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-616-11-AVG	SB-616	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-616-11-D	SB-616	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-616-12	SB-616	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-617-11	SB-617	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-617-11-AVG	SB-617	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-617-11-D	SB-617	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-617-12	SB-617	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-618-11	SB-618	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-618-12	SB-618	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-619-11	SB-619	11	11	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-619-12	SB-619	12	12	20090925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-620-5	SB-620	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-620-6	SB-620	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-620-6-AVG	SB-620	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-620-6-D	SB-620	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	VOLATILES (UG/KG)									
					2-BUTANONE	ACETONE	CARBON DISULFIDE	CHLOROMETHANE	ETHYLBENZENE	M+P-XYLENES	METHYLENE CHLORIDE	NAPHTHALENE	N-BUTYLBENZENE	O-XYLENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-621-5	SB-621	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-621-6	SB-621	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-622-5	SB-622	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-622-6	SB-622	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-623-5	SB-623	5	5	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-623-6	SB-623	6	6	20090928	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-03	SB-814	3	3	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-05	SB-814	5	5	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-07	SB-814	7	7	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-09	SB-814	9	9	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-11	SB-814	11	11	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-13	SB-814	13	13	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-15	SB-814	15	15	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-814-SS	SB-814	1	1	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-03	SB-815	3	3	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-05	SB-815	5	5	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-07	SB-815	7	7	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-09	SB-815	9	9	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-11	SB-815	11	11	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-13	SB-815	13	13	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-15	SB-815	15	15	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-815-SS	SB-815	1	1	20100826	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-03	SB-816	3	3	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-03-AVG	SB-816	3	3	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-03-D	SB-816	3	3	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-05	SB-816	5	5	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-07	SB-816	7	7	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-09	SB-816	9	9	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-11	SB-816	11	11	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	VOLATILES (UG/KG)									
					2-BUTANONE	ACETONE	CARBON DISULFIDE	CHLOROMETHANE	ETHYLBENZENE	M+P-XYLENES	METHYLENE CHLORIDE	NAPHTHALENE	N-BUTYLBENZENE	O-XYLENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-SS	SB-816	1	1	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-SS-AVG	SB-816	1	1	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-816-SS-D	SB-816	1	1	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-03	SB-817	3	3	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-05	SB-817	5	5	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-07	SB-817	7	7	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-07-AVG	SB-817	7	7	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-07-D	SB-817	7	7	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-09	SB-817	9	9	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-11	SB-817	11	11	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-13	SB-817	13	13	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-15	SB-817	15	15	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H-SB-817-SS	SB-817	1	1	20100827	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MRC-MW08[0809]	MRC-MW08A	8	9	20050524	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-200-05	SB-200	5	5	20050513	--	12.8 J	--	--	--	--	--	28.1	--	--
SB-200-10	SB-200	10	10	20050513	2.14 J	12.7 J	0.68 J	--	1.2 J	4.9	--	66.4	--	1.2 J
SB-200-SS	SB-200	0	1	20050513	9.19	107 J	1.7 J	--	--	--	--	35.4	--	--
SB-201-05	SB-201	5	5	20050513	7.39 J	111 J	1.9 J	--	--	--	--	0.56 J	--	--
SB-201-10	SB-201	10	10	20050513	5.33 J	63 J	--	--	--	--	3.8 J	--	--	--
SB-201-SS	SB-201	0	1	20050513	29.4	210 J	--	--	1.5 J	--	2.9 J	0.94 B	--	--
SB-202-05	SB-202	5	5	20050513	4.17 J	78 J	--	--	--	--	--	--	--	--
SB-202-10	SB-202	10	10	20050513	--	4.4 J	--	--	--	--	--	--	--	--
SB-202-SS	SB-202	0	1	20050513	13.2	138 J	3	--	--	--	4.9 J	--	--	--
SB-203-05	SB-203	5	5	20050513	--	9.3 J	--	--	--	--	--	--	--	--
SB-203-10	SB-203	10	10	20050513	--	30 J	--	--	--	--	2.4 J	--	--	--
SB-203-SS	SB-203	0	1	20050513	13	157 J	2	--	0.31 J	--	3 J	2 B	--	--
SB-282-0102	SB-282	1	2	20051026	--	27 B	3 J	--	--	--	13 B	--	--	--
SB-282-0405	SB-282	4	5	20051026	--	15 B	--	--	--	--	6 B	--	--	--
SB-282-0910	SB-282	9	10	20051026	--	6 B	--	--	--	--	9 B	--	--	--

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	VOLATILES (UG/KG) 2-BUTANONE	ACETONE	CARBON DISULFIDE	CHLOROMETHANE	ETHYLBENZENE	M+P-XYLENES	METHYLENE CHLORIDE	NAPHTHALENE	N-BUTYLBENZENE	O-XYLENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-283-0102	SB-283	1	2	20051027	--	59 L	2 J	--	--	--	--	--	--	--
SB-283-0405	SB-283	4	5	20051027	--	14 J	--	--	--	--	3 B	--	--	--
SB-283-0910	SB-283	9	10	20051027	--	--	--	--	--	--	--	--	--	--
SB-284-0102	SB-284	1	2	20051027	4 J	69 J	--	3 J	--	--	4 B	180 J	0.9 J	--
SB-284-0405	SB-284	4	5	20051027	--	7 J	--	--	--	--	4 B	3 J	--	--
SB-284-0910	SB-284	9	10	20051027	--	--	--	--	--	--	4 B	5 J	--	--
SB-285-0102	SB-285	1	2	20051027	--	39 L	2 J	--	--	--	3 B	5 J	--	--
SB-285-0405	SB-285	4	5	20051027	--	13 J	--	--	--	--	7 B	130	--	--
SB-285-0910	SB-285	9	10	20051027	--	12 J	--	--	--	--	6 B	34	--	--
SB-286-0102	SB-286	1	2	20051027	8 J	75 L	3 J	--	--	--	8 B	2 J	--	--
SB-286-0405	SB-286	4	5	20051027	--	70 J	--	--	--	--	8 B	12	--	--
SB-286-0910	SB-286	9	10	20051027	--	--	--	--	--	--	6 B	6 J	--	--
SB-293-0102	SB-293	1	2	20051028	--	--	--	--	--	--	16 B	--	--	--
SB-293-0405	SB-293	4	5	20051028	--	32 J	--	--	--	--	11 B	--	--	--
SB-293-0910	SB-293	9	10	20051028	--	17 J	--	--	--	--	9 B	--	--	--
SB-294-0001	SB-294	0	1	20051028	--	--	--	--	--	--	14 B	--	--	--
SB-294-0405	SB-294	4	5	20051028	--	37 L	--	--	--	--	10 B	--	--	--
SB-294-0910	SB-294	9	10	20051028	--	16 J	--	--	--	--	5 B	--	--	--
SB-462-0102	SB-462	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-462-0203	SB-462	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-462-0304	SB-462	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-462-0506	SB-462	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-462-0708	SB-462	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-463-0102	SB-463	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-463-0203	SB-463	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-463-0304	SB-463	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-463-0506	SB-463	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-463-0708	SB-463	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-464-0102	SB-464	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	VOLATILES (UG/KG)									
					2-BUTANONE	ACETONE	CARBON DISULFIDE	CHLOROMETHANE	ETHYLBENZENE	M+P-XYLENES	METHYLENE CHLORIDE	NAPHTHALENE	N-BUTYLBENZENE	O-XYLENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-464-0203	SB-464	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-464-0304	SB-464	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-464-0506	SB-464	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-464-0708	SB-464	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-465-0102	SB-465	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-465-0203	SB-465	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-465-0304	SB-465	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-465-0506	SB-465	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-465-0708	SB-465	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-466-0102	SB-466	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-466-0203	SB-466	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-466-0304	SB-466	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-466-0506	SB-466	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-466-0708	SB-466	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-467-0102	SB-467	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-467-0203	SB-467	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-467-0304	SB-467	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-467-0506	SB-467	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-467-0708	SB-467	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-468-0102	SB-468	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-468-0203	SB-468	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-468-0304	SB-468	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-468-0506	SB-468	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-468-0708	SB-468	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-469-0102	SB-469	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-469-0203	SB-469	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-469-0304	SB-469	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-469-0506	SB-469	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-469-0708	SB-469	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	VOLATILES (UG/KG)									
					2-BUTANONE	ACETONE	CARBON DISULFIDE	CHLOROMETHANE	ETHYLBENZENE	M+P-XYLENES	METHYLENE CHLORIDE	NAPHTHALENE	N-BUTYLBENZENE	O-XYLENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-470-0102	SB-470	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-470-0203	SB-470	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-470-0304	SB-470	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-470-0506	SB-470	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-470-0708	SB-470	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-471-0102	SB-471	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-471-0203	SB-471	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-471-0304	SB-471	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-471-0506	SB-471	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-471-0708	SB-471	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-472-0102	SB-472	1	2	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-472-0203	SB-472	2	3	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-472-0304	SB-472	3	4	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-472-0506	SB-472	5	6	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-472-0708	SB-472	7	8	20071023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-473-0102	SB-473	1	2	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-473-0203	SB-473	2	3	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-473-0304	SB-473	3	4	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-473-0506	SB-473	5	6	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-473-0708	SB-473	7	8	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-474-0102	SB-474	1	2	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-474-0203	SB-474	2	3	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-474-0304	SB-474	3	4	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-474-0506	SB-474	5	6	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-474-0708	SB-474	7	8	20071024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-475-0102	SB-475	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-475-0203	SB-475	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-475-0304	SB-475	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-475-0506	SB-475	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	VOLATILES (UG/KG)									
					2-BUTANONE	ACETONE	CARBON DISULFIDE	CHLOROMETHANE	ETHYLBENZENE	M+P-XYLENES	METHYLENE CHLORIDE	NAPHTHALENE	N-BUTYLBENZENE	O-XYLENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-475-0708	SB-475	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-476-0102	SB-476	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-476-0203	SB-476	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-476-0304	SB-476	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-476-0506	SB-476	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-476-0708	SB-476	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-477-0102	SB-477	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-477-0203	SB-477	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-477-0304	SB-477	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-477-0506	SB-477	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-477-0708	SB-477	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-478-0102	SB-478	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-478-0203	SB-478	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-478-0304	SB-478	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-478-0506	SB-478	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-478-0708	SB-478	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-479-0102	SB-479	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-479-0203	SB-479	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-479-0304	SB-479	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-479-0506	SB-479	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-479-0708	SB-479	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-480-0102	SB-480	1	2	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-480-0203	SB-480	2	3	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-480-0304	SB-480	3	4	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-480-0506	SB-480	5	6	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-480-0708	SB-480	7	8	20071025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-481-0102	SB-481	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-481-0203	SB-481	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-481-0304	SB-481	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	VOLATILES (UG/KG)									
					2-BUTANONE	ACETONE	CARBON DISULFIDE	CHLOROMETHANE	ETHYLBENZENE	M+P-XYLENES	METHYLENE CHLORIDE	NAPHTHALENE	N-BUTYLBENZENE	O-XYLENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-481-0506	SB-481	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-481-0708	SB-481	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-482-0102	SB-482	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-482-0203	SB-482	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-482-0304	SB-482	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-482-0506	SB-482	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-482-0708	SB-482	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-483-0102	SB-483	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-483-0203	SB-483	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-483-0304	SB-483	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-483-0506	SB-483	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-483-0708	SB-483	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-484-0102	SB-484	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-484-0203	SB-484	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-484-0304	SB-484	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-484-0506	SB-484	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-484-0708	SB-484	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-485-0102	SB-485	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-485-0203	SB-485	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-485-0304	SB-485	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-485-0506	SB-485	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-485-0708	SB-485	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-486-0102	SB-486	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-486-0203	SB-486	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-486-0304	SB-486	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-486-0506	SB-486	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-486-0708	SB-486	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-487-0102	SB-487	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-487-0203	SB-487	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	VOLATILES (UG/KG)									
					2-BUTANONE	ACETONE	CARBON DISULFIDE	CHLOROMETHANE	ETHYLBENZENE	M+P-XYLENES	METHYLENE CHLORIDE	NAPHTHALENE	N-BUTYLBENZENE	O-XYLENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-487-0304	SB-487	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-487-0506	SB-487	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-487-0708	SB-487	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-488-0102	SB-488	1	2	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-488-0203	SB-488	2	3	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-488-0304	SB-488	3	4	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-488-0506	SB-488	5	6	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-488-0708	SB-488	7	8	20071029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	TERTIARY-BUTYL ALCOHOL	TOLUENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE
				Units	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA
H-SB-200RE-11	SB-200	11	11	20090928	NA	NA	NA	NA
H-SB-200RE-12	SB-200	12	12	20090928	NA	NA	NA	NA
H-SB-200RE-13	SB-200	13	13	20090928	NA	NA	NA	NA
H-SB-200RE-14	SB-200	14	14	20090928	NA	NA	NA	NA
H-SB-200RE-15	SB-200	15	15	20090928	NA	NA	NA	NA
H-SB-201RE-1	SB-201	1	1	20090924	NA	NA	NA	NA
H-SB-201RE-2	SB-201	2	2	20090924	NA	NA	NA	NA
H-SB-282RE-1	SB-282	1	1	20090929	NA	NA	NA	NA
H-SB-282RE-10	SB-282	10	10	20090929	NA	NA	NA	NA
H-SB-282RE-11	SB-282	11	11	20090929	NA	NA	NA	NA
H-SB-282RE-12	SB-282	12	12	20090929	NA	NA	NA	NA
H-SB-282RE-13	SB-282	13	13	20090929	NA	NA	NA	NA
H-SB-282RE-14	SB-282	14	14	20090929	NA	NA	NA	NA
H-SB-282RE-15	SB-282	15	15	20090929	NA	NA	NA	NA
H-SB-282RE-2	SB-282	2	2	20090929	NA	NA	NA	NA
H-SB-282RE-3	SB-282	3	3	20090929	NA	NA	NA	NA
H-SB-282RE-4	SB-282	4	4	20090929	NA	NA	NA	NA
H-SB-282RE-5	SB-282	5	5	20090929	NA	NA	NA	NA
H-SB-282RE-6	SB-282	6	6	20090929	NA	NA	NA	NA
H-SB-282RE-7	SB-282	7	7	20090929	NA	NA	NA	NA
H-SB-282RE-7-AVG	SB-282	7	7	20090929	NA	NA	NA	NA
H-SB-282RE-7-D	SB-282	7	7	20090929	NA	NA	NA	NA
H-SB-282RE-8	SB-282	8	8	20090929	NA	NA	NA	NA
H-SB-282RE-9	SB-282	9	9	20090929	NA	NA	NA	NA
H-SB-282REA-1	SB-282A	1	1	20091110	NA	NA	NA	NA
H-SB-282REA-11	SB-282A	11	11	20091110	NA	NA	NA	NA
H-SB-282REA-13	SB-282A	13	13	20091110	NA	NA	NA	NA
H-SB-282REA-15	SB-282A	15	15	20091110	NA	NA	NA	NA
H-SB-282REA-3	SB-282A	3	3	20091110	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	TERTIARY-BUTYL ALCOHOL	TOLUENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE
				Units	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA
H-SB-282REA-5	SB-282A	5	5	20091110	NA	NA	NA	NA
H-SB-282REA-7	SB-282A	7	7	20091110	NA	NA	NA	NA
H-SB-282REA-9	SB-282A	9	9	20091110	NA	NA	NA	NA
H-SB-282REA-9-AVG	SB-282A	9	9	20091110	NA	NA	NA	NA
H-SB-282REA-9-D	SB-282A	9	9	20091110	NA	NA	NA	NA
H-SB-282REB-1	SB-282B	1	1	20091110	NA	NA	NA	NA
H-SB-282REB-11	SB-282B	11	11	20091110	NA	NA	NA	NA
H-SB-282REB-13	SB-282B	13	13	20091110	NA	NA	NA	NA
H-SB-282REB-15	SB-282B	15	15	20091110	NA	NA	NA	NA
H-SB-282REB-3	SB-282B	3	3	20091110	NA	NA	NA	NA
H-SB-282REB-5	SB-282B	5	5	20091110	NA	NA	NA	NA
H-SB-282REB-7	SB-282B	7	7	20091110	NA	NA	NA	NA
H-SB-282REB-9	SB-282B	9	9	20091110	NA	NA	NA	NA
H-SB-282REC-1	SB-282C	1	1	20091110	NA	NA	NA	NA
H-SB-282REC-11	SB-282C	11	11	20091110	NA	NA	NA	NA
H-SB-282REC-13	SB-282C	13	13	20091110	NA	NA	NA	NA
H-SB-282REC-15	SB-282C	15	15	20091110	NA	NA	NA	NA
H-SB-282REC-3	SB-282C	3	3	20091110	NA	NA	NA	NA
H-SB-282REC-5	SB-282C	5	5	20091110	NA	NA	NA	NA
H-SB-282REC-7	SB-282C	7	7	20091110	NA	NA	NA	NA
H-SB-282REC-9	SB-282C	9	9	20091110	NA	NA	NA	NA
H-SB-282REC-9-AVG	SB-282C	9	9	20091110	NA	NA	NA	NA
H-SB-282REC-9-D	SB-282C	9	9	20091110	NA	NA	NA	NA
H-SB-282RED-1	SB-282D	1	1	20091110	NA	NA	NA	NA
H-SB-282RED-11	SB-282D	11	11	20091110	NA	NA	NA	NA
H-SB-282RED-13	SB-282D	13	13	20091110	NA	NA	NA	NA
H-SB-282RED-15	SB-282D	15	15	20091110	NA	NA	NA	NA
H-SB-282RED-3	SB-282D	3	3	20091110	NA	NA	NA	NA
H-SB-282RED-5	SB-282D	5	5	20091110	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	TERTIARY-BUTYL ALCOHOL	TOLUENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE
				Units	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA
H-SB-282RED-7	SB-282D	7	7	20091110	NA	NA	NA	NA
H-SB-282RED-9	SB-282D	9	9	20091110	NA	NA	NA	NA
H-SB-283RE-3	SB-283	3	3	20090924	NA	NA	NA	NA
H-SB-283RE-4	SB-283	4	4	20090924	NA	NA	NA	NA
H-SB-284RE-3	SB-284	3	3	20090925	NA	NA	NA	NA
H-SB-284RE-4	SB-284	4	4	20090925	NA	NA	NA	NA
H-SB-285RE-11	SB-285	11	11	20090925	NA	NA	NA	NA
H-SB-285RE-12	SB-285	12	12	20090925	NA	NA	NA	NA
H-SB-286RE-11	SB-286	11	11	20090925	NA	NA	NA	NA
H-SB-286RE-12	SB-286	12	12	20090925	NA	NA	NA	NA
H-SB-286RE-15	SB-286	15	15	20090925	NA	NA	NA	NA
H-SB-474RE-5	SB-474	5	5	20090928	NA	NA	NA	NA
H-SB-474RE-6	SB-474	6	6	20090928	NA	NA	NA	NA
H-SB-596-11	SB-596	11	11	20090929	NA	NA	NA	NA
H-SB-596-12	SB-596	12	12	20090929	NA	NA	NA	NA
H-SB-597-11	SB-597	11	11	20090928	NA	NA	NA	NA
H-SB-597-12	SB-597	12	12	20090928	NA	NA	NA	NA
H-SB-598-11	SB-598	11	11	20090929	NA	NA	NA	NA
H-SB-598-12	SB-598	12	12	20090929	NA	NA	NA	NA
H-SB-599-11	SB-599	11	11	20090929	NA	NA	NA	NA
H-SB-599-12	SB-599	12	12	20090929	NA	NA	NA	NA
H-SB-600-1	SB-600	1	1	20090924	NA	NA	NA	NA
H-SB-600-2	SB-600	2	2	20090924	NA	NA	NA	NA
H-SB-601-1	SB-601	1	1	20090924	NA	NA	NA	NA
H-SB-601-2	SB-601	2	2	20090924	NA	NA	NA	NA
H-SB-602-1	SB-602	1	1	20090924	NA	NA	NA	NA
H-SB-602-2	SB-602	2	2	20090924	NA	NA	NA	NA
H-SB-603-1	SB-603	1	1	20090924	NA	NA	NA	NA
H-SB-603-2	SB-603	2	2	20090924	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	TERTIARY-BUTYL ALCOHOL	TOLUENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE
				Units	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA
H-SB-604-3	SB-604	3	3	20090924	NA	NA	NA	NA
H-SB-604-4	SB-604	4	4	20090924	NA	NA	NA	NA
H-SB-604-5	SB-604	5	5	20090924	NA	NA	NA	NA
H-SB-604-6	SB-604	6	6	20090924	NA	NA	NA	NA
H-SB-604-7	SB-604	7	7	20090924	NA	NA	NA	NA
H-SB-604A-1	SB-604A	1	1	20091109	NA	NA	NA	NA
H-SB-604A-3	SB-604A	3	3	20091109	NA	NA	NA	NA
H-SB-604A-5	SB-604A	5	5	20091109	NA	NA	NA	NA
H-SB-604A-7	SB-604A	7	7	20091109	NA	NA	NA	NA
H-SB-604B-1	SB-604B	1	1	20091110	NA	NA	NA	NA
H-SB-604B-3	SB-604B	3	3	20091110	NA	NA	NA	NA
H-SB-604B-5	SB-604B	5	5	20091110	NA	NA	NA	NA
H-SB-604B-7	SB-604B	7	7	20091110	NA	NA	NA	NA
H-SB-604D-1	SB-604D	1	1	20091110	NA	NA	NA	NA
H-SB-604D-3	SB-604D	3	3	20091110	NA	NA	NA	NA
H-SB-604D-3-AVG	SB-604D	3	3	20091110	NA	NA	NA	NA
H-SB-604D-3-D	SB-604D	3	3	20091110	NA	NA	NA	NA
H-SB-604D-5	SB-604D	5	5	20091110	NA	NA	NA	NA
H-SB-604D-7	SB-604D	7	7	20091110	NA	NA	NA	NA
H-SB-605-3	SB-605	3	3	20090924	NA	NA	NA	NA
H-SB-605-4	SB-605	4	4	20090924	NA	NA	NA	NA
H-SB-606-3	SB-606	3	3	20090924	NA	NA	NA	NA
H-SB-606-4	SB-606	4	4	20090924	NA	NA	NA	NA
H-SB-607-3	SB-607	3	3	20090924	NA	NA	NA	NA
H-SB-607-4	SB-607	4	4	20090924	NA	NA	NA	NA
H-SB-608-3	SB-608	3	3	20090925	NA	NA	NA	NA
H-SB-608-4	SB-608	4	4	20090925	NA	NA	NA	NA
H-SB-608-4-AVG	SB-608	4	4	20090925	NA	NA	NA	NA
H-SB-608-4-D	SB-608	4	4	20090925	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	TERTIARY-BUTYL ALCOHOL	TOLUENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE
				Units	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA
H-SB-609-3	SB-609	3	3	20090925	NA	NA	NA	NA
H-SB-609-4	SB-609	4	4	20090925	NA	NA	NA	NA
H-SB-610-3	SB-610	3	3	20090925	NA	NA	NA	NA
H-SB-610-4	SB-610	4	4	20090925	NA	NA	NA	NA
H-SB-610-5	SB-610	5	5	20090925	NA	NA	NA	NA
H-SB-610-6	SB-610	6	6	20090925	NA	NA	NA	NA
H-SB-610-7	SB-610	7	7	20090925	NA	NA	NA	NA
H-SB-610B-1	SB-610B	1	1	20091109	NA	NA	NA	NA
H-SB-610B-3	SB-610B	3	3	20091109	NA	NA	NA	NA
H-SB-610B-5	SB-610B	5	5	20091109	NA	NA	NA	NA
H-SB-610B-5-AVG	SB-610B	5	5	20091109	NA	NA	NA	NA
H-SB-610B-5-D	SB-610B	5	5	20091109	NA	NA	NA	NA
H-SB-610C-1	SB-610C	1	1	20091109	NA	NA	NA	NA
H-SB-610C-3	SB-610C	3	3	20091109	NA	NA	NA	NA
H-SB-610C-5	SB-610C	5	5	20091109	NA	NA	NA	NA
H-SB-610D-1	SB-610D	1	1	20091109	NA	NA	NA	NA
H-SB-610D-3	SB-610D	3	3	20091109	NA	NA	NA	NA
H-SB-610D-5	SB-610D	5	5	20091109	NA	NA	NA	NA
H-SB-611-3	SB-611	3	3	20090925	NA	NA	NA	NA
H-SB-611-4	SB-611	4	4	20090925	NA	NA	NA	NA
H-SB-611-5	SB-611	5	5	20090925	NA	NA	NA	NA
H-SB-611-6	SB-611	6	6	20090925	NA	NA	NA	NA
H-SB-611-7	SB-611	7	7	20090925	NA	NA	NA	NA
H-SB-611A-1	SB-611A	1	1	20091109	NA	NA	NA	NA
H-SB-611A-3	SB-611A	3	3	20091109	NA	NA	NA	NA
H-SB-611A-5	SB-611A	5	5	20091109	NA	NA	NA	NA
H-SB-611D-1	SB-611D	1	1	20091109	NA	NA	NA	NA
H-SB-611D-3	SB-611D	3	3	20091109	NA	NA	NA	NA
H-SB-611D-5	SB-611D	5	5	20091109	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	TERTIARY-BUTYL ALCOHOL	TOLUENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE
				Units	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA
H-SB-611D-5-AVG	SB-611D	5	5	20091109	NA	NA	NA	NA
H-SB-611D-5-D	SB-611D	5	5	20091109	NA	NA	NA	NA
H-SB-612-11	SB-612	11	11	20090928	NA	NA	NA	NA
H-SB-612-11-AVG	SB-612	11	11	20090928	NA	NA	NA	NA
H-SB-612-11-D	SB-612	11	11	20090928	NA	NA	NA	NA
H-SB-612-12	SB-612	12	12	20090928	NA	NA	NA	NA
H-SB-613-11	SB-613	11	11	20090928	NA	NA	NA	NA
H-SB-613-12	SB-613	12	12	20090928	NA	NA	NA	NA
H-SB-614-10	SB-614	10	10	20090925	NA	NA	NA	NA
H-SB-614-11	SB-614	11	11	20090925	NA	NA	NA	NA
H-SB-614-12	SB-614	12	12	20090925	NA	NA	NA	NA
H-SB-615-11	SB-615	11	11	20090925	NA	NA	NA	NA
H-SB-615-12	SB-615	12	12	20090925	NA	NA	NA	NA
H-SB-616-11	SB-616	11	11	20090925	NA	NA	NA	NA
H-SB-616-11-AVG	SB-616	11	11	20090925	NA	NA	NA	NA
H-SB-616-11-D	SB-616	11	11	20090925	NA	NA	NA	NA
H-SB-616-12	SB-616	12	12	20090925	NA	NA	NA	NA
H-SB-617-11	SB-617	11	11	20090925	NA	NA	NA	NA
H-SB-617-11-AVG	SB-617	11	11	20090925	NA	NA	NA	NA
H-SB-617-11-D	SB-617	11	11	20090925	NA	NA	NA	NA
H-SB-617-12	SB-617	12	12	20090925	NA	NA	NA	NA
H-SB-618-11	SB-618	11	11	20090925	NA	NA	NA	NA
H-SB-618-12	SB-618	12	12	20090925	NA	NA	NA	NA
H-SB-619-11	SB-619	11	11	20090925	NA	NA	NA	NA
H-SB-619-12	SB-619	12	12	20090925	NA	NA	NA	NA
H-SB-620-5	SB-620	5	5	20090928	NA	NA	NA	NA
H-SB-620-6	SB-620	6	6	20090928	NA	NA	NA	NA
H-SB-620-6-AVG	SB-620	6	6	20090928	NA	NA	NA	NA
H-SB-620-6-D	SB-620	6	6	20090928	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	TERTIARY-BUTYL ALCOHOL	TOLUENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE
				Units	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA
H-SB-621-5	SB-621	5	5	20090928	NA	NA	NA	NA
H-SB-621-6	SB-621	6	6	20090928	NA	NA	NA	NA
H-SB-622-5	SB-622	5	5	20090928	NA	NA	NA	NA
H-SB-622-6	SB-622	6	6	20090928	NA	NA	NA	NA
H-SB-623-5	SB-623	5	5	20090928	NA	NA	NA	NA
H-SB-623-6	SB-623	6	6	20090928	NA	NA	NA	NA
H-SB-814-03	SB-814	3	3	20100826	NA	NA	NA	NA
H-SB-814-05	SB-814	5	5	20100826	NA	NA	NA	NA
H-SB-814-07	SB-814	7	7	20100826	NA	NA	NA	NA
H-SB-814-09	SB-814	9	9	20100826	NA	NA	NA	NA
H-SB-814-11	SB-814	11	11	20100826	NA	NA	NA	NA
H-SB-814-13	SB-814	13	13	20100826	NA	NA	NA	NA
H-SB-814-15	SB-814	15	15	20100826	NA	NA	NA	NA
H-SB-814-SS	SB-814	1	1	20100826	NA	NA	NA	NA
H-SB-815-03	SB-815	3	3	20100826	NA	NA	NA	NA
H-SB-815-05	SB-815	5	5	20100826	NA	NA	NA	NA
H-SB-815-07	SB-815	7	7	20100826	NA	NA	NA	NA
H-SB-815-09	SB-815	9	9	20100826	NA	NA	NA	NA
H-SB-815-11	SB-815	11	11	20100826	NA	NA	NA	NA
H-SB-815-13	SB-815	13	13	20100826	NA	NA	NA	NA
H-SB-815-15	SB-815	15	15	20100826	NA	NA	NA	NA
H-SB-815-SS	SB-815	1	1	20100826	NA	NA	NA	NA
H-SB-816-03	SB-816	3	3	20100827	NA	NA	NA	NA
H-SB-816-03-AVG	SB-816	3	3	20100827	NA	NA	NA	NA
H-SB-816-03-D	SB-816	3	3	20100827	NA	NA	NA	NA
H-SB-816-05	SB-816	5	5	20100827	NA	NA	NA	NA
H-SB-816-07	SB-816	7	7	20100827	NA	NA	NA	NA
H-SB-816-09	SB-816	9	9	20100827	NA	NA	NA	NA
H-SB-816-11	SB-816	11	11	20100827	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	TERTIARY-BUTYL ALCOHOL	TOLUENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE
				Units	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA
H-SB-816-SS	SB-816	1	1	20100827	NA	NA	NA	NA
H-SB-816-SS-AVG	SB-816	1	1	20100827	NA	NA	NA	NA
H-SB-816-SS-D	SB-816	1	1	20100827	NA	NA	NA	NA
H-SB-817-03	SB-817	3	3	20100827	NA	NA	NA	NA
H-SB-817-05	SB-817	5	5	20100827	NA	NA	NA	NA
H-SB-817-07	SB-817	7	7	20100827	NA	NA	NA	NA
H-SB-817-07-AVG	SB-817	7	7	20100827	NA	NA	NA	NA
H-SB-817-07-D	SB-817	7	7	20100827	NA	NA	NA	NA
H-SB-817-09	SB-817	9	9	20100827	NA	NA	NA	NA
H-SB-817-11	SB-817	11	11	20100827	NA	NA	NA	NA
H-SB-817-13	SB-817	13	13	20100827	NA	NA	NA	NA
H-SB-817-15	SB-817	15	15	20100827	NA	NA	NA	NA
H-SB-817-SS	SB-817	1	1	20100827	NA	NA	NA	NA
MRC-MW08[0809]	MRC-MW08A	8	9	20050524	NA	NA	NA	NA
SB-200-05	SB-200	5	5	20050513	--	--	--	--
SB-200-10	SB-200	10	10	20050513	5 J	3.8	1.1 J	--
SB-200-SS	SB-200	0	1	20050513	5 J	--	--	--
SB-201-05	SB-201	5	5	20050513	5 J	1.5 J	--	--
SB-201-10	SB-201	10	10	20050513	6 J	7.6	2.7	--
SB-201-SS	SB-201	0	1	20050513	7 J	7.8	2.9	--
SB-202-05	SB-202	5	5	20050513	--	6.4	2.7	0.74 J
SB-202-10	SB-202	10	10	20050513	--	5.7	2.5	0.74 J
SB-202-SS	SB-202	0	1	20050513	--	13.3	4.8	--
SB-203-05	SB-203	5	5	20050513	--	5.4	2.5	--
SB-203-10	SB-203	10	10	20050513	6 J	5.3	2.4	--
SB-203-SS	SB-203	0	1	20050513	--	8	3.4	--
SB-282-0102	SB-282	1	2	20051026	--	--	--	--
SB-282-0405	SB-282	4	5	20051026	--	--	--	--
SB-282-0910	SB-282	9	10	20051026	--	--	--	--

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	TERTIARY-BUTYL ALCOHOL	TOLUENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE
				Units	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA
SB-283-0102	SB-283	1	2	20051027	--	--	--	--
SB-283-0405	SB-283	4	5	20051027	--	--	--	--
SB-283-0910	SB-283	9	10	20051027	--	--	--	--
SB-284-0102	SB-284	1	2	20051027	--	--	--	--
SB-284-0405	SB-284	4	5	20051027	--	--	--	--
SB-284-0910	SB-284	9	10	20051027	--	--	--	--
SB-285-0102	SB-285	1	2	20051027	--	--	--	--
SB-285-0405	SB-285	4	5	20051027	--	--	--	--
SB-285-0910	SB-285	9	10	20051027	--	--	--	--
SB-286-0102	SB-286	1	2	20051027	--	--	--	--
SB-286-0405	SB-286	4	5	20051027	--	--	--	--
SB-286-0910	SB-286	9	10	20051027	--	--	--	--
SB-293-0102	SB-293	1	2	20051028	--	--	--	--
SB-293-0405	SB-293	4	5	20051028	--	--	--	2 J
SB-293-0910	SB-293	9	10	20051028	--	--	--	--
SB-294-0001	SB-294	0	1	20051028	--	--	--	--
SB-294-0405	SB-294	4	5	20051028	--	--	--	--
SB-294-0910	SB-294	9	10	20051028	--	--	--	--
SB-462-0102	SB-462	1	2	20071023	NA	NA	NA	NA
SB-462-0203	SB-462	2	3	20071023	NA	NA	NA	NA
SB-462-0304	SB-462	3	4	20071023	NA	NA	NA	NA
SB-462-0506	SB-462	5	6	20071023	NA	NA	NA	NA
SB-462-0708	SB-462	7	8	20071023	NA	NA	NA	NA
SB-463-0102	SB-463	1	2	20071023	NA	NA	NA	NA
SB-463-0203	SB-463	2	3	20071023	NA	NA	NA	NA
SB-463-0304	SB-463	3	4	20071023	NA	NA	NA	NA
SB-463-0506	SB-463	5	6	20071023	NA	NA	NA	NA
SB-463-0708	SB-463	7	8	20071023	NA	NA	NA	NA
SB-464-0102	SB-464	1	2	20071023	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	TERTIARY-BUTYL ALCOHOL	TOLUENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE
				Units	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA
SB-464-0203	SB-464	2	3	20071023	NA	NA	NA	NA
SB-464-0304	SB-464	3	4	20071023	NA	NA	NA	NA
SB-464-0506	SB-464	5	6	20071023	NA	NA	NA	NA
SB-464-0708	SB-464	7	8	20071023	NA	NA	NA	NA
SB-465-0102	SB-465	1	2	20071023	NA	NA	NA	NA
SB-465-0203	SB-465	2	3	20071023	NA	NA	NA	NA
SB-465-0304	SB-465	3	4	20071023	NA	NA	NA	NA
SB-465-0506	SB-465	5	6	20071023	NA	NA	NA	NA
SB-465-0708	SB-465	7	8	20071023	NA	NA	NA	NA
SB-466-0102	SB-466	1	2	20071023	NA	NA	NA	NA
SB-466-0203	SB-466	2	3	20071023	NA	NA	NA	NA
SB-466-0304	SB-466	3	4	20071023	NA	NA	NA	NA
SB-466-0506	SB-466	5	6	20071023	NA	NA	NA	NA
SB-466-0708	SB-466	7	8	20071023	NA	NA	NA	NA
SB-467-0102	SB-467	1	2	20071023	NA	NA	NA	NA
SB-467-0203	SB-467	2	3	20071023	NA	NA	NA	NA
SB-467-0304	SB-467	3	4	20071023	NA	NA	NA	NA
SB-467-0506	SB-467	5	6	20071023	NA	NA	NA	NA
SB-467-0708	SB-467	7	8	20071023	NA	NA	NA	NA
SB-468-0102	SB-468	1	2	20071023	NA	NA	NA	NA
SB-468-0203	SB-468	2	3	20071023	NA	NA	NA	NA
SB-468-0304	SB-468	3	4	20071023	NA	NA	NA	NA
SB-468-0506	SB-468	5	6	20071023	NA	NA	NA	NA
SB-468-0708	SB-468	7	8	20071023	NA	NA	NA	NA
SB-469-0102	SB-469	1	2	20071023	NA	NA	NA	NA
SB-469-0203	SB-469	2	3	20071023	NA	NA	NA	NA
SB-469-0304	SB-469	3	4	20071023	NA	NA	NA	NA
SB-469-0506	SB-469	5	6	20071023	NA	NA	NA	NA
SB-469-0708	SB-469	7	8	20071023	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	TERTIARY-BUTYL ALCOHOL	TOLUENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE
				Units	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA
SB-470-0102	SB-470	1	2	20071023	NA	NA	NA	NA
SB-470-0203	SB-470	2	3	20071023	NA	NA	NA	NA
SB-470-0304	SB-470	3	4	20071023	NA	NA	NA	NA
SB-470-0506	SB-470	5	6	20071023	NA	NA	NA	NA
SB-470-0708	SB-470	7	8	20071023	NA	NA	NA	NA
SB-471-0102	SB-471	1	2	20071023	NA	NA	NA	NA
SB-471-0203	SB-471	2	3	20071023	NA	NA	NA	NA
SB-471-0304	SB-471	3	4	20071023	NA	NA	NA	NA
SB-471-0506	SB-471	5	6	20071023	NA	NA	NA	NA
SB-471-0708	SB-471	7	8	20071023	NA	NA	NA	NA
SB-472-0102	SB-472	1	2	20071023	NA	NA	NA	NA
SB-472-0203	SB-472	2	3	20071023	NA	NA	NA	NA
SB-472-0304	SB-472	3	4	20071023	NA	NA	NA	NA
SB-472-0506	SB-472	5	6	20071023	NA	NA	NA	NA
SB-472-0708	SB-472	7	8	20071023	NA	NA	NA	NA
SB-473-0102	SB-473	1	2	20071024	NA	NA	NA	NA
SB-473-0203	SB-473	2	3	20071024	NA	NA	NA	NA
SB-473-0304	SB-473	3	4	20071024	NA	NA	NA	NA
SB-473-0506	SB-473	5	6	20071024	NA	NA	NA	NA
SB-473-0708	SB-473	7	8	20071024	NA	NA	NA	NA
SB-474-0102	SB-474	1	2	20071024	NA	NA	NA	NA
SB-474-0203	SB-474	2	3	20071024	NA	NA	NA	NA
SB-474-0304	SB-474	3	4	20071024	NA	NA	NA	NA
SB-474-0506	SB-474	5	6	20071024	NA	NA	NA	NA
SB-474-0708	SB-474	7	8	20071024	NA	NA	NA	NA
SB-475-0102	SB-475	1	2	20071025	NA	NA	NA	NA
SB-475-0203	SB-475	2	3	20071025	NA	NA	NA	NA
SB-475-0304	SB-475	3	4	20071025	NA	NA	NA	NA
SB-475-0506	SB-475	5	6	20071025	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	TERTIARY-BUTYL ALCOHOL	TOLUENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE
				Units	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA
SB-475-0708	SB-475	7	8	20071025	NA	NA	NA	NA
SB-476-0102	SB-476	1	2	20071025	NA	NA	NA	NA
SB-476-0203	SB-476	2	3	20071025	NA	NA	NA	NA
SB-476-0304	SB-476	3	4	20071025	NA	NA	NA	NA
SB-476-0506	SB-476	5	6	20071025	NA	NA	NA	NA
SB-476-0708	SB-476	7	8	20071025	NA	NA	NA	NA
SB-477-0102	SB-477	1	2	20071025	NA	NA	NA	NA
SB-477-0203	SB-477	2	3	20071025	NA	NA	NA	NA
SB-477-0304	SB-477	3	4	20071025	NA	NA	NA	NA
SB-477-0506	SB-477	5	6	20071025	NA	NA	NA	NA
SB-477-0708	SB-477	7	8	20071025	NA	NA	NA	NA
SB-478-0102	SB-478	1	2	20071025	NA	NA	NA	NA
SB-478-0203	SB-478	2	3	20071025	NA	NA	NA	NA
SB-478-0304	SB-478	3	4	20071025	NA	NA	NA	NA
SB-478-0506	SB-478	5	6	20071025	NA	NA	NA	NA
SB-478-0708	SB-478	7	8	20071025	NA	NA	NA	NA
SB-479-0102	SB-479	1	2	20071025	NA	NA	NA	NA
SB-479-0203	SB-479	2	3	20071025	NA	NA	NA	NA
SB-479-0304	SB-479	3	4	20071025	NA	NA	NA	NA
SB-479-0506	SB-479	5	6	20071025	NA	NA	NA	NA
SB-479-0708	SB-479	7	8	20071025	NA	NA	NA	NA
SB-480-0102	SB-480	1	2	20071025	NA	NA	NA	NA
SB-480-0203	SB-480	2	3	20071025	NA	NA	NA	NA
SB-480-0304	SB-480	3	4	20071025	NA	NA	NA	NA
SB-480-0506	SB-480	5	6	20071025	NA	NA	NA	NA
SB-480-0708	SB-480	7	8	20071025	NA	NA	NA	NA
SB-481-0102	SB-481	1	2	20071029	NA	NA	NA	NA
SB-481-0203	SB-481	2	3	20071029	NA	NA	NA	NA
SB-481-0304	SB-481	3	4	20071029	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	TERTIARY-BUTYL ALCOHOL	TOLUENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE
				Units	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA
SB-481-0506	SB-481	5	6	20071029	NA	NA	NA	NA
SB-481-0708	SB-481	7	8	20071029	NA	NA	NA	NA
SB-482-0102	SB-482	1	2	20071029	NA	NA	NA	NA
SB-482-0203	SB-482	2	3	20071029	NA	NA	NA	NA
SB-482-0304	SB-482	3	4	20071029	NA	NA	NA	NA
SB-482-0506	SB-482	5	6	20071029	NA	NA	NA	NA
SB-482-0708	SB-482	7	8	20071029	NA	NA	NA	NA
SB-483-0102	SB-483	1	2	20071029	NA	NA	NA	NA
SB-483-0203	SB-483	2	3	20071029	NA	NA	NA	NA
SB-483-0304	SB-483	3	4	20071029	NA	NA	NA	NA
SB-483-0506	SB-483	5	6	20071029	NA	NA	NA	NA
SB-483-0708	SB-483	7	8	20071029	NA	NA	NA	NA
SB-484-0102	SB-484	1	2	20071029	NA	NA	NA	NA
SB-484-0203	SB-484	2	3	20071029	NA	NA	NA	NA
SB-484-0304	SB-484	3	4	20071029	NA	NA	NA	NA
SB-484-0506	SB-484	5	6	20071029	NA	NA	NA	NA
SB-484-0708	SB-484	7	8	20071029	NA	NA	NA	NA
SB-485-0102	SB-485	1	2	20071029	NA	NA	NA	NA
SB-485-0203	SB-485	2	3	20071029	NA	NA	NA	NA
SB-485-0304	SB-485	3	4	20071029	NA	NA	NA	NA
SB-485-0506	SB-485	5	6	20071029	NA	NA	NA	NA
SB-485-0708	SB-485	7	8	20071029	NA	NA	NA	NA
SB-486-0102	SB-486	1	2	20071029	NA	NA	NA	NA
SB-486-0203	SB-486	2	3	20071029	NA	NA	NA	NA
SB-486-0304	SB-486	3	4	20071029	NA	NA	NA	NA
SB-486-0506	SB-486	5	6	20071029	NA	NA	NA	NA
SB-486-0708	SB-486	7	8	20071029	NA	NA	NA	NA
SB-487-0102	SB-487	1	2	20071029	NA	NA	NA	NA
SB-487-0203	SB-487	2	3	20071029	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	TERTIARY-BUTYL ALCOHOL	TOLUENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE
				Units	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA
SB-487-0304	SB-487	3	4	20071029	NA	NA	NA	NA
SB-487-0506	SB-487	5	6	20071029	NA	NA	NA	NA
SB-487-0708	SB-487	7	8	20071029	NA	NA	NA	NA
SB-488-0102	SB-488	1	2	20071029	NA	NA	NA	NA
SB-488-0203	SB-488	2	3	20071029	NA	NA	NA	NA
SB-488-0304	SB-488	3	4	20071029	NA	NA	NA	NA
SB-488-0506	SB-488	5	6	20071029	NA	NA	NA	NA
SB-488-0708	SB-488	7	8	20071029	NA	NA	NA	NA

APPENDIX C—TABLE OF SOIL DATA FROM PREVIOUS INVESTIGATIONS

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-481	SB-481	SB-482	SB-482	SB-482
SAMPLE ID	SB-481-0506	SB-481-0708	SB-482-0102	SB-482-0203	SB-482-0304
SAMPLE DATE	10/29/2007	10/29/2007	10/29/2007	10/29/2007	10/29/2007
METALS (MG/KG)					
ANTIMONY	--	--	--	--	--
ARSENIC	--	--	--	--	--
BARIUM	--	--	--	--	--
BERYLLIUM	--	--	--	--	--
CADMIUM	--	--	--	--	--
CHROMIUM	--	--	--	--	--
COBALT	--	--	--	--	--
COPPER	--	--	--	--	--
LEAD	--	--	--	--	--
MERCURY	0.02 U [MDL=0.015]	0.02 U [MDL=0.015]	0.063 [MDL=0.015]	0.02 U [MDL=0.015]	0.02 U [MDL=0.015]
MOLYBDENUM	--	--	--	--	--
NICKEL	--	--	--	--	--
SELENIUM	--	--	--	--	--
SILVER	--	--	--	--	--
THALLIUM	--	--	--	--	--
VANADIUM	--	--	--	--	--
ZINC	--	--	--	--	--
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	82.2 [MDL=10]	82.6 [MDL=10]	78.1 [MDL=10]	82.7 [MDL=10]	85.1 [MDL=10]
TOTAL SOLIDS (%)	--	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--	--
PH (S.U.)	--	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--	--
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--
1,4-DIOXANE	--	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-481	SB-481	SB-482	SB-482	SB-482
SAMPLE ID	SB-481-0506	SB-481-0708	SB-482-0102	SB-482-0203	SB-482-0304
SAMPLE DATE	10/29/2007	10/29/2007	10/29/2007	10/29/2007	10/29/2007
2,4-DIMETHYLPHENOL	--	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--	--
2-CHLOROPHENOL	--	--	--	--	--
2-METHYLPHENOL	--	--	--	--	--
2-NITROANILINE	--	--	--	--	--
2-NITROPHENOL	--	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--	--
3-NITROANILINE	--	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--	--
4-CHLOROANILINE	--	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--	--
4-NITROANILINE	--	--	--	--	--
4-NITROPHENOL	--	--	--	--	--
ANILINE	--	--	--	--	--
AZOBENZENE	--	--	--	--	--
BENZIDINE	--	--	--	--	--
BENZOIC ACID	--	--	--	--	--
BENZYL ALCOHOL	--	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--	--
CARBAZOLE	--	--	--	--	--
DIBENZOFURAN	--	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-481 SB-481-0506 10/29/2007	SB-481 SB-481-0708 10/29/2007	SB-482 SB-482-0102 10/29/2007	SB-482 SB-482-0203 10/29/2007	SB-482 SB-482-0304 10/29/2007
HEXACHLOROBUTADIENE	--	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--	--
HEXACHLOROETHANE	--	--	--	--	--
ISOPHORONE	--	--	--	--	--
NITROBENZENE	--	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--	--
PHENOL	--	--	--	--	--
PYRIDINE	--	--	--	--	--
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	--	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-481** **SB-481-0506** **10/29/2007**	**SB-481** **SB-481-0708** **10/29/2007**	**SB-482** **SB-482-0102** **10/29/2007**	**SB-482** **SB-482-0203** **10/29/2007**	**SB-482** **SB-482-0304** **10/29/2007**
1,4-DIOXANE	--	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--	--
2-BUTANONE	--	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--	--
2-HEXANONE	--	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--
ACETONE	--	--	--	--	--
BENZENE	--	--	--	--	--
BROMOBENZENE	--	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--	--
BROMOFORM	--	--	--	--	--
BROMOMETHANE	--	--	--	--	--
CARBON DISULFIDE	--	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--	--
CHLOROBENZENE	--	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--	--
CHLOROETHANE	--	--	--	--	--
CHLOROFORM	--	--	--	--	--
CHLOROMETHANE	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--	--
DIBROMOMETHANE	--	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--	--
ETHYLBENZENE	--	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--	--
M+P-XYLENES	--	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-481 SB-481-0506 10/29/2007	SB-481 SB-481-0708 10/29/2007	SB-482 SB-482-0102 10/29/2007	SB-482 SB-482-0203 10/29/2007	SB-482 SB-482-0304 10/29/2007
METHYLENE CHLORIDE	--	--	--	--	--
NAPHTHALENE	--	--	--	--	--
N-BUTYLBENZENE	--	--	--	--	--
N-PROPYLBENZENE	--	--	--	--	--
O-XYLENE	--	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--	--
STYRENE	--	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--	--
TETRACHLOROETHENE	--	--	--	--	--
TOLUENE	--	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--	--
TOTAL XYLENES	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--	--
TRICHLOROETHENE	--	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--	--
VINYL ACETATE	--	--	--	--	--
VINYL CHLORIDE	--	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--	--
ACENAPHTHENE	--	--	--	--	--
ACENAPHTHYLENE	--	--	--	--	--
ANTHRACENE	--	--	--	--	--
BAP EQUIVALENT-HALFND	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	13 [MDL=1.7]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]
BAP EQUIVALENT-POS	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	13 [MDL=1.7]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]
BAP EQUIVALENT-UCL	7.412379 [MDL=1.6]	7.680423 [MDL=1.6]	13 [MDL=1.7]	7.958442 [MDL=1.6]	8.333015 [MDL=1.5]
BENZO(A)ANTHRACENE	--	--	--	--	--
BENZO(A)PYRENE	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	13 J [MDL=1.7]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]
BENZO(B)FLUORANTHENE	--	--	--	--	--
BENZO(G,H,I)PERYLENE	--	--	--	--	--
BENZO(K)FLUORANTHENE	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-481**	**SB-481**	**SB-482**	**SB-482**	**SB-482**
SAMPLE ID	**SB-481-0506**	**SB-481-0708**	**SB-482-0102**	**SB-482-0203**	**SB-482-0304**
SAMPLE DATE	**10/29/2007**	**10/29/2007**	**10/29/2007**	**10/29/2007**	**10/29/2007**
C1-CHRYSENES	--	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--	--
C1-FLUORENES	--	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
C2-CHRYSENES	--	--	--	--	--
C2-FLUORENES	--	--	--	--	--
C2-NAPHTHALENES	--	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
C3-CHRYSENES	--	--	--	--	--
C3-FLUORENES	--	--	--	--	--
C3-NAPHTHALENES	--	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
C4-CHRYSENES	--	--	--	--	--
C4-NAPHTHALENES	--	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
CHRYSENE	--	--	--	--	--
DIBENZO(A,H)ANTHRACENE	--	--	--	--	--
FLUORANTHENE	--	--	--	--	--
FLUORENE	--	--	--	--	--
INDENO(1,2,3-CD)PYRENE	--	--	--	--	--
NAPHTHALENE	--	--	--	--	--
PHENANTHRENE	--	--	--	--	--
PYRENE	--	--	--	--	--
TOTAL PAHS	0 U [MDL=1.6]	0 U [MDL=1.6]	13 [MDL=1.7]	0 U [MDL=1.6]	0 U [MDL=1.5]
PCBS (UG/KG)					
AROCLOR-1016	--	--	--	--	--
AROCLOR-1221	--	--	--	--	--
AROCLOR-1232	--	--	--	--	--
AROCLOR-1242	--	--	--	--	--
AROCLOR-1248	--	--	--	--	--
AROCLOR-1254	--	--	--	--	--
AROCLOR-1260	--	--	--	--	--
TOTAL AROCLOR	--	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)					
DIESEL RANGE ORGANICS	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-481** **SB-481-0506** **10/29/2007**	**SB-481** **SB-481-0708** **10/29/2007**	**SB-482** **SB-482-0102** **10/29/2007**	**SB-482** **SB-482-0203** **10/29/2007**	**SB-482** **SB-482-0304** **10/29/2007**
GASOLINE RANGE ORGANICS	--	--	--	--	--
TPH (C09-C36)	--	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-482 SB-482-0506 10/29/2007	SB-482 SB-482-0708 10/29/2007	SB-483 SB-483-0102 10/29/2007	SB-483 SB-483-0203 10/29/2007	SB-483 SB-483-0304 10/29/2007
METALS (MG/KG)					
ANTIMONY	--	--	--	--	--
ARSENIC	--	--	--	--	--
BARIUM	--	--	--	--	--
BERYLLIUM	--	--	--	--	--
CADMIUM	--	--	--	--	--
CHROMIUM	--	--	--	--	--
COBALT	--	--	--	--	--
COPPER	--	--	--	--	--
LEAD	--	--	--	--	--
MERCURY	0.02 U [MDL=0.015]	0.02 U [MDL=0.015]	0.054 [MDL=0.015]	0.035 [MDL=0.015]	0.02 U [MDL=0.015]
MOLYBDENUM	--	--	--	--	--
NICKEL	--	--	--	--	--
SELENIUM	--	--	--	--	--
SILVER	--	--	--	--	--
THALLIUM	--	--	--	--	--
VANADIUM	--	--	--	--	--
ZINC	--	--	--	--	--
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	84 [MDL=10]	82.7 [MDL=10]	86.2 [MDL=10]	82.9 [MDL=10]	81.6 [MDL=10]
TOTAL SOLIDS (%)	--	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--	--
PH (S.U.)	--	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--	--
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--
1,4-DIOXANE	--	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-482 SB-482-0506 10/29/2007	SB-482 SB-482-0708 10/29/2007	SB-483 SB-483-0102 10/29/2007	SB-483 SB-483-0203 10/29/2007	SB-483 SB-483-0304 10/29/2007
2,4-DIMETHYLPHENOL	--	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--	--
2-CHLOROPHENOL	--	--	--	--	--
2-METHYLPHENOL	--	--	--	--	--
2-NITROANILINE	--	--	--	--	--
2-NITROPHENOL	--	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--	--
3-NITROANILINE	--	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--	--
4-CHLOROANILINE	--	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--	--
4-NITROANILINE	--	--	--	--	--
4-NITROPHENOL	--	--	--	--	--
ANILINE	--	--	--	--	--
AZOBENZENE	--	--	--	--	--
BENZIDINE	--	--	--	--	--
BENZOIC ACID	--	--	--	--	--
BENZYL ALCOHOL	--	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--	--
CARBAZOLE	--	--	--	--	--
DIBENZOFURAN	--	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--	--

LOCATION	SB-482	SB-482	SB-483	SB-483	SB-483
SAMPLE ID	SB-482-0506	SB-482-0708	SB-483-0102	SB-483-0203	SB-483-0304
SAMPLE DATE	10/29/2007	10/29/2007	10/29/2007	10/29/2007	10/29/2007
HEXACHLOROBUTADIENE	--	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--	--
HEXACHLOROETHANE	--	--	--	--	--
ISOPHORONE	--	--	--	--	--
NITROBENZENE	--	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--	--
PHENOL	--	--	--	--	--
PYRIDINE	--	--	--	--	--
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	--	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-482** **SB-482-0506** **10/29/2007**	**SB-482** **SB-482-0708** **10/29/2007**	**SB-483** **SB-483-0102** **10/29/2007**	**SB-483** **SB-483-0203** **10/29/2007**	**SB-483** **SB-483-0304** **10/29/2007**
1,4-DIOXANE	--	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--	--
2-BUTANONE	--	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--	--
2-HEXANONE	--	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--
ACETONE	--	--	--	--	--
BENZENE	--	--	--	--	--
BROMOBENZENE	--	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--	--
BROMOFORM	--	--	--	--	--
BROMOMETHANE	--	--	--	--	--
CARBON DISULFIDE	--	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--	--
CHLOROBENZENE	--	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--	--
CHLOROETHANE	--	--	--	--	--
CHLOROFORM	--	--	--	--	--
CHLOROMETHANE	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--	--
DIBROMOMETHANE	--	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--	--
ETHYLBENZENE	--	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--	--
M+P-XYLENES	--	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-482 SB-482-0506 10/29/2007	SB-482 SB-482-0708 10/29/2007	SB-483 SB-483-0102 10/29/2007	SB-483 SB-483-0203 10/29/2007	SB-483 SB-483-0304 10/29/2007
METHYLENE CHLORIDE	--	--	--	--	--
NAPHTHALENE	--	--	--	--	--
N-BUTYLBENZENE	--	--	--	--	--
N-PROPYLBENZENE	--	--	--	--	--
O-XYLENE	--	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--	--
STYRENE	--	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--	--
TETRACHLOROETHENE	--	--	--	--	--
TOLUENE	--	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--	--
TOTAL XYLENES	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--	--
TRICHLOROETHENE	--	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--	--
VINYL ACETATE	--	--	--	--	--
VINYL CHLORIDE	--	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--	--
ACENAPHTHENE	--	--	--	--	--
ACENAPHTHYLENE	--	--	--	--	--
ANTHRACENE	--	--	--	--	--
BAP EQUIVALENT-HALFND	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]	32 [MDL=1.5]	28 [MDL=1.6]	1.6 U [MDL=1.6]
BAP EQUIVALENT-POS	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]	32 [MDL=1.5]	28 [MDL=1.6]	1.6 U [MDL=1.6]
BAP EQUIVALENT-UCL	8.509708 [MDL=1.5]	8.246867 [MDL=1.6]	32 [MDL=1.5]	28 [MDL=1.6]	8.546147 [MDL=1.6]
BENZO(A)ANTHRACENE	--	--	--	--	--
BENZO(A)PYRENE	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]	32 J [MDL=1.5]	28 J [MDL=1.6]	1.6 U [MDL=1.6]
BENZO(B)FLUORANTHENE	--	--	--	--	--
BENZO(G,H,I)PERYLENE	--	--	--	--	--
BENZO(K)FLUORANTHENE	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-482**	**SB-482**	**SB-483**	**SB-483**	**SB-483**
SAMPLE ID	**SB-482-0506**	**SB-482-0708**	**SB-483-0102**	**SB-483-0203**	**SB-483-0304**
SAMPLE DATE	**10/29/2007**	**10/29/2007**	**10/29/2007**	**10/29/2007**	**10/29/2007**
C1-CHRYSENES	--	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--	--
C1-FLUORENES	--	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
C2-CHRYSENES	--	--	--	--	--
C2-FLUORENES	--	--	--	--	--
C2-NAPHTHALENES	--	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
C3-CHRYSENES	--	--	--	--	--
C3-FLUORENES	--	--	--	--	--
C3-NAPHTHALENES	--	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
C4-CHRYSENES	--	--	--	--	--
C4-NAPHTHALENES	--	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
CHRYSENE	--	--	--	--	--
DIBENZO(A,H)ANTHRACENE	--	--	--	--	--
FLUORANTHENE	--	--	--	--	--
FLUORENE	--	--	--	--	--
INDENO(1,2,3-CD)PYRENE	--	--	--	--	--
NAPHTHALENE	--	--	--	--	--
PHENANTHRENE	--	--	--	--	--
PYRENE	--	--	--	--	--
TOTAL PAHS	0 U [MDL=1.5]	0 U [MDL=1.6]	32 [MDL=1.5]	28 [MDL=1.6]	0 U [MDL=1.6]
PCBS (UG/KG)					
AROCLOR-1016	--	--	--	--	--
AROCLOR-1221	--	--	--	--	--
AROCLOR-1232	--	--	--	--	--
AROCLOR-1242	--	--	--	--	--
AROCLOR-1248	--	--	--	--	--
AROCLOR-1254	--	--	--	--	--
AROCLOR-1260	--	--	--	--	--
TOTAL AROCLOR	--	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)					
DIESEL RANGE ORGANICS	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-482** **SB-482-0506** **10/29/2007**	**SB-482** **SB-482-0708** **10/29/2007**	**SB-483** **SB-483-0102** **10/29/2007**	**SB-483** **SB-483-0203** **10/29/2007**	**SB-483** **SB-483-0304** **10/29/2007**
GASOLINE RANGE ORGANICS	--	--	--	--	--
TPH (C09-C36)	--	--	--	--	--

LOCATION	SB-483	SB-483	SB-484	SB-484	SB-484
SAMPLE ID	SB-483-0506	SB-483-0708	SB-484-0102	SB-484-0203	SB-484-0304
SAMPLE DATE	10/29/2007	10/29/2007	10/29/2007	10/29/2007	10/29/2007
METALS (MG/KG)					
ANTIMONY	--	--	--	--	--
ARSENIC	--	--	--	--	--
BARIUM	--	--	--	--	--
BERYLLIUM	--	--	--	--	--
CADMIUM	--	--	--	--	--
CHROMIUM	--	--	--	--	--
COBALT	--	--	--	--	--
COPPER	--	--	--	--	--
LEAD	--	--	--	--	--
MERCURY	0.02 U [MDL=0.015]	0.02 U [MDL=0.015]	0.028 [MDL=0.015]	0.019 U [MDL=0.015]	0.02 U [MDL=0.015]
MOLYBDENUM	--	--	--	--	--
NICKEL	--	--	--	--	--
SELENIUM	--	--	--	--	--
SILVER	--	--	--	--	--
THALLIUM	--	--	--	--	--
VANADIUM	--	--	--	--	--
ZINC	--	--	--	--	--
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	83.5 [MDL=10]	82.9 [MDL=10]	82.9 [MDL=10]	86.2 [MDL=10]	82.7 [MDL=10]
TOTAL SOLIDS (%)	--	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--	--
PH (S.U.)	--	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--	--
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--
1,4-DIOXANE	--	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-483 SB-483-0506 10/29/2007	SB-483 SB-483-0708 10/29/2007	SB-484 SB-484-0102 10/29/2007	SB-484 SB-484-0203 10/29/2007	SB-484 SB-484-0304 10/29/2007
2,4-DIMETHYLPHENOL	--	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--	--
2-CHLOROPHENOL	--	--	--	--	--
2-METHYLPHENOL	--	--	--	--	--
2-NITROANILINE	--	--	--	--	--
2-NITROPHENOL	--	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--	--
3-NITROANILINE	--	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--	--
4-CHLOROANILINE	--	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--	--
4-NITROANILINE	--	--	--	--	--
4-NITROPHENOL	--	--	--	--	--
ANILINE	--	--	--	--	--
AZOBENZENE	--	--	--	--	--
BENZIDINE	--	--	--	--	--
BENZOIC ACID	--	--	--	--	--
BENZYL ALCOHOL	--	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--	--
CARBAZOLE	--	--	--	--	--
DIBENZOFURAN	--	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--	--

LOCATION	SB-483	SB-483	SB-484	SB-484	SB-484
SAMPLE ID	SB-483-0506	SB-483-0708	SB-484-0102	SB-484-0203	SB-484-0304
SAMPLE DATE	10/29/2007	10/29/2007	10/29/2007	10/29/2007	10/29/2007
HEXACHLOROBUTADIENE	--	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--	--
HEXACHLOROETHANE	--	--	--	--	--
ISOPHORONE	--	--	--	--	--
NITROBENZENE	--	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--	--
PHENOL	--	--	--	--	--
PYRIDINE	--	--	--	--	--
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	--	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--

LOCATION	SB-483	SB-483	SB-484	SB-484	SB-484
SAMPLE ID	SB-483-0506	SB-483-0708	SB-484-0102	SB-484-0203	SB-484-0304
SAMPLE DATE	10/29/2007	10/29/2007	10/29/2007	10/29/2007	10/29/2007
1,4-DIOXANE	--	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--	--
2-BUTANONE	--	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--	--
2-HEXANONE	--	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--
ACETONE	--	--	--	--	--
BENZENE	--	--	--	--	--
BROMOBENZENE	--	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--	--
BROMOFORM	--	--	--	--	--
BROMOMETHANE	--	--	--	--	--
CARBON DISULFIDE	--	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--	--
CHLOROBENZENE	--	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--	--
CHLOROETHANE	--	--	--	--	--
CHLOROFORM	--	--	--	--	--
CHLOROMETHANE	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--	--
DIBROMOMETHANE	--	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--	--
ETHYLBENZENE	--	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--	--
M+P-XYLENES	--	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-483**	**SB-483**	**SB-484**	**SB-484**	**SB-484**
SAMPLE ID	**SB-483-0506**	**SB-483-0708**	**SB-484-0102**	**SB-484-0203**	**SB-484-0304**
SAMPLE DATE	**10/29/2007**	**10/29/2007**	**10/29/2007**	**10/29/2007**	**10/29/2007**
METHYLENE CHLORIDE	--	--	--	--	--
NAPHTHALENE	--	--	--	--	--
N-BUTYLBENZENE	--	--	--	--	--
N-PROPYLBENZENE	--	--	--	--	--
O-XYLENE	--	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--	--
STYRENE	--	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--	--
TETRACHLOROETHENE	--	--	--	--	--
TOLUENE	--	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--	--
TOTAL XYLENES	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--	--
TRICHLOROETHENE	--	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--	--
VINYL ACETATE	--	--	--	--	--
VINYL CHLORIDE	--	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--	--
ACENAPHTHENE	--	--	--	--	--
ACENAPHTHYLENE	--	--	--	--	--
ANTHRACENE	--	--	--	--	--
BAP EQUIVALENT-HALFND	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	21 [MDL=1.6]	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]
BAP EQUIVALENT-POS	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	21 [MDL=1.6]	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]
BAP EQUIVALENT-UCL	8.856757 [MDL=1.6]	9.179196 [MDL=1.6]	21 [MDL=1.6]	8.690305 [MDL=1.5]	9.513992 [MDL=1.6]
BENZO(A)ANTHRACENE	--	--	--	--	--
BENZO(A)PYRENE	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	21 J [MDL=1.6]	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]
BENZO(B)FLUORANTHENE	--	--	--	--	--
BENZO(G,H,I)PERYLENE	--	--	--	--	--
BENZO(K)FLUORANTHENE	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-483 SB-483-0506 10/29/2007	SB-483 SB-483-0708 10/29/2007	SB-484 SB-484-0102 10/29/2007	SB-484 SB-484-0203 10/29/2007	SB-484 SB-484-0304 10/29/2007
C1-CHRYSENES	--	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--	--
C1-FLUORENES	--	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
C2-CHRYSENES	--	--	--	--	--
C2-FLUORENES	--	--	--	--	--
C2-NAPHTHALENES	--	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
C3-CHRYSENES	--	--	--	--	--
C3-FLUORENES	--	--	--	--	--
C3-NAPHTHALENES	--	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
C4-CHRYSENES	--	--	--	--	--
C4-NAPHTHALENES	--	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
CHRYSENE	--	--	--	--	--
DIBENZO(A,H)ANTHRACENE	--	--	--	--	--
FLUORANTHENE	--	--	--	--	--
FLUORENE	--	--	--	--	--
INDENO(1,2,3-CD)PYRENE	--	--	--	--	--
NAPHTHALENE	--	--	--	--	--
PHENANTHRENE	--	--	--	--	--
PYRENE	--	--	--	--	--
TOTAL PAHS	0 U [MDL=1.6]	0 U [MDL=1.6]	21 [MDL=1.6]	0 U [MDL=1.5]	0 U [MDL=1.6]
PCBS (UG/KG)					
AROCLOR-1016	--	--	--	--	--
AROCLOR-1221	--	--	--	--	--
AROCLOR-1232	--	--	--	--	--
AROCLOR-1242	--	--	--	--	--
AROCLOR-1248	--	--	--	--	--
AROCLOR-1254	--	--	--	--	--
AROCLOR-1260	--	--	--	--	--
TOTAL AROCLOR	--	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)					
DIESEL RANGE ORGANICS	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-483** **SB-483-0506** **10/29/2007**	**SB-483** **SB-483-0708** **10/29/2007**	**SB-484** **SB-484-0102** **10/29/2007**	**SB-484** **SB-484-0203** **10/29/2007**	**SB-484** **SB-484-0304** **10/29/2007**
GASOLINE RANGE ORGANICS	--	--	--	--	--
TPH (C09-C36)	--	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-484 SB-484-0506 10/29/2007	SB-484 SB-484-0708 10/29/2007	SB-485 SB-485-0102 10/29/2007	SB-485 SB-485-0203 10/29/2007	SB-485 SB-485-0304 10/29/2007
METALS (MG/KG)					
ANTIMONY	--	--	--	--	--
ARSENIC	--	--	--	--	--
BARIUM	--	--	--	--	--
BERYLLIUM	--	--	--	--	--
CADMIUM	--	--	--	--	--
CHROMIUM	--	--	--	--	--
COBALT	--	--	--	--	--
COPPER	--	--	--	--	--
LEAD	--	--	--	--	--
MERCURY	0.019 U [MDL=0.015]	0.02 U [MDL=0.015]	0.019 U [MDL=0.015]	0.019 U [MDL=0.015]	0.02 U [MDL=0.015]
MOLYBDENUM	--	--	--	--	--
NICKEL	--	--	--	--	--
SELENIUM	--	--	--	--	--
SILVER	--	--	--	--	--
THALLIUM	--	--	--	--	--
VANADIUM	--	--	--	--	--
ZINC	--	--	--	--	--
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	86.5 [MDL=10]	84.2 [MDL=10]	88 [MDL=10]	88.7 [MDL=10]	84.4 [MDL=10]
TOTAL SOLIDS (%)	--	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--	--
PH (S.U.)	--	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--	--
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--
1,4-DIOXANE	--	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-484 SB-484-0506 10/29/2007	SB-484 SB-484-0708 10/29/2007	SB-485 SB-485-0102 10/29/2007	SB-485 SB-485-0203 10/29/2007	SB-485 SB-485-0304 10/29/2007
2,4-DIMETHYLPHENOL	--	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--	--
2-CHLOROPHENOL	--	--	--	--	--
2-METHYLPHENOL	--	--	--	--	--
2-NITROANILINE	--	--	--	--	--
2-NITROPHENOL	--	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--	--
3-NITROANILINE	--	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--	--
4-CHLOROANILINE	--	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--	--
4-NITROANILINE	--	--	--	--	--
4-NITROPHENOL	--	--	--	--	--
ANILINE	--	--	--	--	--
AZOBENZENE	--	--	--	--	--
BENZIDINE	--	--	--	--	--
BENZOIC ACID	--	--	--	--	--
BENZYL ALCOHOL	--	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--	--
CARBAZOLE	--	--	--	--	--
DIBENZOFURAN	--	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-484 SB-484-0506 10/29/2007	SB-484 SB-484-0708 10/29/2007	SB-485 SB-485-0102 10/29/2007	SB-485 SB-485-0203 10/29/2007	SB-485 SB-485-0304 10/29/2007
HEXACHLOROBUTADIENE	--	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--	--
HEXACHLOROETHANE	--	--	--	--	--
ISOPHORONE	--	--	--	--	--
NITROBENZENE	--	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--	--
PHENOL	--	--	--	--	--
PYRIDINE	--	--	--	--	--
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	--	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-484 SB-484-0506 10/29/2007	SB-484 SB-484-0708 10/29/2007	SB-485 SB-485-0102 10/29/2007	SB-485 SB-485-0203 10/29/2007	SB-485 SB-485-0304 10/29/2007
1,4-DIOXANE	--	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--	--
2-BUTANONE	--	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--	--
2-HEXANONE	--	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--
ACETONE	--	--	--	--	--
BENZENE	--	--	--	--	--
BROMOBENZENE	--	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--	--
BROMOFORM	--	--	--	--	--
BROMOMETHANE	--	--	--	--	--
CARBON DISULFIDE	--	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--	--
CHLOROBENZENE	--	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--	--
CHLOROETHANE	--	--	--	--	--
CHLOROFORM	--	--	--	--	--
CHLOROMETHANE	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--	--
DIBROMOMETHANE	--	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--	--
ETHYLBENZENE	--	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--	--
M+P-XYLENES	--	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-484 SB-484-0506 10/29/2007	SB-484 SB-484-0708 10/29/2007	SB-485 SB-485-0102 10/29/2007	SB-485 SB-485-0203 10/29/2007	SB-485 SB-485-0304 10/29/2007
METHYLENE CHLORIDE	--	--	--	--	--
NAPHTHALENE	--	--	--	--	--
N-BUTYLBENZENE	--	--	--	--	--
N-PROPYLBENZENE	--	--	--	--	--
O-XYLENE	--	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--	--
STYRENE	--	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--	--
TETRACHLOROETHENE	--	--	--	--	--
TOLUENE	--	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--	--
TOTAL XYLENES	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--	--
TRICHLOROETHENE	--	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--	--
VINYL ACETATE	--	--	--	--	--
VINYL CHLORIDE	--	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--	--
ACENAPHTHENE	--	--	--	--	--
ACENAPHTHYLENE	--	--	--	--	--
ANTHRACENE	--	--	--	--	--
BAP EQUIVALENT-HALFND	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	10 [MDL=1.5]	43 [MDL=1.5]	1.5 U [MDL=1.5]
BAP EQUIVALENT-POS	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	10 [MDL=1.5]	43 [MDL=1.5]	1.5 U [MDL=1.5]
BAP EQUIVALENT-UCL	8.874906 [MDL=1.5]	9.063614 [MDL=1.5]	10 [MDL=1.5]	43 [MDL=1.5]	9.256536 [MDL=1.5]
BENZO(A)ANTHRACENE	--	--	--	--	--
BENZO(A)PYRENE	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	10 J [MDL=1.5]	43 J [MDL=1.5]	1.5 U [MDL=1.5]
BENZO(B)FLUORANTHENE	--	--	--	--	--
BENZO(G,H,I)PERYLENE	--	--	--	--	--
BENZO(K)FLUORANTHENE	--	--	--	--	--

LOCATION	SB-484	SB-484	SB-485	SB-485	SB-485
SAMPLE ID	SB-484-0506	SB-484-0708	SB-485-0102	SB-485-0203	SB-485-0304
SAMPLE DATE	10/29/2007	10/29/2007	10/29/2007	10/29/2007	10/29/2007
C1-CHRYSENES	--	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--	--
C1-FLUORENES	--	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
C2-CHRYSENES	--	--	--	--	--
C2-FLUORENES	--	--	--	--	--
C2-NAPHTHALENES	--	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
C3-CHRYSENES	--	--	--	--	--
C3-FLUORENES	--	--	--	--	--
C3-NAPHTHALENES	--	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
C4-CHRYSENES	--	--	--	--	--
C4-NAPHTHALENES	--	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
CHRYSENE	--	--	--	--	--
DIBENZO(A,H)ANTHRACENE	--	--	--	--	--
FLUORANTHENE	--	--	--	--	--
FLUORENE	--	--	--	--	--
INDENO(1,2,3-CD)PYRENE	--	--	--	--	--
NAPHTHALENE	--	--	--	--	--
PHENANTHRENE	--	--	--	--	--
PYRENE	--	--	--	--	--
TOTAL PAHS	0 U [MDL=1.5]	0 U [MDL=1.5]	10 [MDL=1.5]	43 [MDL=1.5]	0 U [MDL=1.5]
PCBS (UG/KG)					
AROCLOR-1016	--	--	--	--	--
AROCLOR-1221	--	--	--	--	--
AROCLOR-1232	--	--	--	--	--
AROCLOR-1242	--	--	--	--	--
AROCLOR-1248	--	--	--	--	--
AROCLOR-1254	--	--	--	--	--
AROCLOR-1260	--	--	--	--	--
TOTAL AROCLOR	--	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)					
DIESEL RANGE ORGANICS	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-484	SB-484	SB-485	SB-485	SB-485
SAMPLE ID	SB-484-0506	SB-484-0708	SB-485-0102	SB-485-0203	SB-485-0304
SAMPLE DATE	10/29/2007	10/29/2007	10/29/2007	10/29/2007	10/29/2007
GASOLINE RANGE ORGANICS	--	--	--	--	--
TPH (C09-C36)	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-485	SB-485	SB-486	SB-486	SB-486
SAMPLE ID	SB-485-0506	SB-485-0708	SB-486-0102	SB-486-0203	SB-486-0304
SAMPLE DATE	10/29/2007	10/29/2007	10/29/2007	10/29/2007	10/29/2007
METALS (MG/KG)					
ANTIMONY	--	--	--	--	--
ARSENIC	--	--	--	--	--
BARIUM	--	--	--	--	--
BERYLLIUM	--	--	--	--	--
CADMIUM	--	--	--	--	--
CHROMIUM	--	--	--	--	--
COBALT	--	--	--	--	--
COPPER	--	--	--	--	--
LEAD	--	--	--	--	--
MERCURY	0.02 U [MDL=0.015]	0.02 U [MDL=0.015]	0.019 U [MDL=0.015]	0.019 U [MDL=0.015]	0.02 U [MDL=0.015]
MOLYBDENUM	--	--	--	--	--
NICKEL	--	--	--	--	--
SELENIUM	--	--	--	--	--
SILVER	--	--	--	--	--
THALLIUM	--	--	--	--	--
VANADIUM	--	--	--	--	--
ZINC	--	--	--	--	--
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	85 [MDL=10]	84.8 [MDL=10]	89.4 [MDL=10]	86.3 [MDL=10]	84.9 [MDL=10]
TOTAL SOLIDS (%)	--	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--	--
PH (S.U.)	--	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--	--
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--
1,4-DIOXANE	--	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--	--

LOCATION	SB-485	SB-485	SB-486	SB-486	SB-486
SAMPLE ID	SB-485-0506	SB-485-0708	SB-486-0102	SB-486-0203	SB-486-0304
SAMPLE DATE	10/29/2007	10/29/2007	10/29/2007	10/29/2007	10/29/2007
2,4-DIMETHYLPHENOL	--	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--	--
2-CHLOROPHENOL	--	--	--	--	--
2-METHYLPHENOL	--	--	--	--	--
2-NITROANILINE	--	--	--	--	--
2-NITROPHENOL	--	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--	--
3-NITROANILINE	--	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--	--
4-CHLOROANILINE	--	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--	--
4-NITROANILINE	--	--	--	--	--
4-NITROPHENOL	--	--	--	--	--
ANILINE	--	--	--	--	--
AZOBENZENE	--	--	--	--	--
BENZIDINE	--	--	--	--	--
BENZOIC ACID	--	--	--	--	--
BENZYL ALCOHOL	--	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--	--
CARBAZOLE	--	--	--	--	--
DIBENZOFURAN	--	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-485 SB-485-0506 10/29/2007	SB-485 SB-485-0708 10/29/2007	SB-486 SB-486-0102 10/29/2007	SB-486 SB-486-0203 10/29/2007	SB-486 SB-486-0304 10/29/2007
HEXACHLOROBUTADIENE	--	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--	--
HEXACHLOROETHANE	--	--	--	--	--
ISOPHORONE	--	--	--	--	--
NITROBENZENE	--	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--	--
PHENOL	--	--	--	--	--
PYRIDINE	--	--	--	--	--
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	--	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-485 SB-485-0506 10/29/2007	SB-485 SB-485-0708 10/29/2007	SB-486 SB-486-0102 10/29/2007	SB-486 SB-486-0203 10/29/2007	SB-486 SB-486-0304 10/29/2007
1,4-DIOXANE	--	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--	--
2-BUTANONE	--	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--	--
2-HEXANONE	--	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--
ACETONE	--	--	--	--	--
BENZENE	--	--	--	--	--
BROMOBENZENE	--	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--	--
BROMOFORM	--	--	--	--	--
BROMOMETHANE	--	--	--	--	--
CARBON DISULFIDE	--	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--	--
CHLOROBENZENE	--	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--	--
CHLOROETHANE	--	--	--	--	--
CHLOROFORM	--	--	--	--	--
CHLOROMETHANE	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--	--
DIBROMOMETHANE	--	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--	--
ETHYLBENZENE	--	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--	--
M+P-XYLENES	--	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-485**	**SB-485**	**SB-486**	**SB-486**	**SB-486**
SAMPLE ID	**SB-485-0506**	**SB-485-0708**	**SB-486-0102**	**SB-486-0203**	**SB-486-0304**
SAMPLE DATE	**10/29/2007**	**10/29/2007**	**10/29/2007**	**10/29/2007**	**10/29/2007**
METHYLENE CHLORIDE	--	--	--	--	--
NAPHTHALENE	--	--	--	--	--
N-BUTYLBENZENE	--	--	--	--	--
N-PROPYLBENZENE	--	--	--	--	--
O-XYLENE	--	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--	--
STYRENE	--	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--	--
TETRACHLOROETHENE	--	--	--	--	--
TOLUENE	--	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--	--
TOTAL XYLENES	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--	--
TRICHLOROETHENE	--	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--	--
VINYL ACETATE	--	--	--	--	--
VINYL CHLORIDE	--	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--	--
ACENAPHTHENE	--	--	--	--	--
ACENAPHTHYLENE	--	--	--	--	--
ANTHRACENE	--	--	--	--	--
BAP EQUIVALENT-HALFND	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	370 U [MDL=1.5]	380 U [MDL=1.5]	390 U [MDL=1.5]
BAP EQUIVALENT-POS	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	370 U [MDL=1.5]	380 U [MDL=1.5]	390 U [MDL=1.5]
BAP EQUIVALENT-UCL	9.453781 [MDL=1.5]	9.655462 [MDL=1.5]	2.433979 [MDL=1.5]	2.195778 [MDL=1.5]	3.532614 [MDL=1.5]
BENZO(A)ANTHRACENE	--	--	--	--	--
BENZO(A)PYRENE	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	370 U [MDL=1.5]	380 U [MDL=1.5]	390 U [MDL=1.5]
BENZO(B)FLUORANTHENE	--	--	--	--	--
BENZO(G,H,I)PERYLENE	--	--	--	--	--
BENZO(K)FLUORANTHENE	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-485** **SB-485-0506** **10/29/2007**	**SB-485** **SB-485-0708** **10/29/2007**	**SB-486** **SB-486-0102** **10/29/2007**	**SB-486** **SB-486-0203** **10/29/2007**	**SB-486** **SB-486-0304** **10/29/2007**
C1-CHRYSENES	--	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--	--
C1-FLUORENES	--	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
C2-CHRYSENES	--	--	--	--	--
C2-FLUORENES	--	--	--	--	--
C2-NAPHTHALENES	--	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
C3-CHRYSENES	--	--	--	--	--
C3-FLUORENES	--	--	--	--	--
C3-NAPHTHALENES	--	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
C4-CHRYSENES	--	--	--	--	--
C4-NAPHTHALENES	--	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
CHRYSENE	--	--	--	--	--
DIBENZO(A,H)ANTHRACENE	--	--	--	--	--
FLUORANTHENE	--	--	--	--	--
FLUORENE	--	--	--	--	--
INDENO(1,2,3-CD)PYRENE	--	--	--	--	--
NAPHTHALENE	--	--	--	--	--
PHENANTHRENE	--	--	--	--	--
PYRENE	--	--	--	--	--
TOTAL PAHS	0 U [MDL=1.5]	0 U [MDL=1.5]	0 U [MDL=1.5]	0 U [MDL=1.5]	0 U [MDL=1.5]
PCBS (UG/KG)					
AROCLOR-1016	--	--	--	--	--
AROCLOR-1221	--	--	--	--	--
AROCLOR-1232	--	--	--	--	--
AROCLOR-1242	--	--	--	--	--
AROCLOR-1248	--	--	--	--	--
AROCLOR-1254	--	--	--	--	--
AROCLOR-1260	--	--	--	--	--
TOTAL AROCLOR	--	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)					
DIESEL RANGE ORGANICS	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-485 SB-485-0506 10/29/2007	SB-485 SB-485-0708 10/29/2007	SB-486 SB-486-0102 10/29/2007	SB-486 SB-486-0203 10/29/2007	SB-486 SB-486-0304 10/29/2007
GASOLINE RANGE ORGANICS	--	--	--	--	--
TPH (C09-C36)	--	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-486 SB-486-0506 10/29/2007	SB-486 SB-486-0708 10/29/2007	SB-487 SB-487-0102 10/29/2007	SB-487 SB-487-0203 10/29/2007	SB-487 SB-487-0304 10/29/2007
METALS (MG/KG)					
ANTIMONY	--	--	--	--	--
ARSENIC	--	--	--	--	--
BARIUM	--	--	--	--	--
BERYLLIUM	--	--	--	--	--
CADMIUM	--	--	--	--	--
CHROMIUM	--	--	--	--	--
COBALT	--	--	--	--	--
COPPER	--	--	--	--	--
LEAD	--	--	--	--	--
MERCURY	0.02 U [MDL=0.015]	0.019 U [MDL=0.015]	0.019 U [MDL=0.015]	0.02 U [MDL=0.015]	0.019 U [MDL=0.015]
MOLYBDENUM	--	--	--	--	--
NICKEL	--	--	--	--	--
SELENIUM	--	--	--	--	--
SILVER	--	--	--	--	--
THALLIUM	--	--	--	--	--
VANADIUM	--	--	--	--	--
ZINC	--	--	--	--	--
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	81.3 [MDL=10]	85.6 [MDL=10]	89.6 [MDL=10]	82.4 [MDL=10]	88 [MDL=10]
TOTAL SOLIDS (%)	--	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--	--
PH (S.U.)	--	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--	--
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--
1,4-DIOXANE	--	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--	--

LOCATION	SB-486	SB-486	SB-487	SB-487	SB-487
SAMPLE ID	SB-486-0506	SB-486-0708	SB-487-0102	SB-487-0203	SB-487-0304
SAMPLE DATE	10/29/2007	10/29/2007	10/29/2007	10/29/2007	10/29/2007
2,4-DIMETHYLPHENOL	--	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--	--
2-CHLOROPHENOL	--	--	--	--	--
2-METHYLPHENOL	--	--	--	--	--
2-NITROANILINE	--	--	--	--	--
2-NITROPHENOL	--	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--	--
3-NITROANILINE	--	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--	--
4-CHLOROANILINE	--	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--	--
4-NITROANILINE	--	--	--	--	--
4-NITROPHENOL	--	--	--	--	--
ANILINE	--	--	--	--	--
AZOBENZENE	--	--	--	--	--
BENZIDINE	--	--	--	--	--
BENZOIC ACID	--	--	--	--	--
BENZYL ALCOHOL	--	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--	--
CARBAZOLE	--	--	--	--	--
DIBENZOFURAN	--	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--	--

LOCATION	SB-486	SB-486	SB-487	SB-487	SB-487
SAMPLE ID	SB-486-0506	SB-486-0708	SB-487-0102	SB-487-0203	SB-487-0304
SAMPLE DATE	10/29/2007	10/29/2007	10/29/2007	10/29/2007	10/29/2007
HEXACHLOROBUTADIENE	--	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--	--
HEXACHLOROETHANE	--	--	--	--	--
ISOPHORONE	--	--	--	--	--
NITROBENZENE	--	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--	--
PHENOL	--	--	--	--	--
PYRIDINE	--	--	--	--	--
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	--	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-486 SB-486-0506 10/29/2007	SB-486 SB-486-0708 10/29/2007	SB-487 SB-487-0102 10/29/2007	SB-487 SB-487-0203 10/29/2007	SB-487 SB-487-0304 10/29/2007
1,4-DIOXANE	--	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--	--
2-BUTANONE	--	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--	--
2-HEXANONE	--	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--
ACETONE	--	--	--	--	--
BENZENE	--	--	--	--	--
BROMOBENZENE	--	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--	--
BROMOFORM	--	--	--	--	--
BROMOMETHANE	--	--	--	--	--
CARBON DISULFIDE	--	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--	--
CHLOROBENZENE	--	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--	--
CHLOROETHANE	--	--	--	--	--
CHLOROFORM	--	--	--	--	--
CHLOROMETHANE	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--	--
DIBROMOMETHANE	--	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--	--
ETHYLBENZENE	--	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--	--
M+P-XYLENES	--	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--	--

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-486** **SB-486-0506** **10/29/2007**	**SB-486** **SB-486-0708** **10/29/2007**	**SB-487** **SB-487-0102** **10/29/2007**	**SB-487** **SB-487-0203** **10/29/2007**	**SB-487** **SB-487-0304** **10/29/2007**
METHYLENE CHLORIDE	--	--	--	--	--
NAPHTHALENE	--	--	--	--	--
N-BUTYLBENZENE	--	--	--	--	--
N-PROPYLBENZENE	--	--	--	--	--
O-XYLENE	--	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--	--
STYRENE	--	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--	--
TETRACHLOROETHENE	--	--	--	--	--
TOLUENE	--	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--	--
TOTAL XYLENES	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--	--
TRICHLOROETHENE	--	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--	--
VINYL ACETATE	--	--	--	--	--
VINYL CHLORIDE	--	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--	--
ACENAPHTHENE	--	--	--	--	--
ACENAPHTHYLENE	--	--	--	--	--
ANTHRACENE	--	--	--	--	--
BAP EQUIVALENT-HALFND	410 U [MDL=1.6]	390 U [MDL=1.5]	370 U [MDL=1.5]	400 U [MDL=1.6]	380 U [MDL=1.5]
BAP EQUIVALENT-POS	410 U [MDL=1.6]	390 U [MDL=1.5]	370 U [MDL=1.5]	400 U [MDL=1.6]	380 U [MDL=1.5]
BAP EQUIVALENT-UCL	0.885807 [MDL=1.6]	4.007672 [MDL=1.5]	4.764818 [MDL=1.5]	2.634174 [MDL=1.6]	2.623667 [MDL=1.5]
BENZO(A)ANTHRACENE	--	--	--	--	--
BENZO(A)PYRENE	410 U [MDL=1.6]	390 U [MDL=1.5]	370 U [MDL=1.5]	400 U [MDL=1.6]	380 U [MDL=1.5]
BENZO(B)FLUORANTHENE	--	--	--	--	--
BENZO(G,H,I)PERYLENE	--	--	--	--	--
BENZO(K)FLUORANTHENE	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-486	SB-486	SB-487	SB-487	SB-487
SAMPLE ID	SB-486-0506	SB-486-0708	SB-487-0102	SB-487-0203	SB-487-0304
SAMPLE DATE	10/29/2007	10/29/2007	10/29/2007	10/29/2007	10/29/2007
C1-CHRYSENES	--	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--	--
C1-FLUORENES	--	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
C2-CHRYSENES	--	--	--	--	--
C2-FLUORENES	--	--	--	--	--
C2-NAPHTHALENES	--	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
C3-CHRYSENES	--	--	--	--	--
C3-FLUORENES	--	--	--	--	--
C3-NAPHTHALENES	--	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
C4-CHRYSENES	--	--	--	--	--
C4-NAPHTHALENES	--	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--	--
CHRYSENE	--	--	--	--	--
DIBENZO(A,H)ANTHRACENE	--	--	--	--	--
FLUORANTHENE	--	--	--	--	--
FLUORENE	--	--	--	--	--
INDENO(1,2,3-CD)PYRENE	--	--	--	--	--
NAPHTHALENE	--	--	--	--	--
PHENANTHRENE	--	--	--	--	--
PYRENE	--	--	--	--	--
TOTAL PAHS	0 U [MDL=1.6]	0 U [MDL=1.5]	0 U [MDL=1.5]	0 U [MDL=1.6]	0 U [MDL=1.5]
PCBS (UG/KG)					
AROCLOR-1016	--	--	--	--	--
AROCLOR-1221	--	--	--	--	--
AROCLOR-1232	--	--	--	--	--
AROCLOR-1242	--	--	--	--	--
AROCLOR-1248	--	--	--	--	--
AROCLOR-1254	--	--	--	--	--
AROCLOR-1260	--	--	--	--	--
TOTAL AROCLOR	--	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)					
DIESEL RANGE ORGANICS	--	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-486 SB-486-0506 10/29/2007	SB-486 SB-486-0708 10/29/2007	SB-487 SB-487-0102 10/29/2007	SB-487 SB-487-0203 10/29/2007	SB-487 SB-487-0304 10/29/2007
GASOLINE RANGE ORGANICS	--	--	--	--	--
TPH (C09-C36)	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-487 SB-487-0506 10/29/2007	SB-487 SB-487-0708 10/29/2007	SB-488 SB-488-0102 10/29/2007	SB-488 SB-488-0203 10/29/2007
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	0.02 U [MDL=0.015]	0.02 U [MDL=0.015]	0.019 U [MDL=0.015]	0.019 U [MDL=0.015]
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	83.8 [MDL=10]	85.3 [MDL=10]	88.9 [MDL=10]	88.5 [MDL=10]
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-487 SB-487-0506 10/29/2007	SB-487 SB-487-0708 10/29/2007	SB-488 SB-488-0102 10/29/2007	SB-488 SB-488-0203 10/29/2007
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-487 SB-487-0506 10/29/2007	SB-487 SB-487-0708 10/29/2007	SB-488 SB-488-0102 10/29/2007	SB-488 SB-488-0203 10/29/2007
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-487 SB-487-0506 10/29/2007	SB-487 SB-487-0708 10/29/2007	SB-488 SB-488-0102 10/29/2007	SB-488 SB-488-0203 10/29/2007
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION	SB-487	SB-487	SB-488	SB-488
SAMPLE ID	SB-487-0506	SB-487-0708	SB-488-0102	SB-488-0203
SAMPLE DATE	10/29/2007	10/29/2007	10/29/2007	10/29/2007
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	390 U [MDL=1.6]	390 U [MDL=1.5]	9 [MDL=1.5]	370 U [MDL=1.5]
BAP EQUIVALENT-POS	390 U [MDL=1.6]	390 U [MDL=1.5]	9 [MDL=1.5]	370 U [MDL=1.5]
BAP EQUIVALENT-UCL	4.542752 [MDL=1.6]	5.146217 [MDL=1.5]	9 [MDL=1.5]	9.195247 [MDL=1.5]
BENZO(A)ANTHRACENE	--	--	--	--
BENZO(A)PYRENE	390 U [MDL=1.6]	390 U [MDL=1.5]	9 J [MDL=1.5]	370 U [MDL=1.5]
BENZO(B)FLUORANTHENE	--	--	--	--
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-487	SB-487	SB-488	SB-488
SAMPLE ID	SB-487-0506	SB-487-0708	SB-488-0102	SB-488-0203
SAMPLE DATE	10/29/2007	10/29/2007	10/29/2007	10/29/2007
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	--	--	--	--
DIBENZO(A,H)ANTHRACENE	--	--	--	--
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	--	--	--	--
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	0 U [MDL=1.6]	0 U [MDL=1.5]	9 [MDL=1.5]	0 U [MDL=1.5]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-487**	**SB-487**	**SB-488**	**SB-488**
SAMPLE ID	**SB-487-0506**	**SB-487-0708**	**SB-488-0102**	**SB-488-0203**
SAMPLE DATE	**10/29/2007**	**10/29/2007**	**10/29/2007**	**10/29/2007**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-488	SB-488	SB-488	SB-596
SAMPLE ID	SB-488-0304	SB-488-0506	SB-488-0708	H-SB-596-11
SAMPLE DATE	10/29/2007	10/29/2007	10/29/2007	9/29/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	0.019 U [MDL=0.015]	0.02 U [MDL=0.015]	0.02 U [MDL=0.015]	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	86.3 [MDL=10]	82.1 [MDL=10]	85.2 [MDL=10]	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-488** **SB-488-0304** **10/29/2007**	**SB-488** **SB-488-0506** **10/29/2007**	**SB-488** **SB-488-0708** **10/29/2007**	**SB-596** **H-SB-596-11** **9/29/2009**
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-488 SB-488-0304 10/29/2007	SB-488 SB-488-0506 10/29/2007	SB-488 SB-488-0708 10/29/2007	SB-596 H-SB-596-11 9/29/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-488 SB-488-0304 10/29/2007	SB-488 SB-488-0506 10/29/2007	SB-488 SB-488-0708 10/29/2007	SB-596 H-SB-596-11 9/29/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-488 SB-488-0304 10/29/2007	SB-488 SB-488-0506 10/29/2007	SB-488 SB-488-0708 10/29/2007	SB-596 H-SB-596-11 9/29/2009
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	380 U [MDL=1.5]	400 U [MDL=1.6]	390 U [MDL=1.5]	2.63055 [MDL=1.5]
BAP EQUIVALENT-POS	380 U [MDL=1.5]	400 U [MDL=1.6]	390 U [MDL=1.5]	0.96 [MDL=1.5]
BAP EQUIVALENT-UCL	3.124505 [MDL=1.5]	3.07763 [MDL=1.6]	390 U [MDL=1.5]	--
BENZO(A)ANTHRACENE	--	--	--	9.6 [MDL=1.1]
BENZO(A)PYRENE	380 U [MDL=1.5]	400 U [MDL=1.6]	390 UR [MDL=1.5]	1.5 U [MDL=1.5]
BENZO(B)FLUORANTHENE	--	--	--	1.4 U [MDL=1.4]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	--	--	--	2.0 U [MDL=2]

LOCATION	SB-488	SB-488	SB-488	SB-596
SAMPLE ID	SB-488-0304	SB-488-0506	SB-488-0708	H-SB-596-11
SAMPLE DATE	10/29/2007	10/29/2007	10/29/2007	9/29/2009
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	--	--	--	1.1 U [MDL=1.1]
DIBENZO(A,H)ANTHRACENE	--	--	--	1.5 U [MDL=1.5]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	--	--	--	1.8 U [MDL=1.8]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	0 U [MDL=1.5]	0 U [MDL=1.6]	0 U [MDL=1.5]	9.6 [MDL=1.5]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-488 SB-488-0304 10/29/2007	SB-488 SB-488-0506 10/29/2007	SB-488 SB-488-0708 10/29/2007	SB-596 H-SB-596-11 9/29/2009
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-596	SB-597	SB-597	SB-598
SAMPLE ID	H-SB-596-12	H-SB-597-11	H-SB-597-12	H-SB-598-11
SAMPLE DATE	9/29/2009	9/28/2009	9/28/2009	9/29/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-596 H-SB-596-12 9/29/2009	SB-597 H-SB-597-11 9/28/2009	SB-597 H-SB-597-12 9/28/2009	SB-598 H-SB-598-11 9/29/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-596 H-SB-596-12 9/29/2009	SB-597 H-SB-597-11 9/28/2009	SB-597 H-SB-597-12 9/28/2009	SB-598 H-SB-598-11 9/29/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-596	SB-597	SB-597	SB-598
SAMPLE ID	H-SB-596-12	H-SB-597-11	H-SB-597-12	H-SB-598-11
SAMPLE DATE	9/29/2009	9/28/2009	9/28/2009	9/29/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-596** **H-SB-596-12** **9/29/2009**	**SB-597** **H-SB-597-11** **9/28/2009**	**SB-597** **H-SB-597-12** **9/28/2009**	**SB-598** **H-SB-598-11** **9/29/2009**
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	129.99 [MDL=1.5]	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]
BAP EQUIVALENT-POS	129.99 [MDL=1.5]	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	120 [MDL=1.1]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]
BENZO(A)PYRENE	83 [MDL=1.5]	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]
BENZO(B)FLUORANTHENE	80 [MDL=1.4]	1.4 U [MDL=1.4]	1.4 U [MDL=1.4]	1.4 U [MDL=1.4]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	37 [MDL=2]	2.0 U [MDL=2]	2.0 U [MDL=2]	2.0 U [MDL=2]

LOCATION	**SB-596**	**SB-597**	**SB-597**	**SB-598**
SAMPLE ID	**H-SB-596-12**	**H-SB-597-11**	**H-SB-597-12**	**H-SB-598-11**
SAMPLE DATE	**9/29/2009**	**9/28/2009**	**9/28/2009**	**9/29/2009**
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	120 [MDL=1.1]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]
DIBENZO(A,H)ANTHRACENE	22 [MDL=1.5]	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	45 [MDL=1.8]	1.8 U [MDL=1.8]	1.8 U [MDL=1.8]	1.8 U [MDL=1.8]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	507 [MDL=1.5]	0 U [MDL=1.5]	0 U [MDL=1.6]	0 U [MDL=1.6]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-596** **H-SB-596-12** **9/29/2009**	**SB-597** **H-SB-597-11** **9/28/2009**	**SB-597** **H-SB-597-12** **9/28/2009**	**SB-598** **H-SB-598-11** **9/29/2009**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-598	SB-599	SB-599	SB-600
SAMPLE ID	H-SB-598-12	H-SB-599-11	H-SB-599-12	H-SB-600-1
SAMPLE DATE	9/29/2009	9/29/2009	9/29/2009	9/24/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	0.034 [MDL=0.019]
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

LOCATION	SB-598	SB-599	SB-599	SB-600
SAMPLE ID	H-SB-598-12	H-SB-599-11	H-SB-599-12	H-SB-600-1
SAMPLE DATE	9/29/2009	9/29/2009	9/29/2009	9/24/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-598 H-SB-598-12 9/29/2009	SB-599 H-SB-599-11 9/29/2009	SB-599 H-SB-599-12 9/29/2009	SB-600 H-SB-600-1 9/24/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-598 H-SB-598-12 9/29/2009	SB-599 H-SB-599-11 9/29/2009	SB-599 H-SB-599-12 9/29/2009	SB-600 H-SB-600-1 9/24/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-598 H-SB-598-12 9/29/2009	SB-599 H-SB-599-11 9/29/2009	SB-599 H-SB-599-12 9/29/2009	SB-600 H-SB-600-1 9/24/2009
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	1.6 U [MDL=1.6]	14.832 [MDL=1.7]	35.662 [MDL=1.6]	--
BAP EQUIVALENT-POS	1.6 U [MDL=1.6]	13.971 [MDL=1.7]	34.862 [MDL=1.6]	--
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	1.1 U [MDL=1.1]	12 [MDL=1.2]	30 [MDL=1.1]	--
BENZO(A)PYRENE	1.6 U [MDL=1.6]	10 [MDL=1.7]	27 [MDL=1.6]	--
BENZO(B)FLUORANTHENE	1.4 U [MDL=1.4]	9.6 [MDL=1.6]	24 [MDL=1.4]	--
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	2.0 U [MDL=2]	2.2 U [MDL=2.2]	13 [MDL=2]	--

LOCATION SAMPLE ID SAMPLE DATE	SB-598 H-SB-598-12 9/29/2009	SB-599 H-SB-599-11 9/29/2009	SB-599 H-SB-599-12 9/29/2009	SB-600 H-SB-600-1 9/24/2009
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	1.1 U [MDL=1.1]	11 [MDL=1.2]	32 [MDL=1.1]	--
DIBENZO(A,H)ANTHRACENE	1.6 U [MDL=1.6]	1.7 U [MDL=1.7]	1.6 U [MDL=1.6]	--
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	1.8 U [MDL=1.8]	18 [MDL=2]	23 [MDL=1.8]	--
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	0 U [MDL=1.6]	60.6 [MDL=1.7]	149 [MDL=1.6]	--
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-598** **H-SB-598-12** **9/29/2009**	**SB-599** **H-SB-599-11** **9/29/2009**	**SB-599** **H-SB-599-12** **9/29/2009**	**SB-600** **H-SB-600-1** **9/24/2009**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-600** **H-SB-600-2** **9/24/2009**	**SB-601** **H-SB-601-1** **9/24/2009**	**SB-601** **H-SB-601-2** **9/24/2009**	**SB-602** **H-SB-602-1** **9/24/2009**
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	0.019 U [MDL=0.019]	0.039 [MDL=0.021]	0.023 [MDL=0.021]	0.034 [MDL=0.019]
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-600 H-SB-600-2 9/24/2009	SB-601 H-SB-601-1 9/24/2009	SB-601 H-SB-601-2 9/24/2009	SB-602 H-SB-602-1 9/24/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-600 H-SB-600-2 9/24/2009	SB-601 H-SB-601-1 9/24/2009	SB-601 H-SB-601-2 9/24/2009	SB-602 H-SB-602-1 9/24/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-600**	**SB-601**	**SB-601**	**SB-602**
SAMPLE ID	**H-SB-600-2**	**H-SB-601-1**	**H-SB-601-2**	**H-SB-602-1**
SAMPLE DATE	**9/24/2009**	**9/24/2009**	**9/24/2009**	**9/24/2009**
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-600**	**SB-601**	**SB-601**	**SB-602**
SAMPLE ID	**H-SB-600-2**	**H-SB-601-1**	**H-SB-601-2**	**H-SB-602-1**
SAMPLE DATE	**9/24/2009**	**9/24/2009**	**9/24/2009**	**9/24/2009**
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--
POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)				
1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	--	--	--	--
BAP EQUIVALENT-POS	--	--	--	--
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	--	--	--	--
BENZO(A)PYRENE	--	--	--	--
BENZO(B)FLUORANTHENE	--	--	--	--
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-600**	**SB-601**	**SB-601**	**SB-602**
SAMPLE ID	**H-SB-600-2**	**H-SB-601-1**	**H-SB-601-2**	**H-SB-602-1**
SAMPLE DATE	**9/24/2009**	**9/24/2009**	**9/24/2009**	**9/24/2009**
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	--	--	--	--
DIBENZO(A,H)ANTHRACENE	--	--	--	--
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	--	--	--	--
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	--	--	--	--
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

LOCATION	**SB-600**	**SB-601**	**SB-601**	**SB-602**
SAMPLE ID	**H-SB-600-2**	**H-SB-601-1**	**H-SB-601-2**	**H-SB-602-1**
SAMPLE DATE	**9/24/2009**	**9/24/2009**	**9/24/2009**	**9/24/2009**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-602	SB-603	SB-603	SB-604
SAMPLE ID	H-SB-602-2	H-SB-603-1	H-SB-603-2	H-SB-604-3
SAMPLE DATE	9/24/2009	9/24/2009	9/24/2009	9/24/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	0.029 [MDL=0.02]	0.31 [MDL=0.018]	0.025 [MDL=0.019]	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-602	SB-603	SB-603	SB-604
SAMPLE ID	H-SB-602-2	H-SB-603-1	H-SB-603-2	H-SB-604-3
SAMPLE DATE	9/24/2009	9/24/2009	9/24/2009	9/24/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-602 H-SB-602-2 9/24/2009	SB-603 H-SB-603-1 9/24/2009	SB-603 H-SB-603-2 9/24/2009	SB-604 H-SB-604-3 9/24/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-602 H-SB-602-2 9/24/2009	SB-603 H-SB-603-1 9/24/2009	SB-603 H-SB-603-2 9/24/2009	SB-604 H-SB-604-3 9/24/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-602** **H-SB-602-2** **9/24/2009**	**SB-603** **H-SB-603-1** **9/24/2009**	**SB-603** **H-SB-603-2** **9/24/2009**	**SB-604** **H-SB-604-3** **9/24/2009**
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	--	--	--	194.59 [MDL=1.5]
BAP EQUIVALENT-POS	--	--	--	194.59 [MDL=1.5]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	--	--	--	130 [MDL=1.1]
BENZO(A)PYRENE	--	--	--	130 [MDL=1.5]
BENZO(B)FLUORANTHENE	--	--	--	110 [MDL=1.4]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	--	--	--	64 [MDL=2]

LOCATION SAMPLE ID SAMPLE DATE	SB-602 H-SB-602-2 9/24/2009	SB-603 H-SB-603-1 9/24/2009	SB-603 H-SB-603-2 9/24/2009	SB-604 H-SB-604-3 9/24/2009
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	--	--	--	150 [MDL=1.1]
DIBENZO(A,H)ANTHRACENE	--	--	--	33 [MDL=1.5]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	--	--	--	68 [MDL=1.8]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	--	--	--	685 [MDL=1.5]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-602** **H-SB-602-2** **9/24/2009**	**SB-603** **H-SB-603-1** **9/24/2009**	**SB-603** **H-SB-603-2** **9/24/2009**	**SB-604** **H-SB-604-3** **9/24/2009**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-604 H-SB-604-4 9/24/2009	SB-604 H-SB-604-5 9/24/2009	SB-604 H-SB-604-6 9/24/2009	SB-604 H-SB-604-7 9/24/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-604 H-SB-604-4 9/24/2009	SB-604 H-SB-604-5 9/24/2009	SB-604 H-SB-604-6 9/24/2009	SB-604 H-SB-604-7 9/24/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION	SB-604	SB-604	SB-604	SB-604
SAMPLE ID	H-SB-604-4	H-SB-604-5	H-SB-604-6	H-SB-604-7
SAMPLE DATE	9/24/2009	9/24/2009	9/24/2009	9/24/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-604	SB-604	SB-604	SB-604
SAMPLE ID	H-SB-604-4	H-SB-604-5	H-SB-604-6	H-SB-604-7
SAMPLE DATE	9/24/2009	9/24/2009	9/24/2009	9/24/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-604** **H-SB-604-4** **9/24/2009**	**SB-604** **H-SB-604-5** **9/24/2009**	**SB-604** **H-SB-604-6** **9/24/2009**	**SB-604** **H-SB-604-7** **9/24/2009**
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--
POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)				
1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	1.6 U [MDL=1.6]	364.18 [MDL=1.5]	125.12 [MDL=1.5]	1.5 U [MDL=1.5]
BAP EQUIVALENT-POS	1.6 U [MDL=1.6]	364.18 [MDL=1.5]	124.37 [MDL=1.5]	1.5 U [MDL=1.5]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	1.2 U [MDL=1.2]	270 [MDL=1.1]	110 [MDL=1.1]	1.1 U [MDL=1.1]
BENZO(A)PYRENE	1.6 U [MDL=1.6]	260 [MDL=1.5]	98 [MDL=1.5]	1.5 U [MDL=1.5]
BENZO(B)FLUORANTHENE	1.5 U [MDL=1.5]	260 [MDL=1.4]	100 [MDL=1.4]	1.4 U [MDL=1.4]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	2.1 U [MDL=2.1]	91 [MDL=2]	36 [MDL=2]	2.0 U [MDL=2]

LOCATION	SB-604	SB-604	SB-604	SB-604
SAMPLE ID	H-SB-604-4	H-SB-604-5	H-SB-604-6	H-SB-604-7
SAMPLE DATE	9/24/2009	9/24/2009	9/24/2009	9/24/2009
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	1.1 U [MDL=1.1]	270 [MDL=1.1]	110 [MDL=1.1]	1.1 U [MDL=1.1]
DIBENZO(A,H)ANTHRACENE	1.6 U [MDL=1.6]	37 [MDL=1.5]	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	1.8 U [MDL=1.8]	130 [MDL=1.8]	49 [MDL=1.8]	1.8 U [MDL=1.8]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	0 U [MDL=1.6]	1318 [MDL=1.5]	503 [MDL=1.5]	0 U [MDL=1.5]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-604** **H-SB-604-4** **9/24/2009**	**SB-604** **H-SB-604-5** **9/24/2009**	**SB-604** **H-SB-604-6** **9/24/2009**	**SB-604** **H-SB-604-7** **9/24/2009**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-604A H-SB-604A-1 11/9/2009	SB-604A H-SB-604A-3 11/9/2009	SB-604A H-SB-604A-5 11/9/2009	SB-604A H-SB-604A-7 11/9/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

LOCATION	SB-604A	SB-604A	SB-604A	SB-604A
SAMPLE ID	H-SB-604A-1	H-SB-604A-3	H-SB-604A-5	H-SB-604A-7
SAMPLE DATE	11/9/2009	11/9/2009	11/9/2009	11/9/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-604A H-SB-604A-1 11/9/2009	SB-604A H-SB-604A-3 11/9/2009	SB-604A H-SB-604A-5 11/9/2009	SB-604A H-SB-604A-7 11/9/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-604A H-SB-604A-1 11/9/2009	SB-604A H-SB-604A-3 11/9/2009	SB-604A H-SB-604A-5 11/9/2009	SB-604A H-SB-604A-7 11/9/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-604A H-SB-604A-1 11/9/2009	SB-604A H-SB-604A-3 11/9/2009	SB-604A H-SB-604A-5 11/9/2009	SB-604A H-SB-604A-7 11/9/2009
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	16.915 [MDL=1.4]	1.6 U [MDL=1.6]	34.331 [MDL=1.6]	1.6 U [MDL=1.6]
BAP EQUIVALENT-POS	16 [MDL=1.4]	1.6 U [MDL=1.6]	33.531 [MDL=1.6]	1.6 U [MDL=1.6]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	1.1 U [MDL=1.1]	1.2 U [MDL=1.2]	19 [MDL=1.1]	1.1 U [MDL=1.1]
BENZO(A)PYRENE	16 [MDL=1.4]	1.6 U [MDL=1.6]	28 [MDL=1.6]	1.6 U [MDL=1.6]
BENZO(B)FLUORANTHENE	1.3 U [MDL=1.3]	1.5 U [MDL=1.5]	16 [MDL=1.4]	1.4 U [MDL=1.4]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	1.9 U [MDL=1.9]	2.1 U [MDL=2.1]	11 [MDL=2.1]	2.0 U [MDL=2]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-604A** **H-SB-604A-1** **11/9/2009**	**SB-604A** **H-SB-604A-3** **11/9/2009**	**SB-604A** **H-SB-604A-5** **11/9/2009**	**SB-604A** **H-SB-604A-7** **11/9/2009**
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	1.0 U [MDL=1]	1.1 U [MDL=1.1]	21 [MDL=1.1]	1.1 U [MDL=1.1]
DIBENZO(A,H)ANTHRACENE	1.4 U [MDL=1.4]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	1.7 U [MDL=1.7]	1.9 U [MDL=1.9]	19 [MDL=1.8]	1.8 U [MDL=1.8]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	16 [MDL=1.4]	0 U [MDL=1.6]	114 [MDL=1.6]	0 U [MDL=1.6]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-604A** **H-SB-604A-1** **11/9/2009**	**SB-604A** **H-SB-604A-3** **11/9/2009**	**SB-604A** **H-SB-604A-5** **11/9/2009**	**SB-604A** **H-SB-604A-7** **11/9/2009**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-604B H-SB-604B-1 11/10/2009	SB-604B H-SB-604B-3 11/10/2009	SB-604B H-SB-604B-5 11/10/2009	SB-604B H-SB-604B-7 11/10/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

LOCATION	SB-604B	SB-604B	SB-604B	SB-604B
SAMPLE ID	H-SB-604B-1	H-SB-604B-3	H-SB-604B-5	H-SB-604B-7
SAMPLE DATE	11/10/2009	11/10/2009	11/10/2009	11/10/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-604B H-SB-604B-1 11/10/2009	SB-604B H-SB-604B-3 11/10/2009	SB-604B H-SB-604B-5 11/10/2009	SB-604B H-SB-604B-7 11/10/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

LOCATION	SB-604B	SB-604B	SB-604B	SB-604B
SAMPLE ID	H-SB-604B-1	H-SB-604B-3	H-SB-604B-5	H-SB-604B-7
SAMPLE DATE	11/10/2009	11/10/2009	11/10/2009	11/10/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-604B** **H-SB-604B-1** **11/10/2009**	**SB-604B** **H-SB-604B-3** **11/10/2009**	**SB-604B** **H-SB-604B-5** **11/10/2009**	**SB-604B** **H-SB-604B-7** **11/10/2009**
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	163.3 [MDL=1.4]	1.5 U [MDL=1.5]	1727.6 [MDL=3.2]	1.5 U [MDL=1.5]
BAP EQUIVALENT-POS	163.3 [MDL=1.4]	1.5 U [MDL=1.5]	1727.6 [MDL=3.2]	1.5 U [MDL=1.5]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	120 [MDL=1]	1.1 U [MDL=1.1]	1400 [MDL=2.3]	1.1 U [MDL=1.1]
BENZO(A)PYRENE	110 [MDL=1.4]	1.5 U [MDL=1.5]	1200 [MDL=3.2]	1.5 U [MDL=1.5]
BENZO(B)FLUORANTHENE	90 [MDL=1.3]	1.4 U [MDL=1.4]	1200 [MDL=3]	1.4 U [MDL=1.4]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	48 [MDL=1.8]	2.0 U [MDL=2]	530 [MDL=4.2]	2.0 U [MDL=2]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-604B H-SB-604B-1 11/10/2009	SB-604B H-SB-604B-3 11/10/2009	SB-604B H-SB-604B-5 11/10/2009	SB-604B H-SB-604B-7 11/10/2009
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	120 [MDL=0.95]	1.0 U [MDL=1]	1300 [MDL=2.2]	1.1 U [MDL=1.1]
DIBENZO(A,H)ANTHRACENE	26 [MDL=1.4]	1.5 U [MDL=1.5]	210 [MDL=3.2]	1.5 U [MDL=1.5]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	57 [MDL=1.6]	1.7 U [MDL=1.7]	510 [MDL=3.7]	1.8 U [MDL=1.8]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	571 [MDL=1.4]	0 U [MDL=1.5]	6350 [MDL=3.2]	0 U [MDL=1.5]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-604B H-SB-604B-1 11/10/2009	SB-604B H-SB-604B-3 11/10/2009	SB-604B H-SB-604B-5 11/10/2009	SB-604B H-SB-604B-7 11/10/2009
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-604D H-SB-604D-1 11/10/2009	SB-604D H-SB-604D-3 11/10/2009	SB-604D H-SB-604D-3-D 11/10/2009	SB-604D H-SB-604D-5 11/10/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-604D H-SB-604D-1 11/10/2009	SB-604D H-SB-604D-3 11/10/2009	SB-604D H-SB-604D-3-D 11/10/2009	SB-604D H-SB-604D-5 11/10/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-604D H-SB-604D-1 11/10/2009	SB-604D H-SB-604D-3 11/10/2009	SB-604D H-SB-604D-3-D 11/10/2009	SB-604D H-SB-604D-5 11/10/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-604D H-SB-604D-1 11/10/2009	SB-604D H-SB-604D-3 11/10/2009	SB-604D H-SB-604D-3-D 11/10/2009	SB-604D H-SB-604D-5 11/10/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-604D H-SB-604D-1 11/10/2009	SB-604D H-SB-604D-3 11/10/2009	SB-604D H-SB-604D-3-D 11/10/2009	SB-604D H-SB-604D-5 11/10/2009
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	45883 [MDL=71]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	1.7 U [MDL=1.7]
BAP EQUIVALENT-POS	45883 [MDL=71]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	1.7 U [MDL=1.7]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	38000 [MDL=52]	1.2 U [MDL=1.2]	1.2 U [MDL=1.2]	1.2 U [MDL=1.2]
BENZO(A)PYRENE	33000 [MDL=71]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	1.7 U [MDL=1.7]
BENZO(B)FLUORANTHENE	31000 [MDL=66]	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	15000 [MDL=93]	2.1 U [MDL=2.1]	2.1 U [MDL=2.1]	2.2 U [MDL=2.2]

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-604D** **H-SB-604D-1** **11/10/2009**	**SB-604D** **H-SB-604D-3** **11/10/2009**	**SB-604D** **H-SB-604D-3-D** **11/10/2009**	**SB-604D** **H-SB-604D-5** **11/10/2009**
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	33000 [MDL=49]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	1.2 U [MDL=1.2]
DIBENZO(A,H)ANTHRACENE	4500 [MDL=71]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	1.7 U [MDL=1.7]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	13000 [MDL=82]	1.9 U [MDL=1.9]	1.9 U [MDL=1.9]	1.9 U [MDL=1.9]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	167500 [MDL=71]	0 U [MDL=1.6]	0 U [MDL=1.6]	0 U [MDL=1.7]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

LOCATION	SB-604D	SB-604D	SB-604D	SB-604D
SAMPLE ID	H-SB-604D-1	H-SB-604D-3	H-SB-604D-3-D	H-SB-604D-5
SAMPLE DATE	11/10/2009	11/10/2009	11/10/2009	11/10/2009
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-604D** **H-SB-604D-7** **11/10/2009**	**SB-605** **H-SB-605-3** **9/24/2009**	**SB-605** **H-SB-605-4** **9/24/2009**	**SB-606** **H-SB-606-3** **9/24/2009**
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-604D H-SB-604D-7 11/10/2009	SB-605 H-SB-605-3 9/24/2009	SB-605 H-SB-605-4 9/24/2009	SB-606 H-SB-606-3 9/24/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-604D H-SB-604D-7 11/10/2009	SB-605 H-SB-605-3 9/24/2009	SB-605 H-SB-605-4 9/24/2009	SB-606 H-SB-606-3 9/24/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-604D H-SB-604D-7 11/10/2009	SB-605 H-SB-605-3 9/24/2009	SB-605 H-SB-605-4 9/24/2009	SB-606 H-SB-606-3 9/24/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-604D**	**SB-605**	**SB-605**	**SB-606**
SAMPLE ID	**H-SB-604D-7**	**H-SB-605-3**	**H-SB-605-4**	**H-SB-606-3**
SAMPLE DATE	**11/10/2009**	**9/24/2009**	**9/24/2009**	**9/24/2009**
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--
POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)				
1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	1.7 U [MDL=1.7]	23.354 [MDL=1.5]	1.5 U [MDL=1.5]	2.565 [MDL=1.5]
BAP EQUIVALENT-POS	1.7 U [MDL=1.7]	22.604 [MDL=1.5]	1.5 U [MDL=1.5]	0.9 [MDL=1.5]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	1.3 U [MDL=1.3]	21 [MDL=1.1]	1.1 U [MDL=1.1]	9.0 [MDL=1.1]
BENZO(A)PYRENE	1.7 U [MDL=1.7]	17 [MDL=1.5]	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]
BENZO(B)FLUORANTHENE	1.6 U [MDL=1.6]	15 [MDL=1.4]	1.3 U [MDL=1.3]	1.4 U [MDL=1.4]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	2.3 U [MDL=2.3]	8.3 [MDL=2]	1.9 U [MDL=1.9]	1.9 U [MDL=1.9]

LOCATION SAMPLE ID SAMPLE DATE	SB-604D H-SB-604D-7 11/10/2009	SB-605 H-SB-605-3 9/24/2009	SB-605 H-SB-605-4 9/24/2009	SB-606 H-SB-606-3 9/24/2009
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	1.2 U [MDL=1.2]	21 [MDL=1.1]	1.0 U [MDL=1]	1.0 U [MDL=1]
DIBENZO(A,H)ANTHRACENE	1.7 U [MDL=1.7]	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	2.0 U [MDL=2]	19 [MDL=1.8]	1.7 U [MDL=1.7]	1.7 U [MDL=1.7]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	0 U [MDL=1.7]	101.3 [MDL=1.5]	0 U [MDL=1.5]	9 [MDL=1.5]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-604D** **H-SB-604D-7** **11/10/2009**	**SB-605** **H-SB-605-3** **9/24/2009**	**SB-605** **H-SB-605-4** **9/24/2009**	**SB-606** **H-SB-606-3** **9/24/2009**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-606	SB-607	SB-607	SB-608
SAMPLE ID	H-SB-606-4	H-SB-607-3	H-SB-607-4	H-SB-608-3
SAMPLE DATE	9/24/2009	9/24/2009	9/24/2009	9/25/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-606 H-SB-606-4 9/24/2009	SB-607 H-SB-607-3 9/24/2009	SB-607 H-SB-607-4 9/24/2009	SB-608 H-SB-608-3 9/25/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-606 H-SB-606-4 9/24/2009	SB-607 H-SB-607-3 9/24/2009	SB-607 H-SB-607-4 9/24/2009	SB-608 H-SB-608-3 9/25/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-606	SB-607	SB-607	SB-608
SAMPLE ID	H-SB-606-4	H-SB-607-3	H-SB-607-4	H-SB-608-3
SAMPLE DATE	9/24/2009	9/24/2009	9/24/2009	9/25/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-606** **H-SB-606-4** **9/24/2009**	**SB-607** **H-SB-607-3** **9/24/2009**	**SB-607** **H-SB-607-4** **9/24/2009**	**SB-608** **H-SB-608-3** **9/25/2009**
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]
BAP EQUIVALENT-POS	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	1.1 U [MDL=1.1]	1.2 U [MDL=1.2]	1.1 U [MDL=1.1]	1.2 U [MDL=1.2]
BENZO(A)PYRENE	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]
BENZO(B)FLUORANTHENE	1.4 U [MDL=1.4]	1.5 U [MDL=1.5]	1.4 U [MDL=1.4]	1.5 U [MDL=1.5]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	2.0 U [MDL=2]	2.1 U [MDL=2.1]	2.0 U [MDL=2]	2.1 U [MDL=2.1]

LOCATION SAMPLE ID SAMPLE DATE	SB-606 H-SB-606-4 9/24/2009	SB-607 H-SB-607-3 9/24/2009	SB-607 H-SB-607-4 9/24/2009	SB-608 H-SB-608-3 9/25/2009
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	1.0 U [MDL=1]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]
DIBENZO(A,H)ANTHRACENE	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	1.7 U [MDL=1.7]	1.9 U [MDL=1.9]	1.8 U [MDL=1.8]	1.9 U [MDL=1.9]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	0 U [MDL=1.5]	0 U [MDL=1.6]	0 U [MDL=1.6]	0 U [MDL=1.6]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-606**	**SB-607**	**SB-607**	**SB-608**
SAMPLE ID	**H-SB-606-4**	**H-SB-607-3**	**H-SB-607-4**	**H-SB-608-3**
SAMPLE DATE	**9/24/2009**	**9/24/2009**	**9/24/2009**	**9/25/2009**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-608	SB-608	SB-609	SB-609
SAMPLE ID	H-SB-608-4	H-SB-608-4-D	H-SB-609-3	H-SB-609-4
SAMPLE DATE	9/25/2009	9/25/2009	9/25/2009	9/25/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-608** **H-SB-608-4** **9/25/2009**	**SB-608** **H-SB-608-4-D** **9/25/2009**	**SB-609** **H-SB-609-3** **9/25/2009**	**SB-609** **H-SB-609-4** **9/25/2009**
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-608 H-SB-608-4 9/25/2009	SB-608 H-SB-608-4-D 9/25/2009	SB-609 H-SB-609-3 9/25/2009	SB-609 H-SB-609-4 9/25/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-608 H-SB-608-4 9/25/2009	SB-608 H-SB-608-4-D 9/25/2009	SB-609 H-SB-609-3 9/25/2009	SB-609 H-SB-609-4 9/25/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-608 H-SB-608-4 9/25/2009	SB-608 H-SB-608-4-D 9/25/2009	SB-609 H-SB-609-3 9/25/2009	SB-609 H-SB-609-4 9/25/2009
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--
POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)				
1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	2.68105 [MDL=1.6]	1.7 U [MDL=1.7]	20.4255 [MDL=1.6]	46.746 [MDL=1.6]
BAP EQUIVALENT-POS	0.9 [MDL=1.6]	1.7 U [MDL=1.7]	19.52 [MDL=1.6]	45.946 [MDL=1.6]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	9.0 [MDL=1.2]	1.2 U [MDL=1.2]	19 [MDL=1.2]	44 [MDL=1.2]
BENZO(A)PYRENE	1.6 U [MDL=1.6]	1.7 U [MDL=1.7]	16 [MDL=1.6]	36 [MDL=1.6]
BENZO(B)FLUORANTHENE	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	16 [MDL=1.5]	37 [MDL=1.5]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	2.1 U [MDL=2.1]	2.2 U [MDL=2.2]	2.1 U [MDL=2.1]	20 [MDL=2.1]

LOCATION SAMPLE ID SAMPLE DATE	SB-608 H-SB-608-4 9/25/2009	SB-608 H-SB-608-4-D 9/25/2009	SB-609 H-SB-609-3 9/25/2009	SB-609 H-SB-609-4 9/25/2009
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	20 [MDL=1.1]	46 [MDL=1.1]
DIBENZO(A,H)ANTHRACENE	1.6 U [MDL=1.6]	1.7 U [MDL=1.7]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	1.9 U [MDL=1.9]	1.9 U [MDL=1.9]	1.9 U [MDL=1.9]	16 [MDL=1.9]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	9 [MDL=1.6]	0 U [MDL=1.7]	71 [MDL=1.6]	199 [MDL=1.6]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-608** **H-SB-608-4** **9/25/2009**	**SB-608** **H-SB-608-4-D** **9/25/2009**	**SB-609** **H-SB-609-3** **9/25/2009**	**SB-609** **H-SB-609-4** **9/25/2009**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-610 H-SB-610-3 9/25/2009	SB-610 H-SB-610-4 9/25/2009	SB-610 H-SB-610-5 9/25/2009	SB-610 H-SB-610-6 9/25/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-610 H-SB-610-3 9/25/2009	SB-610 H-SB-610-4 9/25/2009	SB-610 H-SB-610-5 9/25/2009	SB-610 H-SB-610-6 9/25/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-610** **H-SB-610-3** **9/25/2009**	**SB-610** **H-SB-610-4** **9/25/2009**	**SB-610** **H-SB-610-5** **9/25/2009**	**SB-610** **H-SB-610-6** **9/25/2009**
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-610 H-SB-610-3 9/25/2009	SB-610 H-SB-610-4 9/25/2009	SB-610 H-SB-610-5 9/25/2009	SB-610 H-SB-610-6 9/25/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-610** **H-SB-610-3** **9/25/2009**	**SB-610** **H-SB-610-4** **9/25/2009**	**SB-610** **H-SB-610-5** **9/25/2009**	**SB-610** **H-SB-610-6** **9/25/2009**
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	476.8 [MDL=1.6]	62.129 [MDL=1.6]	19.65 [MDL=1.5]	1.6 U [MDL=1.6]
BAP EQUIVALENT-POS	476.8 [MDL=1.6]	61.329 [MDL=1.6]	18.81 [MDL=1.5]	1.6 U [MDL=1.6]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	410 [MDL=1.2]	54 [MDL=1.2]	22 J [MDL=1.1]	1.1 UJ [MDL=1.1]
BENZO(A)PYRENE	320 [MDL=1.6]	47 [MDL=1.6]	15 J [MDL=1.5]	1.6 UJ [MDL=1.6]
BENZO(B)FLUORANTHENE	320 [MDL=1.5]	50 [MDL=1.5]	15 J [MDL=1.4]	1.4 UJ [MDL=1.4]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	140 [MDL=2.1]	17 [MDL=2.1]	8.7 J [MDL=2]	2.0 UJ [MDL=2]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-610 H-SB-610-3 9/25/2009	SB-610 H-SB-610-4 9/25/2009	SB-610 H-SB-610-5 9/25/2009	SB-610 H-SB-610-6 9/25/2009
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	400 [MDL=1.1]	59 [MDL=1.1]	23 J [MDL=1.1]	1.1 UJ [MDL=1.1]
DIBENZO(A,H)ANTHRACENE	66 [MDL=1.6]	1.6 U [MDL=1.6]	1.5 UJ [MDL=1.5]	1.6 UJ [MDL=1.6]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	160 [MDL=1.8]	37 [MDL=1.9]	1.8 UJ [MDL=1.8]	1.8 UJ [MDL=1.8]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	1816 [MDL=1.6]	264 [MDL=1.6]	83.7 [MDL=1.5]	0 U [MDL=1.6]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-610** **H-SB-610-3** **9/25/2009**	**SB-610** **H-SB-610-4** **9/25/2009**	**SB-610** **H-SB-610-5** **9/25/2009**	**SB-610** **H-SB-610-6** **9/25/2009**
GASOLINE RANGE ORGANICS	--	36 J [MDL=35]	--	--
TPH (C09-C36)	--	--	--	--

LOCATION	SB-610	SB-610B	SB-610B	SB-610B
SAMPLE ID	H-SB-610-7	H-SB-610B-1	H-SB-610B-3	H-SB-610B-5
SAMPLE DATE	9/25/2009	11/9/2009	11/9/2009	11/9/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-610 H-SB-610-7 9/25/2009	SB-610B H-SB-610B-1 11/9/2009	SB-610B H-SB-610B-3 11/9/2009	SB-610B H-SB-610B-5 11/9/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-610 H-SB-610-7 9/25/2009	SB-610B H-SB-610B-1 11/9/2009	SB-610B H-SB-610B-3 11/9/2009	SB-610B H-SB-610B-5 11/9/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-610 H-SB-610-7 9/25/2009	SB-610B H-SB-610B-1 11/9/2009	SB-610B H-SB-610B-3 11/9/2009	SB-610B H-SB-610B-5 11/9/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-610 H-SB-610-7 9/25/2009	SB-610B H-SB-610B-1 11/9/2009	SB-610B H-SB-610B-3 11/9/2009	SB-610B H-SB-610B-5 11/9/2009
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	1.5 U [MDL=1.5]	14.904995 [MDL=1.4]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]
BAP EQUIVALENT-POS	1.5 U [MDL=1.5]	14 [MDL=1.4]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	1.1 UJ [MDL=1.1]	1.0 U [MDL=1]	1.2 U [MDL=1.2]	1.1 U [MDL=1.1]
BENZO(A)PYRENE	1.5 UJ [MDL=1.5]	14 [MDL=1.4]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]
BENZO(B)FLUORANTHENE	1.4 UJ [MDL=1.4]	1.3 U [MDL=1.3]	1.5 U [MDL=1.5]	1.4 U [MDL=1.4]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	2.0 UJ [MDL=2]	1.9 U [MDL=1.9]	2.1 U [MDL=2.1]	2.0 U [MDL=2]

LOCATION SAMPLE ID SAMPLE DATE	SB-610 H-SB-610-7 9/25/2009	SB-610B H-SB-610B-1 11/9/2009	SB-610B H-SB-610B-3 11/9/2009	SB-610B H-SB-610B-5 11/9/2009
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	1.1 UJ [MDL=1.1]	0.99 U [MDL=0.99]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]
DIBENZO(A,H)ANTHRACENE	1.5 UJ [MDL=1.5]	1.4 U [MDL=1.4]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	1.8 UJ [MDL=1.8]	1.6 U [MDL=1.6]	1.8 U [MDL=1.8]	1.8 U [MDL=1.8]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	0 U [MDL=1.5]	14 [MDL=1.4]	0 U [MDL=1.6]	0 U [MDL=1.5]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-610	SB-610B	SB-610B	SB-610B
SAMPLE ID	H-SB-610-7	H-SB-610B-1	H-SB-610B-3	H-SB-610B-5
SAMPLE DATE	9/25/2009	11/9/2009	11/9/2009	11/9/2009
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-610B H-SB-610B-5-D 11/9/2009	SB-610C H-SB-610C-1 11/9/2009	SB-610C H-SB-610C-3 11/9/2009	SB-610C H-SB-610C-5 11/9/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

LOCATION	SB-610B	SB-610C	SB-610C	SB-610C
SAMPLE ID	H-SB-610B-5-D	H-SB-610C-1	H-SB-610C-3	H-SB-610C-5
SAMPLE DATE	11/9/2009	11/9/2009	11/9/2009	11/9/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-610B H-SB-610B-5-D 11/9/2009	SB-610C H-SB-610C-1 11/9/2009	SB-610C H-SB-610C-3 11/9/2009	SB-610C H-SB-610C-5 11/9/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-610B H-SB-610B-5-D 11/9/2009	SB-610C H-SB-610C-1 11/9/2009	SB-610C H-SB-610C-3 11/9/2009	SB-610C H-SB-610C-5 11/9/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION	SB-610B	SB-610C	SB-610C	SB-610C
SAMPLE ID	H-SB-610B-5-D	H-SB-610C-1	H-SB-610C-3	H-SB-610C-5
SAMPLE DATE	11/9/2009	11/9/2009	11/9/2009	11/9/2009
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	1.6 U [MDL=1.6]	31.04 [MDL=1.4]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]
BAP EQUIVALENT-POS	1.6 U [MDL=1.6]	30.34 [MDL=1.4]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	1.2 U [MDL=1.2]	19 [MDL=1]	1.2 U [MDL=1.2]	1.1 U [MDL=1.1]
BENZO(A)PYRENE	1.6 U [MDL=1.6]	25 [MDL=1.4]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]
BENZO(B)FLUORANTHENE	1.5 U [MDL=1.5]	14 [MDL=1.3]	1.5 U [MDL=1.5]	1.4 U [MDL=1.4]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	2.1 U [MDL=2.1]	12 [MDL=1.9]	2.1 U [MDL=2.1]	2.0 U [MDL=2]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-610B** **H-SB-610B-5-D** **11/9/2009**	**SB-610C** **H-SB-610C-1** **11/9/2009**	**SB-610C** **H-SB-610C-3** **11/9/2009**	**SB-610C** **H-SB-610C-5** **11/9/2009**
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	1.1 U [MDL=1.1]	20 [MDL=0.98]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]
DIBENZO(A,H)ANTHRACENE	1.6 U [MDL=1.6]	1.4 U [MDL=1.4]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	1.8 U [MDL=1.8]	19 [MDL=1.6]	1.9 U [MDL=1.9]	1.8 U [MDL=1.8]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	0 U [MDL=1.6]	109 [MDL=1.4]	0 U [MDL=1.6]	0 U [MDL=1.5]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

LOCATION	**SB-610B**	**SB-610C**	**SB-610C**	**SB-610C**
SAMPLE ID	**H-SB-610B-5-D**	**H-SB-610C-1**	**H-SB-610C-3**	**H-SB-610C-5**
SAMPLE DATE	**11/9/2009**	**11/9/2009**	**11/9/2009**	**11/9/2009**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-610D H-SB-610D-1 11/9/2009	SB-610D H-SB-610D-3 11/9/2009	SB-610D H-SB-610D-5 11/9/2009	SB-611 H-SB-611-3 9/25/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

LOCATION	SB-610D	SB-610D	SB-610D	SB-611
SAMPLE ID	H-SB-610D-1	H-SB-610D-3	H-SB-610D-5	H-SB-611-3
SAMPLE DATE	11/9/2009	11/9/2009	11/9/2009	9/25/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-610D H-SB-610D-1 11/9/2009	SB-610D H-SB-610D-3 11/9/2009	SB-610D H-SB-610D-5 11/9/2009	SB-611 H-SB-611-3 9/25/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-610D**	**SB-610D**	**SB-610D**	**SB-611**
SAMPLE ID	**H-SB-610D-1**	**H-SB-610D-3**	**H-SB-610D-5**	**H-SB-611-3**
SAMPLE DATE	**11/9/2009**	**11/9/2009**	**11/9/2009**	**9/25/2009**
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-610D H-SB-610D-1 11/9/2009	SB-610D H-SB-610D-3 11/9/2009	SB-610D H-SB-610D-5 11/9/2009	SB-611 H-SB-611-3 9/25/2009
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--
POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)				
1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	24.6957 [MDL=1.4]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]	735.5 [MDL=1.5]
BAP EQUIVALENT-POS	23.9957 [MDL=1.4]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]	735.5 [MDL=1.5]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	11 [MDL=1.1]	1.2 U [MDL=1.2]	1.1 U [MDL=1.1]	570 [MDL=1.1]
BENZO(A)PYRENE	20 [MDL=1.4]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]	520 [MDL=1.5]
BENZO(B)FLUORANTHENE	11 [MDL=1.3]	1.5 U [MDL=1.5]	1.4 U [MDL=1.4]	520 [MDL=1.4]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	8.6 [MDL=1.9]	2.1 U [MDL=2.1]	2.0 U [MDL=2]	190 [MDL=2]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-610D H-SB-610D-1 11/9/2009	SB-610D H-SB-610D-3 11/9/2009	SB-610D H-SB-610D-5 11/9/2009	SB-611 H-SB-611-3 9/25/2009
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	9.7 [MDL=1]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	600 [MDL=1]
DIBENZO(A,H)ANTHRACENE	1.4 U [MDL=1.4]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]	80 [MDL=1.5]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	17 [MDL=1.7]	1.8 U [MDL=1.8]	1.8 U [MDL=1.8]	240 [MDL=1.7]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	77.3 [MDL=1.4]	0 U [MDL=1.6]	0 U [MDL=1.5]	2720 [MDL=1.5]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-610D H-SB-610D-1 11/9/2009	SB-610D H-SB-610D-3 11/9/2009	SB-610D H-SB-610D-5 11/9/2009	SB-611 H-SB-611-3 9/25/2009
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-611	SB-611	SB-611	SB-611
SAMPLE ID	H-SB-611-4	H-SB-611-5	H-SB-611-6	H-SB-611-7
SAMPLE DATE	9/25/2009	9/25/2009	9/25/2009	9/25/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

LOCATION	**SB-611**	**SB-611**	**SB-611**	**SB-611**
SAMPLE ID	**H-SB-611-4**	**H-SB-611-5**	**H-SB-611-6**	**H-SB-611-7**
SAMPLE DATE	**9/25/2009**	**9/25/2009**	**9/25/2009**	**9/25/2009**
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-611** **H-SB-611-4** **9/25/2009**	**SB-611** **H-SB-611-5** **9/25/2009**	**SB-611** **H-SB-611-6** **9/25/2009**	**SB-611** **H-SB-611-7** **9/25/2009**
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-611**	**SB-611**	**SB-611**	**SB-611**
SAMPLE ID	**H-SB-611-4**	**H-SB-611-5**	**H-SB-611-6**	**H-SB-611-7**
SAMPLE DATE	**9/25/2009**	**9/25/2009**	**9/25/2009**	**9/25/2009**
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION	**SB-611**	**SB-611**	**SB-611**	**SB-611**
SAMPLE ID	**H-SB-611-4**	**H-SB-611-5**	**H-SB-611-6**	**H-SB-611-7**
SAMPLE DATE	**9/25/2009**	**9/25/2009**	**9/25/2009**	**9/25/2009**
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	1.6 U [MDL=1.6]	10.2865 [MDL=1.6]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]
BAP EQUIVALENT-POS	1.6 U [MDL=1.6]	9.311 [MDL=1.6]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	1.2 U [MDL=1.2]	11 [MDL=1.2]	1.2 U [MDL=1.2]	1.1 U [MDL=1.1]
BENZO(A)PYRENE	1.6 U [MDL=1.6]	8.2 [MDL=1.6]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]
BENZO(B)FLUORANTHENE	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	1.4 U [MDL=1.4]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	2.1 U [MDL=2.1]	2.1 U [MDL=2.1]	2.1 U [MDL=2.1]	2.0 U [MDL=2]

LOCATION SAMPLE ID SAMPLE DATE	SB-611 H-SB-611-4 9/25/2009	SB-611 H-SB-611-5 9/25/2009	SB-611 H-SB-611-6 9/25/2009	SB-611 H-SB-611-7 9/25/2009
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	1.1 U [MDL=1.1]	11 [MDL=1.1]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]
DIBENZO(A,H)ANTHRACENE	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	1.8 U [MDL=1.8]	1.8 U [MDL=1.8]	1.8 U [MDL=1.8]	1.8 U [MDL=1.8]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	0 U [MDL=1.6]	30.2 [MDL=1.6]	0 U [MDL=1.6]	0 U [MDL=1.5]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-611 H-SB-611-4 9/25/2009	SB-611 H-SB-611-5 9/25/2009	SB-611 H-SB-611-6 9/25/2009	SB-611 H-SB-611-7 9/25/2009
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-611A H-SB-611A-1 11/9/2009	SB-611A H-SB-611A-3 11/9/2009	SB-611A H-SB-611A-5 11/9/2009	SB-611D H-SB-611D-1 11/9/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-611A	SB-611A	SB-611A	SB-611D
SAMPLE ID	H-SB-611A-1	H-SB-611A-3	H-SB-611A-5	H-SB-611D-1
SAMPLE DATE	11/9/2009	11/9/2009	11/9/2009	11/9/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-611A**	**SB-611A**	**SB-611A**	**SB-611D**
SAMPLE ID	**H-SB-611A-1**	**H-SB-611A-3**	**H-SB-611A-5**	**H-SB-611D-1**
SAMPLE DATE	**11/9/2009**	**11/9/2009**	**11/9/2009**	**11/9/2009**
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-611A H-SB-611A-1 11/9/2009	SB-611A H-SB-611A-3 11/9/2009	SB-611A H-SB-611A-5 11/9/2009	SB-611D H-SB-611D-1 11/9/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-611A H-SB-611A-1 11/9/2009	SB-611A H-SB-611A-3 11/9/2009	SB-611A H-SB-611A-5 11/9/2009	SB-611D H-SB-611D-1 11/9/2009
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--
POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)				
1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	53.216 [MDL=1.4]	29.828 [MDL=1.6]	323.23 [MDL=1.6]	616.36 [MDL=3.3]
BAP EQUIVALENT-POS	52.516 [MDL=1.4]	29.028 [MDL=1.6]	323.23 [MDL=1.6]	616.36 [MDL=3.3]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	45 [MDL=1.1]	17 [MDL=1.1]	310 [MDL=1.2]	320 [MDL=2.4]
BENZO(A)PYRENE	41 [MDL=1.4]	24 [MDL=1.6]	210 [MDL=1.6]	440 [MDL=3.3]
BENZO(B)FLUORANTHENE	40 [MDL=1.3]	14 [MDL=1.4]	270 [MDL=1.5]	390 [MDL=3.1]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	17 [MDL=1.9]	11 [MDL=2]	90 [MDL=2.1]	200 [MDL=4.3]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-611A**	**SB-611A**	**SB-611A**	**SB-611D**
SAMPLE ID	**H-SB-611A-1**	**H-SB-611A-3**	**H-SB-611A-5**	**H-SB-611D-1**
SAMPLE DATE	**11/9/2009**	**11/9/2009**	**11/9/2009**	**11/9/2009**
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	46 [MDL=1]	18 [MDL=1.1]	330 [MDL=1.1]	360 [MDL=2.3]
DIBENZO(A,H)ANTHRACENE	1.4 U [MDL=1.4]	1.6 U [MDL=1.6]	43 [MDL=1.6]	81 [MDL=3.3]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	28 [MDL=1.7]	18 [MDL=1.8]	110 [MDL=1.8]	220 [MDL=3.8]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	217 [MDL=1.4]	102 [MDL=1.6]	1363 [MDL=1.6]	2011 [MDL=3.3]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-611A** **H-SB-611A-1** **11/9/2009**	**SB-611A** **H-SB-611A-3** **11/9/2009**	**SB-611A** **H-SB-611A-5** **11/9/2009**	**SB-611D** **H-SB-611D-1** **11/9/2009**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

LOCATION	SB-611D	SB-611D	SB-611D	SB-612
SAMPLE ID	H-SB-611D-3	H-SB-611D-5	H-SB-611D-5-D	H-SB-612-11
SAMPLE DATE	11/9/2009	11/9/2009	11/9/2009	9/28/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-611D H-SB-611D-3 11/9/2009	SB-611D H-SB-611D-5 11/9/2009	SB-611D H-SB-611D-5-D 11/9/2009	SB-612 H-SB-612-11 9/28/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-611D H-SB-611D-3 11/9/2009	SB-611D H-SB-611D-5 11/9/2009	SB-611D H-SB-611D-5-D 11/9/2009	SB-612 H-SB-612-11 9/28/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-611D	SB-611D	SB-611D	SB-612
SAMPLE ID	H-SB-611D-3	H-SB-611D-5	H-SB-611D-5-D	H-SB-612-11
SAMPLE DATE	11/9/2009	11/9/2009	11/9/2009	9/28/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-611D H-SB-611D-3 11/9/2009	SB-611D H-SB-611D-5 11/9/2009	SB-611D H-SB-611D-5-D 11/9/2009	SB-612 H-SB-612-11 9/28/2009
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	9.4425 [MDL=1.6]
BAP EQUIVALENT-POS	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	8.412 [MDL=1.6]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	1.1 U [MDL=1.1]	1.2 U [MDL=1.2]	1.2 U [MDL=1.2]	1.1 UJ [MDL=1.1]
BENZO(A)PYRENE	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	8.4 J [MDL=1.6]
BENZO(B)FLUORANTHENE	1.4 U [MDL=1.4]	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	1.5 UJ [MDL=1.5]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	2.0 U [MDL=2]	2.1 U [MDL=2.1]	2.1 U [MDL=2.1]	2.1 UJ [MDL=2.1]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-611D** **H-SB-611D-3** **11/9/2009**	**SB-611D** **H-SB-611D-5** **11/9/2009**	**SB-611D** **H-SB-611D-5-D** **11/9/2009**	**SB-612** **H-SB-612-11** **9/28/2009**
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	12 J [MDL=1.1]
DIBENZO(A,H)ANTHRACENE	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	1.8 U [MDL=1.8]	1.8 U [MDL=1.8]	1.8 U [MDL=1.8]	1.8 UJ [MDL=1.8]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	0 U [MDL=1.5]	0 U [MDL=1.6]	0 U [MDL=1.6]	20.4 [MDL=1.6]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-611D** **H-SB-611D-3** **11/9/2009**	**SB-611D** **H-SB-611D-5** **11/9/2009**	**SB-611D** **H-SB-611D-5-D** **11/9/2009**	**SB-612** **H-SB-612-11** **9/28/2009**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

LOCATION	SB-612	SB-612	SB-613	SB-613
SAMPLE ID	H-SB-612-11-D	H-SB-612-12	H-SB-613-11	H-SB-613-12
SAMPLE DATE	9/28/2009	9/28/2009	9/28/2009	9/28/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

LOCATION	SB-612	SB-612	SB-613	SB-613
SAMPLE ID	H-SB-612-11-D	H-SB-612-12	H-SB-613-11	H-SB-613-12
SAMPLE DATE	9/28/2009	9/28/2009	9/28/2009	9/28/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-612 H-SB-612-11-D 9/28/2009	SB-612 H-SB-612-12 9/28/2009	SB-613 H-SB-613-11 9/28/2009	SB-613 H-SB-613-12 9/28/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-612** **H-SB-612-11-D** **9/28/2009**	**SB-612** **H-SB-612-12** **9/28/2009**	**SB-613** **H-SB-613-11** **9/28/2009**	**SB-613** **H-SB-613-12** **9/28/2009**
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-612 H-SB-612-11-D 9/28/2009	SB-612 H-SB-612-12 9/28/2009	SB-613 H-SB-613-11 9/28/2009	SB-613 H-SB-613-12 9/28/2009
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	107.787 [MDL=1.6]	1.6 U [MDL=1.6]	88.777 [MDL=1.6]	43.189 [MDL=1.6]
BAP EQUIVALENT-POS	106.987 [MDL=1.6]	1.6 U [MDL=1.6]	87.977 [MDL=1.6]	42.389 [MDL=1.6]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	100 J [MDL=1.1]	1.1 U [MDL=1.1]	77 [MDL=1.1]	41 [MDL=1.2]
BENZO(A)PYRENE	84 J [MDL=1.6]	1.6 U [MDL=1.6]	68 [MDL=1.6]	33 [MDL=1.6]
BENZO(B)FLUORANTHENE	86 J [MDL=1.4]	1.4 U [MDL=1.4]	84 [MDL=1.4]	34 [MDL=1.5]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	49 J [MDL=2.1]	2.0 U [MDL=2]	29 [MDL=2.1]	15 [MDL=2.1]

LOCATION SAMPLE ID SAMPLE DATE	SB-612 H-SB-612-11-D 9/28/2009	SB-612 H-SB-612-12 9/28/2009	SB-613 H-SB-613-11 9/28/2009	SB-613 H-SB-613-12 9/28/2009
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	97 J [MDL=1.1]	1.1 U [MDL=1.1]	87 [MDL=1.1]	39 [MDL=1.1]
DIBENZO(A,H)ANTHRACENE	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	38 J [MDL=1.8]	1.8 U [MDL=1.8]	35 [MDL=1.8]	17 [MDL=1.9]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	454 [MDL=1.6]	0 U [MDL=1.6]	380 [MDL=1.6]	179 [MDL=1.6]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

LOCATION	SB-612	SB-612	SB-613	SB-613
SAMPLE ID	H-SB-612-11-D	H-SB-612-12	H-SB-613-11	H-SB-613-12
SAMPLE DATE	9/28/2009	9/28/2009	9/28/2009	9/28/2009
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-614 H-SB-614-10 9/25/2009	SB-614 H-SB-614-11 9/25/2009	SB-614 H-SB-614-12 9/25/2009	SB-615 H-SB-615-11 9/25/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-614 H-SB-614-10 9/25/2009	SB-614 H-SB-614-11 9/25/2009	SB-614 H-SB-614-12 9/25/2009	SB-615 H-SB-615-11 9/25/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-614 H-SB-614-10 9/25/2009	SB-614 H-SB-614-11 9/25/2009	SB-614 H-SB-614-12 9/25/2009	SB-615 H-SB-615-11 9/25/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-614 H-SB-614-10 9/25/2009	SB-614 H-SB-614-11 9/25/2009	SB-614 H-SB-614-12 9/25/2009	SB-615 H-SB-615-11 9/25/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-614 H-SB-614-10 9/25/2009	SB-614 H-SB-614-11 9/25/2009	SB-614 H-SB-614-12 9/25/2009	SB-615 H-SB-615-11 9/25/2009
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--
POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)				
1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	5337.1 [MDL=15]	35.214 [MDL=1.5]	100.193 [MDL=1.5]	11.326 [MDL=1.5]
BAP EQUIVALENT-POS	5329.6 [MDL=15]	34.464 [MDL=1.5]	99.443 [MDL=1.5]	10.411 [MDL=1.5]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	3900 [MDL=11]	22 [MDL=1.1]	53 [MDL=1.1]	13 [MDL=1.1]
BENZO(A)PYRENE	4300 [MDL=15]	28 [MDL=1.5]	81 [MDL=1.5]	9.1 [MDL=1.5]
BENZO(B)FLUORANTHENE	4100 [MDL=14]	25 [MDL=1.4]	83 [MDL=1.4]	1.4 U [MDL=1.4]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	1600 [MDL=20]	14 [MDL=2]	37 [MDL=2]	2.0 U [MDL=2]

LOCATION SAMPLE ID SAMPLE DATE	SB-614 H-SB-614-10 9/25/2009	SB-614 H-SB-614-11 9/25/2009	SB-614 H-SB-614-12 9/25/2009	SB-615 H-SB-615-11 9/25/2009
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	3600 [MDL=11]	24 [MDL=1.1]	73 [MDL=1.1]	11 [MDL=1]
DIBENZO(A,H)ANTHRACENE	15 U [MDL=15]	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	2100 [MDL=18]	16 [MDL=1.8]	44 [MDL=1.8]	1.7 U [MDL=1.7]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	19600 [MDL=15]	129 [MDL=1.5]	371 [MDL=1.5]	33.1 [MDL=1.5]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-614**	**SB-614**	**SB-614**	**SB-615**
SAMPLE ID	**H-SB-614-10**	**H-SB-614-11**	**H-SB-614-12**	**H-SB-615-11**
SAMPLE DATE	**9/25/2009**	**9/25/2009**	**9/25/2009**	**9/25/2009**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-615 H-SB-615-12 9/25/2009	SB-616 H-SB-616-11 9/25/2009	SB-616 H-SB-616-11-D 9/25/2009	SB-616 H-SB-616-12 9/25/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-615 H-SB-615-12 9/25/2009	SB-616 H-SB-616-11 9/25/2009	SB-616 H-SB-616-11-D 9/25/2009	SB-616 H-SB-616-12 9/25/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-615 H-SB-615-12 9/25/2009	SB-616 H-SB-616-11 9/25/2009	SB-616 H-SB-616-11-D 9/25/2009	SB-616 H-SB-616-12 9/25/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-615 H-SB-615-12 9/25/2009	SB-616 H-SB-616-11 9/25/2009	SB-616 H-SB-616-11-D 9/25/2009	SB-616 H-SB-616-12 9/25/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-615 H-SB-615-12 9/25/2009	SB-616 H-SB-616-11 9/25/2009	SB-616 H-SB-616-11-D 9/25/2009	SB-616 H-SB-616-12 9/25/2009
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	21.472 [MDL=1.5]	116.492 [MDL=1.6]	3.9135 [MDL=1.6]	1.5 U [MDL=1.5]
BAP EQUIVALENT-POS	20.622 [MDL=1.5]	114.747 [MDL=1.6]	2.213 [MDL=1.6]	1.5 U [MDL=1.5]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	20 [MDL=1.1]	1.1 U [MDL=1.1]	11 [MDL=1.2]	1.1 U [MDL=1.1]
BENZO(A)PYRENE	17 [MDL=1.5]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]
BENZO(B)FLUORANTHENE	16 [MDL=1.4]	1100 J [MDL=1.4]	11 J [MDL=1.5]	1.4 U [MDL=1.4]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	2.0 U [MDL=2]	470 J [MDL=2]	2.1 UJ [MDL=2.1]	2.0 U [MDL=2]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-615 H-SB-615-12 9/25/2009	SB-616 H-SB-616-11 9/25/2009	SB-616 H-SB-616-11-D 9/25/2009	SB-616 H-SB-616-12 9/25/2009
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	22 [MDL=1.1]	47 J [MDL=1.1]	13 J [MDL=1.1]	1.1 U [MDL=1.1]
DIBENZO(A,H)ANTHRACENE	1.5 U [MDL=1.5]	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	1.8 U [MDL=1.8]	1.8 U [MDL=1.8]	1.8 U [MDL=1.8]	1.8 U [MDL=1.8]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	75 [MDL=1.5]	1617 [MDL=1.6]	35 [MDL=1.6]	0 U [MDL=1.5]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

LOCATION	**SB-615**	**SB-616**	**SB-616**	**SB-616**
SAMPLE ID	**H-SB-615-12**	**H-SB-616-11**	**H-SB-616-11-D**	**H-SB-616-12**
SAMPLE DATE	**9/25/2009**	**9/25/2009**	**9/25/2009**	**9/25/2009**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-617 H-SB-617-11 9/25/2009	SB-617 H-SB-617-11-D 9/25/2009	SB-617 H-SB-617-12 9/25/2009	SB-618 H-SB-618-11 9/25/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

LOCATION	SB-617	SB-617	SB-617	SB-618
SAMPLE ID	H-SB-617-11	H-SB-617-11-D	H-SB-617-12	H-SB-618-11
SAMPLE DATE	9/25/2009	9/25/2009	9/25/2009	9/25/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-617 H-SB-617-11 9/25/2009	SB-617 H-SB-617-11-D 9/25/2009	SB-617 H-SB-617-12 9/25/2009	SB-618 H-SB-618-11 9/25/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-617 H-SB-617-11 9/25/2009	SB-617 H-SB-617-11-D 9/25/2009	SB-617 H-SB-617-12 9/25/2009	SB-618 H-SB-618-11 9/25/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-617** **H-SB-617-11** **9/25/2009**	**SB-617** **H-SB-617-11-D** **9/25/2009**	**SB-617** **H-SB-617-12** **9/25/2009**	**SB-618** **H-SB-618-11** **9/25/2009**
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	1.6 U [MDL=1.6]	12.602 [MDL=1.6]	31 U [MDL=31]	1.5 U [MDL=1.5]
BAP EQUIVALENT-POS	1.6 U [MDL=1.6]	11.702 [MDL=1.6]	31 U [MDL=31]	1.5 U [MDL=1.5]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	1.1 U [MDL=1.1]	13 [MDL=1.1]	22 U [MDL=22]	1.1 U [MDL=1.1]
BENZO(A)PYRENE	1.6 U [MDL=1.6]	9.5 [MDL=1.6]	31 U [MDL=31]	1.5 U [MDL=1.5]
BENZO(B)FLUORANTHENE	1.4 U [MDL=1.4]	8.9 [MDL=1.4]	28 U [MDL=28]	1.4 U [MDL=1.4]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	2.0 U [MDL=2]	2.0 U [MDL=2]	40 U [MDL=40]	2.0 U [MDL=2]

LOCATION SAMPLE ID SAMPLE DATE	SB-617 H-SB-617-11 9/25/2009	SB-617 H-SB-617-11-D 9/25/2009	SB-617 H-SB-617-12 9/25/2009	SB-618 H-SB-618-11 9/25/2009
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	1.1 U [MDL=1.1]	12 [MDL=1.1]	21 U [MDL=21]	1.1 U [MDL=1.1]
DIBENZO(A,H)ANTHRACENE	1.6 U [MDL=1.6]	1.6 U [MDL=1.6]	31 U [MDL=31]	1.5 U [MDL=1.5]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	1.8 U [MDL=1.8]	1.8 U [MDL=1.8]	35 U [MDL=35]	1.8 U [MDL=1.8]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	0 U [MDL=1.6]	43.4 [MDL=1.6]	0 U [MDL=31]	0 U [MDL=1.5]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-617 H-SB-617-11 9/25/2009	SB-617 H-SB-617-11-D 9/25/2009	SB-617 H-SB-617-12 9/25/2009	SB-618 H-SB-618-11 9/25/2009
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-618	SB-619	SB-619	SB-620
SAMPLE ID	H-SB-618-12	H-SB-619-11	H-SB-619-12	H-SB-620-5
SAMPLE DATE	9/25/2009	9/25/2009	9/25/2009	9/28/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-618 H-SB-618-12 9/25/2009	SB-619 H-SB-619-11 9/25/2009	SB-619 H-SB-619-12 9/25/2009	SB-620 H-SB-620-5 9/28/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-618 H-SB-618-12 9/25/2009	SB-619 H-SB-619-11 9/25/2009	SB-619 H-SB-619-12 9/25/2009	SB-620 H-SB-620-5 9/28/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-618**	**SB-619**	**SB-619**	**SB-620**
SAMPLE ID	**H-SB-618-12**	**H-SB-619-11**	**H-SB-619-12**	**H-SB-620-5**
SAMPLE DATE	**9/25/2009**	**9/25/2009**	**9/25/2009**	**9/28/2009**
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-618 H-SB-618-12 9/25/2009	SB-619 H-SB-619-11 9/25/2009	SB-619 H-SB-619-12 9/25/2009	SB-620 H-SB-620-5 9/28/2009
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	2.865 [MDL=1.7]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]	22.674 [MDL=1.5]
BAP EQUIVALENT-POS	0.979 [MDL=1.7]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]	21.914 [MDL=1.5]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	9.7 [MDL=1.2]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	21 [MDL=1.1]
BENZO(A)PYRENE	1.7 U [MDL=1.7]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]	17 [MDL=1.5]
BENZO(B)FLUORANTHENE	1.6 U [MDL=1.6]	1.4 U [MDL=1.4]	1.4 U [MDL=1.4]	20 [MDL=1.4]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	2.2 U [MDL=2.2]	2.0 U [MDL=2]	2.0 U [MDL=2]	2.0 U [MDL=2]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-618** **H-SB-618-12** **9/25/2009**	**SB-619** **H-SB-619-11** **9/25/2009**	**SB-619** **H-SB-619-12** **9/25/2009**	**SB-620** **H-SB-620-5** **9/28/2009**
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	9.0 [MDL=1.2]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	24 [MDL=1.1]
DIBENZO(A,H)ANTHRACENE	1.7 U [MDL=1.7]	1.6 U [MDL=1.6]	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	1.9 U [MDL=1.9]	1.8 U [MDL=1.8]	1.8 U [MDL=1.8]	7.9 [MDL=1.8]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	18.7 [MDL=1.7]	0 U [MDL=1.6]	0 U [MDL=1.5]	89.9 [MDL=1.5]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-618** **H-SB-618-12** **9/25/2009**	**SB-619** **H-SB-619-11** **9/25/2009**	**SB-619** **H-SB-619-12** **9/25/2009**	**SB-620** **H-SB-620-5** **9/28/2009**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-620 H-SB-620-6 9/28/2009	SB-620 H-SB-620-6-D 9/28/2009	SB-621 H-SB-621-5 9/28/2009	SB-621 H-SB-621-6 9/28/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

LOCATION	SB-620	SB-620	SB-621	SB-621
SAMPLE ID	H-SB-620-6	H-SB-620-6-D	H-SB-621-5	H-SB-621-6
SAMPLE DATE	9/28/2009	9/28/2009	9/28/2009	9/28/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-620 H-SB-620-6 9/28/2009	SB-620 H-SB-620-6-D 9/28/2009	SB-621 H-SB-621-5 9/28/2009	SB-621 H-SB-621-6 9/28/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-620** **H-SB-620-6** **9/28/2009**	**SB-620** **H-SB-620-6-D** **9/28/2009**	**SB-621** **H-SB-621-5** **9/28/2009**	**SB-621** **H-SB-621-6** **9/28/2009**
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-620** **H-SB-620-6** **9/28/2009**	**SB-620** **H-SB-620-6-D** **9/28/2009**	**SB-621** **H-SB-621-5** **9/28/2009**	**SB-621** **H-SB-621-6** **9/28/2009**
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	21.678 [MDL=1.5]	1.5 U [MDL=1.5]
BAP EQUIVALENT-POS	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	20.918 [MDL=1.5]	1.5 U [MDL=1.5]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	17 [MDL=1.1]	1.1 U [MDL=1.1]
BENZO(A)PYRENE	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	16 [MDL=1.5]	1.5 U [MDL=1.5]
BENZO(B)FLUORANTHENE	1.4 U [MDL=1.4]	1.4 U [MDL=1.4]	14 [MDL=1.4]	1.4 U [MDL=1.4]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	2.0 U [MDL=2]	2.0 U [MDL=2]	2.0 U [MDL=2]	1.9 U [MDL=1.9]

LOCATION SAMPLE ID SAMPLE DATE	SB-620 H-SB-620-6 9/28/2009	SB-620 H-SB-620-6-D 9/28/2009	SB-621 H-SB-621-5 9/28/2009	SB-621 H-SB-621-6 9/28/2009
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	1.1 U [MDL=1.1]	1.0 U [MDL=1]	18 [MDL=1.1]	1.0 U [MDL=1]
DIBENZO(A,H)ANTHRACENE	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	1.8 U [MDL=1.8]	1.7 U [MDL=1.7]	18 [MDL=1.8]	1.7 U [MDL=1.7]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	0 U [MDL=1.5]	0 U [MDL=1.5]	83 [MDL=1.5]	0 U [MDL=1.5]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-620** **H-SB-620-6** **9/28/2009**	**SB-620** **H-SB-620-6-D** **9/28/2009**	**SB-621** **H-SB-621-5** **9/28/2009**	**SB-621** **H-SB-621-6** **9/28/2009**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

LOCATION	SB-622	SB-622	SB-623	SB-623
SAMPLE ID	H-SB-622-5	H-SB-622-6	H-SB-623-5	H-SB-623-6
SAMPLE DATE	9/28/2009	9/28/2009	9/28/2009	9/28/2009
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-622 H-SB-622-5 9/28/2009	SB-622 H-SB-622-6 9/28/2009	SB-623 H-SB-623-5 9/28/2009	SB-623 H-SB-623-6 9/28/2009
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION	SB-622	SB-622	SB-623	SB-623
SAMPLE ID	H-SB-622-5	H-SB-622-6	H-SB-623-5	H-SB-623-6
SAMPLE DATE	9/28/2009	9/28/2009	9/28/2009	9/28/2009
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-622 H-SB-622-5 9/28/2009	SB-622 H-SB-622-6 9/28/2009	SB-623 H-SB-623-5 9/28/2009	SB-623 H-SB-623-6 9/28/2009
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION	SB-622	SB-622	SB-623	SB-623
SAMPLE ID	H-SB-622-5	H-SB-622-6	H-SB-623-5	H-SB-623-6
SAMPLE DATE	9/28/2009	9/28/2009	9/28/2009	9/28/2009
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	--	--	--
BAP EQUIVALENT-HALFND	3.546 [MDL=1.5]	1.5 U [MDL=1.5]	34.106 [MDL=1.5]	44.044 [MDL=1.5]
BAP EQUIVALENT-POS	1.951 [MDL=1.5]	1.5 U [MDL=1.5]	33.356 [MDL=1.5]	43.294 [MDL=1.5]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	11 [MDL=1.1]	1.1 U [MDL=1.1]	22 [MDL=1.1]	26 [MDL=1.1]
BENZO(A)PYRENE	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	27 [MDL=1.5]	35 [MDL=1.5]
BENZO(B)FLUORANTHENE	8.4 [MDL=1.4]	1.4 U [MDL=1.4]	25 [MDL=1.4]	34 [MDL=1.4]
BENZO(G,H,I)PERYLENE	--	--	--	--
BENZO(K)FLUORANTHENE	2.0 U [MDL=2]	1.9 U [MDL=1.9]	13 [MDL=2]	16 [MDL=2]

LOCATION SAMPLE ID SAMPLE DATE	SB-622 H-SB-622-5 9/28/2009	SB-622 H-SB-622-6 9/28/2009	SB-623 H-SB-623-5 9/28/2009	SB-623 H-SB-623-6 9/28/2009
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	11 [MDL=1]	1.0 U [MDL=1]	26 [MDL=1.1]	34 [MDL=1]
DIBENZO(A,H)ANTHRACENE	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]	1.5 U [MDL=1.5]
FLUORANTHENE	--	--	--	--
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	1.7 U [MDL=1.7]	1.7 U [MDL=1.7]	15 [MDL=1.8]	21 [MDL=1.7]
NAPHTHALENE	--	--	--	--
PHENANTHRENE	--	--	--	--
PYRENE	--	--	--	--
TOTAL PAHS	30.4 [MDL=1.5]	0 U [MDL=1.5]	128 [MDL=1.5]	166 [MDL=1.5]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-622**	**SB-622**	**SB-623**	**SB-623**
SAMPLE ID	**H-SB-622-5**	**H-SB-622-6**	**H-SB-623-5**	**H-SB-623-6**
SAMPLE DATE	**9/28/2009**	**9/28/2009**	**9/28/2009**	**9/28/2009**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

LOCATION	SB-814	SB-814	SB-814	SB-814
SAMPLE ID	H-SB-814-03	H-SB-814-05	H-SB-814-07	H-SB-814-09
SAMPLE DATE	8/26/2010	8/26/2010	8/26/2010	8/26/2010
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-814 H-SB-814-03 8/26/2010	SB-814 H-SB-814-05 8/26/2010	SB-814 H-SB-814-07 8/26/2010	SB-814 H-SB-814-09 8/26/2010
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-814 H-SB-814-03 8/26/2010	SB-814 H-SB-814-05 8/26/2010	SB-814 H-SB-814-07 8/26/2010	SB-814 H-SB-814-09 8/26/2010
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-814** **H-SB-814-03** **8/26/2010**	**SB-814** **H-SB-814-05** **8/26/2010**	**SB-814** **H-SB-814-07** **8/26/2010**	**SB-814** **H-SB-814-09** **8/26/2010**
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-814 H-SB-814-03 8/26/2010	SB-814 H-SB-814-05 8/26/2010	SB-814 H-SB-814-07 8/26/2010	SB-814 H-SB-814-09 8/26/2010
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	3.9 U [MDL=3.9]	40 [MDL=7.1]
2-METHYLNAPHTHALENE	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	3.9 U [MDL=3.9]	37 [MDL=7.1]
ACENAPHTHENE	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	3.9 U [MDL=3.9]	34 [MDL=7.1]
ACENAPHTHYLENE	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	3.9 U [MDL=3.9]	100 [MDL=7.1]
ANTHRACENE	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	3.9 U [MDL=3.9]	170 [MDL=7.1]
BAP EQUIVALENT-HALFND	3.9 U [MDL=NaN]	3.7 U [MDL=NaN]	3.9 U [MDL=NaN]	722.01 [MDL=NaN]
BAP EQUIVALENT-POS	3.9 U [MDL=NaN]	3.7 U [MDL=NaN]	3.9 U [MDL=NaN]	722.01 [MDL=NaN]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	3.9 U [MDL=3.9]	470 [MDL=7.1]
BENZO(A)PYRENE	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	3.9 U [MDL=3.9]	520 [MDL=7.1]
BENZO(B)FLUORANTHENE	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	3.9 U [MDL=3.9]	480 [MDL=7.1]
BENZO(G,H,I)PERYLENE	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	3.9 U [MDL=3.9]	360 [MDL=7.1]
BENZO(K)FLUORANTHENE	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	3.9 U [MDL=3.9]	250 [MDL=7.1]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-814** **H-SB-814-03** **8/26/2010**	**SB-814** **H-SB-814-05** **8/26/2010**	**SB-814** **H-SB-814-07** **8/26/2010**	**SB-814** **H-SB-814-09** **8/26/2010**
C1-CHRYSENES	--	--	78 U [MDL=78]	--
C1-FLUORANTHENES/PYRENES	--	--	78 U [MDL=78]	--
C1-FLUORENES	--	--	78 U [MDL=78]	--
C1-PHENANTHRENES/ANTHRACENES	--	--	78 U [MDL=78]	--
C2-CHRYSENES	--	--	78 U [MDL=78]	--
C2-FLUORENES	--	--	78 U [MDL=78]	--
C2-NAPHTHALENES	--	--	78 U [MDL=78]	--
C2-PHENANTHRENES/ANTHRACENES	--	--	78 U [MDL=78]	--
C3-CHRYSENES	--	--	78 U [MDL=78]	--
C3-FLUORENES	--	--	78 U [MDL=78]	--
C3-NAPHTHALENES	--	--	78 U [MDL=78]	--
C3-PHENANTHRENES/ANTHRACENES	--	--	78 U [MDL=78]	--
C4-CHRYSENES	--	--	78 U [MDL=78]	--
C4-NAPHTHALENES	--	--	78 U [MDL=78]	--
C4-PHENANTHRENES/ANTHRACENES	--	--	78 U [MDL=78]	--
CHRYSENE	1.3 UJ [MDL=1.3]	1.2 UJ [MDL=1.2]	1.3 UJ [MDL=1.3]	510 [MDL=2.4]
DIBENZO(A,H)ANTHRACENE	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	3.9 U [MDL=3.9]	76 [MDL=7.1]
FLUORANTHENE	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	3.9 U [MDL=3.9]	720 [MDL=7.1]
FLUORENE	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	3.9 U [MDL=3.9]	63 [MDL=7.1]
INDENO(1,2,3-CD)PYRENE	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	3.9 U [MDL=3.9]	280 [MDL=7.1]
NAPHTHALENE	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	3.9 U [MDL=3.9]	28 [MDL=7.1]
PHENANTHRENE	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	3.9 U [MDL=3.9]	460 [MDL=7.1]
PYRENE	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	3.9 U [MDL=3.9]	1400 [MDL=7.1]
TOTAL PAHS	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	5958 [MDL=NaN]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-814** **H-SB-814-03** **8/26/2010**	**SB-814** **H-SB-814-05** **8/26/2010**	**SB-814** **H-SB-814-07** **8/26/2010**	**SB-814** **H-SB-814-09** **8/26/2010**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-814 H-SB-814-11 8/26/2010	SB-814 H-SB-814-13 8/26/2010	SB-814 H-SB-814-15 8/26/2010	SB-814 H-SB-814-SS 8/26/2010
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-814 H-SB-814-11 8/26/2010	SB-814 H-SB-814-13 8/26/2010	SB-814 H-SB-814-15 8/26/2010	SB-814 H-SB-814-SS 8/26/2010
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-814 H-SB-814-11 8/26/2010	SB-814 H-SB-814-13 8/26/2010	SB-814 H-SB-814-15 8/26/2010	SB-814 H-SB-814-SS 8/26/2010
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-814** **H-SB-814-11** **8/26/2010**	**SB-814** **H-SB-814-13** **8/26/2010**	**SB-814** **H-SB-814-15** **8/26/2010**	**SB-814** **H-SB-814-SS** **8/26/2010**
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-814 H-SB-814-11 8/26/2010	SB-814 H-SB-814-13 8/26/2010	SB-814 H-SB-814-15 8/26/2010	SB-814 H-SB-814-SS 8/26/2010
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
2-METHYLNAPHTHALENE	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
ACENAPHTHENE	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
ACENAPHTHYLENE	4 U [MDL=4]	4.1 U [MDL=4.1]	8 [MDL=3.9]	3.9 U [MDL=3.9]
ANTHRACENE	4 U [MDL=4]	4.1 U [MDL=4.1]	12 [MDL=3.9]	3.9 U [MDL=3.9]
BAP EQUIVALENT-HALFND	4 U [MDL=NaN]	48.316 [MDL=NaN]	16.41065 [MDL=NaN]	3.9 U [MDL=NaN]
BAP EQUIVALENT-POS	4 U [MDL=NaN]	46.266 [MDL=NaN]	14.46 [MDL=NaN]	3.9 U [MDL=NaN]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	4 U [MDL=4]	27 [MDL=4.1]	11 [MDL=3.9]	3.9 U [MDL=3.9]
BENZO(A)PYRENE	4 U [MDL=4]	38 [MDL=4.1]	11 [MDL=3.9]	3.9 U [MDL=3.9]
BENZO(B)FLUORANTHENE	4 U [MDL=4]	34 [MDL=4.1]	9.2 [MDL=3.9]	3.9 U [MDL=3.9]
BENZO(G,H,I)PERYLENE	4 U [MDL=4]	29 [MDL=4.1]	9 [MDL=3.9]	3.9 U [MDL=3.9]
BENZO(K)FLUORANTHENE	4 U [MDL=4]	14 [MDL=4.1]	14 [MDL=3.9]	3.9 U [MDL=3.9]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-814** **H-SB-814-11** **8/26/2010**	**SB-814** **H-SB-814-13** **8/26/2010**	**SB-814** **H-SB-814-15** **8/26/2010**	**SB-814** **H-SB-814-SS** **8/26/2010**
C1-CHRYSENES	--	--	78 U [MDL=78]	80 U [MDL=80]
C1-FLUORANTHENES/PYRENES	--	--	78 U [MDL=78]	80 U [MDL=80]
C1-FLUORENES	--	--	78 U [MDL=78]	80 U [MDL=80]
C1-PHENANTHRENES/ANTHRACENES	--	--	78 U [MDL=78]	80 U [MDL=80]
C2-CHRYSENES	--	--	78 U [MDL=78]	80 U [MDL=80]
C2-FLUORENES	--	--	78 U [MDL=78]	80 U [MDL=80]
C2-NAPHTHALENES	--	--	78 U [MDL=78]	80 U [MDL=80]
C2-PHENANTHRENES/ANTHRACENES	--	--	78 U [MDL=78]	80 U [MDL=80]
C3-CHRYSENES	--	--	78 U [MDL=78]	80 U [MDL=80]
C3-FLUORENES	--	--	78 U [MDL=78]	80 U [MDL=80]
C3-NAPHTHALENES	--	--	78 U [MDL=78]	80 U [MDL=80]
C3-PHENANTHRENES/ANTHRACENES	--	--	78 U [MDL=78]	80 U [MDL=80]
C4-CHRYSENES	--	--	78 U [MDL=78]	80 U [MDL=80]
C4-NAPHTHALENES	--	--	78 U [MDL=78]	80 U [MDL=80]
C4-PHENANTHRENES/ANTHRACENES	--	--	78 U [MDL=78]	80 U [MDL=80]
CHRYSENE	1.3 UJ [MDL=1.3]	26 J [MDL=1.4]	1.3 UJ [MDL=1.3]	1.3 UJ [MDL=1.3]
DIBENZO(A,H)ANTHRACENE	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
FLUORANTHENE	4 U [MDL=4]	42 [MDL=4.1]	12 [MDL=3.9]	3.9 U [MDL=3.9]
FLUORENE	4 U [MDL=4]	4.1 U [MDL=4.1]	8.7 [MDL=3.9]	3.9 U [MDL=3.9]
INDENO(1,2,3-CD)PYRENE	4 U [MDL=4]	20 [MDL=4.1]	13 [MDL=3.9]	3.9 U [MDL=3.9]
NAPHTHALENE	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
PHENANTHRENE	4 U [MDL=4]	19 [MDL=4.1]	11 [MDL=3.9]	3.9 U [MDL=3.9]
PYRENE	4 U [MDL=4]	82 [MDL=4.1]	12 [MDL=3.9]	3.9 U [MDL=3.9]
TOTAL PAHS	0 U [MDL=NaN]	331 [MDL=NaN]	130.9 [MDL=NaN]	0 U [MDL=NaN]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-814** **H-SB-814-11** **8/26/2010**	**SB-814** **H-SB-814-13** **8/26/2010**	**SB-814** **H-SB-814-15** **8/26/2010**	**SB-814** **H-SB-814-SS** **8/26/2010**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-815 H-SB-815-03 8/26/2010	SB-815 H-SB-815-05 8/26/2010	SB-815 H-SB-815-07 8/26/2010	SB-815 H-SB-815-09 8/26/2010
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

LOCATION	SB-815	SB-815	SB-815	SB-815
SAMPLE ID	H-SB-815-03	H-SB-815-05	H-SB-815-07	H-SB-815-09
SAMPLE DATE	8/26/2010	8/26/2010	8/26/2010	8/26/2010
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-815 H-SB-815-03 8/26/2010	SB-815 H-SB-815-05 8/26/2010	SB-815 H-SB-815-07 8/26/2010	SB-815 H-SB-815-09 8/26/2010
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-815**	**SB-815**	**SB-815**	**SB-815**
SAMPLE ID	**H-SB-815-03**	**H-SB-815-05**	**H-SB-815-07**	**H-SB-815-09**
SAMPLE DATE	**8/26/2010**	**8/26/2010**	**8/26/2010**	**8/26/2010**
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-815 H-SB-815-03 8/26/2010	SB-815 H-SB-815-05 8/26/2010	SB-815 H-SB-815-07 8/26/2010	SB-815 H-SB-815-09 8/26/2010
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	3.5 U [MDL=3.5]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	4.1 U [MDL=4.1]
2-METHYLNAPHTHALENE	3.5 U [MDL=3.5]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	4.1 U [MDL=4.1]
ACENAPHTHENE	3.5 U [MDL=3.5]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	4.1 U [MDL=4.1]
ACENAPHTHYLENE	3.5 U [MDL=3.5]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	4.1 U [MDL=4.1]
ANTHRACENE	3.5 U [MDL=3.5]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	4.1 U [MDL=4.1]
BAP EQUIVALENT-HALFND	3.5 U [MDL=NaN]	11.25515 [MDL=NaN]	3.9 U [MDL=NaN]	58.323 [MDL=NaN]
BAP EQUIVALENT-POS	3.5 U [MDL=NaN]	8.7 [MDL=NaN]	3.9 U [MDL=NaN]	56.273 [MDL=NaN]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	3.5 U [MDL=3.5]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	38 [MDL=4.1]
BENZO(A)PYRENE	3.5 U [MDL=3.5]	8.7 [MDL=3.9]	3.9 U [MDL=3.9]	45 [MDL=4.1]
BENZO(B)FLUORANTHENE	3.5 U [MDL=3.5]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	45 [MDL=4.1]
BENZO(G,H,I)PERYLENE	3.5 U [MDL=3.5]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	40 [MDL=4.1]
BENZO(K)FLUORANTHENE	3.5 U [MDL=3.5]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	23 [MDL=4.1]

LOCATION SAMPLE ID SAMPLE DATE	SB-815 H-SB-815-03 8/26/2010	SB-815 H-SB-815-05 8/26/2010	SB-815 H-SB-815-07 8/26/2010	SB-815 H-SB-815-09 8/26/2010
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	1.2 UJ [MDL=1.2]	1.3 UJ [MDL=1.3]	1.3 UJ [MDL=1.3]	43 J [MDL=1.4]
DIBENZO(A,H)ANTHRACENE	3.5 U [MDL=3.5]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	4.1 U [MDL=4.1]
FLUORANTHENE	3.5 U [MDL=3.5]	10 [MDL=3.9]	3.9 U [MDL=3.9]	54 [MDL=4.1]
FLUORENE	3.5 U [MDL=3.5]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	4.1 U [MDL=4.1]
INDENO(1,2,3-CD)PYRENE	3.5 U [MDL=3.5]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	27 [MDL=4.1]
NAPHTHALENE	3.5 U [MDL=3.5]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	4.1 U [MDL=4.1]
PHENANTHRENE	3.5 U [MDL=3.5]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	28 [MDL=4.1]
PYRENE	3.5 U [MDL=3.5]	16 [MDL=3.9]	3.9 U [MDL=3.9]	88 [MDL=4.1]
TOTAL PAHS	0 U [MDL=NaN]	34.7 [MDL=NaN]	0 U [MDL=NaN]	431 [MDL=NaN]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-815 H-SB-815-03 8/26/2010	SB-815 H-SB-815-05 8/26/2010	SB-815 H-SB-815-07 8/26/2010	SB-815 H-SB-815-09 8/26/2010
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

LOCATION	SB-815	SB-815	SB-815	SB-815
SAMPLE ID	H-SB-815-11	H-SB-815-13	H-SB-815-15	H-SB-815-SS
SAMPLE DATE	8/26/2010	8/26/2010	8/26/2010	8/26/2010
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-815 H-SB-815-11 8/26/2010	SB-815 H-SB-815-13 8/26/2010	SB-815 H-SB-815-15 8/26/2010	SB-815 H-SB-815-SS 8/26/2010
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-815 H-SB-815-11 8/26/2010	SB-815 H-SB-815-13 8/26/2010	SB-815 H-SB-815-15 8/26/2010	SB-815 H-SB-815-SS 8/26/2010
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-815 H-SB-815-11 8/26/2010	SB-815 H-SB-815-13 8/26/2010	SB-815 H-SB-815-15 8/26/2010	SB-815 H-SB-815-SS 8/26/2010
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-815 H-SB-815-11 8/26/2010	SB-815 H-SB-815-13 8/26/2010	SB-815 H-SB-815-15 8/26/2010	SB-815 H-SB-815-SS 8/26/2010
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	3.9 U [MDL=3.9]	4.2 U [MDL=4.2]	4 U [MDL=4]	3.8 U [MDL=3.8]
2-METHYLNAPHTHALENE	3.9 U [MDL=3.9]	4.2 U [MDL=4.2]	4 U [MDL=4]	3.8 U [MDL=3.8]
ACENAPHTHENE	3.9 U [MDL=3.9]	10 [MDL=4.2]	4 U [MDL=4]	3.8 U [MDL=3.8]
ACENAPHTHYLENE	3.9 U [MDL=3.9]	9 [MDL=4.2]	4 U [MDL=4]	3.8 U [MDL=3.8]
ANTHRACENE	3.9 U [MDL=3.9]	45 [MDL=4.2]	4 U [MDL=4]	3.8 U [MDL=3.8]
BAP EQUIVALENT-HALFND	15.46015 [MDL=NaN]	267.96 [MDL=NaN]	4 U [MDL=NaN]	3.8 U [MDL=NaN]
BAP EQUIVALENT-POS	13.1 [MDL=NaN]	267.96 [MDL=NaN]	4 U [MDL=NaN]	3.8 U [MDL=NaN]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	3.9 U [MDL=3.9]	140 [MDL=4.2]	4 U [MDL=4]	3.8 U [MDL=3.8]
BENZO(A)PYRENE	12 [MDL=3.9]	190 [MDL=4.2]	4 U [MDL=4]	3.8 U [MDL=3.8]
BENZO(B)FLUORANTHENE	11 [MDL=3.9]	180 [MDL=4.2]	4 U [MDL=4]	3.8 U [MDL=3.8]
BENZO(G,H,I)PERYLENE	9.9 [MDL=3.9]	160 [MDL=4.2]	4 U [MDL=4]	3.8 U [MDL=3.8]
BENZO(K)FLUORANTHENE	3.9 U [MDL=3.9]	79 [MDL=4.2]	4 U [MDL=4]	3.8 U [MDL=3.8]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-815**	**SB-815**	**SB-815**	**SB-815**
SAMPLE ID	**H-SB-815-11**	**H-SB-815-13**	**H-SB-815-15**	**H-SB-815-SS**
SAMPLE DATE	**8/26/2010**	**8/26/2010**	**8/26/2010**	**8/26/2010**
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	1.3 UJ [MDL=1.3]	170 [MDL=1.4]	1.3 UJ [MDL=1.3]	1.3 UJ [MDL=1.3]
DIBENZO(A,H)ANTHRACENE	3.9 U [MDL=3.9]	33 [MDL=4.2]	4 U [MDL=4]	3.8 U [MDL=3.8]
FLUORANTHENE	9.7 [MDL=3.9]	210 [MDL=4.2]	4 U [MDL=4]	3.8 U [MDL=3.8]
FLUORENE	3.9 U [MDL=3.9]	16 [MDL=4.2]	4 U [MDL=4]	3.8 U [MDL=3.8]
INDENO(1,2,3-CD)PYRENE	3.9 U [MDL=3.9]	120 [MDL=4.2]	4 U [MDL=4]	3.8 U [MDL=3.8]
NAPHTHALENE	3.9 U [MDL=3.9]	10 [MDL=4.2]	4 U [MDL=4]	3.8 U [MDL=3.8]
PHENANTHRENE	3.9 U [MDL=3.9]	120 [MDL=4.2]	4 U [MDL=4]	3.8 U [MDL=3.8]
PYRENE	17 [MDL=3.9]	320 [MDL=4.2]	4 U [MDL=4]	8.5 [MDL=3.8]
TOTAL PAHS	59.6 [MDL=NaN]	1812 [MDL=NaN]	0 U [MDL=NaN]	8.5 [MDL=NaN]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-815** **H-SB-815-11** **8/26/2010**	**SB-815** **H-SB-815-13** **8/26/2010**	**SB-815** **H-SB-815-15** **8/26/2010**	**SB-815** **H-SB-815-SS** **8/26/2010**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

LOCATION	SB-816	SB-816	SB-816	SB-816
SAMPLE ID	H-SB-816-03	H-SB-816-03-D	H-SB-816-05	H-SB-816-07
SAMPLE DATE	8/27/2010	8/27/2010	8/27/2010	8/27/2010
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-816 H-SB-816-03 8/27/2010	SB-816 H-SB-816-03-D 8/27/2010	SB-816 H-SB-816-05 8/27/2010	SB-816 H-SB-816-07 8/27/2010
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-816 H-SB-816-03 8/27/2010	SB-816 H-SB-816-03-D 8/27/2010	SB-816 H-SB-816-05 8/27/2010	SB-816 H-SB-816-07 8/27/2010
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-816** **H-SB-816-03** **8/27/2010**	**SB-816** **H-SB-816-03-D** **8/27/2010**	**SB-816** **H-SB-816-05** **8/27/2010**	**SB-816** **H-SB-816-07** **8/27/2010**
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-816** **H-SB-816-03** **8/27/2010**	**SB-816** **H-SB-816-03-D** **8/27/2010**	**SB-816** **H-SB-816-05** **8/27/2010**	**SB-816** **H-SB-816-07** **8/27/2010**
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	3.7 U [MDL=3.7]	3.8 U [MDL=3.8]	3.8 U [MDL=3.8]	3.8 U [MDL=3.8]
2-METHYLNAPHTHALENE	3.7 U [MDL=3.7]	3.8 U [MDL=3.8]	3.8 U [MDL=3.8]	3.8 U [MDL=3.8]
ACENAPHTHENE	3.7 UJ [MDL=3.7]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]
ACENAPHTHYLENE	3.7 U [MDL=3.7]	3.8 U [MDL=3.8]	3.8 U [MDL=3.8]	3.8 U [MDL=3.8]
ANTHRACENE	3.7 UJ [MDL=3.7]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]
BAP EQUIVALENT-HALFND	3.7 U [MDL=NaN]	3.8 U [MDL=NaN]	25.48965 [MDL=NaN]	3.8 U [MDL=NaN]
BAP EQUIVALENT-POS	3.7 U [MDL=NaN]	3.8 U [MDL=NaN]	23 [MDL=NaN]	3.8 U [MDL=NaN]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	3.7 U [MDL=3.7]	3.8 U [MDL=3.8]	3.8 U [MDL=3.8]	3.8 U [MDL=3.8]
BENZO(A)PYRENE	3.7 UJ [MDL=3.7]	3.8 UJ [MDL=3.8]	23 J [MDL=3.8]	3.8 UJ [MDL=3.8]
BENZO(B)FLUORANTHENE	3.7 UJ [MDL=3.7]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]
BENZO(G,H,I)PERYLENE	3.7 UJ [MDL=3.7]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]
BENZO(K)FLUORANTHENE	3.7 UJ [MDL=3.7]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]

LOCATION SAMPLE ID SAMPLE DATE	SB-816 H-SB-816-03 8/27/2010	SB-816 H-SB-816-03-D 8/27/2010	SB-816 H-SB-816-05 8/27/2010	SB-816 H-SB-816-07 8/27/2010
C1-CHRYSENES	--	--	--	77 U [MDL=77]
C1-FLUORANTHENES/PYRENES	--	--	--	77 U [MDL=77]
C1-FLUORENES	--	--	--	77 U [MDL=77]
C1-PHENANTHRENES/ANTHRACENES	--	--	--	77 U [MDL=77]
C2-CHRYSENES	--	--	--	77 U [MDL=77]
C2-FLUORENES	--	--	--	77 U [MDL=77]
C2-NAPHTHALENES	--	--	--	77 U [MDL=77]
C2-PHENANTHRENES/ANTHRACENES	--	--	--	77 U [MDL=77]
C3-CHRYSENES	--	--	--	77 U [MDL=77]
C3-FLUORENES	--	--	--	77 U [MDL=77]
C3-NAPHTHALENES	--	--	--	77 U [MDL=77]
C3-PHENANTHRENES/ANTHRACENES	--	--	--	77 U [MDL=77]
C4-CHRYSENES	--	--	--	77 U [MDL=77]
C4-NAPHTHALENES	--	--	--	77 U [MDL=77]
C4-PHENANTHRENES/ANTHRACENES	--	--	--	77 U [MDL=77]
CHRYSENE	1.2 U [MDL=1.2]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]
DIBENZO(A,H)ANTHRACENE	3.7 UJ [MDL=3.7]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]
FLUORANTHENE	3.7 UJ [MDL=3.7]	3.8 UJ [MDL=3.8]	24 J [MDL=3.8]	3.8 UJ [MDL=3.8]
FLUORENE	3.7 UJ [MDL=3.7]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]
INDENO(1,2,3-CD)PYRENE	3.7 UJ [MDL=3.7]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]
NAPHTHALENE	3.7 U [MDL=3.7]	3.8 U [MDL=3.8]	3.8 U [MDL=3.8]	3.8 U [MDL=3.8]
PHENANTHRENE	3.7 UJ [MDL=3.7]	3.8 UJ [MDL=3.8]	16 J [MDL=3.8]	3.8 UJ [MDL=3.8]
PYRENE	3.7 U [MDL=3.7]	3.8 U [MDL=3.8]	15 [MDL=3.8]	3.8 U [MDL=3.8]
TOTAL PAHS	0 U [MDL=NaN]	0 U [MDL=NaN]	78 [MDL=NaN]	0 U [MDL=NaN]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-816	SB-816	SB-816	SB-816
SAMPLE ID	H-SB-816-03	H-SB-816-03-D	H-SB-816-05	H-SB-816-07
SAMPLE DATE	8/27/2010	8/27/2010	8/27/2010	8/27/2010
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-816	SB-816	SB-816	SB-816
SAMPLE ID	H-SB-816-09	H-SB-816-11	H-SB-816-SS	H-SB-816-SS-D
SAMPLE DATE	8/27/2010	8/27/2010	8/27/2010	8/27/2010
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-816 H-SB-816-09 8/27/2010	SB-816 H-SB-816-11 8/27/2010	SB-816 H-SB-816-SS 8/27/2010	SB-816 H-SB-816-SS-D 8/27/2010
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-816 H-SB-816-09 8/27/2010	SB-816 H-SB-816-11 8/27/2010	SB-816 H-SB-816-SS 8/27/2010	SB-816 H-SB-816-SS-D 8/27/2010
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-816** **H-SB-816-09** **8/27/2010**	**SB-816** **H-SB-816-11** **8/27/2010**	**SB-816** **H-SB-816-SS** **8/27/2010**	**SB-816** **H-SB-816-SS-D** **8/27/2010**
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-816 H-SB-816-09 8/27/2010	SB-816 H-SB-816-11 8/27/2010	SB-816 H-SB-816-SS 8/27/2010	SB-816 H-SB-816-SS-D 8/27/2010
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	4.1 U [MDL=4.1]	11 [MDL=3.9]	10 [MDL=3.8]	--
2-METHYLNAPHTHALENE	4.1 U [MDL=4.1]	13 [MDL=3.9]	11 [MDL=3.8]	--
ACENAPHTHENE	30 J [MDL=4.1]	38 J [MDL=3.9]	43 J [MDL=3.8]	--
ACENAPHTHYLENE	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	--
ANTHRACENE	34 J [MDL=4.1]	58 J [MDL=3.9]	31 J [MDL=3.8]	--
BAP EQUIVALENT-HALFND	79.358 [MDL=NaN]	203.17 [MDL=NaN]	57.55 [MDL=NaN]	--
BAP EQUIVALENT-POS	77.308 [MDL=NaN]	201.22 [MDL=NaN]	55.631 [MDL=NaN]	--
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	42 [MDL=4.1]	140 J [MDL=3.9]	29 [MDL=3.8]	--
BENZO(A)PYRENE	62 J [MDL=4.1]	160 J [MDL=3.9]	45 J [MDL=3.8]	--
BENZO(B)FLUORANTHENE	61 J [MDL=4.1]	170 J [MDL=3.9]	42 J [MDL=3.8]	--
BENZO(G,H,I)PERYLENE	56 J [MDL=4.1]	140 J [MDL=3.9]	38 J [MDL=3.8]	--
BENZO(K)FLUORANTHENE	26 J [MDL=4.1]	68 J [MDL=3.9]	3.8 UJ [MDL=3.8]	--

LOCATION SAMPLE ID SAMPLE DATE	SB-816 H-SB-816-09 8/27/2010	SB-816 H-SB-816-11 8/27/2010	SB-816 H-SB-816-SS 8/27/2010	SB-816 H-SB-816-SS-D 8/27/2010
C1-CHRYSENES	--	240 J [MDL=79]	77 U [MDL=77]	76 U [MDL=76]
C1-FLUORANTHENES/PYRENES	--	290 J [MDL=79]	77 U [MDL=77]	76 U [MDL=76]
C1-FLUORENES	--	79 U [MDL=79]	77 U [MDL=77]	76 U [MDL=76]
C1-PHENANTHRENES/ANTHRACENES	--	220 J [MDL=79]	77 U [MDL=77]	76 U [MDL=76]
C2-CHRYSENES	--	140 J [MDL=79]	77 U [MDL=77]	76 U [MDL=76]
C2-FLUORENES	--	79 U [MDL=79]	77 U [MDL=77]	76 U [MDL=76]
C2-NAPHTHALENES	--	79 U [MDL=79]	77 U [MDL=77]	76 U [MDL=76]
C2-PHENANTHRENES/ANTHRACENES	--	180 J [MDL=79]	77 U [MDL=77]	76 U [MDL=76]
C3-CHRYSENES	--	79 U [MDL=79]	77 U [MDL=77]	76 U [MDL=76]
C3-FLUORENES	--	79 U [MDL=79]	77 U [MDL=77]	76 U [MDL=76]
C3-NAPHTHALENES	--	79 U [MDL=79]	77 U [MDL=77]	76 U [MDL=76]
C3-PHENANTHRENES/ANTHRACENES	--	100 J [MDL=79]	77 U [MDL=77]	76 U [MDL=76]
C4-CHRYSENES	--	79 U [MDL=79]	77 U [MDL=77]	76 U [MDL=76]
C4-NAPHTHALENES	--	79 U [MDL=79]	77 U [MDL=77]	76 U [MDL=76]
C4-PHENANTHRENES/ANTHRACENES	--	79 U [MDL=79]	77 U [MDL=77]	76 U [MDL=76]
CHRYSENE	48 [MDL=1.4]	140 J [MDL=1.3]	31 [MDL=1.3]	--
DIBENZO(A,H)ANTHRACENE	4.1 UJ [MDL=4.1]	3.9 UJ [MDL=3.9]	3.8 UJ [MDL=3.8]	--
FLUORANTHENE	81 J [MDL=4.1]	200 J [MDL=3.9]	55 J [MDL=3.8]	--
FLUORENE	32 J [MDL=4.1]	42 J [MDL=3.9]	31 J [MDL=3.8]	--
INDENO(1,2,3-CD)PYRENE	47 J [MDL=4.1]	94 J [MDL=3.9]	35 J [MDL=3.8]	--
NAPHTHALENE	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	42 [MDL=3.8]	--
PHENANTHRENE	77 J [MDL=4.1]	170 J [MDL=3.9]	42 J [MDL=3.8]	--
PYRENE	110 [MDL=4.1]	340 J [MDL=3.9]	65 [MDL=3.8]	--
TOTAL PAHS	706 [MDL=NaN]	1773 [MDL=NaN]	540 [MDL=NaN]	--
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-816** **H-SB-816-09** **8/27/2010**	**SB-816** **H-SB-816-11** **8/27/2010**	**SB-816** **H-SB-816-SS** **8/27/2010**	**SB-816** **H-SB-816-SS-D** **8/27/2010**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-817 H-SB-817-03 8/27/2010	SB-817 H-SB-817-05 8/27/2010	SB-817 H-SB-817-07 8/27/2010	SB-817 H-SB-817-07-D 8/27/2010
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-817 H-SB-817-03 8/27/2010	SB-817 H-SB-817-05 8/27/2010	SB-817 H-SB-817-07 8/27/2010	SB-817 H-SB-817-07-D 8/27/2010
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-817 H-SB-817-03 8/27/2010	SB-817 H-SB-817-05 8/27/2010	SB-817 H-SB-817-07 8/27/2010	SB-817 H-SB-817-07-D 8/27/2010
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-817 H-SB-817-03 8/27/2010	SB-817 H-SB-817-05 8/27/2010	SB-817 H-SB-817-07 8/27/2010	SB-817 H-SB-817-07-D 8/27/2010
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-817**	**SB-817**	**SB-817**	**SB-817**
SAMPLE ID	**H-SB-817-03**	**H-SB-817-05**	**H-SB-817-07**	**H-SB-817-07-D**
SAMPLE DATE	**8/27/2010**	**8/27/2010**	**8/27/2010**	**8/27/2010**
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	3.7 U [MDL=3.7]	4 U [MDL=4]	3.8 U [MDL=3.8]	3.8 U [MDL=3.8]
2-METHYLNAPHTHALENE	3.7 U [MDL=3.7]	4 U [MDL=4]	3.8 U [MDL=3.8]	3.8 U [MDL=3.8]
ACENAPHTHENE	3.7 UJ [MDL=3.7]	4 UJ [MDL=4]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]
ACENAPHTHYLENE	3.7 U [MDL=3.7]	4 U [MDL=4]	3.8 U [MDL=3.8]	3.8 U [MDL=3.8]
ANTHRACENE	3.7 UJ [MDL=3.7]	4 UJ [MDL=4]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]
BAP EQUIVALENT-HALFND	3.7 U [MDL=NaN]	37.934 [MDL=NaN]	3.8 U [MDL=NaN]	3.8 U [MDL=NaN]
BAP EQUIVALENT-POS	3.7 U [MDL=NaN]	35.714 [MDL=NaN]	3.8 U [MDL=NaN]	3.8 U [MDL=NaN]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	3.7 U [MDL=3.7]	16 [MDL=4]	3.8 U [MDL=3.8]	3.8 U [MDL=3.8]
BENZO(A)PYRENE	3.7 UJ [MDL=3.7]	32 J [MDL=4]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]
BENZO(B)FLUORANTHENE	3.7 UJ [MDL=3.7]	21 J [MDL=4]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]
BENZO(G,H,I)PERYLENE	3.7 UJ [MDL=3.7]	4 UJ [MDL=4]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]
BENZO(K)FLUORANTHENE	3.7 UJ [MDL=3.7]	4 UJ [MDL=4]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-817** **H-SB-817-03** **8/27/2010**	**SB-817** **H-SB-817-05** **8/27/2010**	**SB-817** **H-SB-817-07** **8/27/2010**	**SB-817** **H-SB-817-07-D** **8/27/2010**
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	1.2 U [MDL=1.2]	14 [MDL=1.3]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]
DIBENZO(A,H)ANTHRACENE	3.7 UJ [MDL=3.7]	4 UJ [MDL=4]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]
FLUORANTHENE	3.7 UJ [MDL=3.7]	33 J [MDL=4]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]
FLUORENE	3.7 UJ [MDL=3.7]	4 UJ [MDL=4]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]
INDENO(1,2,3-CD)PYRENE	3.7 UJ [MDL=3.7]	4 UJ [MDL=4]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]
NAPHTHALENE	3.7 U [MDL=3.7]	4 U [MDL=4]	3.8 U [MDL=3.8]	3.8 U [MDL=3.8]
PHENANTHRENE	3.7 UJ [MDL=3.7]	4 UJ [MDL=4]	3.8 UJ [MDL=3.8]	3.8 UJ [MDL=3.8]
PYRENE	3.7 U [MDL=3.7]	36 [MDL=4]	3.8 U [MDL=3.8]	3.8 U [MDL=3.8]
TOTAL PAHS	0 U [MDL=NaN]	152 [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-817** **H-SB-817-03** **8/27/2010**	**SB-817** **H-SB-817-05** **8/27/2010**	**SB-817** **H-SB-817-07** **8/27/2010**	**SB-817** **H-SB-817-07-D** **8/27/2010**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

LOCATION	SB-817	SB-817	SB-817	SB-817
SAMPLE ID	H-SB-817-09	H-SB-817-11	H-SB-817-13	H-SB-817-15
SAMPLE DATE	8/27/2010	8/27/2010	8/27/2010	8/27/2010
METALS (MG/KG)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS				
PERCENT SOLIDS (%)	--	--	--	--
TOTAL SOLIDS (%)	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--
TOTAL ORGANIC CARBON (MG/KG)	--	--	--	--
PH (S.U.)	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--
SEMIVOLATILES (UG/KG)				
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
1,4-DIOXANE	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--

LOCATION	SB-817	SB-817	SB-817	SB-817
SAMPLE ID	H-SB-817-09	H-SB-817-11	H-SB-817-13	H-SB-817-15
SAMPLE DATE	8/27/2010	8/27/2010	8/27/2010	8/27/2010
2,4-DIMETHYLPHENOL	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--
2-CHLOROPHENOL	--	--	--	--
2-METHYLPHENOL	--	--	--	--
2-NITROANILINE	--	--	--	--
2-NITROPHENOL	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--
3-NITROANILINE	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--
4-CHLOROANILINE	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--
4-NITROANILINE	--	--	--	--
4-NITROPHENOL	--	--	--	--
ANILINE	--	--	--	--
AZOBENZENE	--	--	--	--
BENZIDINE	--	--	--	--
BENZOIC ACID	--	--	--	--
BENZYL ALCOHOL	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	--	--
BIS(2-CHLOROETHYL)ETHER	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--
BUTYL BENZYL PHTHALATE	--	--	--	--
CARBAZOLE	--	--	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DIMETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--
DI-N-OCTYL PHTHALATE	--	--	--	--
HEXACHLOROBENZENE	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-817 H-SB-817-09 8/27/2010	SB-817 H-SB-817-11 8/27/2010	SB-817 H-SB-817-13 8/27/2010	SB-817 H-SB-817-15 8/27/2010
HEXACHLOROBUTADIENE	--	--	--	--
HEXACHLOROCYCLOPENTADIENE	--	--	--	--
HEXACHLOROETHANE	--	--	--	--
ISOPHORONE	--	--	--	--
NITROBENZENE	--	--	--	--
N-NITROSODIMETHYLAMINE	--	--	--	--
N-NITROSO-DI-N-PROPYLAMINE	--	--	--	--
N-NITROSODIPHENYLAMINE	--	--	--	--
PENTACHLOROPHENOL	--	--	--	--
PHENOL	--	--	--	--
PYRIDINE	--	--	--	--
VOLATILES (UG/KG)				
1,1,1,2-TETRACHLOROETHANE	--	--	--	--
1,1,1-TRICHLOROETHANE	--	--	--	--
1,1,2,2-TETRACHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROETHANE	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--
1,3-DICHLOROPROPENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-817** **H-SB-817-09** **8/27/2010**	**SB-817** **H-SB-817-11** **8/27/2010**	**SB-817** **H-SB-817-13** **8/27/2010**	**SB-817** **H-SB-817-15** **8/27/2010**
1,4-DIOXANE	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--
2-BUTANONE	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--
2-HEXANONE	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	--	--	--	--
BENZENE	--	--	--	--
BROMOBENZENE	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--
BROMOFORM	--	--	--	--
BROMOMETHANE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--
CHLOROETHANE	--	--	--	--
CHLOROFORM	--	--	--	--
CHLOROMETHANE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--
DIBROMOMETHANE	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--
ETHYLBENZENE	--	--	--	--
FLUORODICHLOROMETHANE	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--

LOCATION SAMPLE ID SAMPLE DATE	SB-817 H-SB-817-09 8/27/2010	SB-817 H-SB-817-11 8/27/2010	SB-817 H-SB-817-13 8/27/2010	SB-817 H-SB-817-15 8/27/2010
METHYLENE CHLORIDE	--	--	--	--
NAPHTHALENE	--	--	--	--
N-BUTYLBENZENE	--	--	--	--
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--
STYRENE	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--
TETRACHLOROETHENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL 1,2-DICHLOROETHENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--
TRICHLOROETHENE	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--
VINYL ACETATE	--	--	--	--
VINYL CHLORIDE	--	--	--	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
2-METHYLNAPHTHALENE	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
ACENAPHTHENE	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]
ACENAPHTHYLENE	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
ANTHRACENE	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]
BAP EQUIVALENT-HALFND	3.9 U [MDL=NaN]	3.9 U [MDL=NaN]	3.9 U [MDL=NaN]	3.9 U [MDL=NaN]
BAP EQUIVALENT-POS	3.9 U [MDL=NaN]	3.9 U [MDL=NaN]	3.9 U [MDL=NaN]	3.9 U [MDL=NaN]
BAP EQUIVALENT-UCL	--	--	--	--
BENZO(A)ANTHRACENE	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
BENZO(A)PYRENE	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]
BENZO(B)FLUORANTHENE	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]
BENZO(G,H,I)PERYLENE	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]
BENZO(K)FLUORANTHENE	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-817** **H-SB-817-09** **8/27/2010**	**SB-817** **H-SB-817-11** **8/27/2010**	**SB-817** **H-SB-817-13** **8/27/2010**	**SB-817** **H-SB-817-15** **8/27/2010**
C1-CHRYSENES	--	--	--	--
C1-FLUORANTHENES/PYRENES	--	--	--	--
C1-FLUORENES	--	--	--	--
C1-PHENANTHRENES/ANTHRACENES	--	--	--	--
C2-CHRYSENES	--	--	--	--
C2-FLUORENES	--	--	--	--
C2-NAPHTHALENES	--	--	--	--
C2-PHENANTHRENES/ANTHRACENES	--	--	--	--
C3-CHRYSENES	--	--	--	--
C3-FLUORENES	--	--	--	--
C3-NAPHTHALENES	--	--	--	--
C3-PHENANTHRENES/ANTHRACENES	--	--	--	--
C4-CHRYSENES	--	--	--	--
C4-NAPHTHALENES	--	--	--	--
C4-PHENANTHRENES/ANTHRACENES	--	--	--	--
CHRYSENE	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]
DIBENZO(A,H)ANTHRACENE	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]
FLUORANTHENE	21 J [MDL=3.9]	17 J [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]
FLUORENE	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]
INDENO(1,2,3-CD)PYRENE	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]
NAPHTHALENE	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
PHENANTHRENE	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]	3.9 UJ [MDL=3.9]
PYRENE	11 [MDL=3.9]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
TOTAL PAHS	32 [MDL=NaN]	17 [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]
PCBS (UG/KG)				
AROCLOR-1016	--	--	--	--
AROCLOR-1221	--	--	--	--
AROCLOR-1232	--	--	--	--
AROCLOR-1242	--	--	--	--
AROCLOR-1248	--	--	--	--
AROCLOR-1254	--	--	--	--
AROCLOR-1260	--	--	--	--
TOTAL AROCLOR	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**	**SB-817** **H-SB-817-09** **8/27/2010**	**SB-817** **H-SB-817-11** **8/27/2010**	**SB-817** **H-SB-817-13** **8/27/2010**	**SB-817** **H-SB-817-15** **8/27/2010**
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C09-C36)	--	--	--	--

LOCATION	SB-817
SAMPLE ID	H-SB-817-SS
SAMPLE DATE	8/27/2010
METALS (MG/KG)	
ANTIMONY	--
ARSENIC	--
BARIUM	--
BERYLLIUM	--
CADMIUM	--
CHROMIUM	--
COBALT	--
COPPER	--
LEAD	--
MERCURY	--
MOLYBDENUM	--
NICKEL	--
SELENIUM	--
SILVER	--
THALLIUM	--
VANADIUM	--
ZINC	--
MISCELLANEOUS PARAMETERS	
PERCENT SOLIDS (%)	--
TOTAL SOLIDS (%)	--
HEXAVALENT CHROMIUM (MG/KG)	--
TOTAL ORGANIC CARBON (MG/KG)	--
PH (S.U.)	--
MERCURY (METHYL) (UG/KG)	--
SEMIVOLATILES (UG/KG)	
1,2,4-TRICHLOROBENZENE	--
1,2-DICHLOROBENZENE	--
1,3-DICHLOROBENZENE	--
1,4-DICHLOROBENZENE	--
1,4-DIOXANE	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--
2,4,5-TRICHLOROPHENOL	--
2,4,6-TRICHLOROPHENOL	--
2,4-DICHLOROPHENOL	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-817 H-SB-817-SS 8/27/2010
2,4-DIMETHYLPHENOL	--
2,4-DINITROPHENOL	--
2,4-DINITROTOLUENE	--
2,6-DINITROTOLUENE	--
2-CHLORONAPHTHALENE	--
2-CHLOROPHENOL	--
2-METHYLPHENOL	--
2-NITROANILINE	--
2-NITROPHENOL	--
3&4-METHYLPHENOL	--
3,3'-DICHLOROBENZIDINE	--
3-NITROANILINE	--
4,6-DINITRO-2-METHYLPHENOL	--
4-BROMOPHENYL PHENYL ETHER	--
4-CHLORO-3-METHYLPHENOL	--
4-CHLOROANILINE	--
4-CHLOROPHENYL PHENYL ETHER	--
4-NITROANILINE	--
4-NITROPHENOL	--
ANILINE	--
AZOBENZENE	--
BENZIDINE	--
BENZOIC ACID	--
BENZYL ALCOHOL	--
BIS(2-CHLOROETHOXY)METHANE	--
BIS(2-CHLOROETHYL)ETHER	--
BIS(2-ETHYLHEXYL)PHTHALATE	--
BUTYL BENZYL PHTHALATE	--
CARBAZOLE	--
DIBENZOFURAN	--
DIETHYL PHTHALATE	--
DIMETHYL PHTHALATE	--
DI-N-BUTYL PHTHALATE	--
DI-N-OCTYL PHTHALATE	--
HEXACHLOROBENZENE	--

LOCATION SAMPLE ID SAMPLE DATE	SB-817 H-SB-817-SS 8/27/2010
HEXACHLOROBUTADIENE	--
HEXACHLOROCYCLOPENTADIENE	--
HEXACHLOROETHANE	--
ISOPHORONE	--
NITROBENZENE	--
N-NITROSODIMETHYLAMINE	--
N-NITROSO-DI-N-PROPYLAMINE	--
N-NITROSODIPHENYLAMINE	--
PENTACHLOROPHENOL	--
PHENOL	--
PYRIDINE	--
VOLATILES (UG/KG)	
1,1,1,2-TETRACHLOROETHANE	--
1,1,1-TRICHLOROETHANE	--
1,1,2,2-TETRACHLOROETHANE	--
1,1,2-TRICHLOROETHANE	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--
1,1-DICHLOROETHANE	--
1,1-DICHLOROETHENE	--
1,1-DICHLOROPROPENE	--
1,2,3-TRICHLOROBENZENE	--
1,2,3-TRICHLOROPROPANE	--
1,2,3-TRIMETHYLBENZENE	--
1,2,4-TRICHLOROBENZENE	--
1,2,4-TRIMETHYLBENZENE	--
1,2-DIBROMO-3-CHLOROPROPANE	--
1,2-DIBROMOETHANE	--
1,2-DICHLOROBENZENE	--
1,2-DICHLOROETHANE	--
1,2-DICHLOROPROPANE	--
1,3,5-TRIMETHYLBENZENE	--
1,3-DICHLOROBENZENE	--
1,3-DICHLOROPROPANE	--
1,3-DICHLOROPROPENE	--
1,4-DICHLOROBENZENE	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK H
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-817
SAMPLE ID	H-SB-817-SS
SAMPLE DATE	8/27/2010
1,4-DIOXANE	--
2,2-DICHLOROPROPANE	--
2-BUTANONE	--
2-CHLOROETHYL VINYL ETHER	--
2-CHLOROTOLUENE	--
2-HEXANONE	--
4-CHLOROTOLUENE	--
4-ISOPROPYLTOLUENE	--
4-METHYL-2-PENTANONE	--
ACETONE	--
BENZENE	--
BROMOBENZENE	--
BROMOCHLOROMETHANE	--
BROMODICHLOROMETHANE	--
BROMOFORM	--
BROMOMETHANE	--
CARBON DISULFIDE	--
CARBON TETRACHLORIDE	--
CHLOROBENZENE	--
CHLORODIBROMOMETHANE	--
CHLOROETHANE	--
CHLOROFORM	--
CHLOROMETHANE	--
CIS-1,2-DICHLOROETHENE	--
CIS-1,3-DICHLOROPROPENE	--
DIBROMOMETHANE	--
DICHLORODIFLUOROMETHANE	--
DIISOPROPYL ETHER	--
ETHYL TERT-BUTYL ETHER	--
ETHYLBENZENE	--
FLUORODICHLOROMETHANE	--
HEXACHLOROBUTADIENE	--
ISOPROPYLBENZENE	--
M+P-XYLENES	--
METHYL TERT-BUTYL ETHER	--

LOCATION	SB-817
SAMPLE ID	H-SB-817-SS
SAMPLE DATE	8/27/2010
METHYLENE CHLORIDE	--
NAPHTHALENE	--
N-BUTYLBENZENE	--
N-PROPYLBENZENE	--
O-XYLENE	--
SEC-BUTYLBENZENE	--
STYRENE	--
TERT-AMYL METHYL ETHER	--
TERT-BUTYLBENZENE	--
TERTIARY-BUTYL ALCOHOL	--
TETRACHLOROETHENE	--
TOLUENE	--
TOTAL 1,2-DICHLOROETHENE	--
TOTAL XYLENES	--
TRANS-1,2-DICHLOROETHENE	--
TRANS-1,3-DICHLOROPROPENE	--
TRICHLOROETHENE	--
TRICHLOROFLUOROMETHANE	--
VINYL ACETATE	--
VINYL CHLORIDE	--

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

1-METHYLNAPHTHALENE	3.7 U [MDL=3.7]
2-METHYLNAPHTHALENE	3.7 U [MDL=3.7]
ACENAPHTHENE	3.7 UJ [MDL=3.7]
ACENAPHTHYLENE	3.7 U [MDL=3.7]
ANTHRACENE	3.7 UJ [MDL=3.7]
BAP EQUIVALENT-HALFND	3.7 U [MDL=NaN]
BAP EQUIVALENT-POS	3.7 U [MDL=NaN]
BAP EQUIVALENT-UCL	--
BENZO(A)ANTHRACENE	3.7 U [MDL=3.7]
BENZO(A)PYRENE	3.7 UJ [MDL=3.7]
BENZO(B)FLUORANTHENE	3.7 UJ [MDL=3.7]
BENZO(G,H,I)PERYLENE	3.7 UJ [MDL=3.7]
BENZO(K)FLUORANTHENE	3.7 UJ [MDL=3.7]

LOCATION	**SB-817**
SAMPLE ID	**H-SB-817-SS**
SAMPLE DATE	**8/27/2010**
C1-CHRYSENES	--
C1-FLUORANTHENES/PYRENES	--
C1-FLUORENES	--
C1-PHENANTHRENES/ANTHRACENES	--
C2-CHRYSENES	--
C2-FLUORENES	--
C2-NAPHTHALENES	--
C2-PHENANTHRENES/ANTHRACENES	--
C3-CHRYSENES	--
C3-FLUORENES	--
C3-NAPHTHALENES	--
C3-PHENANTHRENES/ANTHRACENES	--
C4-CHRYSENES	--
C4-NAPHTHALENES	--
C4-PHENANTHRENES/ANTHRACENES	--
CHRYSENE	1.2 U [MDL=1.2]
DIBENZO(A,H)ANTHRACENE	3.7 UJ [MDL=3.7]
FLUORANTHENE	3.7 UJ [MDL=3.7]
FLUORENE	3.7 UJ [MDL=3.7]
INDENO(1,2,3-CD)PYRENE	3.7 UJ [MDL=3.7]
NAPHTHALENE	3.7 U [MDL=3.7]
PHENANTHRENE	3.7 UJ [MDL=3.7]
PYRENE	9.2 [MDL=3.7]
TOTAL PAHS	9.2 [MDL=NaN]
PCBS (UG/KG)	
AROCLOR-1016	--
AROCLOR-1221	--
AROCLOR-1232	--
AROCLOR-1242	--
AROCLOR-1248	--
AROCLOR-1254	--
AROCLOR-1260	--
TOTAL AROCLOR	--
PETROLEUM HYDROCARBONS (UG/KG)	
DIESEL RANGE ORGANICS	--

LOCATION	**SB-817**
SAMPLE ID	**H-SB-817-SS**
SAMPLE DATE	**8/27/2010**
GASOLINE RANGE ORGANICS	--
TPH (C09-C36)	--

APPENDIX D—RESIDUAL-RISK ANALYSIS

Residual Risk Analysis Conducted to Support Remedial Action Plans for Tax Block H Soils Lockheed Martin Middle River Complex 2323 Eastern Boulevard Middle River, Maryland

Prepared for:

Lockheed Martin Corporation

Prepared by:

Tetra Tech, Inc.

October 24, 2013

Michael Martin, P.G.
Regional Manager

Lee Ann Sinagoga
Project Manager

TABLE OF CONTENTS

List of Tables

Attachments

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ACRONYMS

BaPEq	benzo(a)pyrene equivalents
bgs	below ground surface
COC	Chemical(s) of concern
COPC	Chemical(s) of potential concern
EPC	exposure point concentration
HI	hazard index
HHRA	human health risk assessment
MDE	Maryland Department of the Environment
µg/kg	micrograms per kilogram
mg/kg	milligram per kilogram
PAHs	polycyclic aromatic hydrocarbons
PRG	preliminary remedial goal
RAO	Remedial action objective
RAP	remedial action plan
RRA	residual risk analysis
RSL	regional screening level
UCL	upper confidence limit
USEPA	United States Environmental Protection Agency

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Section 1
Introduction

The *Human Health Risk Assessment (HHRA) for Blocks D, E, F, G, and H Soils, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard, Middle River, Maryland* (Tetra Tech, 2012) identified chemicals of concern (COC) in the Tax Block H soils that require remediation if the typical industrial worker is the receptor of concern. This document was prepared to support the remedial action plans (RAP) for the Tax Block H soils, assuming current and future industrial land use. The residual risk analysis contained herein uses a risk assessment approach to select those locations that should be remediated so that risk management goals established by the Maryland Department of the Environment (MDE) are achieved:

- Maryland Department of the Environment cumulative cancer and non-cancer risk benchmarks for receptors exposed to chemicals of concern in an exposure unit (i.e., an area in which receptor activities typically occur) are $1x10^{-5}$ (i.e., a one-in-one hundred thousand excess probability of developing cancer) and a hazard index (HI) of one, respectively. (Potential adverse non-carcinogenic health effects may occur if the calculated hazard index for a target organ exceeds 1.) Risk estimates greater than these benchmarks are not considered acceptable by the Maryland Department of Environment.

- "Hot spot" areas in soil will also be addressed by the remedial action plan. The Maryland Department of the Environment defines a "hot spot" as a location with a cancer risk estimate exceeding $1x10^{-4}$ (i.e., a one-in-ten thousand probability of developing cancer) or an HI greater than 100.

Stated alternatively, this analysis will indicate locations that must be remediated to achieve risk management goals or remedial action objectives (RAOs) as they are referred to in the RAP prepared for Tax Block H, while ensuring that "representative" soil concentrations do not exceed the risk-based preliminary remedial goals (PRGs) established for Tax Block H soils. For purposes of human health risk assessment, a "representative" soil concentration (also referred to as the exposure point concentration [EPC]) is typically defined as the 95% upper confidence limit (UCL) on the arithmetic mean. A 95% UCL is defined as a value that, when repeatedly calculated for randomly drawn subsets of size n, equals or exceeds the true population mean 95% of the time. The 95% UCL provides a measure of uncertainty in the mean.

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Section 2
Methodology

The residual risk analysis (RRA) was conducted in the five steps described below:

Step 1: Identification of Chemicals of Concern:

The HHRA results indicate that polycyclic aromatic hydrocarbons (PAHs), evaluated in terms of benzo(a)pyrene equivalent (BaPEq) concentrations, are the predominant chemicals of concern (COC) for an industrial worker hypothetically exposed to soils in Tax Block H. Risk estimates are presented in Table 4-20 of the HHRA (Tetra Tech, 2012); BaPEq were calculated per methodology presented in the HHRA. This RRA was conducted based on the BaPEq concentrations detected in the soils.

Step 2: Determination of Preliminary Remedial Goals

Risk-based preliminary remedial goals (PRGs) for the industrial worker are presented in Section 6 of the HHRA (Tetra Tech, 2012). In this residual risk analysis, the PRG selected for BaPEq for the industrial worker is 2.9 milligrams per kilogram (mg/kg), which represents the 1×10^{-5} cancer risk level.

The risk-based remedial goal used in this RRA was verified using the USEPA regional screening level (RSL) calculator (***http://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search***); the associated calculation spreadsheets are in Attachment A. Attachment A also includes histograms that display the distribution of BaPEq in Tax Block H soils. The histograms demonstrate that risk estimates are strongly influenced by elevated concentrations detected at relatively few sampling locations within the tax block.

Step 3: Ranking of Locations

Sample locations in Tax Block H were ranked according to BaPEq concentrations (and thus also according to risk). Surface soil (i.e., soils from the ground surface to two feet in depth) locations were ranked separately from subsurface (vadose zone) soil (i.e., soil between two feet below ground surface [bgs] and the typical depth to groundwater, 7 feet at Tax Block H). If more than one soil sample was available for the depth interval, the maximum concentration was used to rank the location. The results of the ranking for surface and subsurface soils are presented in the detailed residual risk analysis tables provided in Attachment B. Total cancer risk estimates (i.e., for all COC, not only the PAHs) are also provided, by sample location, for the hypothetical typical industrial worker and hypothetical resident.

Step 4: Iteratively Remove Samples and Recalculate Exposure Point Concentration

The information presented for Tax Block H in the Attachment B tables was reviewed to select an initial set of locations for RRA. Locations that appeared to contribute most significantly to risk estimates (using professional judgment) calculated for evaluated receptors were considered a reasonable starting point for the analysis. The selected data points (assuming removal via excavation) were replaced by an assumed contaminant concentration of 10 micrograms per kilogram (µg/kg), a concentration that assumes clean backfill is used, and the exposure point concentration (EPC) [equal to the 95% upper confidence limit (UCL) on the arithmetic mean] for BaPEq was recalculated using the substituted (clean fill) concentrations. This concentration (10 µg/kg) is used as the replacement, non-detect value because the detection limits for BaPEq in samples not impacted by these chemicals tend to range between 1–20 µg/kg. If the recalculated EPC exceeded the preliminary remedial goal for a receptor, additional locations were iteratively (one at a time) removed from the dataset and replaced with the default concentration (10 µg/kg). The EPC was then recalculated until the resultant EPC was equal or less than the preliminary remedial goal. Table 2-1 is a summary of the results RRA for Tax Block H; detailed risk analysis tables are in Attachment B.

Step 5: Address Cumulative Risk Issue

In Tax Block H since BaPEqs were the only COC, the residual risk analysis focused on reducing the EPC for BaPEq, thus reducing risk. As a final check, risk estimates were recalculated for all chemicals of potential concern (COPCs) initially identified in the HHRA to ensure that risk management goals established for the project are achieved by the remediation of the locations targeted by the RRA (see Attachment C).

Table 2-1

Section 3
Results and Conclusions

The results of the residual risk analysis (RRA) described in Section 2 are summarized in Table 2-1. The locations potentially targeted for remediation in Block H based on the residual risk analysis for the industrial worker (or on professional judgment considerations), are listed in this table. All locations meeting the Maryland Department of the Environment (MDE) “hot spot” definition, which represents the $1x10^{-4}$ cancer risk level, are identified for removal in Table 2-1.

A summary of the information presented in the Table 2-1 and in Attachment B follows:

- As expected, the locations with concentrations meeting or approaching the MDE “hot spot” definition strongly influence the 95% upper confidence limit (UCL) for chemicals of concern (COC).
- Tables B-1 and B-2 present residual risk analysis results for Tax Block H surface and subsurface soil, respectively; these results are summarized in Table 2-1. As noted previously, the primary risk driver for Block H are benzo(a)pyrene equivalents. BaPEq concentrations clearly above the preliminary remedial goal were detected at three locations and are targeted for remediation.

The conclusions presented above should be reviewed in light of the following caveats and uncertainties:

- Data for the Lockheed Martin Corporation Middle River Complex facility do not include a site-specific background dataset for soil. Risk-based preliminary remedial goals calculated for benzo(a)pyrene equivalents are within the range of anthropogenic background soil concentrations reported in literature. Because environs surrounding the site are highly developed, the risk-based preliminary remedial goal may actually be less than anthropogenic background concentrations, and thus are considered conservative.
- The chemical profile of the fill material brought in to replace excavated soils is unknown at this time. This residual risk analysis uses a replacement concentration (10 micrograms per kilogram [µg/kg]) to calculate the exposure point concentration. However, anthropogenic background concentrations of polycyclic aromatic hydrocarbons (and thus, benzo(a)pyrene equivalents) may easily exceed this concentration. The exposure point concentration (i.e., the 95% upper confidence level

on the arithmetic mean) and residual risk will need to be recalculated if fill soils contain benzo(a)pyrene equivalents at concentrations greater than 10 µg/kg.

A residual risk analysis was conducted by ranking soil samples in Tax Block H by chemicals of concern (COC) [i.e., BaPEq] from highest to lowest concentration. Sampling locations with higher chemicals of concern concentrations were selected for remediation, and the exposure point concentration was recalculated until it was equal to or less than the remedial goal. Industrial worker preliminary remedial goals were used for Tax Block H. Soil volumes calculated using the locations selected in the residual risk analysis are lower than soil volumes calculated using a strict comparison of sample location concentrations to preliminary remedial goals, because not every sample location with benzo(a)pyrene equivalent exceeding 2.9 mg/kg (the preliminary remedial goals for the industrial scenario) needs to be remediated. The final benchmark or remedial action objective is to achieve a cumulative residual risk level of $1x10^{-5}$ for industrial workers in Tax Block H. Risk estimates calculated for the construction worker receptor using residual concentrations (as determined by this residual risk analysis) do not exceed Maryland Department of the Environment risk management benchmarks for cancer ($1x10^{-5}$) and non-cancer (i.e., a hazard index > 1.0) effects.

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Section 4
References

1. Maryland Department of the Environment (MDE), 2008. *Cleanup Standards for Soil and Groundwater, Interim Final Guidance (Update No. 2.1)*. June.

2. Tetra Tech, Inc. (Tetra Tech), 2012. *Human Health Risk Assessment (HHRA) for Blocks D, E, F, G, and H Soils, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard, Middle River, Maryland*. September.

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Attachment A
Data Histograms;
Remedial Goal Calculations

Figure A-1
Histogram of Benzo(a)pyrene Equivalent Concentrations in Surface Soil
Block H Lockheed Martin
One-half Detection Limit = Non-detects

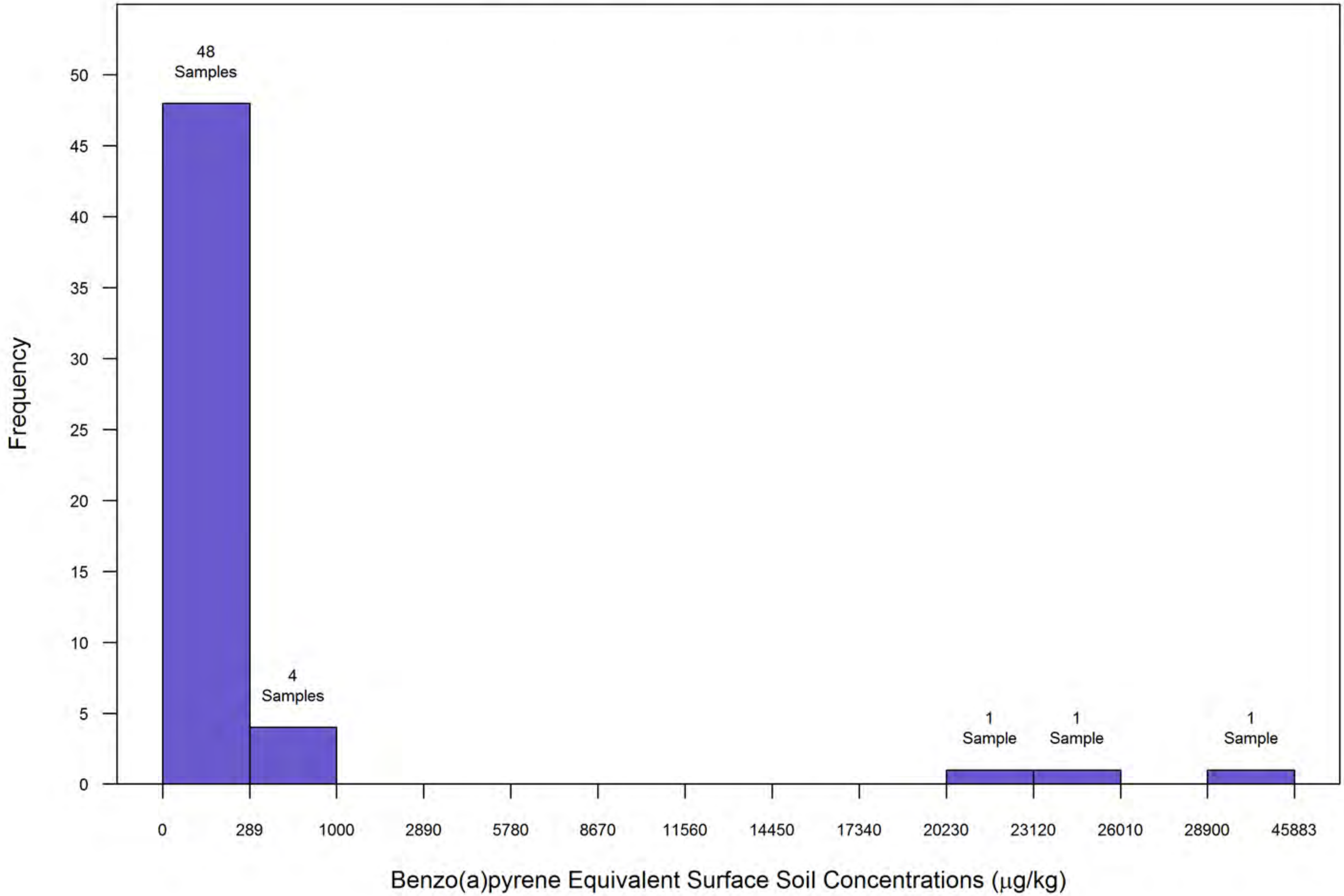


Figure A-2
Histogram of Benzo(a)pyrene Equivalent Concentrations in Surface Soil
Block H Lockheed Martin
First Bin= Non-detects

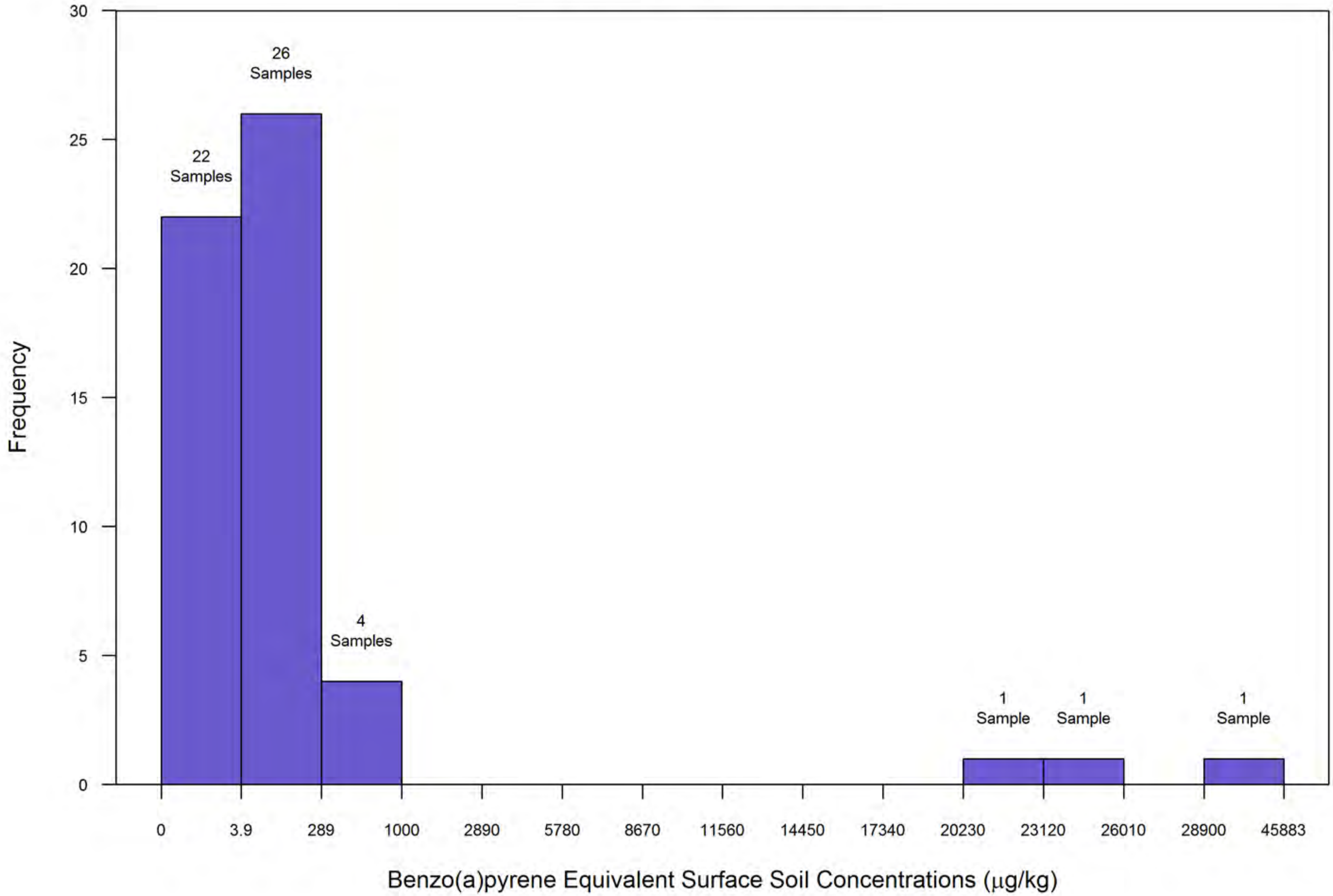


Figure A-3
Histogram of Benzo(a)pyrene Equivalent Concentrations in Subsurface Soil
Block H Lockheed Martin
One-half Detection Limit = Non-detects

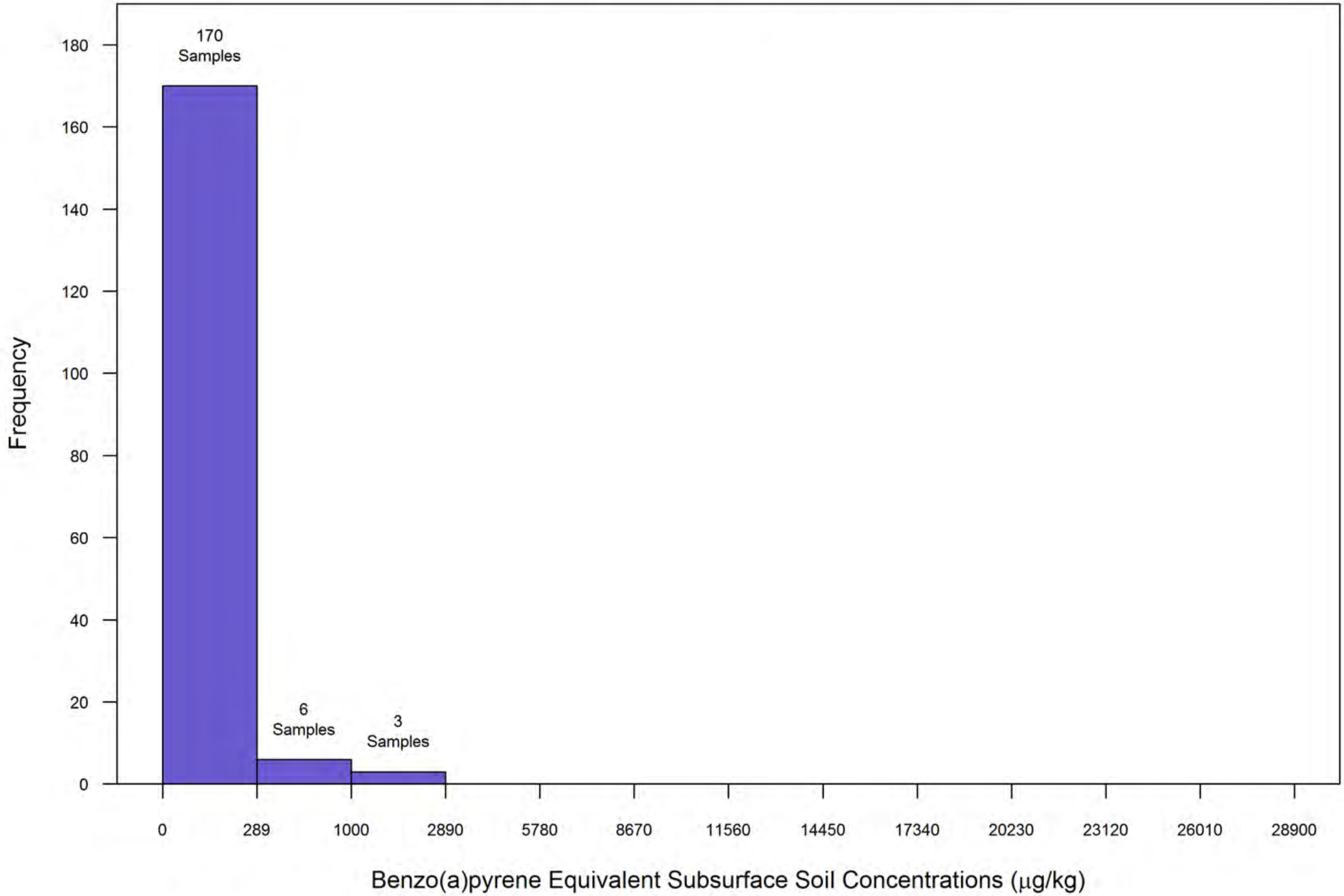
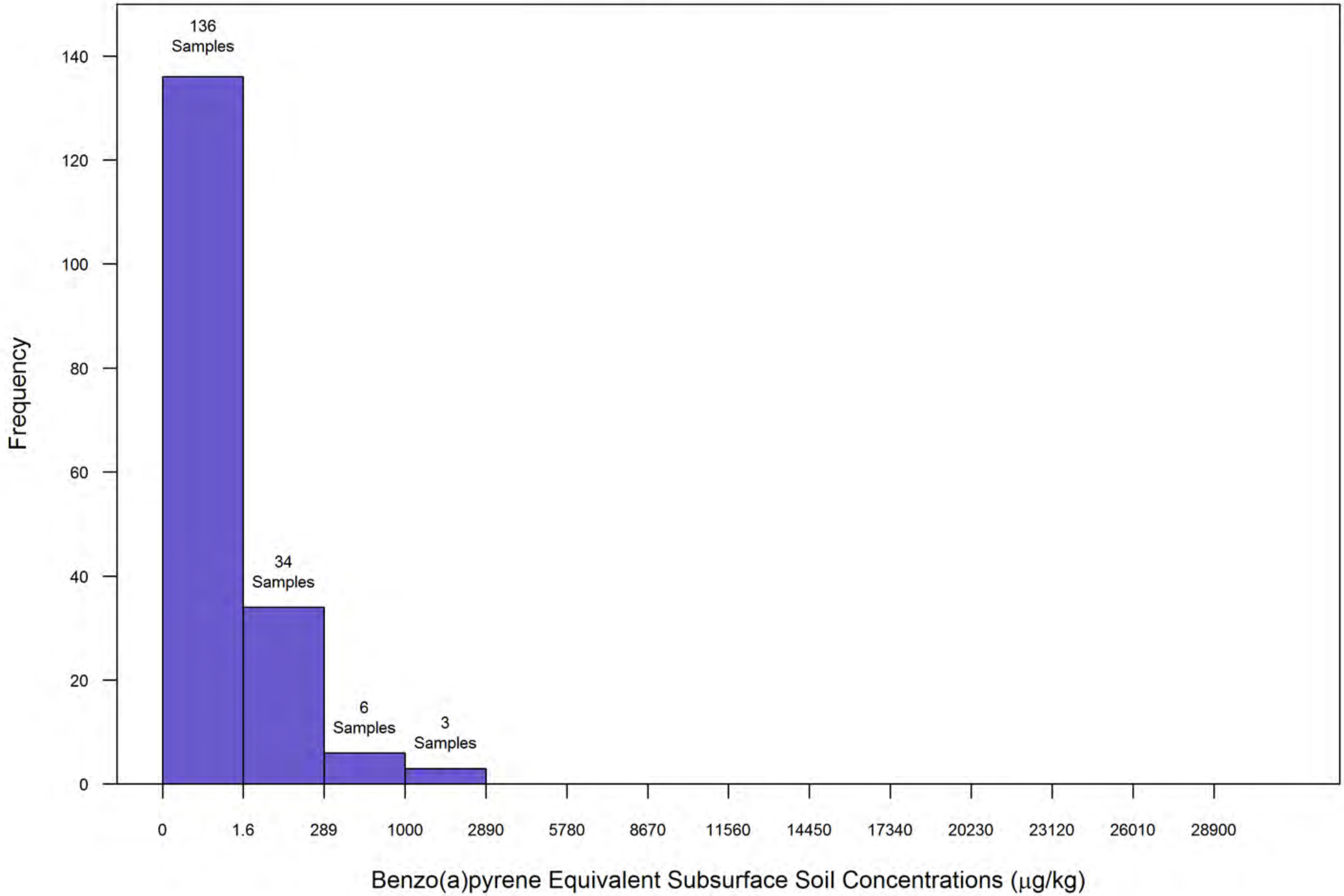


Figure A-4
Histogram of Benzo(a)pyrene Equivalent Concentrations in Subsurface Soil
Block H Lockheed Martin
First Bin = Non-detects



Site-specific

Composite Worker Equation Inputs for Soil

Variable	Value
TR (target cancer risk) unitless	0.00001
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)	70
IR_w (soil ingestion rate) mg/day	50
SA_w (surface area) cm^2/day	3300
AF_w (skin adhereence factor) mg/cm^2	0.2
City (Climate Zone) PEF Selection	Philadelphia, P
A_s (acres) PEF Selection	0.5
Q/C_{wp} (g/m^2-s per kg/m^3) PEF Selection	87.36898
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 (Climate Zone) VF Selection	Philadelphia, P
A_s (acres) VF Selection	0.5
Q/C_{wp} (g/m^2-s per kg/m^3) VF Selection	87.36898
foc (fraction organic carbon in soil) g/g	0.006
ρ$_b$ (dry soil bulk density) g/cm^3	1.5
ρ$_s$ (soil particle density) g/cm^3	2.65
θ$_w$ (water-filled soil porosity) L_{water}/L_{soil}	0.15
T (exposure interval) s	950000000

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Attachment B
Detailed Residual Risk Analysis Tables

Table B-1

Residual Risk Analysis Results - Block H - Surface Soil
Lockheed Martin, Middle River Complex
Middle River, Maryland
Page 1 of 2

Location[1]	Sample ID	Depth (feet)	BaPEq Concentration[2] (µg/kg)	Total ILCR[3] Industrial	Total ILCR[3] Residential	Comments
SB-604D	H-SB-604D-1	1 - 1	46,000	2E-04	3E-03	
SB-282A	H-SB-282REA-1	1 - 1	24,000	8E-05	2E-03	Samples needing removal to meet the benzo(a)pyrene equivalent (BaPEq) industrial preliminary remedial goal of 2,900 µg/kg (2.9 mg/kg). Site 95% UCL would be 150 µg/kg.
SB-282D	H-SB-282RED-1	1 - 1	21,000	7E-05	2E-03	
SB-611D	H-SB-611D-1	1 - 1	620	2E-06	5E-05	
SB-283	SB-283-0102	1 - 2	560	3E-06	5E-05	
SB-200	SB-200-SS	0 - 1	500	2E-06	4E-05	
SB-284	SB-284-0102	1 - 2	410	2E-06	4E-05	
SB-282	H-SB-282RE-1	1 - 1	170	6E-07	1E-05	
	H-SB-282RE-2	2 - 2	140	5E-07	1E-05	
SB-604B	H-SB-604B-1	1 - 1	160	6E-07	1E-05	
SB-203	SB-203-SS	0 - 1	110	1E-06	2E-05	
SB-201	SB-201-SS	0 - 1	100	3E-06	3E-05	
SB-463	SB-463-0102	1 - 2	69	2E-07	5E-06	
SB-282C	H-SB-282REC-1	1 - 1	68	2E-07	5E-06	
SB-816	H-SB-816-SS	1 - 1	58	2E-07	4E-06	
SB-611A	H-SB-611A-1	1 - 1	53	2E-07	4E-06	
SB-470	SB-470-0102	1 - 2	52	2E-07	4E-06	
SB-483	SB-483-0102	1 - 2	32	1E-07	2E-06	
SB-282B	H-SB-282REB-1	1 - 1	31	1E-07	2E-06	
SB-610C	H-SB-610C-1	1 - 1	31	1E-07	2E-06	
SB-481	SB-481-0102	1 - 2	31	1E-07	2E-06	
SB-462	SB-462-0102	1 - 2	26	9E-08	2E-06	
SB-610D	H-SB-610D-1	1 - 1	25	9E-08	2E-06	
SB-474	SB-474-0102	1 - 2	24	8E-08	2E-06	
SB-484	SB-484-0102	1 - 2	21	7E-08	2E-06	
SB-604A	H-SB-604A-1	1 - 1	17	6E-08	1E-06	
SB-469	SB-469-0102	1 - 2	15	5E-08	1E-06	
SB-479	SB-479-0102	1 - 2	15	5E-08	1E-06	
SB-610B	H-SB-610B-1	1 - 1	15	5E-08	1E-06	
SB-482	SB-482-0102	1 - 2	13	5E-08	1E-06	
SB-466	SB-466-0102	1 - 2	11	4E-08	8E-07	
SB-485	SB-485-0102	1 - 2	10	3E-08	8E-07	
SB-488	SB-488-0102	1 - 2	9.0	3E-08	7E-07	
SB-202	SB-202-SS	0 - 1	80 U	6E-07	8E-06	
SB-285	SB-285-0102	1 - 2	400 U	2E-06	3E-05	
SB-286	SB-286-0102	1 - 2	370 U	2E-06	3E-05	
SB-486	SB-486-0102	1 - 2	370 U	6E-07	1E-05	
SB-487	SB-487-0102	1 - 2	370 U	6E-07	1E-05	
SB-293	SB-293-0102	1 - 2	360 U	2E-06	2E-05	
SB-294	SB-294-0001	0 - 1	360 U	2E-06	2E-05	
SB-814	H-SB-814-SS	1 - 1	3.9 U	7E-09	1E-07	
SB-815	H-SB-815-SS	1 - 1	3.8 U	7E-09	1E-07	
SB-817	H-SB-817-SS	1 - 1	3.7 U	6E-09	1E-07	
SB-471	SB-471-0102	1 - 2	1.6 U	3E-09	6E-08	
SB-465	SB-465-0102	1 - 2	1.5 U	3E-09	6E-08	
SB-467	SB-467-0102	1 - 2	1.5 U	3E-09	6E-08	
SB-468	SB-468-0102	1 - 2	1.5 U	3E-09	6E-08	
SB-472	SB-472-0102	1 - 2	1.5 U	3E-09	6E-08	
SB-473	SB-473-0102	1 - 2	1.5 U	3E-09	6E-08	
SB-475	SB-475-0102	1 - 2	1.5 U	3E-09	6E-08	
SB-476	SB-476-0102	1 - 2	1.5 U	3E-09	6E-08	
SB-477	SB-477-0102	1 - 2	1.5 U	3E-09	6E-08	
SB-480	SB-480-0102	1 - 2	1.5 U	3E-09	6E-08	
SB-464	SB-464-0102	1 - 2	1.4 U	2E-09	5E-08	
SB-478	SB-478-0102	1 - 2	1.4 U	2E-09	5E-08	
SB-201RE	H-SB-201RE-1	1 - 1		0E+00	0E+00	
	H-SB-201RE-2	2 - 2		0E+00	0E+00	
SB-282	SB-282-0102	1 - 2		3E-06	3E-05	
SB-600	H-SB-600-1	1 - 1		0E+00	0E+00	
	H-SB-600-2	2 - 2		0E+00	0E+00	
SB-601	H-SB-601-1	1 - 1		0E+00	0E+00	
	H-SB-601-2	2 - 2		0E+00	0E+00	

Table B-1

Residual Risk Analysis Results - Block H - Surface Soil
Lockheed Martin, Middle River Complex
Middle River, Maryland

Location[1]	Sample ID	Depth (feet)	BaPEq Concentration[2] (µg/kg)	Total ILCR[3]		Comments
				Industrial	Residential	
SB-602	H-SB-602-1	1 - 1		0E+00	0E+00	
	H-SB-602-2	2 - 2		0E+00	0E+00	
SB-603	H-SB-603-1	1 - 1		0E+00	0E+00	
	H-SB-603-2	2 - 2		0E+00	0E+00	

1 - Sample locations are listed in order from highest to lowest benzo(a)pyrene (BaPEq) concentrations.
2 - One half the non-detected value was used for the calculation of the benzo(a)pyrene equivalents. If all concentrations were non-detect then the detection limit for benzo(a)pyrene was used as the benzo(a)pyrene equivalent concentration. Original and duplicate samples were averaged when calculating the benzo(a)pyrene equivalent concentration.
3 - Total incremental lifetime cancer risk from exposure to all chemicals of potential concern in soil.

Shading indicates cancer risk exceeds $1x10^{-4}$ and location is considered to be a "hot spot" according to Maryland Department of Environmental Protection guidance (MDE, 2008).

BaPEq - benzo(a)pyrene equivalent
ILCR - incremental lifetime cancer risk
µg/kg - microgram per kilogram
mg/kg - milligram per kilogram

NA - not available, sample was not analyzed for polycyclic aromatic hydrocarbons
PRG - preliminary remedial goal
U - not detected
UCL - upper confidence level

Table B-2

Residual Risk Analysis Results - Block H - Subsurface Soil
Lockheed Martin, Middle River Complex
Middle River, Maryland

Location[1]	Sample ID	Depth (feet)	BaPEq Concentration[2] (µg/kg)	Total ILCR[3] Industrial	Total ILCR[3] Residential	Comments
SB-282	H-SB-282RE-3	3 - 3	150	5E-07	1E-05	No samples need to be removed to meet the benzo(a)pyrene equivalents (BaPEq) industrial preliminary remedial goal (PRG) of 2,900 µg/kg (2.9 mg/kg). Site 95% UCL is 120 µg/kg.
	H-SB-282RE-4	4 - 4	180	6E-07	1E-05	
	H-SB-282RE-5	5 - 5	1,100	4E-06	8E-05	
	H-SB-282RE-6	6 - 6	540	2E-06	4E-05	
	H-SB-282RE-7-AVG	7 - 7	110	4E-07	8E-06	
SB-604B	H-SB-604B-3	3 - 3	1.5 U	3E-09	6E-08	
	H-SB-604B-5	5 - 5	1,700	6E-06	1E-04	
	H-SB-604B-7	7 - 7	1.5 U	3E-09	6E-08	
SB-282B	H-SB-282REB-3	3 - 3	3.5	1E-08	3E-07	
	H-SB-282REB-5	5 - 5	1.6 U	3E-09	6E-08	
	H-SB-282REB-7	7 - 7	1.5 U	3E-09	6E-08	
SB-285	SB-285-0405	4 - 5	1,400	7E-06	1E-04	
SB-200	SB-200-05	5 - 5	170	3E-06	3E-05	
SB-611	H-SB-611-3	3 - 3	740	3E-06	6E-05	
	H-SB-611-4	4 - 4	1.6 U	3E-09	6E-08	
	H-SB-611-5	5 - 5	10	4E-08	8E-07	
	H-SB-611-6	6 - 6	1.6 U	3E-09	6E-08	
	H-SB-611-7	7 - 7	1.5 U	3E-09	6E-08	
SB-814	H-SB-814-03	3 - 3	3.9 U	7E-09	1E-07	
	H-SB-814-05	5 - 5	3.7 U	6E-09	1E-07	
	H-SB-814-07	7 - 7	3.9 U	7E-09	1E-07	
SB-286	SB-286-0405	4 - 5	440 U	3E-06	5E-05	
SB-474	SB-474-0203	2 - 3	31	1E-07	2E-06	
	SB-474-0304	3 - 4	490	2E-06	4E-05	
	H-SB-474RE-5	5 - 5	16	5E-08	1E-06	
	H-SB-474RE-6	6 - 6	1.5 U	3E-09	6E-08	
SB-610	H-SB-610-3	3 - 3	480	2E-06	4E-05	
	H-SB-610-4	4 - 4	62	2E-07	5E-06	
	H-SB-610-5	5 - 5	20	7E-08	1E-06	
	H-SB-610-6	6 - 6	1.6 U	3E-09	6E-08	
	H-SB-610-7	7 - 7	1.5 U	3E-09	6E-08	
SB-604	H-SB-604-3	3 - 3	190	7E-07	1E-05	
	H-SB-604-4	4 - 4	1.6 U	3E-09	6E-08	
	H-SB-604-5	5 - 5	360	1E-06	3E-05	
	H-SB-604-6	6 - 6	130	4E-07	9E-06	
	H-SB-604-7	7 - 7	1.5 U	3E-09	6E-08	
SB-611A	H-SB-611A-3	3 - 3	30	1E-07	2E-06	
	H-SB-611A-5	5 - 5	320	1E-06	2E-05	
SB-282D	H-SB-282RED-3	3 - 3	1.5 U	3E-09	6E-08	
	H-SB-282RED-5	5 - 5	1.5 U	3E-09	6E-08	
	H-SB-282RED-7	7 - 7	1.6 U	3E-09	6E-08	
SB-202	SB-202-05	5 - 5	83 U	2E-06	2E-05	
SB-201	SB-201-05	5 - 5	82 U	2E-06	2E-05	
SB-816	H-SB-816-03-AVG	3 - 3	3.75 U	7E-09	1E-07	
	H-SB-816-05	5 - 5	25	9E-08	2E-06	
	H-SB-816-07	7 - 7	3.8 U	7E-09	1E-07	
	H-SB-816-09	9 - 9	79	3E-07	6E-06	
SB-815	H-SB-815-03	3 - 3	3.5 U	6E-09	1E-07	
	H-SB-815-05	5 - 5	11	4E-08	8E-07	
	H-SB-815-07	7 - 7	3.9 U	7E-09	1E-07	
SB-609	H-SB-609-3	3 - 3	20	7E-08	2E-06	
	H-SB-609-4	4 - 4	47	2E-07	4E-06	
SB-623	H-SB-623-5	5 - 5	34	1E-07	3E-06	
	H-SB-623-6	6 - 6	44	2E-07	3E-06	
SB-485	SB-485-0203	2 - 3	43	1E-07	3E-06	
	SB-485-0304	3 - 4	1.5 U	3E-09	6E-08	
	SB-485-0506	5 - 6	1.5 U	3E-09	6E-08	
SB-817	H-SB-817-03	3 - 3	3.7 U	6E-09	1E-07	
	H-SB-817-05	5 - 5	38	1E-07	3E-06	
	H-SB-817-07-AVG	7 - 7	3.8 U	7E-09	1E-07	

Table B-2

Residual Risk Analysis Results - Block H - Subsurface Soil
Lockheed Martin, Middle River Complex
Middle River, Maryland

Location(1)	Sample ID	Depth (feet)	BaPEq Concentration(2) (µg/kg)	Total ILCR(3)		Comments
				Industrial	Residential	
SB-604A	H-SB-604A-3	3 - 3	1.6 U	3E-09	6E-08	
	H-SB-604A-5	5 - 5	34	1E-07	3E-06	
	H-SB-604A-7	7 - 7	1.6 U	3E-09	6E-08	
SB-483	SB-483-0203	2 - 3	28	1E-07	2E-06	
	SB-483-0304	3 - 4	1.6 U	3E-09	6E-08	
	SB-483-0506	5 - 6	1.6 U	3E-09	6E-08	
SB-282A	H-SB-282REA-3	3 - 3	1.5 U	3E-09	6E-08	
	H-SB-282REA-5	5 - 5	24	8E-08	2E-06	
	H-SB-282REA-7	7 - 7	1.5 U	3E-09	6E-08	
SB-605	H-SB-605-3	3 - 3	23	8E-08	2E-06	
	H-SB-605-4	4 - 4	1.5 U	3E-09	6E-08	
SB-620	H-SB-620-5	5 - 5	23	8E-08	2E-06	
	H-SB-620-6-AVG	6 - 6	1.5 U	3E-09	6E-08	
SB-621	H-SB-621-5	5 - 5	22	8E-08	2E-06	
	H-SB-621-6	6 - 6	1.5 U	3E-09	6E-08	
	SB-471-0203	2 - 3	21	7E-08	2E-06	
SB-471	SB-471-0304	3 - 4	1.6 U	3E-09	6E-08	
	SB-471-0506	5 - 6	1.6 U	3E-09	6E-08	
SB-284	H-SB-284RE-3	3 - 3	1.6 U	3E-09	6E-08	
	H-SB-284RE-4	4 - 4	13	5E-08	1E-06	
	SB-284-0405	4 - 5	470 U	3E-06	4E-05	
SB-481	SB-481-0203	2 - 3	1.5 U	3E-09	6E-08	
	SB-481-0304	3 - 4	10	3E-08	8E-07	
	SB-481-0506	5 - 6	1.6 U	3E-09	6E-08	
	SB-481-0708	7 - 8	1.6 U	3E-09	6E-08	
SB-622	H-SB-622-5	5 - 5	3.5	1E-08	3E-07	
	H-SB-622-6	6 - 6	1.5 U	3E-09	6E-08	
SB-606	H-SB-606-3	3 - 3	2.6	9E-09	2E-07	
	H-SB-606-4	4 - 4	1.5 U	3E-09	6E-08	
SB-608	H-SB-608-3	3 - 3	1.6 U	3E-09	6E-08	
	H-SB-608-4-AVG	4 - 4	1.8	6E-09	1E-07	
SB-486	SB-486-0203	2 - 3	380 U	7E-07	1E-05	
	SB-486-0304	3 - 4	390 U	7E-07	1E-05	
	SB-486-0506	5 - 6	410 U	7E-07	2E-05	
SB-283	H-SB-283RE-3	3 - 3	1.5 U	3E-09	6E-08	
	H-SB-283RE-4	4 - 4	1.5 U	3E-09	6E-08	
	SB-283-0405	4 - 5	400 U	2E-06	3E-05	
SB-293	SB-293-0405	4 - 5	400 U	2E-06	3E-05	
SB-294	SB-294-0405	4 - 5	390 U	2E-06	3E-05	
SB-487	SB-487-0203	2 - 3	400 U	7E-07	2E-05	
	SB-487-0304	3 - 4	380 U	7E-07	1E-05	
	SB-487-0506	5 - 6	390 U	7E-07	1E-05	
SB-488	SB-488-0203	2 - 3	370 U	6E-07	1E-05	
	SB-488-0304	3 - 4	380 U	7E-07	1E-05	
	SB-488-0506	5 - 6	400 U	7E-07	2E-05	
SB-203	SB-203-05	5 - 5	83 U	2E-06	2E-05	
SB-463	SB-463-0203	2 - 3	1.8 U	3E-09	7E-08	
	SB-463-0304	3 - 4	1.6 U	3E-09	6E-08	
	SB-463-0506	5 - 6	1.6 U	3E-09	6E-08	
SB-282C	H-SB-282REC-3	3 - 3	1.5 U	3E-09	6E-08	
	H-SB-282REC-5	5 - 5	1.5 U	3E-09	6E-08	
	H-SB-282REC-7	7 - 7	1.5 U	3E-09	6E-08	
SB-462	SB-462-0203	2 - 3	1.5 U	3E-09	6E-08	
	SB-462-0304	3 - 4	1.5 U	3E-09	6E-08	
	SB-462-0506	5 - 6	1.6 U	3E-09	6E-08	
SB-464	SB-464-0203	2 - 3	1.5 U	3E-09	6E-08	
	SB-464-0304	3 - 4	1.6 U	3E-09	6E-08	
	SB-464-0506	5 - 6	1.6 U	3E-09	6E-08	
SB-465	SB-465-0203	2 - 3	1.4 U	2E-09	5E-08	
	SB-465-0304	3 - 4	1.5 U	3E-09	6E-08	
	SB-465-0506	5 - 6	1.6 U	3E-09	6E-08	

Table B-2

Residual Risk Analysis Results - Block H - Subsurface Soil
Lockheed Martin, Middle River Complex
Middle River, Maryland

Location[1]	Sample ID	Depth (feet)	BaPEq Concentration[2] (µg/kg)	Total ILCR[3]		Comments
				Industrial	Residential	
SB-466	SB-466-0203	2 - 3	1.4 U	2E-09	5E-08	
	SB-466-0304	3 - 4	1.5 U	3E-09	6E-08	
	SB-466-0506	5 - 6	1.6 U	3E-09	6E-08	
SB-467	SB-467-0203	2 - 3	1.5 U	3E-09	6E-08	
	SB-467-0304	3 - 4	1.5 U	3E-09	6E-08	
	SB-467-0506	5 - 6	1.6 U	3E-09	6E-08	
SB-468	SB-468-0203	2 - 3	1.5 U	3E-09	6E-08	
	SB-468-0304	3 - 4	1.5 U	3E-09	6E-08	
	SB-468-0506	5 - 6	1.5 U	3E-09	6E-08	
SB-469	SB-469-0203	2 - 3	1.5 U	3E-09	6E-08	
	SB-469-0304	3 - 4	1.6 U	3E-09	6E-08	
	SB-469-0506	5 - 6	1.6 U	3E-09	6E-08	
SB-470	SB-470-0203	2 - 3	1.5 U	3E-09	6E-08	
	SB-470-0304	3 - 4	1.5 U	3E-09	6E-08	
	SB-470-0506	5 - 6	1.6 U	3E-09	6E-08	
SB-472	SB-472-0203	2 - 3	1.5 U	3E-09	6E-08	
	SB-472-0304	3 - 4	1.6 U	3E-09	6E-08	
	SB-472-0506	5 - 6	1.6 U	3E-09	6E-08	
SB-473	SB-473-0203	2 - 3	1.5 U	3E-09	6E-08	
	SB-473-0304	3 - 4	1.5 U	3E-09	6E-08	
	SB-473-0506	5 - 6	1.7 U	3E-09	6E-08	
SB-475	SB-475-0203	2 - 3	1.5 U	3E-09	6E-08	
	SB-475-0304	3 - 4	1.6 U	3E-09	6E-08	
	SB-475-0506	5 - 6	1.6 U	3E-09	6E-08	
SB-476	SB-476-0203	2 - 3	1.5 U	3E-09	6E-08	
	SB-476-0304	3 - 4	1.6 U	3E-09	6E-08	
	SB-476-0506	5 - 6	1.6 U	3E-09	6E-08	
SB-477	SB-477-0203	2 - 3	1.7 U	3E-09	6E-08	
	SB-477-0304	3 - 4	1.6 U	3E-09	6E-08	
	SB-477-0506	5 - 6	1.5 U	3E-09	6E-08	
SB-478	SB-478-0203	2 - 3	1.5 U	3E-09	6E-08	
	SB-478-0304	3 - 4	1.5 U	3E-09	6E-08	
	SB-478-0506	5 - 6	1.5 U	3E-09	6E-08	
SB-479	SB-479-0203	2 - 3	1.5 U	3E-09	6E-08	
	SB-479-0304	3 - 4	1.6 U	3E-09	6E-08	
	SB-479-0506	5 - 6	1.5 U	3E-09	6E-08	
SB-480	SB-480-0203	2 - 3	1.5 U	3E-09	6E-08	
	SB-480-0304	3 - 4	1.5 U	3E-09	6E-08	
	SB-480-0506	5 - 6	1.5 U	3E-09	6E-08	
SB-482	SB-482-0203	2 - 3	1.6 U	3E-09	6E-08	
	SB-482-0304	3 - 4	1.5 U	3E-09	6E-08	
	SB-482-0506	5 - 6	1.5 U	3E-09	6E-08	
SB-484	SB-484-0203	2 - 3	1.5 U	3E-09	6E-08	
	SB-484-0304	3 - 4	1.6 U	3E-09	6E-08	
	SB-484-0506	5 - 6	1.5 U	3E-09	6E-08	
SB-604D	H-SB-604D-3-AVG	3 - 3	1.6 U	3E-09	6E-08	
	H-SB-604D-5	5 - 5	1.7 U	3E-09	6E-08	
	H-SB-604D-7	7 - 7	1.7 U	3E-09	6E-08	
SB-607	H-SB-607-3	3 - 3	1.6 U	3E-09	6E-08	
	H-SB-607-4	4 - 4	1.6 U	3E-09	6E-08	
SB-610B	H-SB-610B-3	3 - 3	1.6 U	3E-09	6E-08	
	H-SB-610B-5-AVG	5 - 5	1.55 U	3E-09	6E-08	
SB-610C	H-SB-610C-3	3 - 3	1.6 U	3E-09	6E-08	
	H-SB-610C-5	5 - 5	1.5 U	3E-09	6E-08	
SB-610D	H-SB-610D-3	3 - 3	1.6 U	3E-09	6E-08	
	H-SB-610D-5	5 - 5	1.5 U	3E-09	6E-08	
	H-SB-611D-3	3 - 3	1.5 U	3E-09	6E-08	
	H-SB-611D-5-AVG	5 - 5	1.6 U	3E-09	6E-08	

1 - Sample locations are listed in order from highest to lowest benzo(a)pyrene (BaPEq) concentrations.
2 - One half the non-detected value was used for the calculation of the benzo(a)pyrene equivalents. If all concentrations were non-detect then the detection limit for benzo(a)pyrene was used as the benzo(a)pyrene equivalent concentration. Original and duplicate samples were averaged when calculating the benzo(a)pyrene equivalent concentration.

Table B-2

Residual Risk Analysis Results - Block H - Subsurface Soil
Lockheed Martin, Middle River Complex
Middle River, Maryland

Location[1]	Sample ID	Depth (feet)	BaPEq Concentration[2] (µg/kg)	Total ILCR[3]		Comments
				Industrial	Residential	

3 - Total incremental lifetime cancer risk from exposure to all chemicals of potential concern in soil.

BaPEq - benzo(a)pyrene equivalent
ILCR - incremental lifetime cancer risk
µg/kg - microgram per kilogram
mg/kg - milligram per kilogram

NA - not available, sample was not analyzed for polycyclic aromatic hydrocarbons
PRG - preliminary remedial goal
U - not detected
UCL - upper confidence level

Attachment C

Final Cumulative Risk Estimates (Post Residual Risk Analysis)

TABLE 3.1.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current
Medium: Surface Soil
Exposure Medium: Surface Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic	Rationale
Block H	Benzo(a)pyrene Equivalents	mg/kg	1.74	0.15 (NP)	45.9	0.15	mg/kg	95% KM (Chebyshev) UCL	ProUCL 4.1.01
	Antimony	mg/kg	0.479	0.82 (N)	1	0.82	mg/kg	95% KM (t) UCL	ProUCL 4.1.01
	Arsenic	mg/kg	2.11	3.3 (G)	6.1	3.3	mg/kg	95% KM (BCA) UCL	ProUCL 4.1.01
	Cadmium	mg/kg	0.123	0.20 (N)	0.5	0.2	mg/kg	95% KM (t) UCL	ProUCL 4.1.01
	Cobalt	mg/kg	6.50	9.3 (G)	19.7	9.3	mg/kg	95% Approximate Gamma UCL	ProUCL 4.1.01
	Mercury	mg/kg	0.071	0.19 (NP)	1.14 L	0.19	mg/kg	95% KM (Chebyshev) UCL	ProUCL 4.1.01
	Molybdenum	mg/kg	0.346	0.45 (N)	0.55 K	0.45	mg/kg	95% KM (t) UCL	ProUCL 4.1.01
	Nickel	mg/kg	9.15	10.9 (N)	15	10.9	mg/kg	95% Student's-t UCL	ProUCL 4.1.01
	Vanadium	mg/kg	21.7	27.2 (G)	37.9	27.2	mg/kg	95% Approximate Gamma UCL	ProUCL 4.1.01
	Hexavalent Chromium	mg/kg	0.694	1.2 (L)	1.535	1.2	mg/kg	95% KM (Chebyshev) UCL	ProUCL 4.1.01

G = Gamma
L = Lognormal
N = Normal
NP = Non-parametric

1 - USEPA Guidance recommends using the average concentration for the exposure point concentration for lead.

TABLE 3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Subsurface Soil
Exposure Medium: Subsurface Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic	Rationale
Block H	Benzo(a)pyrene Equivalents	mg/kg	0.127	0.12 (NP)	5.34	0.12	mg/kg	95% KM (Chebyshev) UCL	ProUCL 4.1.01
	Naphthalene	mg/kg	0.063	0.16 (G)	1200	0.16	mg/kg	95% KM (t) UCL	ProUCL 4.1.01
	Arsenic	mg/kg	2.84	3.6 (N)	7.400	3.6	mg/kg	95% KM (t) UCL	ProUCL 4.1.01
	Cobalt	mg/kg	9.43	18.2 (G)	30.8	18.2	mg/kg	95% Approximate Gamma UCL	ProUCL 4.1.01
	Mercury	mg/kg	0.018	0.026 (G)	0.24 L	0.026	mg/kg	95% KM (t) UCL	ProUCL 4.1.01
	Vanadium	mg/kg	33.5	41 (N)	52.9	41	mg/kg	95% Student's-t UCL	ProUCL 4.1.01
	Hexavalent Chromium	mg/kg	1.15	2.1 (G)	4.52	2.1	mg/kg	95% KM (BCA) UCL	ProUCL 4.1.01

G = Gamma
N = Normal
NP = Non-parametric

1 - USEPA Guidance recommends using the average concentration for the exposure point concentration for lead.

TABLE 4.1.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - INDUSTRIAL WORKERS - SOIL

LOCKHEED MARTIN, MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Industrial Workers	Adult	Block H	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002a	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	50	mg/day	USEPA, 2002b	
				CF3	Conversion Factor 3	0.000001	kg/mg	--	CS x IRS x CF3 x FI x EF x ED
				FI	Fraction Ingested	1	unitless	USEPA, 2002b	BW x AT
				EF	Exposure Frequency	250	days/year	USEPA, 2002b	
				ED	Exposure Duration	25	years	USEPA, 2002b	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	9125	days	USEPA, 1989	
Dermal	Industrial Workers	Adult	Block H	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	0.000001	kg/mg	--	
				SA	Skin Surface Available for Contact	3300	cm2	USEPA, 2004	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm2/event	USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	250	days/year	USEPA, 2002b	
				ED	Exposure Duration	25	years	USEPA, 1989	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	9125	days	USEPA, 1989	

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A.

USEPA, 2002a:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2002b: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)

Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Cancer Ingestion Intake = 1.75E-07 Cancer Dermal Intake = 2.31E-06

Noncancer Ingestion Intake = 4.89E-07 Noncancer Dermal Intake = 6.46E-06

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor

Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.2.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - INDUSTRIAL WORKERS - SOIL TO AIR

LOCKHEED MARTIN, MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Industrial Workers	Adult	Block H	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	8	hours/day	(1)	CA x ET x EF x ED / AT x 24 hours/day
				EF	Exposure Frequency	250	days/year	USEPA, 2002a	
				ED	Exposure Duration	25	years	USEPA, 2002a	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	CA = (1/PEF + 1/VF) x Cs
				AT-N	Averaging Time (Non-Cancer)	9125	days	USEPA, 1989	
				PEF	Particulate Emission Factor	3.23E+09	m3/kg	USEPA 2013	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	87.36898	g/m2-s per kg/m3	USEPA 2013	
				Ut	Equivalent threshold of wind velocity at 7m.	11.32	m/sec	USEPA 2013	
				Um	Mean annual wind speed	4.29	m/sec	USEPA 2013	
				V	Fraction of vegetative cover	0.5	unitless	USEPA 2013	
				F(x)	Function dependent of Um/Ut	0.0993	unitless	USEPA 2013	

Notes:

1 - Length of typical work day.

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. USEPA/540/1-86/060.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2013: Soil Screening Guidance calculation Internet site at http://risk.lsd.ornl.gov/calc_start.htm. Site-specific values for Philadelphia, PA.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Cancer Inhalation Intake = 8.15E-02

Noncancer Inhalation Intake = 2.28E-01

Cancer risk from inhalation = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from inhalation = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 5.1
NON-CANCER TOXICITY DATA -- ORAL/DERMAL
BLOCK H
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absorption Efficiency for Dermal(1)	Absorbed RfD for Dermal(2)		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfD:Target Organ(s)	
		Value	Units		Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Polycyclic Aromatic Hydrocarbons										
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	Chronic	2.0E-02	mg/kg/day	1	2.0E-02	mg/kg/day	Body Weight	3000/1	IRIS	6/20/2013
Metals										
Antimony	Chronic	4.0E-04	mg/kg/day	0.15	6.0E-05	mg/kg/day	Blood	1000/1	IRIS	6/20/2013
Arsenic	Chronic	3.0E-04	mg/kg/day	1	3.0E-04	mg/kg/day	Skin, CVS	3/1	IRIS	6/20/2013
Cadmium(3)	Chronic	1.0E-03	mg/kg/day	0.03	2.5E-05	mg/kg/day	Kidney	10/1	IRIS	6/20/2013
Cobalt	Chronic	3.0E-04	mg/kg/day	1	3.0E-04	mg/kg/day	Blood	NA	PPRTV	8/25/2008
Mercury(4)	Chronic	3.0E-04	mg/kg/day	0.07	2.1E-05	mg/kg/day	Autoimmune	1000/1	IRIS	6/20/2013
Molybdenum	Chronic	5.0E-03	mg/kg/day	1	5.0E-03	mg/kg/day	Gout	30/1	IRIS	6/20/2013
Nickel	Chronic	2.0E-02	mg/kg/day	0.04	8.0E-04	mg/kg/day	Body Weight	300/1	IRIS	6/20/2013
Vanadium	Chronic	5.0E-03	mg/kg/day	1	5.0E-03	mg/kg/day	Kidney	300	RSL	5/2013
Miscellaneous Parameters										
Hexavalent Chromium	Chronic	3.0E-03	mg/kg/day	0.025	7.5E-05	mg/kg/day	None Reported	300/3	IRIS	6/20/2013

Notes:
1 - U.S. EPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Interim. EPA/540/R/99/005.
2 - Adjusted dermal RfD = Oral RfD x Oral Absorption Efficiency for Dermal.
3 - Values are for cadmium - diet.
4 - Values are for mercuric chloride.

Definitions:
CVS = Cardiovascular system.
IRIS = Integrated Risk Information System.
NA = Not available.
RSL = USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2013.
PPRTV = Provisional Peer Reviewed Toxicity Value.

TABLE 5.2
NON-CANCER TOXICITY DATA -- INHALATION
BLOCK H
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC		Extrapolated RfD(1)		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfC : Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Polycyclic Aromatic Hydrocarbons									
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	Chronic	3.0E-03	mg/m^3	8.6E-04	(mg/kg/day)	Respiratory	3000/1	IRIS	6/20/2013
Metals									
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	Chronic	1.5E-05	mg/m3	4.3E-06	(mg/kg/day)	NA	NA	Cal EPA	11/2010
Cadmium	Chronic	1.0E-05	mg/m3	2.9E-06	(mg/kg/day)	Kidney	NA	ATSDR	9/2008
Cobalt	Chronic	6.0E-06	mg/m^3	1.7E-06	(mg/kg/day)	Lungs	NA	PPRTV	8/25/2008
Mercury(2)	Chronic	3.0E-05	mg/m^3	8.6E-06	(mg/kg/day)	Autoimmune	NA	Cal EPA	11/2010
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	Chronic	9.0E-05	mg/m^3	2.6E-05	(mg/kg/day)	Body Weight	NA	ASTDR	9/2005
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters									
Hexavalent Chromium	Chronic	1.0E-04	mg/m^3	2.9E-05	(mg/kg/day)	Lungs	300/1	IRIS	6/20/2013

Notes:
1 - Extrapolated RfD = RfC *20m³/day / 70 kg
2 - Value is for mercuric chloride.
Definitions:
ATSDR = Agency for Toxic Substances and Disease Registry.
Cal EPA = California Environmental Protection Agency.
IRIS = Integrated Risk Information System.
NA = Not available.

TABLE 6.1
CANCER TOXICITY DATA -- ORAL/DERMAL
BLOCK H
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency for Dermal[1]	Absorbed Cancer Slope Factor for Dermal[2]		Weight of Evidence/ Cancer Guideline Description	Oral CSF	
	Value	Units		Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
Polycyclic Aromatic Hydrocarbons								
Benzo(a)pyrene[3]	7.3E+00	$(mg/kg/day)^{-1}$	1	7.3E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	IRIS	6/20/2013
Naphthalene	NA	NA	NA	NA	NA	C / Possible human carcinogen	IRIS	6/20/2013
Metals								
Antimony	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	1.5E+00	$(mg/kg/day)^{-1}$	1	1.5E+00	$(mg/kg/day)^{-1}$	A / Known human carcinogen	IRIS	6/20/2013
Cadmium	NA	NA	NA	NA	NA	B1 / Probable human carcinogen	IRIS	6/20/2013
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	C / Possible human carcinogen	IRIS	6/20/2013
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters								
Hexavalent Chromium[3]	5.0E-01	$(mg/kg/day)^{-1}$	0.025	2.0E+01	$(mg/kg/day)^{-1}$	A / Known human carcinogen	NJ	4/8/2009

Notes:
1 - USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Interim. EPA/540/R/99/005.
2 - Adjusted cancer slope factor for dermal = Oral cancer slope factor / Oral Absorption Efficiency for Dermal.
3 - Several PAHs and hexavalent chromium are considered to act via the mutagenic mode of action. These chemicals are evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).
IRIS = Integrated Risk Information System.
NA = Not available.
NJ = New Jersey.
PPRTV = Provisional Peer Reviwed Toxicity Value.

TABLE 6.2
CANCER TOXICITY DATA -- INHALATION
BLOCK H
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Chemical of Potential Concern	Unit Risk		Inhalation Cancer Slope Factor[1]		Weight of Evidence/ Cancer Guideline Description	Unit Risk : Inhalation CSF	
	Value	Units	Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
Polycyclic Aromatic Hydrocarbons							
Benzo(a)pyrene[2]	1.1E-03	$(ug/m^3)^{-1}$	3.9E+00	$(mg/kg/day)^{-1}$	NA	Cal EPA	9/2009
Naphthalene	3.4E-05	$(ug/m3)^{-1}$	1.2E-01	$(mg/kg/day)^{-1}$	C / Possible Human Carcinogen	Cal EPA	8/2004
Metals							
Antimony	NA	NA	NA	NA	NA	NA	NA
Arsenic	4.3E-03	$(ug/m^3)^{-1}$	1.5E+01	$(mg/kg/day)^{-1}$	A / Known human carcinogen	IRIS	6/20/2013
Cadmium	1.8E-03	$(ug/m^3)^{-1}$	6.3E+00	$(mg/kg/day)^{-1}$	B1 / Probable human carcinogen	IRIS	6/20/2013
Cobalt	9.0E-03	$(ug/m^3)^{-1}$	3.2E+01	$(mg/kg/day)^{-1}$	NA	PPRTV	8/25/2008
Mercury	NA	NA	NA	NA	C / Possible human carcinogen	IRIS	6/20/2013
Molybdenum	NA	NA	NA	NA	NA	NA	NA
Nickel	2.6E-04	$(ug/m^3)^{-1}$	9.1E-01	$(mg/kg/day)^{-1}$	NA	Cal EPA	9/2009
Vanadium	NA	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters							
Hexavalent Chromium[2]	8.4E-02	$(ug/m^3)^{-1}$	2.9E+02	$(mg/kg/day)^{-1}$	A / Known human carcinogen	IRIS	6/20/2013

Notes:

1 - Inhalation CSF = Unit Risk * 70 kg / $20m^3$/day.

2 - Several PAHs and hexavalent chromium are considered to act via the mutagenic mode of action. These chemicals are evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Definitions:

Cal EPA = California Environmental Protection Agency.

IRIS = Integrated Risk Information System.

NA = Not available.

PPRTV = Provisional Peer Reviewed Toxicity Value.

Scenario Timeframe: Current
Receptor Population: Industrial Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Block H	Ingestion	Benzo(a)pyrene Equivalents	0.150	mg/kg	2.6E-08	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.9E-07	7.3E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Antimony	0.820	mg/kg	1.4E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.0E-07	(mg/kg/day)	4.0E-04	(mg/kg/day)	0.001
				Arsenic	3.30	mg/kg	5.8E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	8.6E-07	1.6E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.005
				Cadmium	0.200	mg/kg	3.5E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.8E-08	(mg/kg/day)	1.0E-03	(mg/kg/day)	0.00010
				Cobalt	9.30	mg/kg	1.6E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.5E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Mercury	0.190	mg/kg	3.3E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.3E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0003
				Molybdenum	0.450	mg/kg	7.9E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.2E-07	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.00004
				Nickel	10.9	mg/kg	1.9E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.3E-06	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.0003
				Vanadium	27.2	mg/kg	4.8E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.003
				Hexavalent Chromium	1.20	mg/kg	2.1E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.0E-07	5.9E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0002
			Exp. Route Total								1.2E-06					0.03
			Dermal	Benzo(a)pyrene Equivalents	0.150	mg/kg	4.5E-08	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	3.3E-07	1.3E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Antimony	0.820	mg/kg	1.9E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.3E-08	(mg/kg/day)	6.0E-05	(mg/kg/day)	0.0009
				Arsenic	3.30	mg/kg	2.3E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.4E-07	6.4E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Cadmium	0.200	mg/kg	4.6E-10	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-09	(mg/kg/day)	2.5E-05	(mg/kg/day)	0.00005
				Cobalt	9.30	mg/kg	2.1E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.0E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Mercury	0.190	mg/kg	4.4E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-08	(mg/kg/day)	2.1E-05	(mg/kg/day)	0.0006
				Molybdenum	0.450	mg/kg	1.0E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.9E-08	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.000006
				Nickel	10.9	mg/kg	2.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.0E-07	(mg/kg/day)	8.0E-04	(mg/kg/day)	0.0009
				Vanadium	27.2	mg/kg	6.3E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0004
				Hexavalent Chromium	1.20	mg/kg	2.8E-08	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	5.5E-07	7.7E-08	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.001
			Exp. Route Total								1.2E-06					0.008
		Exposure Point Total									2.4E-06					0.03
	Exposure Medium Total										2.4E-06					0.03
	Air	Block H	Inhalation	Benzo(a)pyrene Equivalents	4.6E-11	mg/m^3	3.7E-12	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	4.1E-12	1.0E-11	(mg/m^3)	NA	(mg/m^3)	--
				Antimony	2.5E-10	mg/m^3	2.0E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.7E-11	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	1.0E-9	mg/m^3	8.2E-11	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	3.5E-10	2.3E-10	(mg/m^3)	1.5E-05	(mg/m^3)	0.00002
				Cadmium	6.1E-11	mg/m^3	5.0E-12	(mg/m^3)	1.8E-03	$(ug/m^3)^{-1}$	8.9E-12	1.4E-11	(mg/m^3)	2.0E-05	(mg/m^3)	6.9E-7
				Cobalt	2.8E-9	mg/m^3	2.3E-10	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	2.1E-09	6.5E-10	(mg/m^3)	6.0E-06	(mg/m^3)	0.0001
				Mercury	5.8E-11	mg/m^3	4.7E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.3E-11	(mg/m^3)	3.0E-04	(mg/m^3)	4.4E-8
				Molybdenum	1.4E-10	mg/m^3	1.1E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.1E-11	(mg/m^3)	NA	(mg/m^3)	--
				Nickel	3.3E-9	mg/m^3	2.7E-10	(mg/m^3)	2.6E-04	$(ug/m^3)^{-1}$	7.0E-11	7.6E-10	(mg/m^3)	9.0E-05	(mg/m^3)	0.000008
				Vanadium	8.3E-9	mg/m^3	6.7E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.9E-09	(mg/m^3)	NA	(mg/m^3)	--
				Hexavalent Chromium	3.6E-10	mg/m^3	3.0E-11	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	2.5E-09	8.3E-11	(mg/m^3)	1.0E-04	(mg/m^3)	8.3E-7
			Exp. Route Total								5.0E-09					0.0001
		Exposure Point Total									5.0E-09					0.0001
	Exposure Medium Total										5.0E-09					0.0001
Medium Total											2.4E-06					0.03

TABLE 7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current
Receptor Population: Industrial Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	Block H	Ingestion	Benzo(a)pyrene Equivalents	0.120	mg/kg	2.1E-08	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.5E-07	5.9E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.160	mg/kg	2.8E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.8E-08	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000004
				Arsenic	3.60	mg/kg	6.3E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	9.4E-07	1.8E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.006
				Cobalt	18.2	mg/kg	3.2E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.9E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.03
				Mercury	0.026	mg/kg	4.5E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.00004
				Vanadium	41.0	mg/kg	7.2E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.0E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.004
				Hexavalent Chromium	2.10	mg/kg	3.7E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.8E-07	1.0E-06	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0003
			Exp. Route Total								1.3E-06					0.04
			Dermal	Benzo(a)pyrene Equivalents	0.120	mg/kg	3.6E-08	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2.6E-07	1.0E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.160	mg/kg	4.8E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000007
				Arsenic	3.60	mg/kg	2.5E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.7E-07	7.0E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Cobalt	18.2	mg/kg	4.2E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.004
				Mercury	0.026	mg/kg	6.0E-10	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-09	(mg/kg/day)	2.1E-05	(mg/kg/day)	0.00008
				Vanadium	41.0	mg/kg	9.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.6E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0005
				Hexavalent Chromium	2.10	mg/kg	4.8E-08	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	9.7E-07	1.4E-07	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.002
			Exp. Route Total								1.6E-06					0.009
		Exposure Point Total									2.9E-06					0.05
	Exposure Medium Total										2.9E-06					0.05
	Air	Block H	Inhalation	Benzo(a)pyrene Equivalents	3.6E-11	mg/m^3	3.0E-12	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	3.3E-12	8.3E-12	(mg/m^3)	NA	(mg/m^3)	--
				Naphthalene	3.0E-6	mg/m^3	2.4E-07	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	8.2E-09	6.8E-07	(mg/m^3)	3.0E-03	(mg/m^3)	0.0002
				Arsenic	1.1E-9	mg/m^3	8.9E-11	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	3.8E-10	2.5E-10	(mg/m^3)	1.5E-05	(mg/m^3)	0.00002
				Cobalt	5.5E-9	mg/m^3	4.5E-10	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	4.1E-09	1.3E-09	(mg/m^3)	6.0E-06	(mg/m^3)	0.0002
				Mercury	7.9E-12	mg/m^3	6.4E-13	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.8E-12	(mg/m^3)	3.0E-04	(mg/m^3)	6.0E-9
				Vanadium	1.2E-8	mg/m^3	1.0E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.8E-09	(mg/m^3)	NA	(mg/m^3)	--
				Hexavalent Chromium	6.4E-10	mg/m^3	5.2E-11	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	4.4E-09	1.5E-10	(mg/m^3)	1.0E-04	(mg/m^3)	0.000001
			Exp. Route Total								1.7E-08					0.0005
		Exposure Point Total									1.7E-08					0.0005
	Exposure Medium Total										1.7E-08					0.0005
Medium Total											2.9E-06					0.05

Notes:

1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 9.1.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current
Receptor Population: Industrial Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Block H	Benzo(a)pyrene Equivalents	2E-07	--	3E-07	--	5E-07	NA	--	--	--	--
			Antimony	- -	--	- -	--	- -	Blood	0.001	--	0.0009	0.002
			Arsenic	9E-07	--	3E-07	--	1E-06	Skin, CVS	0.005	--	0.002	0.008
			Cadmium	- -	--	- -	--	- -	Kidney	0.00010	--	0.00005	0.0001
			Cobalt	- -	--	- -	--	- -	Thyroid	0.02	--	0.002	0.02
			Mercury	- -	--	- -	--	- -	CNS	0.0003	--	0.0006	0.0009
			Molybdenum	- -	--	- -	--	- -	Gout	0.00004	--	0.000006	0.00005
			Nickel	- -	--	- -	--	- -	Body Weight	0.0003	--	0.0009	0.001
			Vanadium	- -	--	- -	--	- -	Kidney	0.003	--	0.0004	0.003
			Hexavalent Chromium	1E-07	--	6E-07	--	7E-07	None Specified	0.0002	--	0.001	0.001
			Chemical Total	1E-06	--	1E-06	--	2E-06		0.03	--	0.008	0.03
		Exposure Point Total						2E-06					0.03
	Exposure Medium Total							2E-06					0.03
	Air	Block H	Benzo(a)pyrene Equivalents	--	4E-12	--	--	4E-12	NA	--	--	--	--
			Antimony	--	- -	--	--	- -	NA	--	--	--	--
			Arsenic	--	4E-10	--	--	4E-10	NA	--	0.00002	--	0.00002
			Cadmium	--	9E-12	--	--	9E-12	Kidney, Respiratory	--	0.0000007	--	0.0000007
			Cobalt	--	2E-09	--	--	2E-09	Respiratory	--	0.0001	--	0.0001
			Mercury	--	- -	--	--	- -	CNS	--	4E-8	--	4E-8
			Molybdenum	--	- -	--	--	- -	NA	--	--	--	--
			Nickel	--	7E-11	--	--	7E-11	Respiratory	--	0.000008	--	0.000008
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Hexavalent Chromium	--	2E-09	--	--	2E-09	Respiratory	--	0.0000008	--	0.0000008
			Chemical Total	--	5E-09	--	--	5E-09		- -	0.0001	- -	0.0001
		Exposure Point Total						5E-09					0.0001
	Exposure Medium Total							5E-09					0.0001
Medium Total								2E-06					0.03
Subsurface Soil	Subsurface Soil	Block H	Benzo(a)pyrene Equivalents	2E-07	--	3E-07	--	4E-07	NA	--	--	--	--
			Naphthalene	- -	--	- -	--	- -	Body Weight	0.000004	--	0.000007	0.00001
			Arsenic	9E-07	--	4E-07	--	1E-06	Skin, CVS	0.006	--	0.002	0.008
			Cobalt	- -	--	- -	--	- -	Thyroid	0.03	--	0.004	0.03
			Mercury	- -	--	- -	--	- -	CNS	0.00004	--	0.00008	0.0001
			Vanadium	- -	--	- -	--	- -	Kidney	0.004	--	0.0005	0.005
			Hexavalent Chromium	2E-07	--	1E-06	--	1E-06	None Specified	0.0003	--	0.002	0.002
			Chemical Total	1E-06	--	2E-06	--	3E-06		0.04	--	0.009	0.05
		Exposure Point Total						3E-06					0.05
	Exposure Medium Total							3E-06					0.05
	Air	Block H	Benzo(a)pyrene Equivalents	--	3E-12	--	--	3E-12	NA	--	--	--	--
			Naphthalene	--	8E-09	--	--	8E-09	Respiratory	--	0.0002	--	0.0002
			Arsenic	--	4E-10	--	--	4E-10	NA	--	0.00002	--	0.00002
			Cobalt	--	4E-09	--	--	4E-09	Respiratory	--	0.0002	--	0.0002
			Mercury	--	- -	--	--	- -	CNS	--	6E-9	--	6E-9
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Hexavalent Chromium	--	4E-09	--	--	4E-09	Respiratory	--	0.000001	--	0.000001
			Chemical Total	--	2E-08	--	--	2E-08		- -	0.0005	- -	0.0005
		Exposure Point Total						2E-08					0.0005
	Exposure Medium Total							2E-08					0.0005
Medium Total								3E-06					0.05

Notes:

1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

APPENDIX E—BaPEq CALCULATION

Appendix E
Calculation of Benzo(a)pyrene Equivalent Concentrations
Block H Remedial Action Plan
Lockheed Martin Middle River Complex
Middle River, Maryland

Polycyclic aromatic hydrocarbons (PAHs) are typically found in the environment as mixtures. These PAHs include benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-c,d)pyrene. The individual PAH vary widely in terms of carcinogenic potency, but have a common toxicity mechanism. Using a toxicity equivalency approach, the total PAH concentrations for a group or subset of similar PAHs can be expressed in terms of their toxicity relative to benzo(a)pyrene, with concentrations expressed as *benzo(a)pyrene equivalents (BaPEq).*

For sites contaminated with PAHs, using a standard subset of seven PAHs, the BaPEq is calculated as the sum of each individual PAH concentration times its toxicity equivalency factor (TEF). These TEFs for the seven standard PAHs are presented in Table E-1. For example, the TEF for benzo(a)anthracene is 0.1; this means that benzo(a)pyrene is ten times more toxic than benzo(a)anthracene. If the benzo(a)anthracene concentration in a soil sample is 10 micrograms per kilogram (µg/kg), this is equivalent to 1 µg/kg of benzo(a)pyrene [10 µg/kg (benzo(a)anthracene) x 0.1 (TEF) = 1 µg/kg (BaPEq)].

Table E-1
Toxicity Equivalency Factors (TEF) for Polycyclic Aromatic Hydrocarbons (PAHs)

PAH	TEF
Benzo(a)pyrene	1.0
Benzo(a)anthracene	0.1
Benzo(b)fluoranthene	0.1
Benzo(k)fluoranthene	0.01
Chrysene	0.001
Dibenz(a,h)anthracene	1.0
Indeno(1,2,3-c,d)pyrene	0.1

The application of benzo(a)pyrene TEFs to PAH concentrations and the subsequent calculation of BaPEq can provide a more accurate evaluation of environmental risk exposure to PAHs.

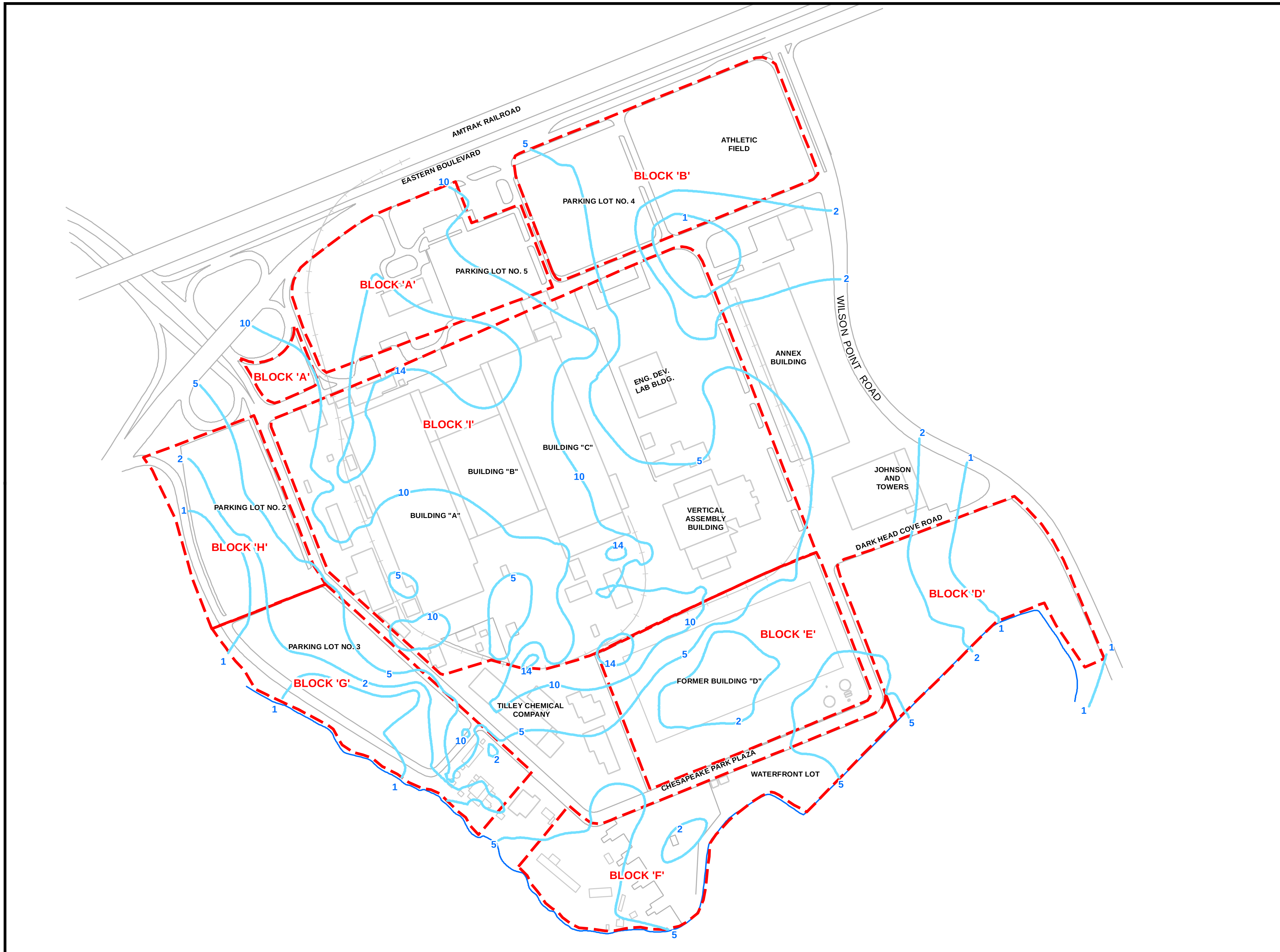
- A conservative approach to calculating BaPEq for environmental samples is performed using the product of the respective TEF's for each of the seven PAHs and a representative concentration using ***both*** positive results and ½ of the reported detection limit for non-detected values. This approach, given its conservative means of incorporating toxicity of all seven PAHs even if some are present below laboratory detection limits, has been used in the Block F risk-assessment estimations and related calculations of risk-based remedial goals. The resulting BaPEq values estimated using this method are referred to as "BaPEq-Half ND" when used in risk calculations or reported in data tables and figures.

- Alternatively, sample calculations for BaPEq may be performed using ***only*** positive results as the product of the reported analyte concentrations and the respective TEF's for each of the seven reported PAHs. Non detected results within a given sample are entirely ignored and only positively reported concentrations are considered for use in summation when this latter calculation method is employed. This calculated value, referred to as "BaPEq-POS", has typically been used in reporting data from Block F for the purposes of presenting and screening data.

The reported concentration of the benzo(a)pyrene detection limit is used as the default representative value of the BaPEq in cases where ***all*** of the seven PAHs are reported as non-detected results.

Currently, there are only seven PAHs which are included in the calculation of the BaPEq. It is expected the United States Environmental Protection Agency will be adding additional PAHs to the calculation process sometime in 2013.

APPENDIX F—BLOCK H DEPTH-TO-WATER CONTOURS



APPENDIX F

GROUNDWATER DEPTH CONTOUR MAP
MIDDLE RIVER COMPLEX

LEGEND

GROUNDWATER DEPTH CONTOUR - FEET BELOW GRADE; CONTOURS ARE FOR 1, 2, 5, 10 AND 14 FEET BELOW GRADE

MIDDLE RIVER COMPLEX TAX BLOCK BOUNDARY

STRUCTURE

RAILROAD TRACKS

Depths are based on average depths for two rounds of water levels obtained from monitoring wells in 2011. Actual depths may vary based on site specific conditions, recent precipitation, or drought conditions. Groundwater may be shallower if perched water is present and is not monitored by nearby well screens. First encountered groundwater may be deeper in areas where a confining clay layer is present.

Lockheed Martin, Middle River Complex
Middle River, Maryland

0 150 300 600 Feet

N

DATE MODIFIED: 3/13/12

CREATED BY: MP

TETRA TECH

Map Document: (K:\GProject\middle_river\Maps\Middle River Groundwater Contour Average Depth_2011.mxd) 3/13/2012 -- 11:39:08 AM

APPENDIX G—*SITEWISE*™ INFORMATION

APPENDIX G

Environmental Footprint Evaluation
Feasibility Study
Block H
Middle River, Maryland
June 2013

OBJECTIVE

This Environmental Footprint Evaluation of remedial alternatives is provided as an Appendix to the Remedial Action Plan (RAP) for Block H, located at Middle River Complex in Middle River, MD. The purpose of the footprint evaluation is to assess the environmental impacts of the four remedial alternatives 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.

POLICY BACKGROUND

The environmental footprint evaluation was performed in accordance with the Lockheed Martin Corporation (Lockheed Martin) Remedy Selection Process Manual.

Applying optimization concepts with an environmental footprint evaluation within the remedy selection and design phases allows for the following benefits:

- Determining factors in each remedial alternative with the greatest environmental impacts and gathering insight into how to reduce these impacts;
- Evaluating remedial alternatives with optimized or reduced environmental footprints in conjunction with other selection criteria;
- Designing and implementing a more robust remedy while balancing the impact to the environment; and
- Ensuring efficient, cost-effective and sustainable site closeout.

EVALUATION TOOLS

This evaluation was performed using a hybrid model of the Navy's SiteWise™ tool supplemented with 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 the Dump Road Area FS considered life-cycle quantitative metrics for global warming potential (through greenhouse gas emissions), criteria air pollutant emissions (through nitrogen oxides [NO_x], sulfur oxides [SO_x] and particulate matter [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 (NO_X, SO_X and 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 RAP 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 alternatives that were analyzed with SiteWise™ and GSRx for the Block H RAP:

- Alternative 3: Excavation and off-site disposal of impacted soils based on the residual-risk analysis (RRA) to a depth of two feet and institutional controls
- Alternative 4: Limited excavation and soil cover over impacted areas based on the RRA and institutional controls
- Alternative 5: Enhanced bioremediation of impacted surface soils based on the RRA and institutional controls
- Alternative 6: In situ stabilization of impacted soils based on the RRA to the groundwater table and institutional controls

The following sections summarize the relative environmental impacts and primary impact drivers for the four 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 G1.

Greenhouse Gas Emissions

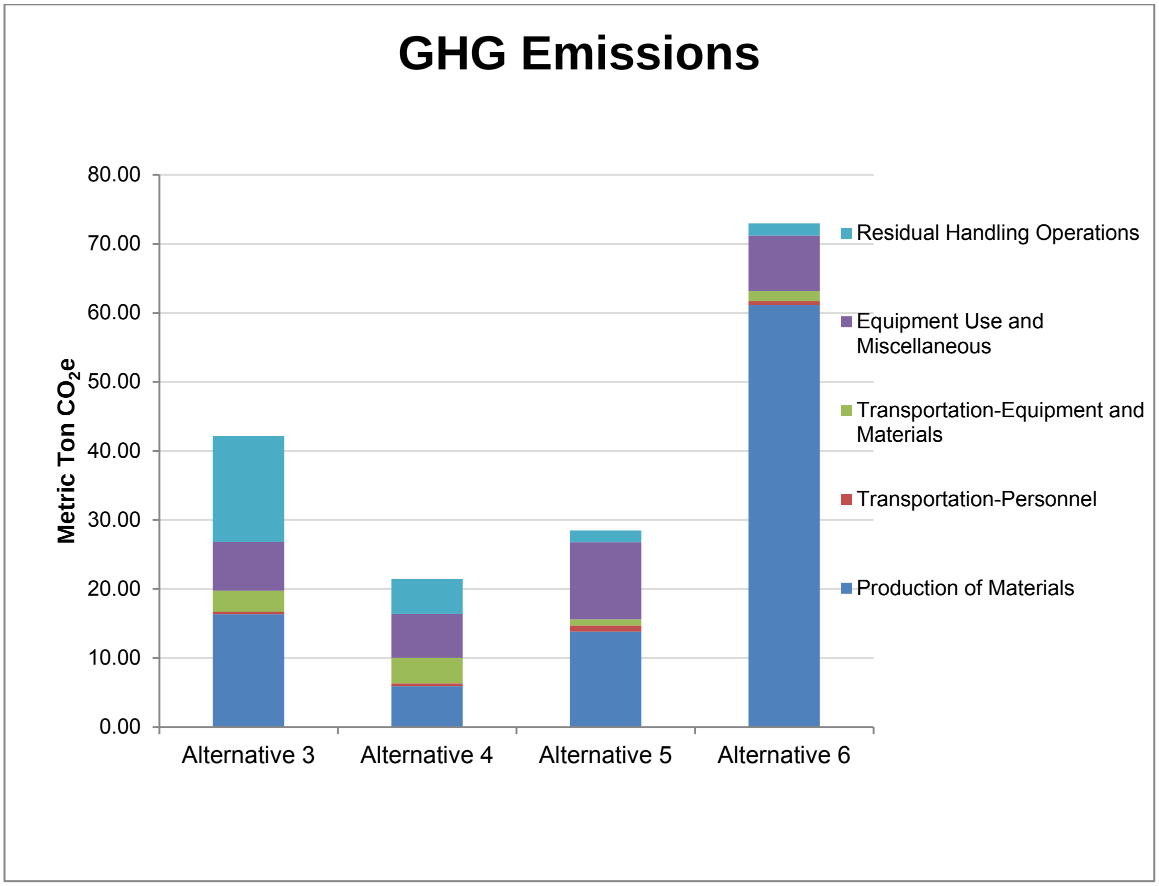
Emissions of CO_2, CH_4, and N_2O were normalized to CO_2 equivalents (CO_2e), which is a cumulative method of weighing GHG emissions relative to global warming potential. Figure G1 shows the overall GHG emissions of each of the alternatives analyzed; the x-axis represents the four alternatives evaluated and the y-axis represents the GHG emissions in metric ton of CO_2e.

The total amount of GHG emissions released to the atmosphere resulting from the activities during Alternative 3 is 42.16 metric ton of CO_2e.

The total amount of GHG emissions released to the atmosphere resulting from the activities during Alternative 4 is 21.45 metric ton of CO_2e.

The total amount of GHG emissions released to the atmosphere resulting from the activities during Alternative 5 is 28.50 metric ton of CO_2e.

The total amount of GHG emissions released to the atmosphere resulting from the activities during Alternative 6 is 72.95 metric ton of CO_2e.



Gigure G1: GHG Emissions for Alternatives at Block H, Middle River Complex

Figure G2 shows the breakdown of the percent that each of main activities of each alternative (x-axis) contributes to the GHG emissions (y-axis).

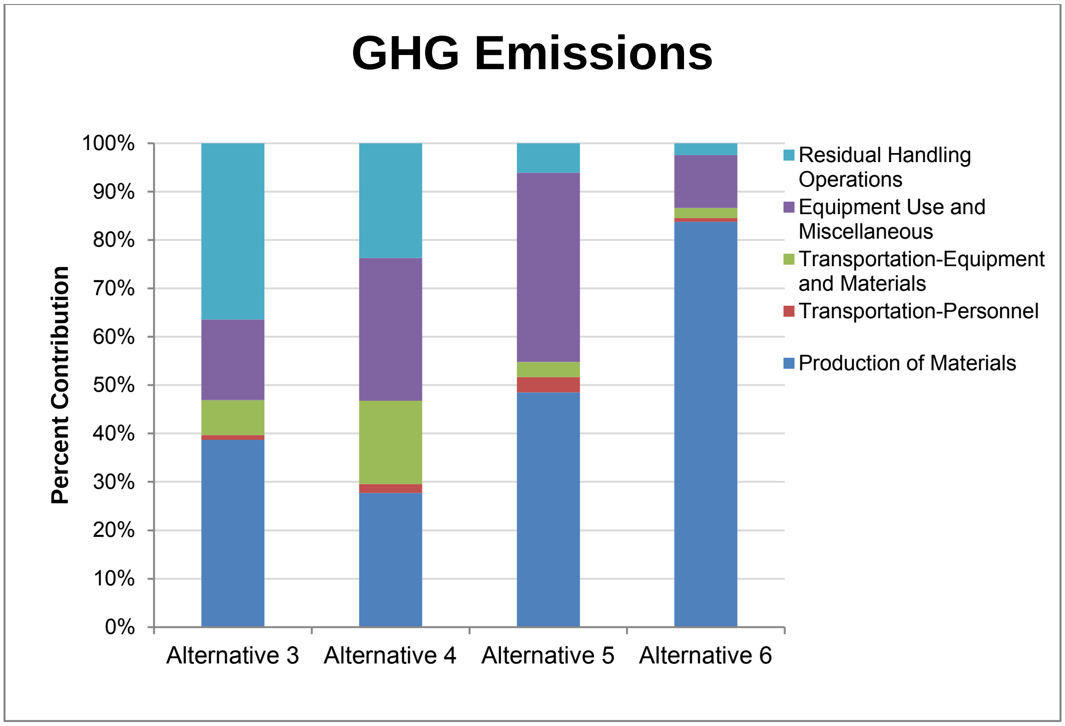


Figure G2: GHG Emissions percentage breakdown for Alternatives at Block H, Middle River Complex

Criteria Pollutant Emissions

NO_X

Figure G3 shows the breakdown of the NO_X emissions for the four alternatives evaluated. The x–axis of this figure represents the eight alternatives evaluated; the y-axis represents the NO_X emissions in metric ton.

The total amount of NO_X released to the atmosphere resulting from the activities during Alternative 3 is 0.064 metric ton of NO_X.

The total amount of NO_X released to the atmosphere resulting from the activities during Alternative 4 is 0.037 metric ton of NO_X.

The total amount of NO_X released to the atmosphere resulting from the activities during Alternative 5 is 4.858 metric ton of NO_X.

The total amount of NO_X released to the atmosphere resulting from the activities during Alternative 6 is 0.022 metric ton of NO_X.

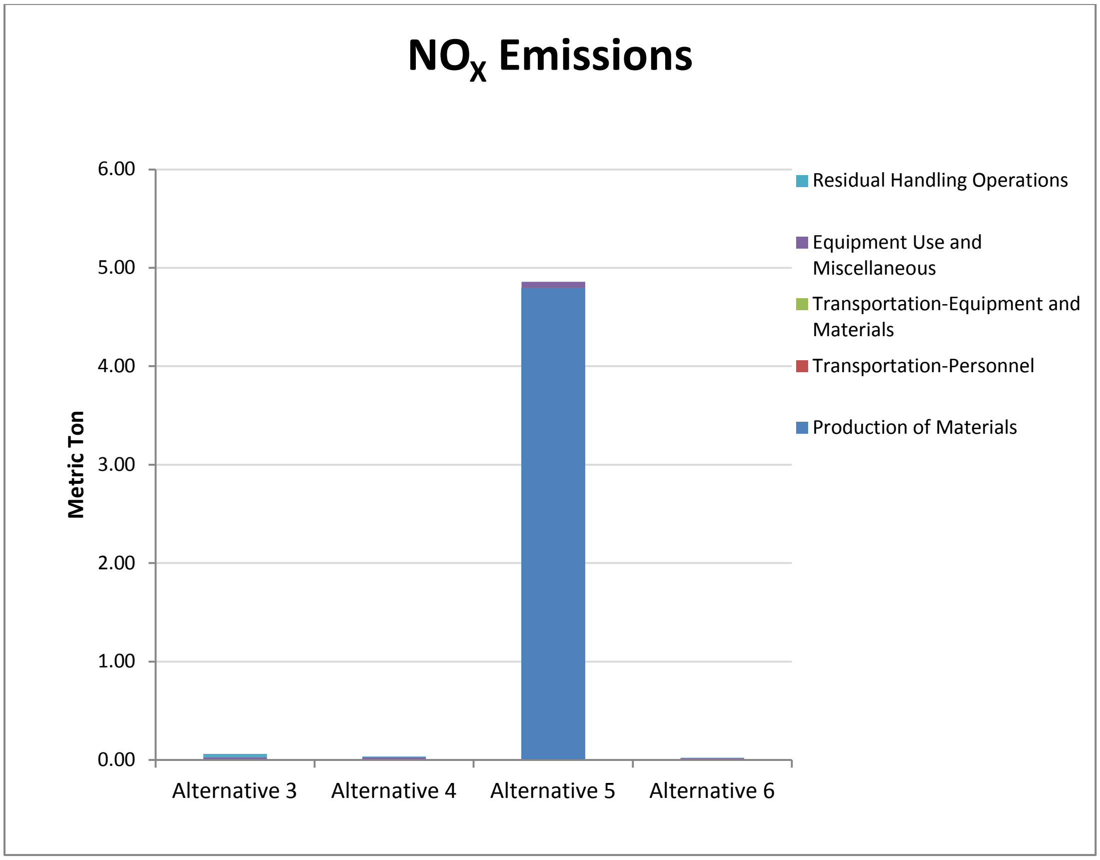


Figure G3 NO_X Emissions for Proposed Alternatives at Block H, Middle River Complex

Figure G4 shows the percentage contribution from each of the main activity sectors.

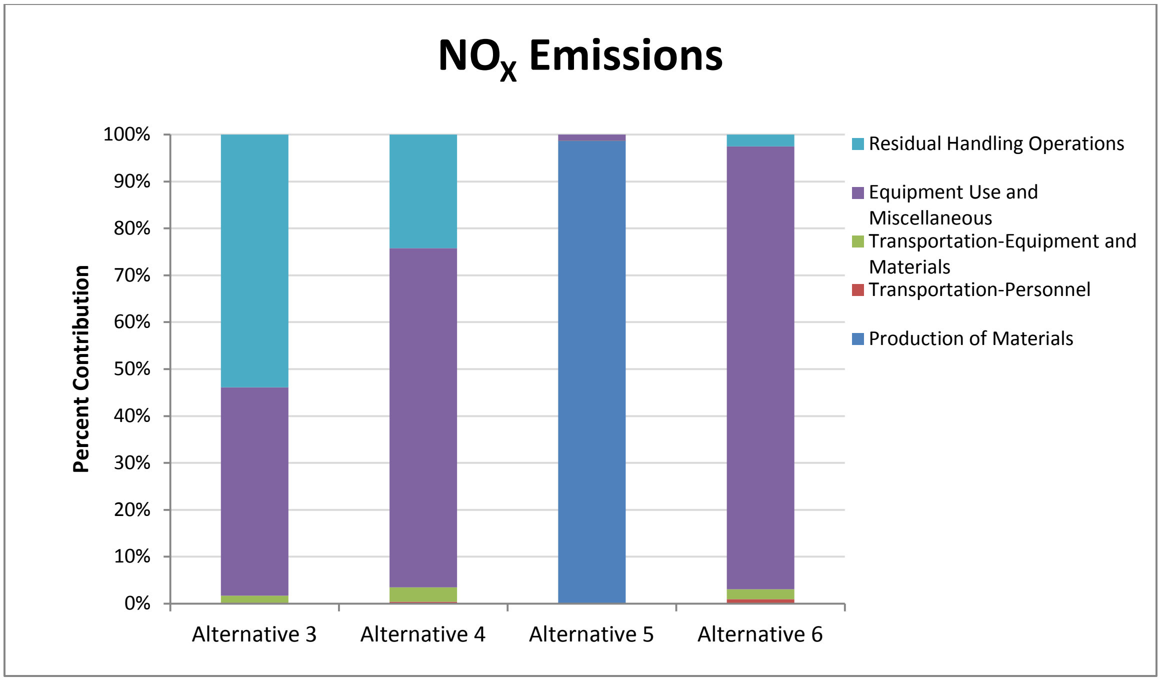


Figure G4: NO_X Emissions percentage breakdown for Alternatives at Block H, Middle River Complex

SO_X

Figure G5 contains the distribution of the SO_X emissions resulting from the activities related to all proposed Alternatives. The x-axis of this graph represents the four Alternatives evaluated; the y-axis represents the SO_X emissions in metric ton.

The total amount of SO_X released to the atmosphere resulting from the activities during Alternative 3 is 0.031 metric ton of SO_X.

The total amount of SO_X released to the atmosphere resulting from the activities during Alternative 4 is 0.017 metric ton of SO_X.

The total amount of SO_X released to the atmosphere resulting from the activities during Alternative 5 is 0.018 metric ton of SO_X.

The total amount of SO_X released to the atmosphere resulting from the activities during Alternative 6 is 0.013 metric ton of SO_X.

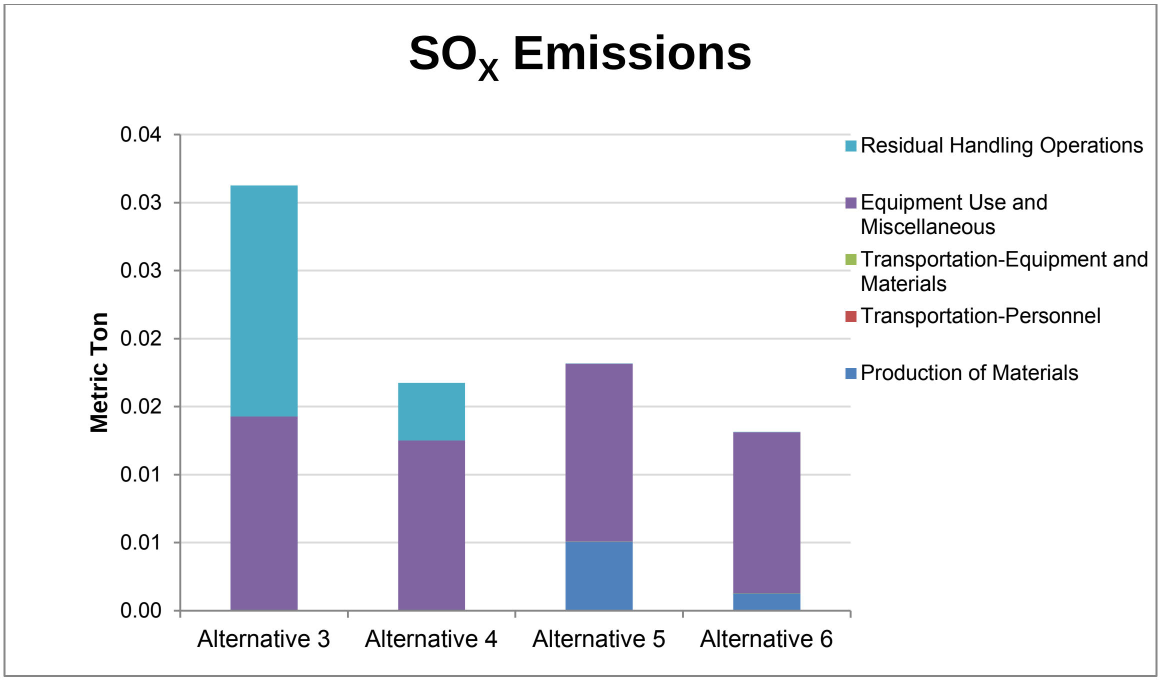


Figure G5: SO$_X$ Emissions for Alternatives at Block H, Middle River Complex

Figure G6 shows the percentage breakdown of the activities contributing to SO$_X$ emissions.

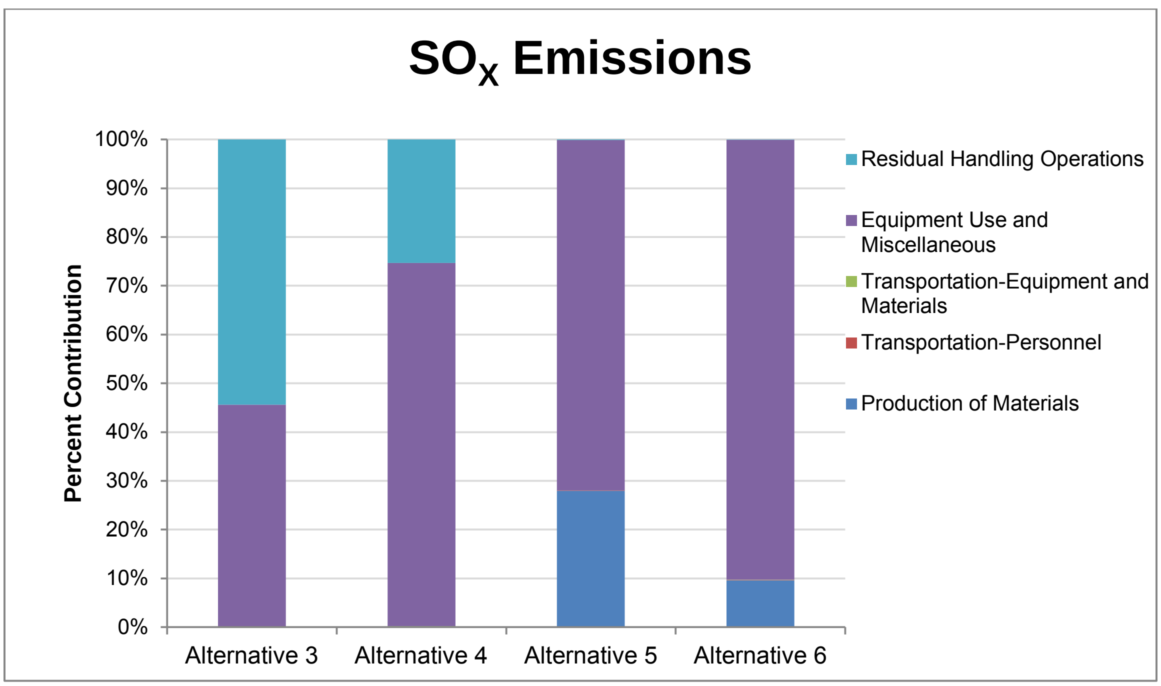


Figure G6: SO$_X$ Emissions percentage breakdown for Alternatives at Block H, Middle River Complex

PM_{10}

The breakdown of the distribution of the PM_{10} emissions resulting from the activities involved in the Alternatives is shown in Figure G7. The x-axis of this figure represents the four Alternatives evaluated, while the y-axis represents the PM_{10} emissions in metric ton.

The total amount of PM_{10} released to the atmosphere resulting from the activities during Alternative 3 is 0.184 metric ton of PM_{10}.

The total amount of PM_{10} released to the atmosphere resulting from the activities during Alternative 4 is 0.116 metric ton of PM_{10}.

The total amount of PM_{10} released to the atmosphere resulting from the activities during Alternative 5 is 0.096 metric ton of PM_{10}.

The total amount of PM_{10} released to the atmosphere resulting from the activities during Alternative 6 is 0.094 metric ton of PM_{10}.

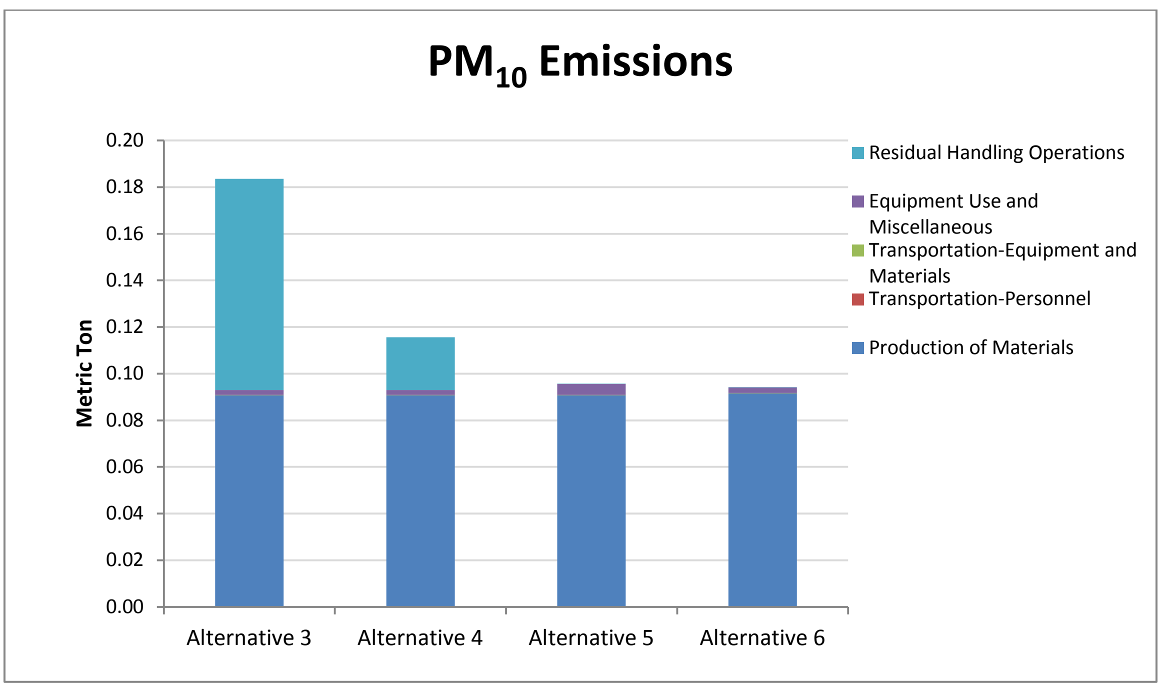


Figure G7: PM_{10} Emissions for Alternatives at Block H, Middle River Complex

Figure G8 shows the percentage of PM_{10} emissions contributed by each of the activity sectors per alternative.

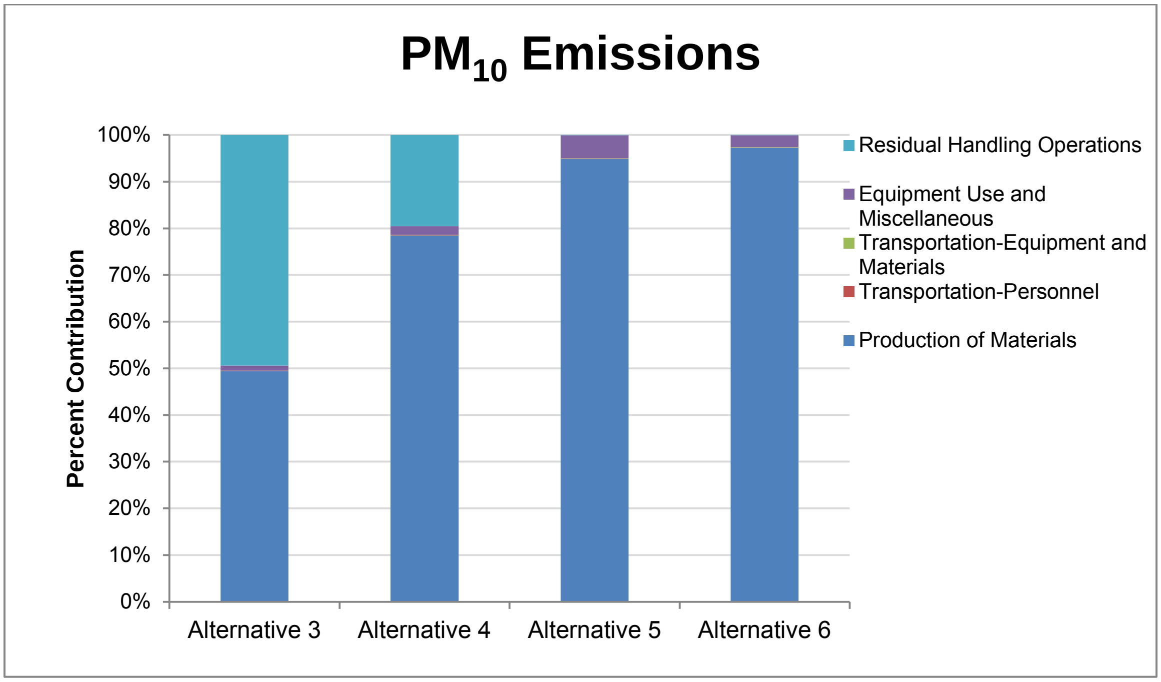


Figure G8: PM_{10} Emissions percentage breakdown for Alternatives at Block H, Middle River Complex

Energy Consumption

The energy consumption for each of the alternatives evaluated is shown in Figure G9. The x-axis shows the four alternatives evaluated, and the y-axis shows the amount of energy consumed in units of million British Thermal Units (MMBTU).

The total amount of energy used resulting from the activities during Alternative 3 is 1,593.662 MMBTU.

The total amount of energy used resulting from the activities during Alternative 4 is 486.988 MMBTU.

The total amount of energy used resulting from the activities during Alternative 5 is 865.091 MMBTU.

The total amount of energy used resulting from the activities during Alternative 6 is 1,904.199 MMBTU.

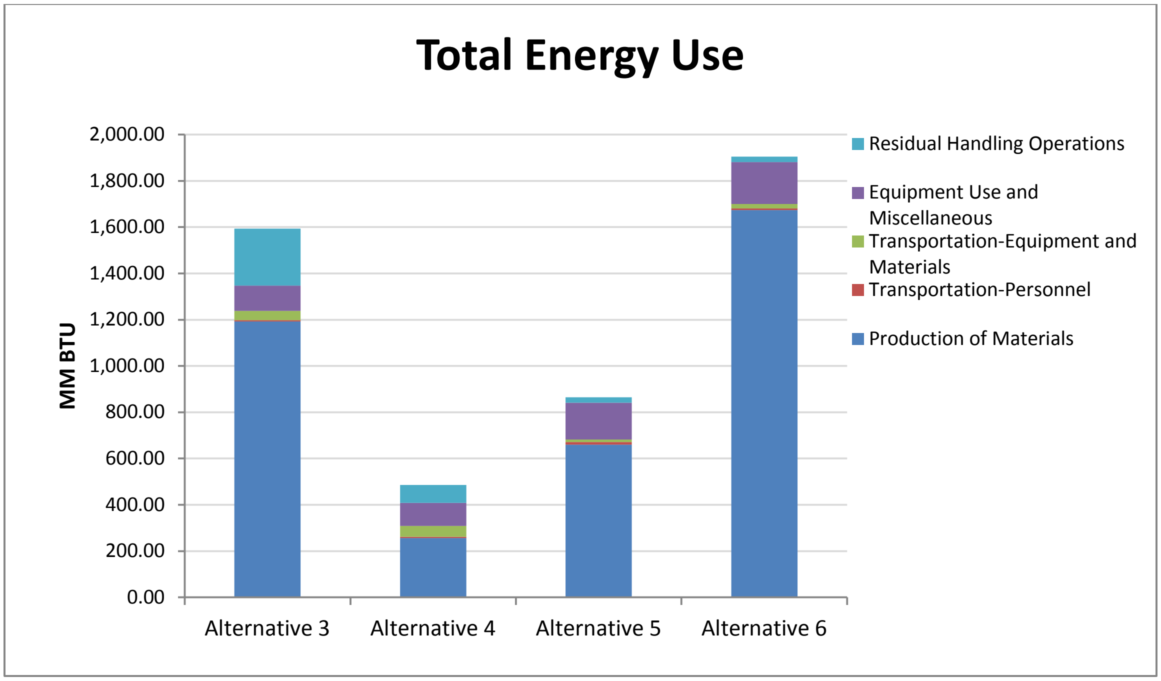


Figure G9: Energy Consumption for Alternatives at Block H, Middle River Complex

Figure G10 shows the percentage breakdown contribution of energy consumption from the different activity groups.

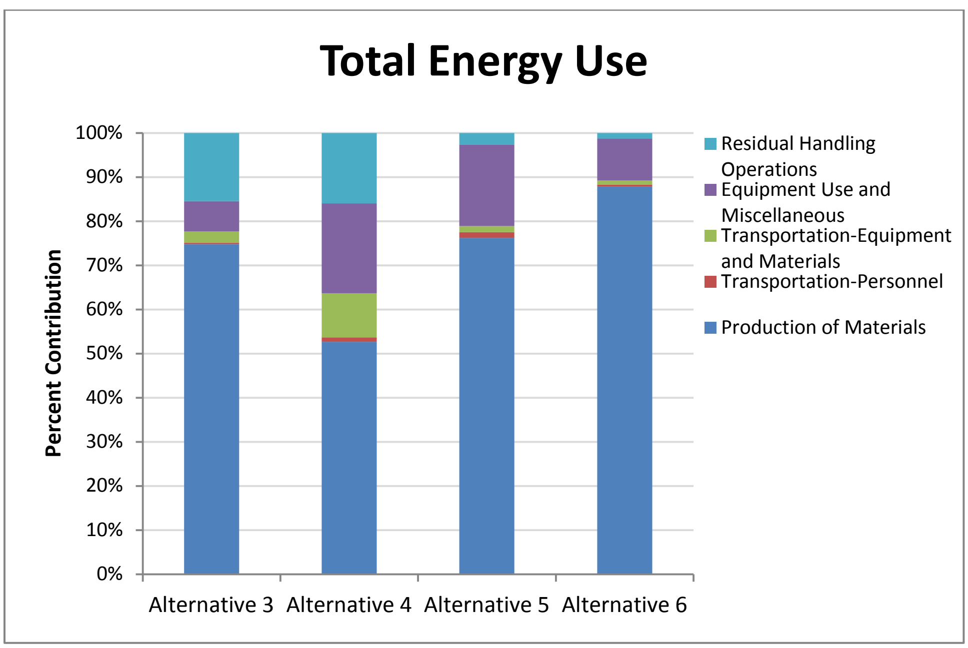


Figure G10: Energy Consumption percentage breakdown for Alternatives at Block H, Middle River Complex

Water Usage

The water consumption of the evaluated alternatives is shown in Figure G11. The x-axis shows the four evaluated alternatives, and the y-axis show the amount of water consumed in thousands of gallons.

No water is generated during the activities associated with Alternatives 3 and 4.

The total amount of water resulting from the activities during Alternative 5 is 57,235 gallons of water. The activity that has the highest water consumption during Alternative 5 is the production of vegetable oil, to be used as amendment during treatment stage.

The total amount of water use resulting from the activities during Alternative 6 is 11,942 gallons of water. The activity that has the highest water consumption during Alternative 6 is water added to the stabilization agent.

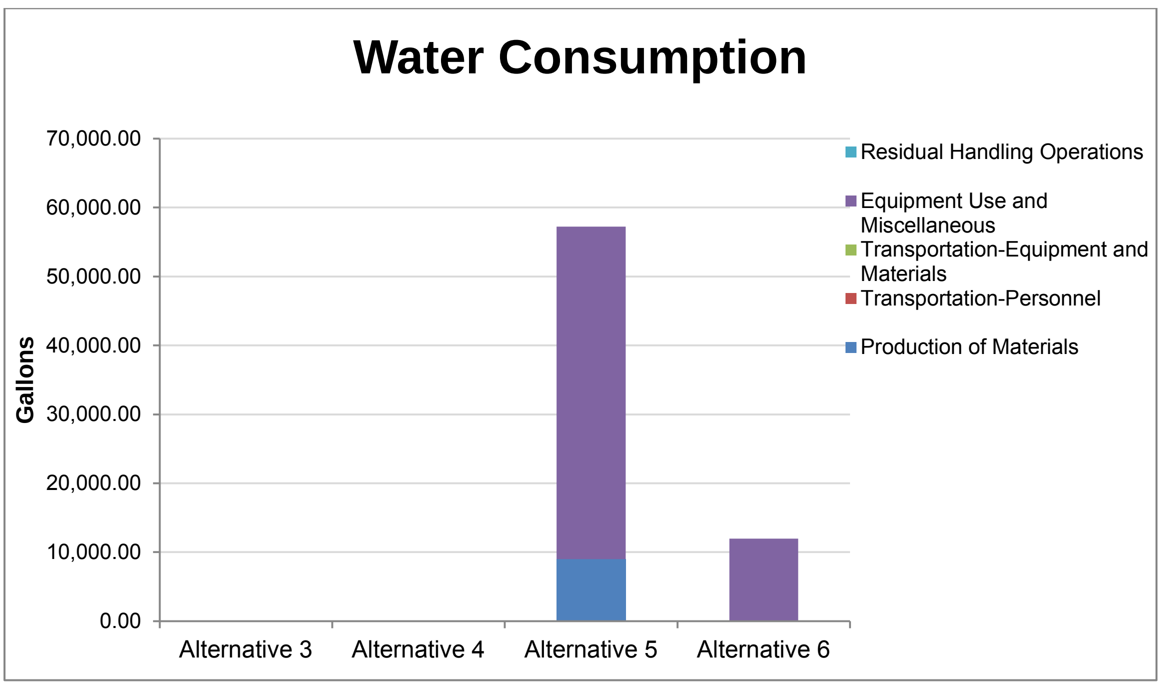


Figure G11: Water Consumption for Alternatives at Block H, Middle River Complex

Figure G12 has a representation of the percentage breakdown of the contribution of the different sectors of the water use through the lifetime of the alternatives.

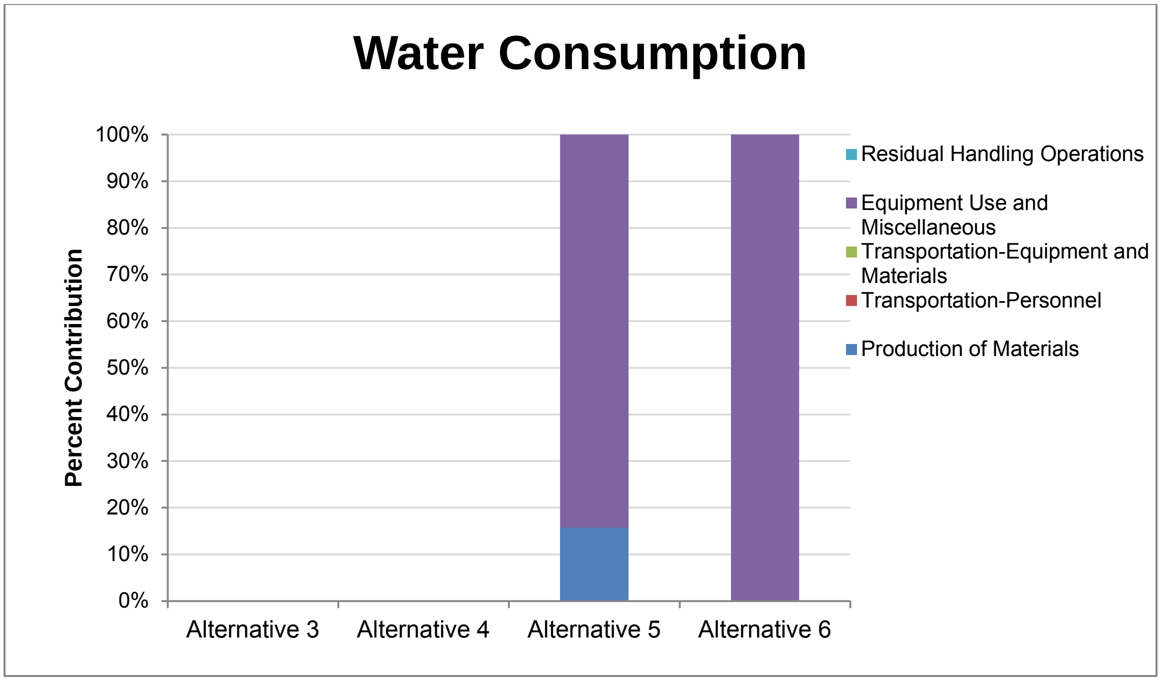


Figure G12: Water Consumption percentage breakdown for Alternatives at Block H, Middle River Complex

Accident Risk

Accident Risk Fatality

Figure G13 shows the risk of fatality between the evaluated alternatives. The x-axis represents the four alternatives evaluated, and the y-axis represents the risk of fatality.

For Alternative 3, the activity with the highest risk of fatality is the residual handling operations, followed by transportation of equipment and materials.

For Alternative 4, the activity with the highest risk of fatality is residual handling operations, followed by transportation of equipment and materials.

For Alternative 5, the activity with the highest risk of fatality is transportation of personnel, followed by the equipment use.

For Alternative 6, the activity with the highest risk of fatality is the transportation of personnel, followed by transportation of equipment and materials.

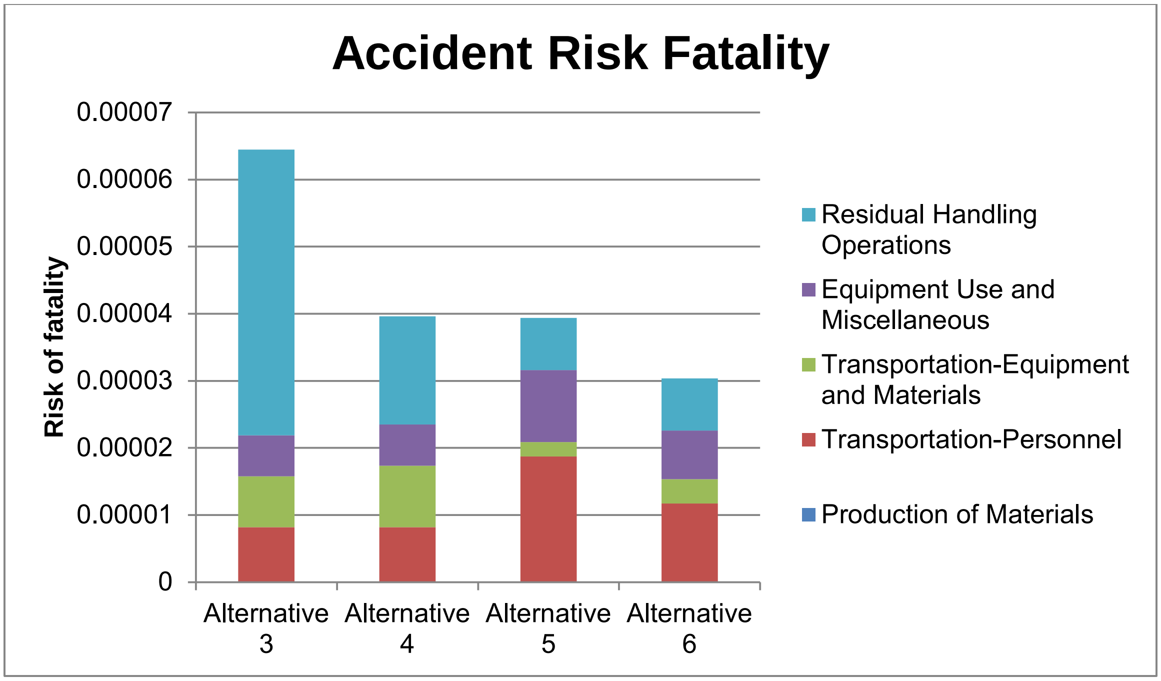


Figure G13 Risk of Fatality for Alternatives at Block H, Middle River Complex

Accident Risk Injury

Figure G14 shows the risk of injury between the evaluated alternatives. The x-axis represents the four alternatives evaluated, and the y-axis represents the risk of injury.

For Alternative 3, the activity with the highest risk of injury is the residual handling operations, followed by the transportation of equipment and materials.

For Alternative 4, the activity with the highest risk of injury is the equipment use followed by residual handling operations.

For Alternative 5, the activity with the highest risk of injury is the equipment use, followed by the transportation of personnel.

For Alternative 6, the activity with the highest risk of injury is the equipment use, followed by the transportation of personnel.

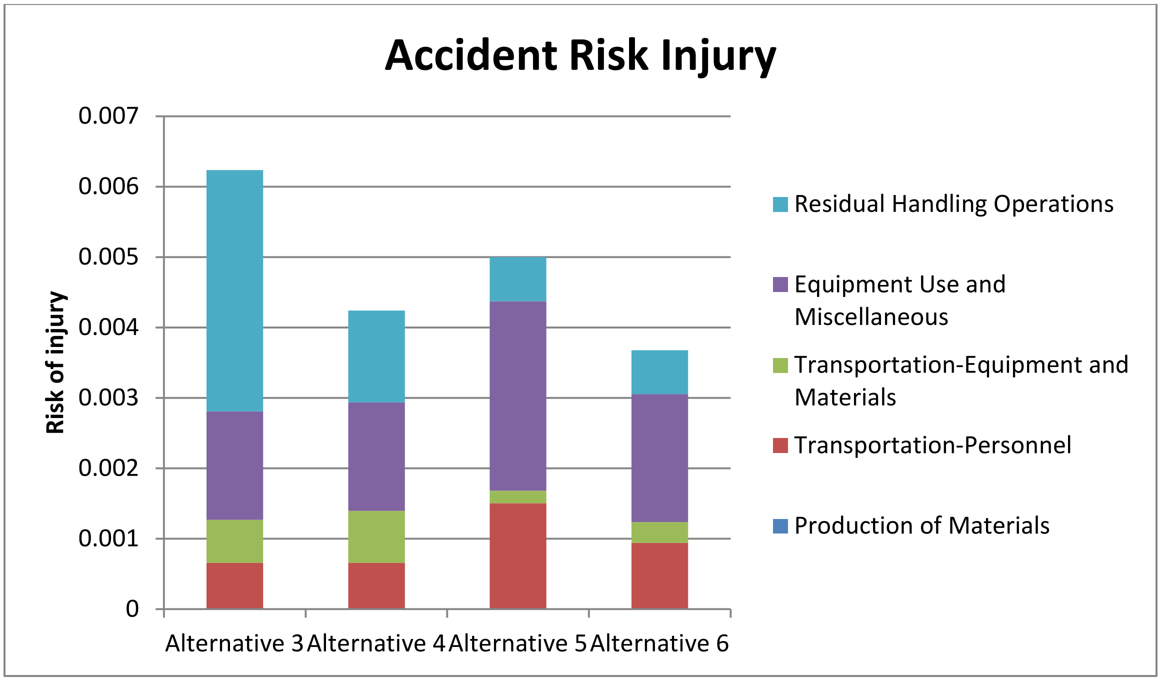


Figure G14 Risk of Injury for Alternatives at Block H, Middle River Complex

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 alternatives (see Table G2).

Figures G2, G4, G6, G8, G10 and G12 show the percentage breakdown of each of the sectors that take place during the remedial alternatives. In these graphs, it is easy to identify the sector whose contribution is largest from all other sectors to that impact category. An advantage to identifying where the large contributions are the optimization process for lowering the environmental impacts is faster and could be more efficient.

Measures identified in the evaluation that may reduce the environmental footprint of the alternatives are listed below for consideration.

- Alternatives: Consider the use of alternative transportation of wastes (if possible) to transport such material to the disposal facilities.

- Alternatives 3 and 4: Consider optimization of the amount of soil that needs to be used as backfill. The amount of soil used during these Alternatives is one of the main drivers of the environmental metrics.
- For All Alternatives: Consider a more efficient mode of transportation of materials such as rail. Consider an optimization schedule in order to take advantage to transport materials to the site the best way possible.
- All Alternatives: Some reduction of the environmental footprint, particularly air emissions, could be obtained for all alternatives 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.
- Alternative 5: Consider the optimization of the amount of amendments used during the treatment stage.
- Alternative 6: Consider optimization of the amount of stabilizing chemicals during the treatment stage.
- All Alternatives: Consider optimizing of the use of equipment, particularly the use of the excavators, and even the type of equipment used during operations. An optimized operation schedule might be able to reduce the environmental impacts, specially the NO_X emissions.
- All Alternatives: Optimize the number of samples analyzed for disposal and quality purpose.
- All Alternatives: Consider ways to reduce vehicle mileage to reduce worker risk as well as energy use and emissions. Encourage site workers to carpool daily to the site to reduce total vehicle mileage.

Table G1
Environmental Footprint Evaluation Results
Block H, Lockheed Martin Middle River Complex
Middle River, 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 3	Materials Production	16.327	1192.558	0.000	0.00E+00	1.30E-05	9.08E-02	NA	NA
	Transportation-Personnel	0.400	5.033	NA	1.48E-04	5.22E-06	3.00E-05	8.19E-06	6.59E-04
	Transportation-Equipment	3.056	39.882	NA	9.60E-04	1.70E-05	8.54E-05	7.57E-06	6.09E-04
	Equipment Use and Misc	7.040	110.371	0.000	2.85E-02	1.42E-02	2.08E-03	6.13E-06	1.54E-03
	Residual Handling	15.338	245.817	NA	3.47E-02	1.70E-02	9.06E-02	4.26E-05	3.43E-03
	Total	42.161	1593.662	0.000	0.064	0.031	0.184	0.000	0.006
Alternative 4	Materials Production	5.939	255.930	0.000	0.00E+00	1.30E-05	9.08E-02	NA	NA
	Transportation-Personnel	0.400	5.033	NA	1.48E-04	5.22E-06	3.00E-05	8.19E-06	6.59E-04
	Transportation-Equipment	3.702	48.311	NA	1.16E-03	2.06E-05	1.03E-04	9.17E-06	7.38E-04
	Equipment Use and Misc	6.331	99.017	0.000	2.70E-02	1.25E-02	2.14E-03	6.13E-06	1.54E-03
	Residual Handling	5.083	77.697	NA	9.03E-03	4.24E-03	2.26E-02	1.62E-05	1.30E-03
	Total	21.454	485.988	0.000	0.037	0.017	0.116	0.000	0.004
Alternative 5	Materials Production	13.820	659.290	8975.638	4.79E+00	5.08E-03	9.08E-02	NA	NA
	Transportation-Personnel	0.915	11.505	NA	3.38E-04	1.19E-05	6.86E-05	1.87E-05	1.51E-03
	Transportation-Equipment	0.878	11.461	NA	2.76E-04	4.88E-06	2.45E-05	2.17E-06	1.75E-04
	Equipment Use and Misc	11.160	159.207	48260.000	6.31E-02	1.31E-02	4.77E-03	1.07E-05	2.69E-03
	Residual Handling	1.725	23.628	NA	5.56E-04	2.26E-05	4.50E-05	7.77E-06	6.26E-04
	Total	28.497	865.091	57235.638	4.858	0.018	0.096	0.000	0.005
Alternative 6	Materials Production	61.138	1673.597	0.000	1.46E-07	1.26E-03	9.16E-02	NA	NA
	Transportation-Personnel	0.572	7.190	NA	2.12E-04	7.45E-06	4.29E-05	1.17E-05	9.42E-04
	Transportation-Equipment	1.477	19.273	NA	4.64E-04	8.21E-06	4.13E-05	3.66E-06	2.94E-04
	Equipment Use and Misc	7.995	181.050	11942.000	2.06E-02	1.18E-02	2.43E-03	7.23E-06	1.82E-03
	Residual Handling	1.769	23.089	NA	5.56E-04	9.83E-06	4.94E-05	7.77E-06	6.26E-04
	Total	72.950	1904.199	11942.000	0.022	0.013	0.094	0.000	0.004

Table G2
Environmental Impact Drivers
Block H, Lockheed Martin Middle River Complex
Middle River, Maryland

Alternatives	GHG Emissions	Energy Use	Water Consumption	NO_X Emissions	SO_X Emissions	PM_{10} Emissions	Risk of injury	Risk of fatality
Alternative 3	Moderate	High	Low	Low	High	High	High	High
Alternative 4	Low to Moderate	Low to Moderate	Low	Low	Moderate	Moderate to High	Moderate to High	Moderate to High
Alternative 5	Low to Moderate	Moderate	High	High	Moderate	Moderate	Moderate to High	High
Alternative 6	High	High	Low to Moderate	Low	Moderate	Moderate	Moderate	Moderate

APPENDIX H—TOTAL COST ANALYSIS

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: MRC Block H

Alternative 4: Limited excavation and soil cover over impacted areas based on the RRA, and institutional controls

DATE: _____August, 2012___________

LEVEL OF ESTIMATE: Screening ☐ or Detailed ☐

DISCOUNT RATE: 7%

ESCALATION RATE

BACKUP REFERENCE[2]: _________________

A	B	C	D	E	F	G	H	I
4/5	Element	Description (Explain Element as necessary)			Qty	Units (Select as appropriate)	$/Unit	Cost Extension $ (F x H)
6	**Remedial Design**							
7	Bench/Pilot Testing	n/a				LS or V		$0
8	Field Investigation				0	LS or UC and LOE		$0
9	Modeling	n/a			0	LS		$0
10	Reporting/Deliverables				0	LS		$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				15%	%	Of Remedy Implementation (Excluding NRDs)	$43,128.31
12	**Subtotal**							**$43,128.308**
13	**Remedy Implementation**							
14	Mobilization				1	LS or %	$12,978	$12,978
15	Implementation					V or UC		$0
	Sediment & Erosion Control & Stormwater Control				1	LS	$20,000	$20,000
	Demolition of Concrete/Asphalt Slab	Concrete slab size			3335	SF	$6	$20,010
	Disposal of Concrete/Asphalt Slab	6-inch thick			62	CY	$150	$9,264
	Excavation of soils	based on RRA			83	CY	$15	$1,245
	Disposal of soils	based on RRA			124	Ton	$100	$12,446
	Placement of 1'-6" Soil Cover	based on RRA; 6-inch lifts and compaction to 95% of dry density.			185	CY	$20	$3,706
	Pre-remedial Sampling	VOCs + SVOCs + Metals ; 1 sample per 10,000 SF			31	Sample	$2,000	$62,360
	Disposal Sampling - per waste facility requirements	VOCs + SVOCs + Metals ; 1 sample per 500 CY			2	Sample	$2,000	$4,000
	Replacement of Concrete/Asphalt Slab	6-inch thick			371	SY	$50	$18,528
	Deed restrictions and legal/administrative costs				1	LS	$105,440	$105,440
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built			1	LS or LOE	$2,570	$2,570
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost			1	LS or LOE	$14,975.53	$14,976
17	Third Party Payments					UC		$0
	Bonds	2%			1	%	$5,191	$5,191
	Insurance	0.50%			1	%	$1,298	$1,298
18	NRDs					LS		$0
19	**Subtotal**							**$294,011**
20	**OM&M**				**Annual**			
21	IC Monitoring and Inspection				1	%, V, or LOE	$125,000	$125,000
22	Cover Maintenance	Cover maintenance, monitoring & inspection over 50 years. Assume 24 mowes/year and inspection of cover once a quarter.			1	LS	$75,000	$75,000
23	Field Activities					UC and LOE		$0
24	Materials, Fuels and Treatment Media					UC or V		$0
25	Reporting/Deliverables					LS or LOE		$0
26	Modeling					LOE		$0
27	Total OM&M Costs (Alternative to above sub-topics)				LOE Attached Work Sheet			
28	**Subtotal**							
29	**Project Closure**							
30	Assessments	Assume 5% of Design+Implementation			1	V or UC and LOE	$16,857	$16,857
31	Decommissioning	Assume 5% of Design+Implementation			1	LS, % or V	$16,857	$16,857
32	**Subtotal**							**$33,714**
33	**Project Management[3]**							
34	During Implementation	Assumed			8%	%	Of Remedial Design & Remedy Implementation	$26,971
	During OM&M	Assumed			8%	%	Of OM&M	$16,000
	During Closure	Assumed			8%	%	Of Closure	$2,697.12
35	**Subtotal**							
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**							
37	**Contingencies**	**Implementation**	**OM&M**	**Closure**				
38	Scope (10 to 25%)	12.2%	15%	25%				
39	Bid (10 to 20%)	10%	10%	20%				
40	**Subtotal**							
41	**GRAND TOTAL COST**							
42								
43								
44	**ESCALATED CASH FLOW COSTS (20 YEARS)**							
	Escalation Factor							

A	B	K	L	M	N	O	P	Q	R	S	T	U
4	Element	Cost in Current Dollars (Add costs that have been distributed over 50 years)			Cost in NPV Dollars (NPV costs that have been distributed over 50 years)				Years[1]			
5		Implementation	OM&M	Closure	TOTAL (O+P+Q)	Implementation	OM&M	Closure	1	2	3	4
6	**Remedial Design**								**Note: Make sure there are no blanks in these cells. All sh**			
7	Bench/Pilot Testing	$0			$0	$0			$0	$0	$0	$0
8	Field Investigation	$0			$0	$0			$0	$0	$0	$0
9	Modeling	$0			$0	$0			$0	$0	$0	$0
10	Reporting/Deliverables	$0			$0	$0			$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)	$43,128			$43,128	$43,128			$43,128	$0	$0	$0
12	**Subtotal**	**$43,128.308**			**$43,128**	**$43,128**			**$43,128**	**$0**	**$0**	**$0**
13	**Remedy Implementation**								**Note: Make sure there are no blanks in these cells. All sh**			
14	Mobilization	$12,978			$12,978	$12,978			$12,978	$0	$0	$0
15	Implementation	$0			$0	$0			$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control	$20,000			$20,000	$20,000			$20,000			
	Demolition of Concrete/Asphalt Slab	$20,010			$20,010	$20,010			$20,010			
	Disposal of Concrete/Asphalt Slab	$9,264			$9,264	$9,264			$9,264			
	Excavation of soils	$1,245			$1,245	$1,245			$1,245			
	Disposal of soils	$12,446			$12,446	$12,446			$12,446			
	Placement of 1'-6" Soil Cover	$3,706			$3,706	$3,706			$3,706			
	Pre-remedial Sampling	$62,360			$62,360	$62,360			$62,360			
	Disposal Sampling - per waste facility requirements	$4,000			$4,000	$4,000			$4,000			
	Replacement of Concrete/Asphalt Slab	$18,528			$18,528	$18,528			$18,528			
	Deed restrictions and legal/administrative costs	$105,440			$105,440	$105,440			$105,440			
16	Reporting/Deliverables	$2,570			$2,570	$2,570			$2,570	$0	$0	$0
	Sale Tax	$14,976			$14,976	$14,976			$14,976			
17	Third Party Payments	$0			$0	$0			$0	$0	$0	$0
	Bonds	$5,191			$5,191	$5,191			$5,191			
	Insurance	$1,298			$1,298	$1,298			$1,298			
18	NRDs	$0			$0	$0			$0	$0	$0	$0
19	**Subtotal**	**$294,011**			**$294,011**	**$294,011**			**$294,011**	**$0**	**$0**	**$0**
20	**OM&M**								**Note: Make sure there are no blanks in these cells. All sh**			
21	IC Monitoring and Inspection		$125,000		$36,917		$36,917		$2,500	$2,500	$2,500	$2,500
22	Cover Maintenance		$75,000		$22,150		$22,150		$1,500	$1,500	$1,500	$1,500
23	Field Activities		$0		$0		$0		$0	$0	$0	$0
24	Materials, Fuels and Treatment Media		$0		$0		$0		$0	$0	$0	$0
25	Reporting/Deliverables		$0		$0		$0		$0	$0	$0	$0
26	Modeling		$0		$0		$0		$0	$0	$0	$0
27	Total OM&M Costs (Alternative to above sub-topics)		$0		$0		$0		$0	$0	$0	$0
28	**Subtotal**		**$200,000**		**$59,067**		**$59,067**		**$4,000**	**$4,000**	**$4,000**	**$4,000**
29	**Project Closure**								**Note: Make sure there are no blanks in these cells. All sh**			
30	Assessments			$16,857	$15,754			$15,754	$0	$16,857	$0	$0
31	Decommissioning			$16,857	$15,754			$15,754	$0	$16,857	$0	$0
32	**Subtotal**			**$33,714**	**$31,508**			**$31,508**	**$0**	**$33,714**	**$0**	**$0**
33	**Project Management[3]**											
34	During Implementation	$26,971			$26,971	$26,971			$26,971	$0	$0	$0
	During OM&M		$16,000		$4,725		$4,725		$320	$320	$320	$320
	During Closure			$2,697	$2,521			$2,521	$0	$2,697	$0	$0
35	**Subtotal**	**$26,971**	**$16,000**	**$2,697**	**$34,217**	**$26,971**	**$4,725**	**$2,521**	**$27,291**	**$3,017**	**$320**	**$320**
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**	**$364,111**	**$216,000**	**$36,411**	**$461,932**	**$364,111**	**$63,793**	**$34,029**	**$368,431**	**$40,731**	**$4,320**	**$4,320**
37	**Contingencies**											
38	Scope (10 to 25%)	$44,422	$32,400	$9,103	$62,498	$44,422	$9,569	$8,507				
39	Bid (10 to 20%)	$36,411	$21,600	$7,282	$49,596	$36,411	$6,379	$6,806				
40	**Subtotal**	**$80,833**	**$54,000**	**$16,385**	**$112,094**	**$80,833**	**$15,948**	**$15,313**				
41	**GRAND TOTAL COST**	**$444,943**	**$270,000**	**$52,796**		**$444,943**	**$79,741**	**$49,342**				
42		**$767,739**			**$574,026**							
43												
44	**ESCALATED CASH FLOW COSTS (20 YEARS)**				**$486,922**				**$368,431**	**$40,731**	**$4,320**	**$4,320**
	Escalation Factor								100%	100%	100%	100%

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

For use in the CDP analysis	
Capital Cost =	**$494,285 NPV**
OM&M Cost =	**$79,741 NPV**

(no shading)	No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.
(green)	Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by equation.
(yellow)	Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed level estimates.
(grey)	Subtotal or Grand Total lines

LOE	Level Of Effort
LS	Lump Sum
NPV	Net Present Value
NRDs	Natural Resource Damages
OM&M	Operational, Maintenance & Monitoring
UC	Unit Cost
V	Vendor
%	Percent

NOTES:

1 Fill in costs in years that they will occur, costs not required for all 50 years if remedy is completed earlier.

2 Reference to worksheets, etc. that provide any detailed backup.

3 Formulas are set up to calculate project management costs during implementation and OM&M as a percentage of these latter costs. In the event annual costs vary and have been separately estimated, they should be entered directly into the appropriate cells for each year.

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: MRC Block H

LEVEL OF ESTIMATE: **Screening ☐ or Detailed ☐**

A	B	C	D	E	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO
4	Element	Description (Explain Element as necessary)																						
5					5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
6	**Remedial Design**				hould be filled with equations linking to, and distributing the appropriate total costs in column I, or with zeros.																			
7	Bench/Pilot Testing	n/a			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Field Investigation				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	Modeling	n/a			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	Reporting/Deliverables				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
13	**Remedy Implementation**				hould be filled with equations linking to, and distributing the appropriate total costs in column I, or with zeros.																			
14	Mobilization				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
15	Implementation				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control																							
	Demolition of Concrete/Asphalt Slab	Concrete slab size																						
	Disposal of Concrete/Asphalt Slab	6-inch thick																						
	Excavation of soils	based on RRA																						
	Disposal of soils	based on RRA																						
	Placement of 1'-6" Soil Cover	based on RRA; 6-inch lifts and compaction to 95% of dry density.																						
	Pre-remedial Sampling	VOCs + SVOCs + Metals ; 1 sample per 10,000 SF																						
	Disposal Sampling - per waste facility requirements	VOCs + SVOCs + Metals ; 1 sample per 500 CY																						
	Replacement of Concrete/Asphalt Slab	6-inch thick																						
	Deed restrictions and legal/administrative costs																							
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost																						
17	Third Party Payments				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Bonds	2%																						
	Insurance	0.50%																						
18	NRDs				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
19	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
20	**OM&M**				hould be filled with $ 0's, numbers or equations.																			
21	IC Monitoring and Inspection				$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
22	Cover Maintenance	Cover maintenance, monitoring & inspection over 50 years. Assume 24 mowes/year and inspection of cover once a quarter.			$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500
23	Field Activities				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	Materials, Fuels and Treatment Media				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
25	Reporting/Deliverables				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
26	Modeling				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
27	Total OM&M Costs (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
28	**Subtotal**				**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**
29	**Project Closure**				hould be filled with $ 0's, numbers or equations.																			
30	Assessments	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
32	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
33	**Project Management**[3]																							
34	During Implementation	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	During OM&M	Assumed			$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320
	During Closure	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
35	**Subtotal**				**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**				**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**
37	**Contingencies**	**Implementation**	**OM&M**	**Closure**																				
38	Scope (10 to 25%)	12.2%	15%	25%																				
39	Bid (10 to 20%)	10%	10%	20%																				
40	**Subtotal**																							
41	**GRAND TOTAL COST**																							
42																								
43																								
44	**ESCALATED CASH FLOW COSTS (20 YEARS)**				**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**
	Escalation Factor				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

	No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.
	Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by
	Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed leve
	Subtotal or Grand Total lines

LOE	Level Of Effort
LS	Lump Sum
NPV	Net Present Value
NRDs	Natural Resource Damages
OM&M	Operational, Maintenance & Monitoring
UC	Unit Cost
V	Vendor
%	Percent

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: MRC Block H

LEVEL OF ESTIMATE: Screening ☐ or Detailed ☐

A	B	C	D	E	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI
4	Element	Description (Explain Element as necessary)																						
5					25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
6	**Remedial Design**																							
7	Bench/Pilot Testing	n/a			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Field Investigation				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	Modeling	n/a			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	Reporting/Deliverables				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	Subtotal				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
13	**Remedy Implementation**																							
14	Mobilization				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
15	Implementation				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control																							
	Demolition of Concrete/Asphalt Slab	Concrete slab size																						
	Disposal of Concrete/Asphalt Slab	6-inch thick																						
	Excavation of soils	based on RRA																						
	Disposal of soils	based on RRA																						
	Placement of 1'-6" Soil Cover	based on RRA; 6-inch lifts and compaction to 95% of dry density.																						
	Pre-remedial Sampling	VOCs + SVOCs + Metals ; 1 sample per 10,000 SF																						
	Disposal Sampling - per waste facility requirements	VOCs + SVOCs + Metals ; 1 sample per 500 CY																						
	Replacement of Concrete/Asphalt Slab	6-inch thick																						
	Deed restrictions and legal/administrative costs																							
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost																						
17	Third Party Payments				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Bonds	2%																						
	Insurance	0.50%																						
18	NRDs				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
19	Subtotal				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
20	**OM&M**																							
21	IC Monitoring and Inspection				$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
22	Cover Maintenance	Cover maintenance, monitoring & inspection over 50 years. Assume 24 mowes/year and inspection of cover once a quarter.			$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500
23	Field Activities				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	Materials, Fuels and Treatment Media				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
25	Reporting/Deliverables				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
26	Modeling				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
27	Total OM&M Costs (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
28	Subtotal				$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000
29	**Project Closure**																							
30	Assessments	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
32	Subtotal				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
33	**Project Management[3]**																							
34	During Implementation	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	During OM&M	Assumed			$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320
	During Closure	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
35	Subtotal				$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**				$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320
37	**Contingencies**	Implementation	OM&M	Closure																				
38	Scope (10 to 25%)	12.2%	15%	25%																				
39	Bid (10 to 20%)	10%	10%	20%																				
40	Subtotal																							
41	**GRAND TOTAL COST**																							
42																								
43																								
44	ESCALATED CASH FLOW COSTS (20 YEARS)				$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320	$4,320
	Escalation Factor				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

	No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.
	Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by
	Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed leve
	Subtotal or Grand Total lines

LOE	Level Of Effort
LS	Lump Sum
NPV	Net Present Value
NRDs	Natural Resource Damages
OM&M	Operational, Maintenance & Monitoring
UC	Unit Cost
V	Vendor
%	Percent

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: MRC Block H

LEVEL OF ESTIMATE: Screening ☐ or Detailed ☐

A	B	C	D	E	BJ	BK	BL	BM	BN	BO
4	Element	Description (Explain Element as necessary)								
5					45	46	47	48	49	50
6	**Remedial Design**									
7	Bench/Pilot Testing	n/a			$0	$0	$0	$0	$0	$0
8	Field Investigation				$0	$0	$0	$0	$0	$0
9	Modeling	n/a			$0	$0	$0	$0	$0	$0
10	Reporting/Deliverables				$0	$0	$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0
12	Subtotal				$0	$0	$0	$0	$0	$0
13	**Remedy Implementation**									
14	Mobilization				$0	$0	$0	$0	$0	$0
15	Implementation				$0	$0	$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control									
	Demolition of Concrete/Asphalt Slab	Concrete slab size								
	Disposal of Concrete/Asphalt Slab	6-inch thick								
	Excavation of soils	based on RRA								
	Disposal of soils	based on RRA								
	Placement of 1'-6" Soil Cover	based on RRA; 6-inch lifts and compaction to 95% of dry density.								
	Pre-remedial Sampling	VOCs + SVOCs + Metals ; 1 sample per 10,000 SF								
	Disposal Sampling - per waste facility requirements	VOCs + SVOCs + Metals ; 1 sample per 500 CY								
	Replacement of Concrete/Asphalt Slab	6-inch thick								
	Deed restrictions and legal/administrative costs									
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built			$0	$0	$0	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost								
17	Third Party Payments				$0	$0	$0	$0	$0	$0
	Bonds	2%								
	Insurance	0.50%								
18	NRDs				$0	$0	$0	$0	$0	$0
19	Subtotal				$0	$0	$0	$0	$0	$0
20	**OM&M**									
21	IC Monitoring and Inspection				$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
22	Cover Maintenance	Cover maintenance, monitoring & inspection over 50 years. Assume 24 mowes/year and inspection of cover once a quarter.			$1,500	$1,500	$1,500	$1,500	$1,500	$1,500
23	Field Activities				$0	$0	$0	$0	$0	$0
24	Materials, Fuels and Treatment Media				$0	$0	$0	$0	$0	$0
25	Reporting/Deliverables				$0	$0	$0	$0	$0	$0
26	Modeling				$0	$0	$0	$0	$0	$0
27	Total OM&M Costs (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0
28	Subtotal				$4,000	$4,000	$4,000	$4,000	$4,000	$4,000
29	**Project Closure**									
30	Assessments	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0
32	Subtotal				$0	$0	$0	$0	$0	$0
33	**Project Management[3]**									
34	During Implementation	Assumed			$0	$0	$0	$0	$0	$0
	During OM&M	Assumed			$320	$320	$320	$320	$320	$320
	During Closure	Assumed			$0	$0	$0	$0	$0	$0
35	Subtotal				$320	$320	$320	$320	$320	$320
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**				**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**
37	**Contingencies**	**Implementation**	**OM&M**	**Closure**						
38	Scope (10 to 25%)	12.2%	15%	25%						
39	Bid (10 to 20%)	10%	10%	20%						
40	Subtotal									
41	**GRAND TOTAL COST**									
42										
43										
44	**ESCALATED CASH FLOW COSTS (20 YEARS)**				**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**
	Escalation Factor				100%	100%	100%	100%	100%	100%

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

	No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.
	Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by
	Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed leve
	Subtotal or Grand Total lines

LOE	Level Of Effort
LS	Lump Sum
NPV	Net Present Value
NRDs	Natural Resource Damages
OM&M	Operational, Maintenance & Monitoring
UC	Unit Cost
V	Vendor
%	Percent

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: **MRC Block H**

Alternative 3: Excavation and off-site disposal of impacted soils based on the residual-risk analysis (RRA) to a depth of two fe

LEVEL OF ESTIMATE: **Screening ☐ or Detailed ◻**

DISCOUNT RATE: **7%**

ESCALATION RATE

A	B	C / D / E	F	G	H	I	J	K	L	M
4 / 5	**Element**	**Description (Explain Element as necessary)**	**Qty**	**Units (Select as appropriate)**	**$/Unit**	**Cost Extension $ (F x H)**		**Cost in Current Dollars (Add costs that have been distributed over 50 years)**		
								Implementation	**OM&M**	**Closure**
6	**Remedial Design**									
7	Bench/Pilot Testing	n/a		LS or V		$0		$0		
8	Field Investigation		0	LS or UC and LOE		$0		$0		
9	Modeling	n/a	0	LS		$0		$0		
10	Reporting/Deliverables		0	LS		$0		$0		
11	Total Remedial Design Effort (Alternative to above sub-topics)		15%	%	Of Remedy Implementation (Excluding NRDs)	$51,740.89		$51,741		
12	**Subtotal**					**$51,740.891**		**$51,740.891**		
13	**Remedy Implementation**									
14	Mobilization		1	LS or %	$15,655	$15,655		$15,655		
15	Implementation			V or UC		$0		$0		
	Sediment & Erosion Control & Stormwater Control		1	LS	$20,000	$20,000		$20,000		
	Demolition of Concrete/Asphalt Slab		3335	SF	$6	$20,010		$20,010		
	Disposal of Concrete/Asphalt Slab	6-inch thick	62	CY	$150	$9,264		$9,264		
	Excavation of soils	based on RRA	332	CY	$15	$4,978		$4,978		
	Disposal of soils	based on RRA	498	Ton	$100	$49,783		$49,783		
	Pre-remedial Sampling	VOCs + SVOCs + Metals; 1 sample per 10,000 SF	31	Sample	$2,000	$62,360		$62,360		
	Post excavation sampling per MDE requirements	VOCs + SVOCs + Metals ; 1 sample per 50 CY	7	Sample	$1,000	$7,000		$7,000		
	Disposal Sampling - per waste facility requirements	VOCs + SVOCs + Metals ; 1 sample per 500 CY	2	Sample	$2,000	$4,000		$4,000		
	Sampling of borrow pit to ensure procurement of clean fill	Analytical - VOC, SVOC, PAHs, Metals, and labor for sample collection: 1 sample per 500 CY	1	Sample	$2,000	$2,000		$2,000		
	Backfilling	Backfilling in 6-inch lifts and compaction to 95% of dry density.	332	CY	$20	$6,638		$6,638		
	Replacement of Concrete/Asphalt Slab in areas of excavation	6-inch thick	371	SY	$50	$18,528		$18,528		
	Deed restrictions and legal/administrative costs		1	LS	$105,440	$105,440		$105,440		
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built	1	LS or LOE	$3,100	$3,100		$3,100		
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost	1	LS or LOE	$16,182.57	$16,183		$16,183		
17	Third Party Payments			UC		$0		$0		
	Bonds	2%	1	%	$6,262	$6,262		$6,262		
	Insurance	0.50%	1	%	$1,566	$1,566		$1,566		
18	NRDs			LS		$0		$0		
19	**Subtotal**					**$352,767**		**$352,767**		
20	**OM&M**		**Annual**							
21	IC Monitoring and Inspection		1	%, V, or LOE	$125,000	$125,000			$125,000	
22	Laboratory			UC		$0			$0	
23	Field Activities			UC and LOE		$0			$0	
24	Materials, Fuels and Treatment Media			UC or V		$0			$0	
25	Reporting/Deliverables			LS or LOE		$0			$0	
26	Modeling			LOE		$0			$0	

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

							Implementation	OM&M	Closure
27	Total OM&M Costs (Alternative to above sub-topics)		LOE Attached Work Sheet					$0	
28	**Subtotal**					`		**$125,000**	
29	**Project Closure**								
30	Assessments	Assume 5% of Design+Implementation	1	V or UC and LOE	$20,225	$20,225			$20,225
31	Decommissioning	Assume 5% of Design+Implementation	1	LS, % or V	$20,225	$20,225			$20,225
32	**Subtotal**					**$40,451**			**$40,451**
33	**Project Management[3]**								
34	During Implementation	Assumed	8%	%	Of Remedial Design & Remedy Implementation	$32,361	$32,361		
	During OM&M	Assumed	8%	%	Of OM&M	$10,000		$10,000	
	During Closure	Assumed	8%	%	Of Closure	$3,236.06			$3,236
35	**Subtotal**						**$32,361**	**$10,000**	**$3,236**
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**						**$436,868**	**$135,000**	**$43,687**

37	**Contingencies**	**Implementation**	**OM&M**	**Closure**			
38	Scope (10 to 25%)	12.2%	15%	25%	$53,298	$20,250	$10,922
39	Bid (10 to 20%)	10%	10%	20%	$43,687	$13,500	$8,737
40	**Subtotal**				**$96,985**	**$33,750**	**$19,659**
41	**GRAND TOTAL COST**				**$533,853**	**$168,750**	**$63,346**
42					**$765,949**		
43							
44	**ESCALATED CASH FLOW COSTS (20 YEARS)**						

Escalation Factor

No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.
Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by equation.
Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed level estimates.
Subtotal or Grand Total lines

LOE	Level Of Effort
LS	Lump Sum
NPV	Net Present Value
NRDs	Natural Resource Damages
OM&M	Operational, Maintenance & Monitoring
UC	Unit Cost
V	Vendor
%	Percent

NOTES:
1 Fill in costs in years that they will occur, costs not required for a
2 Reference to worksheets, etc. that provide any detailed backup
3 Formulas are set up to calculate project management costs du have been separately estimated, they should be entered directly i

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: MRC Block H **eet and institutional controls** **DATE:** _____August, 2012___________

LEVEL OF ESTIMATE: **Screening ☐ or Detailed □** **BACKUP REFERENCE[2]:** _________________

A	B	C	D	E	N	O	P	Q	R	S	T	U
4	**Element**	**Description (Explain Element as necessary)**			**Cost in NPV Dollars (NPV costs that have been distributed over 50 years)**				**Years[1]**			
5					**TOTAL (O+P+Q)**	**Implementation**	**OM&M**	**Closure**	**1**	**2**	**3**	**4**
6	**Remedial Design**								**Note: Make sure there are no blanks in these cells. All sh**			
7	Bench/Pilot Testing	n/a			$0	$0			$0	$0	$0	$0
8	Field Investigation				$0	$0			$0	$0	$0	$0
9	Modeling	n/a			$0	$0			$0	$0	$0	$0
10	Reporting/Deliverables				$0	$0			$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				$51,741	$51,741			$51,741	$0	$0	$0
12	**Subtotal**				**$51,741**	**$51,741**			**$51,741**	**$0**	**$0**	**$0**
13	**Remedy Implementation**								**Note: Make sure there are no blanks in these cells. All sh**			
14	Mobilization				$15,655	$15,655			$15,655	$0	$0	$0
15	Implementation				$0	$0			$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control				$20,000	$20,000			$20,000			
	Demolition of Concrete/Asphalt Slab				$20,010	$20,010			$20,010			
	Disposal of Concrete/Asphalt Slab	6-inch thick			$9,264	$9,264			$9,264			
	Excavation of soils	based on RRA			$4,978	$4,978			$4,978			
	Disposal of soils	based on RRA			$49,783	$49,783			$49,783			
	Pre-remedial Sampling	VOCs + SVOCs + Metals; 1 sample per 10,000 SF			$62,360	$62,360			$62,360			
	Post excavation sampling per MDE requirements	VOCs + SVOCs + Metals ; 1 sample per 50 CY			$7,000	$7,000			$7,000			
	Disposal Sampling - per waste facility requirements	VOCs + SVOCs + Metals ; 1 sample per 500 CY			$4,000	$4,000			$4,000			
	Sampling of borrow pit to ensure procurement of clean fill	Analytical - VOC, SVOC, PAHs, Metals, and labor for sample collection: 1 sample per 500 CY			$2,000	$2,000			$2,000			
	Backfilling	Backfilling in 6-inch lifts and compaction to 95% of dry density.			$6,638	$6,638			$6,638			
	Replacement of Concrete/Asphalt Slab in areas of excavation	6-inch thick			$18,528	$18,528			$18,528			
	Deed restrictions and legal/administrative costs				$105,440	$105,440			$105,440			
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built			$3,100	$3,100			$3,100	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost			$16,183	$16,183			$16,183			
17	Third Party Payments				$0	$0			$0	$0	$0	$0
	Bonds	2%			$6,262	$6,262			$6,262			
	Insurance	0.50%			$1,566	$1,566			$1,566			
18	NRDs				$0	$0			$0	$0	$0	$0
19	**Subtotal**				**$352,767**	**$352,767**			**$352,767**	**$0**	**$0**	**$0**
20	**OM&M**								**Note: Make sure there are no blanks in these cells. All sh**			
21	IC Monitoring and Inspection				$36,917		$36,917		$2,500	$2,500	$2,500	$2,500
22	Laboratory				$0		$0		$0	$0	$0	$0
23	Field Activities				$0		$0		$0	$0	$0	$0
24	Materials, Fuels and Treatment Media				$0		$0		$0	$0	$0	$0
25	Reporting/Deliverables				$0		$0		$0	$0	$0	$0
26	Modeling				$0		$0		$0	$0	$0	$0

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

27	Total OM&M Costs (Alternative to above sub-topics)				$0		$0		$0	$0	$0	$0
28	**Subtotal**				**$36,917**		**$36,917**		**$2,500**	**$2,500**	**$2,500**	**$2,500**
29	**Project Closure**								**Note: Make sure there are no blanks in these cells. All sh**			
30	Assessments	Assume 5% of Design+Implementation			$18,902			$18,902	$0	$20,225	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			$18,902			$18,902	$0	$20,225	$0	$0
32	**Subtotal**				**$37,804**			**$37,804**	**$0**	**$40,451**	**$0**	**$0**
33	**Project Management[3]**											
34	During Implementation	Assumed			$32,361	$32,361			$32,361	$0	$0	$0
	During OM&M	Assumed			$2,953		$2,953		$200	$200	$200	$200
	During Closure	Assumed			$3,024			$3,024	$0	$3,236	$0	$0
35	**Subtotal**				**$38,338**	**$32,361**	**$2,953**	**$3,024**	**$32,561**	**$3,436**	**$200**	**$200**
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**				**$517,567**	**$436,868**	**$39,870**	**$40,829**	**$439,568**	**$46,387**	**$2,700**	**$2,700**
37	**Contingencies**	**Implementation**	**OM&M**	**Closure**								
38	Scope (10 to 25%)	12.2%	15%	25%	$69,486	$53,298	$5,981	$10,207				
39	Bid (10 to 20%)	10%	10%	20%	$55,840	$43,687	$3,987	$8,166				
40	**Subtotal**				**$125,325**	**$96,985**	**$9,968**	**$18,373**				
41	**GRAND TOTAL COST**					**$533,853**	**$49,838**	**$59,202**				
42					**$642,893**							
43												
44	**ESCALATED CASH FLOW COSTS (20 YEARS)**				**$534,555**				**$439,568**	**$46,387**	**$2,700**	**$2,700**
	Escalation Factor								100%	100%	100%	100%

For use in the CDP analysis	
Capital Cost =	**$593,055 NPV**
OM&M Cost =	**$49,838 NPV**

No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.
Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by
Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed leve
Subtotal or Grand Total lines

LOE Level Of Effort
LS Lump Sum
NPV Net Present Value
NRDs Natural Resource Damages
OM&M Operational, Maintenance & Monitoring
UC Unit Cost
V Vendor
% Percent

ıll 50 years if remedy is completed earlier.
).
ring implementation and OM&M as a percentage of these latter costs. In the event annual costs vary and
ınto the appropriate cells for each year.

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: MRC Block H

LEVEL OF ESTIMATE: **Screening ☐ or Detailed ☐**

A	B	C / D / E	V	W	X	Y	Z	AA	AB	AC	AD	AE
4	Element	Description (Explain Element as necessary)										
5			5	6	7	8	9	10	11	12	13	14
6	**Remedial Design**		**hould be filled with equations linking to, and distributing the appropriate total costs in column I, or with zeros.**									
7	Bench/Pilot Testing	n/a	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Field Investigation		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	Modeling	n/a	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	Reporting/Deliverables		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	**Subtotal**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
13	**Remedy Implementation**		**hould be filled with equations linking to, and distributing the appropriate total costs in column I, or with zeros.**									
14	Mobilization		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
15	Implementation		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control											
	Demolition of Concrete/Asphalt Slab											
	Disposal of Concrete/Asphalt Slab	6-inch thick										
	Excavation of soils	based on RRA										
	Disposal of soils	based on RRA										
	Pre-remedial Sampling	VOCs + SVOCs + Metals; 1 sample per 10,000 SF										
	Post excavation sampling per MDE requirements	VOCs + SVOCs + Metals ; 1 sample per 50 CY										
	Disposal Sampling - per waste facility requirements	VOCs + SVOCs + Metals ; 1 sample per 500 CY										
	Sampling of borrow pit to ensure procurement of clean fill	Analytical - VOC, SVOC, PAHs, Metals, and labor for sample collection: 1 sample per 500 CY										
	Backfilling	Backfilling in 6-inch lifts and compaction to 95% of dry density.										
	Replacement of Concrete/Asphalt Slab in areas of excavation	6-inch thick										
	Deed restrictions and legal/administrative costs											
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost										
17	Third Party Payments		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Bonds	2%										
	Insurance	0.50%										
18	NRDs		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
19	**Subtotal**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
20	**OM&M**		**hould be filled with $ 0's, numbers or equations.**									
21	IC Monitoring and Inspection		$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
22	Laboratory		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
23	Field Activities		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	Materials, Fuels and Treatment Media		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
25	Reporting/Deliverables		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
26	Modeling		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

27	Total OM&M Costs (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
28	**Subtotal**				**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**
29	**Project Closure**				**ould be filled with $ 0's, numbers or equations.**									
30	Assessments	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
32	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
33	**Project Management[3]**													
34	During Implementation	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	During OM&M	Assumed			$200	$200	$200	$200	$200	$200	$200	$200	$200	$200
	During Closure	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
35	**Subtotal**				**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**				**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**
37	**Contingencies**	**Implementation**	**OM&M**	**Closure**										
38	Scope (10 to 25%)	12.2%	15%	25%										
39	Bid (10 to 20%)	10%	10%	20%										
40	**Subtotal**													
41	**GRAND TOTAL COST**													
42														
43														
44	**ESCALATED CASH FLOW COSTS (20 YEARS)**				**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**
	Escalation Factor				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

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Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by

Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed leve

Subtotal or Grand Total lines

LOE Level Of Effort
LS Lump Sum
NPV Net Present Value
NRDs Natural Resource Damages
OM&M Operational, Maintenance & Monitoring
UC Unit Cost
V Vendor
% Percent

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: **MRC Block H**

LEVEL OF ESTIMATE: **Screening ☐ or Detailed ☐**

A	B	C / D / E	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO
4	**Element**	**Description (Explain Element as necessary)**										
5			15	16	17	18	19	20	21	22	23	24
6	**Remedial Design**											
7	Bench/Pilot Testing	n/a	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Field Investigation		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	Modeling	n/a	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	Reporting/Deliverables		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	**Subtotal**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
13	**Remedy Implementation**											
14	Mobilization		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
15	Implementation		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control											
	Demolition of Concrete/Asphalt Slab											
	Disposal of Concrete/Asphalt Slab	6-inch thick										
	Excavation of soils	based on RRA										
	Disposal of soils	based on RRA										
	Pre-remedial Sampling	VOCs + SVOCs + Metals; 1 sample per 10,000 SF										
	Post excavation sampling per MDE requirements	VOCs + SVOCs + Metals ; 1 sample per 50 CY										
	Disposal Sampling - per waste facility requirements	VOCs + SVOCs + Metals ; 1 sample per 500 CY										
	Sampling of borrow pit to ensure procurement of clean fill	Analytical - VOC, SVOC, PAHs, Metals, and labor for sample collection: 1 sample per 500 CY										
	Backfilling	Backfilling in 6-inch lifts and compaction to 95% of dry density.										
	Replacement of Concrete/Asphalt Slab in areas of excavation	6-inch thick										
	Deed restrictions and legal/administrative costs											
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost										
17	Third Party Payments		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Bonds	2%										
	Insurance	0.50%										
18	NRDs		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
19	**Subtotal**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
20	**OM&M**											
21	IC Monitoring and Inspection		$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
22	Laboratory		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
23	Field Activities		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	Materials, Fuels and Treatment Media		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
25	Reporting/Deliverables		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
26	Modeling		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

27	Total OM&M Costs (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
28	**Subtotal**				**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**
29	**Project Closure**													
30	Assessments	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
32	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
33	**Project Management[3]**													
34	During Implementation	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	During OM&M	Assumed			$200	$200	$200	$200	$200	$200	$200	$200	$200	$200
	During Closure	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
35	**Subtotal**				**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**				**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**
37	**Contingencies**	**Implementation**	**OM&M**	**Closure**										
38	Scope (10 to 25%)	12.2%	15%	25%										
39	Bid (10 to 20%)	10%	10%	20%										
40	**Subtotal**													
41	**GRAND TOTAL COST**													
42														
43														
44	**ESCALATED CASH FLOW COSTS (20 YEARS)**				**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**
	Escalation Factor				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

(no shading)	No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.
(green)	Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by
(yellow)	Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed leve
(grey)	Subtotal or Grand Total lines

LOE Level Of Effort
LS Lump Sum
NPV Net Present Value
NRDs Natural Resource Damages
OM&M Operational, Maintenance & Monitoring
UC Unit Cost
V Vendor
% Percent

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: **MRC Block H**

LEVEL OF ESTIMATE: **Screening ☐ or Detailed ☐**

A	B	C / D / E	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY
4, 5	**Element**	**Description (Explain Element as necessary)**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**
6	**Remedial Design**											
7	Bench/Pilot Testing	n/a	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Field Investigation		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	Modeling	n/a	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	Reporting/Deliverables		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	**Subtotal**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
13	**Remedy Implementation**											
14	Mobilization		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
15	Implementation		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control											
	Demolition of Concrete/Asphalt Slab											
	Disposal of Concrete/Asphalt Slab	6-inch thick										
	Excavation of soils	based on RRA										
	Disposal of soils	based on RRA										
	Pre-remedial Sampling	VOCs + SVOCs + Metals; 1 sample per 10,000 SF										
	Post excavation sampling per MDE requirements	VOCs + SVOCs + Metals ; 1 sample per 50 CY										
	Disposal Sampling - per waste facility requirements	VOCs + SVOCs + Metals ; 1 sample per 500 CY										
	Sampling of borrow pit to ensure procurement of clean fill	Analytical - VOC, SVOC, PAHs, Metals, and labor for sample collection: 1 sample per 500 CY										
	Backfilling	Backfilling in 6-inch lifts and compaction to 95% of dry density.										
	Replacement of Concrete/Asphalt Slab in areas of excavation	6-inch thick										
	Deed restrictions and legal/administrative costs											
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost										
17	Third Party Payments		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Bonds	2%										
	Insurance	0.50%										
18	NRDs		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
19	**Subtotal**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
20	**OM&M**											
21	IC Monitoring and Inspection		$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
22	Laboratory		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
23	Field Activities		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	Materials, Fuels and Treatment Media		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
25	Reporting/Deliverables		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
26	Modeling		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

27	Total OM&M Costs (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
28	**Subtotal**				**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**
29	**Project Closure**													
30	Assessments	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
32	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
33	**Project Management**[3]													
34	During Implementation	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	During OM&M	Assumed			$200	$200	$200	$200	$200	$200	$200	$200	$200	$200
	During Closure	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
35	**Subtotal**				**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**				**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**
37	**Contingencies**	**Implementation**	**OM&M**	**Closure**										
38	Scope (10 to 25%)	12.2%	15%	25%										
39	Bid (10 to 20%)	10%	10%	20%										
40	**Subtotal**													
41	**GRAND TOTAL COST**													
42														
43														
44	**ESCALATED CASH FLOW COSTS (20 YEARS)**				**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**
	Escalation Factor				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

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Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by

Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed leve

Subtotal or Grand Total lines

LOE Level Of Effort
LS Lump Sum
NPV Net Present Value
NRDs Natural Resource Damages
OM&M Operational, Maintenance & Monitoring
UC Unit Cost
V Vendor
% Percent

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: **MRC Block H**

LEVEL OF ESTIMATE: **Screening ☐ or Detailed ☐**

A	B	C	D	E	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI
4	**Element**	**Description (Explain Element as necessary)**												
5					**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**
6	**Remedial Design**													
7	Bench/Pilot Testing	n/a			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Field Investigation				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	Modeling	n/a			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	Reporting/Deliverables				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
13	**Remedy Implementation**													
14	Mobilization				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
15	Implementation				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control													
	Demolition of Concrete/Asphalt Slab													
	Disposal of Concrete/Asphalt Slab	6-inch thick												
	Excavation of soils	based on RRA												
	Disposal of soils	based on RRA												
	Pre-remedial Sampling	VOCs + SVOCs + Metals; 1 sample per 10,000 SF												
	Post excavation sampling per MDE requirements	VOCs + SVOCs + Metals ; 1 sample per 50 CY												
	Disposal Sampling - per waste facility requirements	VOCs + SVOCs + Metals ; 1 sample per 500 CY												
	Sampling of borrow pit to ensure procurement of clean fill	Analytical - VOC, SVOC, PAHs, Metals, and labor for sample collection: 1 sample per 500 CY												
	Backfilling	Backfilling in 6-inch lifts and compaction to 95% of dry density.												
	Replacement of Concrete/Asphalt Slab in areas of excavation	6-inch thick												
	Deed restrictions and legal/administrative costs													
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost												
17	Third Party Payments				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Bonds	2%												
	Insurance	0.50%												
18	NRDs				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
19	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
20	**OM&M**													
21	IC Monitoring and Inspection				$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
22	Laboratory				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
23	Field Activities				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	Materials, Fuels and Treatment Media				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
25	Reporting/Deliverables				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
26	Modeling				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

27	Total OM&M Costs (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
28	**Subtotal**				**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**
29	**Project Closure**													
30	Assessments	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
32	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
33	**Project Management**[3]													
34	During Implementation	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	During OM&M	Assumed			$200	$200	$200	$200	$200	$200	$200	$200	$200	$200
	During Closure	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
35	**Subtotal**				**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**				**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**
37	**Contingencies**	**Implementation**	**OM&M**	**Closure**										
38	Scope (10 to 25%)	12.2%	15%	25%										
39	Bid (10 to 20%)	10%	10%	20%										
40	**Subtotal**													
41	**GRAND TOTAL COST**													
42														
43														
44	**ESCALATED CASH FLOW COSTS (20 YEARS)**				**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**
	Escalation Factor				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

(no shading)	No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.
(green)	Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by
(yellow)	Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed leve
(grey)	Subtotal or Grand Total lines

LOE Level Of Effort
LS Lump Sum
NPV Net Present Value
NRDs Natural Resource Damages
OM&M Operational, Maintenance & Monitoring
UC Unit Cost
V Vendor
% Percent

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: **MRC Block H**

LEVEL OF ESTIMATE: **Screening ☐ or Detailed ☐**

A	B	C	D	E	BJ	BK	BL	BM	BN	BO
4	**Element**	**Description (Explain Element as necessary)**								
5					**45**	**46**	**47**	**48**	**49**	**50**
6	**Remedial Design**									
7	Bench/Pilot Testing	n/a			$0	$0	$0	$0	$0	$0
8	Field Investigation				$0	$0	$0	$0	$0	$0
9	Modeling	n/a			$0	$0	$0	$0	$0	$0
10	Reporting/Deliverables				$0	$0	$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0
12	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
13	**Remedy Implementation**									
14	Mobilization				$0	$0	$0	$0	$0	$0
15	Implementation				$0	$0	$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control									
	Demolition of Concrete/Asphalt Slab									
	Disposal of Concrete/Asphalt Slab	6-inch thick								
	Excavation of soils	based on RRA								
	Disposal of soils	based on RRA								
	Pre-remedial Sampling	VOCs + SVOCs + Metals; 1 sample per 10,000 SF								
	Post excavation sampling per MDE requirements	VOCs + SVOCs + Metals ; 1 sample per 50 CY								
	Disposal Sampling - per waste facility requirements	VOCs + SVOCs + Metals ; 1 sample per 500 CY								
	Sampling of borrow pit to ensure procurement of clean fill	Analytical - VOC, SVOC, PAHs, Metals, and labor for sample collection: 1 sample per 500 CY								
	Backfilling	Backfilling in 6-inch lifts and compaction to 95% of dry density.								
	Replacement of Concrete/Asphalt Slab in areas of excavation	6-inch thick								
	Deed restrictions and legal/administrative costs									
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built			$0	$0	$0	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost								
17	Third Party Payments				$0	$0	$0	$0	$0	$0
	Bonds	2%								
	Insurance	0.50%								
18	NRDs				$0	$0	$0	$0	$0	$0
19	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
20	**OM&M**									
21	IC Monitoring and Inspection				$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
22	Laboratory				$0	$0	$0	$0	$0	$0
23	Field Activities				$0	$0	$0	$0	$0	$0
24	Materials, Fuels and Treatment Media				$0	$0	$0	$0	$0	$0
25	Reporting/Deliverables				$0	$0	$0	$0	$0	$0
26	Modeling				$0	$0	$0	$0	$0	$0

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

27	Total OM&M Costs (Alternative to above sub-topics)		$0	$0	$0	$0	$0	$0
28	**Subtotal**		**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**
29	**Project Closure**							
30	Assessments	Assume 5% of Design+Implementation	$0	$0	$0	$0	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation	$0	$0	$0	$0	$0	$0
32	**Subtotal**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
33	**Project Management[3]**							
34	During Implementation	Assumed	$0	$0	$0	$0	$0	$0
	During OM&M	Assumed	$200	$200	$200	$200	$200	$200
	During Closure	Assumed	$0	$0	$0	$0	$0	$0
35	**Subtotal**		**$200**	**$200**	**$200**	**$200**	**$200**	**$200**
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**		**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**

37	**Contingencies**	**Implementation**	**OM&M**	**Closure**						
38	Scope (10 to 25%)	12.2%	15%	25%						
39	Bid (10 to 20%)	10%	10%	20%						
40	**Subtotal**									
41	**GRAND TOTAL COST**									
42										
43										
44	**ESCALATED CASH FLOW COSTS (20 YEARS)**				**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**
	Escalation Factor				100%	100%	100%	100%	100%	100%

(white)	No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.
(green)	Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by
(yellow)	Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed leve
(gray)	Subtotal or Grand Total lines

LOE Level Of Effort
LS Lump Sum
NPV Net Present Value
NRDs Natural Resource Damages
OM&M Operational, Maintenance & Monitoring
UC Unit Cost
V Vendor
% Percent

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: MRC Block H

Alternative 4: Limited excavation and soil cover over impacted areas based on the RRA, and institutional controls

DATE: _____August, 2012___________

LEVEL OF ESTIMATE: Screening ☐ or Detailed ▫

DISCOUNT RATE: 7%

ESCALATION RATE

BACKUP REFERENCE[2]: ________________

A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	Q	R	S	T	U
4	Element	Description (Explain Element as necessary)			Qty	Units (Select as appropriate)	$/Unit	Cost Extension $ (F x H)	Cost in Current Dollars (Add costs that have been distributed over 50 years)			Cost in NPV Dollars (NPV costs that have been distributed over 50 years)				Years[1]			
5									Implementation	OM&M	Closure	TOTAL (O+P+Q)	Implementation	OM&M	Closure	1	2	3	4
6	Remedial Design															Note: Make sure there are no blanks in these cells. All sh			
7	Bench/Pilot Testing	n/a				LS or V		$0	$0			$0	$0			$0	$0	$0	$0
8	Field Investigation				0	LS or UC and LOE		$0	$0			$0	$0			$0	$0	$0	$0
9	Modeling	n/a			0	LS		$0	$0			$0	$0			$0	$0	$0	$0
10	Reporting/Deliverables				0	LS		$0	$0			$0	$0			$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				15%	%	Of Remedy Implementation (Excluding NRDs)	$43,128.31	$43,128			$43,128	$43,128			$43,128	$0	$0	$0
12	Subtotal							$43,128.308	$43,128.308			$43,128	$43,128			$43,128	$0	$0	$0
13	Remedy Implementation															Note: Make sure there are no blanks in these cells. All sh			
14	Mobilization				1	LS or %	$12,978	$12,978	$12,978			$12,978	$12,978			$12,978	$0	$0	$0
15	Implementation					V or UC		$0	$0			$0	$0			$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control				1	LS	$20,000	$20,000	$20,000			$20,000	$20,000			$20,000			
	Demolition of Concrete/Asphalt Slab	Concrete slab size			3335	SF	$6	$20,010	$20,010			$20,010	$20,010			$20,010			
	Disposal of Concrete/Asphalt Slab	6-inch thick			62	CY	$150	$9,264	$9,264			$9,264	$9,264			$9,264			
	Excavation of soils	based on RRA			83	CY	$15	$1,245	$1,245			$1,245	$1,245			$1,245			
	Disposal of soils	based on RRA			124	Ton	$100	$12,446	$12,446			$12,446	$12,446			$12,446			
	Placement of 1'-6" Soil Cover	based on RRA; 6-inch lifts and compaction to 95% of dry density.			185	CY	$20	$3,706	$3,706			$3,706	$3,706			$3,706			
	Pre-remedial Sampling	VOCs + SVOCs + Metals ; 1 sample per 10,000 SF			31	Sample	$2,000	$62,360	$62,360			$62,360	$62,360			$62,360			
	Disposal Sampling - per waste facility requirements	VOCs + SVOCs + Metals ; 1 sample per 500 CY			2	Sample	$2,000	$4,000	$4,000			$4,000	$4,000			$4,000			
	Replacement of Concrete/Asphalt Slab	6-inch thick			371	SY	$50	$18,528	$18,528			$18,528	$18,528			$18,528			
	Deed restrictions and legal/administrative costs				1	LS	$105,440	$105,440	$105,440			$105,440	$105,440			$105,440			
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built			1	LS or LOE	$2,570	$2,570	$2,570			$2,570	$2,570			$2,570	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost			1	LS or LOE	$14,975.53	$14,976	$14,976			$14,976	$14,976			$14,976			
17	Third Party Payments					UC		$0	$0			$0	$0			$0	$0	$0	$0
	Bonds	2%			1	%	$5,191	$5,191	$5,191			$5,191	$5,191			$5,191			
	Insurance	0.50%			1	%	$1,298	$1,298	$1,298			$1,298	$1,298			$1,298			
18	NRDs					LS		$0	$0			$0	$0			$0	$0	$0	$0
19	Subtotal							$294,011	$294,011			$294,011	$294,011			$294,011	$0	$0	$0
20	OM&M					Annual										Note: Make sure there are no blanks in these cells. All sh			
21	IC Monitoring and Inspection				1	%, V, or LOE	$125,000	$125,000		$125,000		$36,917		$36,917		$2,500	$2,500	$2,500	$2,500
22	Cover Maintenance	Cover maintenance, monitoring & inspection over 50 years. Assume 24 mowes/year and inspection of cover once a quarter.			1	LS	$75,000	$75,000		$75,000		$22,150		$22,150		$1,500	$1,500	$1,500	$1,500
23	Field Activities					UC and LOE		$0		$0		$0		$0		$0	$0	$0	$0
24	Materials, Fuels and Treatment Media					UC or V		$0		$0		$0		$0		$0	$0	$0	$0
25	Reporting/Deliverables					LS or LOE		$0		$0		$0		$0		$0	$0	$0	$0
26	Modeling					LOE		$0		$0		$0		$0		$0	$0	$0	$0
27	Total OM&M Costs (Alternative to above sub-topics)					LOE Attached Work Sheet				$0		$0		$0		$0	$0	$0	$0
28	Subtotal									$200,000		$59,067		$59,067		$4,000	$4,000	$4,000	$4,000
29	Project Closure															Note: Make sure there are no blanks in these cells. All sh			
30	Assessments	Assume 5% of Design+Implementation			1	V or UC and LOE	$16,857	$16,857			$16,857	$15,754			$15,754	$0	$16,857	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			1	LS, % or V	$16,857	$16,857			$16,857	$15,754			$15,754	$0	$16,857	$0	$0
32	Subtotal							$33,714			$33,714	$31,508			$31,508	$0	$33,714	$0	$0
33	Project Management[3]																		
34	During Implementation	Assumed			8%	%	Of Remedial Design & Remedy Implementation	$26,971	$26,971			$26,971	$26,971			$26,971	$0	$0	$0
	During OM&M	Assumed			8%	%	Of OM&M	$16,000		$16,000		$4,725		$4,725		$320	$320	$320	$320
	During Closure	Assumed			8%	%	Of Closure	$2,697.12			$2,697	$2,521			$2,521	$0	$2,697	$0	$0
35	Subtotal								$26,971	$16,000	$2,697	$34,217	$26,971	$4,725	$2,521	$27,291	$3,017	$320	$320
36	SUBTOTAL COST OF ELEMENT ESTIMATES								$364,111	$216,000	$36,411	$461,932	$364,111	$63,793	$34,029	$368,431	$40,731	$4,320	$4,320
37	Contingencies	Implementation	OM&M	Closure															
38	Scope (10 to 25%)	12.2%	15%	25%					$44,422	$32,400	$9,103	$62,498	$44,422	$9,569	$8,507				
39	Bid (10 to 20%)	10%	10%	20%					$36,411	$21,600	$7,282	$49,596	$36,411	$6,379	$6,806				
40	Subtotal								$80,833	$54,000	$16,385	$112,094	$80,833	$15,948	$15,313				
41	GRAND TOTAL COST								$444,943	$270,000	$52,796		$444,943	$79,741	$49,342				
42									$767,739			$574,026							
43																			
44	ESCALATED CASH FLOW COSTS (20 YEARS)											$486,922				$368,431	$40,731	$4,320	$4,320
	Escalation Factor															100%	100%	100%	100%

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

For use in the CDP analysis	
Capital Cost =	$494,285 NPV
OM&M Cost =	$79,741 NPV

No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.
Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by equation.
Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed level estimates.
Subtotal or Grand Total lines

LOE	Level Of Effort
LS	Lump Sum
NPV	Net Present Value
NRDs	Natural Resource Damages
OM&M	Operational, Maintenance & Monitoring
UC	Unit Cost
V	Vendor
%	Percent

NOTES:
1 Fill in costs in years that they will occur, costs not required for all 50 years if remedy is completed earlier.
2 Reference to worksheets, etc. that provide any detailed backup.
3 Formulas are set up to calculate project management costs during implementation and OM&M as a percentage of these latter costs. In the event annual costs vary and have been separately estimated, they should be entered directly into the appropriate cells for each year.

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: MRC Block H

LEVEL OF ESTIMATE: Screening ☐ or Detailed ☐

A	B	C	D	E	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO
4	Element	Description (Explain Element as necessary)																						
5					5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
6	**Remedial Design**				**hould be filled with equations linking to, and distributing the appropriate total costs in column I, or with zeros.**																			
7	Bench/Pilot Testing	n/a			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Field Investigation				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	Modeling	n/a			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	Reporting/Deliverables				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
13	**Remedy Implementation**				**hould be filled with equations linking to, and distributing the appropriate total costs in column I, or with zeros.**																			
14	Mobilization				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
15	Implementation				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control																							
	Demolition of Concrete/Asphalt Slab	Concrete slab size																						
	Disposal of Concrete/Asphalt Slab	6-inch thick																						
	Excavation of soils	based on RRA																						
	Disposal of soils	based on RRA																						
	Placement of 1'-6" Soil Cover	based on RRA; 6-inch lifts and compaction to 95% of dry density.																						
	Pre-remedial Sampling	VOCs + SVOCs + Metals ; 1 sample per 10,000 SF																						
	Disposal Sampling - per waste facility requirements	VOCs + SVOCs + Metals ; 1 sample per 500 CY																						
	Replacement of Concrete/Asphalt Slab	6-inch thick																						
	Deed restrictions and legal/administrative costs																							
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost																						
17	Third Party Payments				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Bonds	2%																						
	Insurance	0.50%																						
18	NRDs				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
19	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
20	**OM&M**				**hould be filled with $ 0's, numbers or equations.**																			
21	IC Monitoring and Inspection				$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
22	Cover Maintenance	Cover maintenance, monitoring & inspection over 50 years. Assume 24 mowes/year and inspection of cover once a quarter.			$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500
23	Field Activities				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	Materials, Fuels and Treatment Media				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
25	Reporting/Deliverables				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
26	Modeling				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
27	Total OM&M Costs (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
28	**Subtotal**				**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**
29	**Project Closure**				**hould be filled with $ 0's, numbers or equations.**																			
30	Assessments	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
32	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
33	**Project Management[3]**																							
34	During Implementation	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	During OM&M	Assumed			$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320
	During Closure	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
35	**Subtotal**				**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**				**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**
37	**Contingencies**	**Implementation**	**OM&M**	**Closure**																				
38	Scope (10 to 25%)	12.2%	15%	25%																				
39	Bid (10 to 20%)	10%	10%	20%																				
40	**Subtotal**																							
41	**GRAND TOTAL COST**																							
42																								
43																								
44	**ESCALATED CASH FLOW COSTS (20 YEARS)**				**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**
	Escalation Factor				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

	No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.
	Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by
	Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed leve
	Subtotal or Grand Total lines

LOE	Level Of Effort
LS	Lump Sum
NPV	Net Present Value
NRDs	Natural Resource Damages
OM&M	Operational, Maintenance & Monitoring
UC	Unit Cost
V	Vendor
%	Percent

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: MRC Block H

LEVEL OF ESTIMATE: Screening ☐ or Detailed ☐

A	B	C	D	E	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI
4	Element	Description (Explain Element as necessary)																						
5					25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
6	**Remedial Design**																							
7	Bench/Pilot Testing	n/a			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Field Investigation				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	Modeling	n/a			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	Reporting/Deliverables				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
13	**Remedy Implementation**																							
14	Mobilization				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
15	Implementation				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control																							
	Demolition of Concrete/Asphalt Slab	Concrete slab size																						
	Disposal of Concrete/Asphalt Slab	6-inch thick																						
	Excavation of soils	based on RRA																						
	Disposal of soils	based on RRA																						
	Placement of 1'-6" Soil Cover	based on RRA; 6-inch lifts and compaction to 95% of dry density.																						
	Pre-remedial Sampling	VOCs + SVOCs + Metals ; 1 sample per 10,000 SF																						
	Disposal Sampling - per waste facility requirements	VOCs + SVOCs + Metals ; 1 sample per 500 CY																						
	Replacement of Concrete/Asphalt Slab	6-inch thick																						
	Deed restrictions and legal/administrative costs																							
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost																						
17	Third Party Payments				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Bonds	2%																						
	Insurance	0.50%																						
18	NRDs				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
19	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
20	**OM&M**																							
21	IC Monitoring and Inspection				$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
22	Cover Maintenance	Cover maintenance, monitoring & inspection over 50 years. Assume 24 mowes/year and inspection of cover once a quarter.			$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500
23	Field Activities				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	Materials, Fuels and Treatment Media				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
25	Reporting/Deliverables				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
26	Modeling				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
27	Total OM&M Costs (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
28	**Subtotal**				**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**
29	**Project Closure**																							
30	Assessments	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
32	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
33	**Project Management**[3]																							
34	During Implementation	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	During OM&M	Assumed			$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320	$320
	During Closure	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
35	**Subtotal**				**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**	**$320**
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**				**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**
37	**Contingencies**	**Implementation**	**OM&M**	**Closure**																				
38	Scope (10 to 25%)	12.2%	15%	25%																				
39	Bid (10 to 20%)	10%	10%	20%																				
40	**Subtotal**																							
41	**GRAND TOTAL COST**																							
42																								
43																								
44	**ESCALATED CASH FLOW COSTS (20 YEARS)**				**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**
	Escalation Factor				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

	No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.
	Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by
	Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed leve
	Subtotal or Grand Total lines

LOE	Level Of Effort
LS	Lump Sum
NPV	Net Present Value
NRDs	Natural Resource Damages
OM&M	Operational, Maintenance & Monitoring
UC	Unit Cost
V	Vendor
%	Percent

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: MRC Block H

LEVEL OF ESTIMATE: Screening ☐ or Detailed ▫

A	B	C	D	E	BJ	BK	BL	BM	BN	BO
4	Element	Description (Explain Element as necessary)								
5					45	46	47	48	49	50
6	**Remedial Design**									
7	Bench/Pilot Testing	n/a			$0	$0	$0	$0	$0	$0
8	Field Investigation				$0	$0	$0	$0	$0	$0
9	Modeling	n/a			$0	$0	$0	$0	$0	$0
10	Reporting/Deliverables				$0	$0	$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0
12	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
13	**Remedy Implementation**									
14	Mobilization				$0	$0	$0	$0	$0	$0
15	Implementation				$0	$0	$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control									
	Demolition of Concrete/Asphalt Slab	Concrete slab size								
	Disposal of Concrete/Asphalt Slab	6-inch thick								
	Excavation of soils	based on RRA								
	Disposal of soils	based on RRA								
	Placement of 1'-6" Soil Cover	based on RRA; 6-inch lifts and compaction to 95% of dry density.								
	Pre-remedial Sampling	VOCs + SVOCs + Metals ; 1 sample per 10,000 SF								
	Disposal Sampling - per waste facility requirements	VOCs + SVOCs + Metals ; 1 sample per 500 CY								
	Replacement of Concrete/Asphalt Slab	6-inch thick								
	Deed restrictions and legal/administrative costs									
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built			$0	$0	$0	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost								
17	Third Party Payments				$0	$0	$0	$0	$0	$0
	Bonds	2%								
	Insurance	0.50%								
18	NRDs				$0	$0	$0	$0	$0	$0
19	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
20	**OM&M**									
21	IC Monitoring and Inspection				$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
22	Cover Maintenance	Cover maintenance, monitoring & inspection over 50 years. Assume 24 mowes/year and inspection of cover once a quarter.			$1,500	$1,500	$1,500	$1,500	$1,500	$1,500
23	Field Activities				$0	$0	$0	$0	$0	$0
24	Materials, Fuels and Treatment Media				$0	$0	$0	$0	$0	$0
25	Reporting/Deliverables				$0	$0	$0	$0	$0	$0
26	Modeling				$0	$0	$0	$0	$0	$0
27	Total OM&M Costs (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0
28	**Subtotal**				**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**	**$4,000**
29	**Project Closure**									
30	Assessments	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0
32	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
33	**Project Management**[3]									
34	During Implementation	Assumed			$0	$0	$0	$0	$0	$0
	During OM&M	Assumed			$320	$320	$320	$320	$320	$320
	During Closure	Assumed			$0	$0	$0	$0	$0	$0
35	**Subtotal**				**$320**	**$320**	**$320**	**$320**	**$320**	**$320**
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**				**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**
37	**Contingencies**	**Implementation**	**OM&M**	**Closure**						
38	Scope (10 to 25%)	12.2%	15%	25%						
39	Bid (10 to 20%)	10%	10%	20%						
40	**Subtotal**									
41	**GRAND TOTAL COST**									
42										
43										
44	**ESCALATED CASH FLOW COSTS (20 YEARS)**				**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**	**$4,320**
	Escalation Factor				100%	100%	100%	100%	100%	100%

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

	No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.
	Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by
	Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed leve
	Subtotal or Grand Total lines

LOE	Level Of Effort
LS	Lump Sum
NPV	Net Present Value
NRDs	Natural Resource Damages
OM&M	Operational, Maintenance & Monitoring
UC	Unit Cost
V	Vendor
%	Percent

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: MRC Block H | Alternative 5: Enhanced bioremediation of impacted surface soils based on the RRA and institutional controls | DATE: _____August, 2012___________

LEVEL OF ESTIMATE: Screening ☐ or Detailed ☐ | DISCOUNT RATE: 7% | ESCALATION RATE | BACKUP REFERENCE[2]: ___________________

A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	Q	R	S	T	U
4	Element	Description (Explain Element as necessary)			Qty	Units (Select as appropriate)	$/Unit	Cost Extension $ (F x H)	Cost in Current Dollars (Add costs that have been distributed over 50 years)			Cost in NPV Dollars (NPV costs that have been distributed over 50 years)				Years[1]			
5									Implementation	OM&M	Closure	TOTAL (O+P+Q)	Implementation	OM&M	Closure	1	2	3	4
6	Remedial Design															Note: Make sure there are no blanks in these cells. All sh			
7	Bench/Pilot Testing	Bench-scale testing to ascertain amendment dose.			1	LS or V	$15,000	$15,000	$15,000			$15,000	$15,000			$15,000	$0	$0	$0
8	Field Investigation				0	LS or UC and LOE		$0	$0			$0	$0			$0	$0	$0	$0
9	Modeling	n/a			0	LS		$0	$0			$0	$0			$0	$0	$0	$0
10	Reporting/Deliverables				0	LS		$0	$0			$0	$0			$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				15%	%	Of Remedy Implementation (Excluding NRDs)	$54,015.75	$54,016			$54,016	$54,016			$54,016	$0	$0	$0
12	Subtotal							$69,015.746	$69,015.746			$69,016	$69,016			$69,016	$0	$0	$0
13	Remedy Implementation															Note: Make sure there are no blanks in these cells. All sh			
14	Mobilization				1	LS or %	$16,202	$16,202	$16,202			$16,202	$16,202			$16,202	$0	$0	$0
15	Implementation					V or UC		$0	$0			$0	$0			$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control				1	LS	$20,000	$20,000	$20,000			$20,000	$20,000			$20,000			
	Demolition of Concrete/Asphalt Slab	Concrete slab size			3335	SF	$6	$20,010	$20,010			$20,010	$20,010			$20,010			
	Disposal of Concrete/Asphalt Slab	6-inch thick			62	CY	$150	$9,264	$9,264			$9,264	$9,264			$9,264			
	Application of Amendments - Nutrients and possibly bacterial consortium (if required).	based on RRA			11	Ton	$2,000	$22,233	$22,233			$22,233	$22,233			$22,233			
	Procurement and Installation of Irrigation System (Tanks, pumps and sprinkler system)				1	LS	$50,000	$50,000	$50,000			$50,000	$50,000			$50,000			
	Pre-remedial Sampling	VOCs + SVOCs + Metals ; 1 sample per 10,000 SF			31	Sample	$2,000	$62,360	$62,360			$62,360	$62,360			$62,360			
	Soil Sampling and Analysis	Analytical - PAHs: 1 sample per 20 CY			13	Sample	$1,000	$13,000	$13,000			$13,000	$13,000			$13,000			
	Replacement of Concrete/Asphalt Slab	6-inch thick			371	SY	$50	$18,528	$18,528			$18,528	$18,528			$18,528			
	Deed restrictions and legal/administrative costs				1	LS	$105,440	$105,440	$105,440			$105,440	$105,440			$105,440			
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built			1	LS or LOE	$3,208	$3,208	$3,208			$3,208	$3,208			$3,208	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost			1	LS or LOE	$19,858.93	$19,859	$19,859			$19,859	$19,859			$19,859			
17	Third Party Payments					UC		$0	$0			$0	$0			$0	$0	$0	$0
	Bonds	2%			1	%	$6,481	$6,481	$6,481			$6,481	$6,481			$6,481			
	Insurance	0.50%			1	%	$1,620	$1,620	$1,620			$1,620	$1,620			$1,620			
18	NRDs					LS		$0	$0			$0	$0			$0	$0	$0	$0
19	Subtotal							$368,206	$368,206			$368,206	$368,206			$368,206	$0	$0	$0
20	OM&M				Annual											Note: Make sure there are no blanks in these cells. All sh			
21	IC Monitoring and Inspection				1	%, V, or LOE	$125,000	$125,000		$125,000		$36,917		$36,917		$2,500	$2,500	$2,500	$2,500
22	Laboratory					UC		$0		$0		$0		$0		$0	$0	$0	$0
23	Field Activities	Use of tractor and tiller rental			1	UC and LOE	$36,000	$36,000		$36,000		$34,822		$34,822		$18,000	$18,000	$0	$0
24	Materials, Fuels and Treatment Media	Water requirements - 4 quarters per year			48260	UC or V	$0.05	$2,413		$4,826		$4,668		$4,668		$2,413.02	$2,413.02	$0	$0
25	Reporting/Deliverables					LS or LOE		$0		$0		$0		$0		$0	$0	$0	$0
26	Modeling					LOE		$0		$0		$0		$0		$0	$0	$0	$0
27	Total OM&M Costs (Alternative to above sub-topics)				LOE Attached Work Sheet					$0		$0		$0		$0	$0	$0	$0
28	Subtotal									$165,826		$76,408		$76,408		$22,913	$22,913	$2,500	$2,500
29	Project Closure															Note: Make sure there are no blanks in these cells. All sh			
30	Assessments	Assume 5% of Design+Implementation			1	V or UC and LOE	$21,861	$21,861			$21,861	$20,431			$20,431	$0	$21,861	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			1	LS, % or V	$21,861	$21,861			$21,861	$20,431			$20,431	$0	$21,861	$0	$0
32	Subtotal							$43,722			$43,722	$40,862			$40,862	$0	$43,722	$0	$0
33	Project Management[3]																		
34	During Implementation	Assumed			8%	%	Of Remedial Design & Remedy Implementation	$34,978	$34,978			$34,978	$34,978			$34,978	$0	$0	$0
	During OM&M	Assumed			8%	%	Of OM&M	$13,266.08		$13,266		$6,113		$6,113		$1,833	$1,833	$200	$200
	During Closure	Assumed			8%	%	Of Closure	$3,497.77			$3,498	$3,269			$3,269	$0	$3,498	$0	$0
35	Subtotal								$34,978	$13,266	$3,498	$44,359	$34,978	$6,113	$3,269	$36,811	$5,331	$200	$200
36	SUBTOTAL COST OF ELEMENT ESTIMATES								$472,200	$179,092	$47,220	$598,851	$472,200	$82,520	$44,131	$496,946	$71,966	$2,700	$2,700
37	Contingencies	Implementation	OM&M	Closure															
38	Scope (10 to 25%)	12.2%	15%	25%					$57,608	$26,864	$11,805	$81,019	$57,608	$12,378	$11,033				
39	Bid (10 to 20%)	10%	10%	20%					$47,220	$17,909	$9,444	$64,298	$47,220	$8,252	$8,826				
40	Subtotal								$104,828	$44,773	$21,249	$145,317	$104,828	$20,630	$19,859				
41	GRAND TOTAL COST								$577,028	$223,865	$68,469		$577,028	$103,150	$63,990				
42									$869,362			$744,168							
43																			
44	ESCALATED CASH FLOW COSTS (20 YEARS)											$617,512				$496,946	$71,966	$2,700	$2,700

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

Escalation Factor

100% 100% 100% 100%

For use in the CDP analysis	
Capital Cost =	**$641,018 NPV**
OM&M Cost =	**$103,150 NPV**

(no shading)	No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.
(green)	Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by equation.
(yellow)	Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed level estimates.
(gray)	Subtotal or Grand Total lines

LOE	Level Of Effort
LS	Lump Sum
NPV	Net Present Value
NRDs	Natural Resource Damages
OM&M	Operational, Maintenance & Monitoring
UC	Unit Cost
V	Vendor
%	Percent

NOTES:
1 Fill in costs in years that they will occur, costs not required for all 50 years if remedy is completed earlier.
2 Reference to worksheets, etc. that provide any detailed backup.
3 Formulas are set up to calculate project management costs during implementation and OM&M as a percentage of these latter costs. In the event annual costs vary and have been separately estimated, they should be entered directly into the appropriate cells for each year.

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: MRC Block H

LEVEL OF ESTIMATE: Screening ☐ or Detailed ☐

A	B	C	D	E	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO
4	Element	Description (Explain Element as necessary)																						
5					5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
6	**Remedial Design**				hould be filled with equations linking to, and distributing the appropriate total costs in column I, or with zeros.																			
7	Bench/Pilot Testing	Bench-scale testing to ascertain amendment dose.			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Field Investigation				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	Modeling	n/a			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	Reporting/Deliverables				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
13	**Remedy Implementation**				hould be filled with equations linking to, and distributing the appropriate total costs in column I, or with zeros.																			
14	Mobilization				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
15	Implementation				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control																							
	Demolition of Concrete/Asphalt Slab	Concrete slab size																						
	Disposal of Concrete/Asphalt Slab	6-inch thick																						
	Application of Amendments - Nutrients and possibly bacterial consortium (if required).	based on RRA																						
	Procurement and Installation of Irrigation System (Tanks, pumps and sprinkler system)																							
	Pre-remedial Sampling	VOCs + SVOCs + Metals ; 1 sample per 10,000 SF																						
	Soil Sampling and Analysis	Analytical - PAHs: 1 sample per 20 CY																						
	Replacement of Concrete/Asphalt Slab	6-inch thick																						
	Deed restrictions and legal/administrative costs																							
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost																						
17	Third Party Payments				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Bonds	2%																						
	Insurance	0.50%																						
18	NRDs				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
19	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
20	**OM&M**				hould be filled with $ 0's, numbers or equations.																			
21	IC Monitoring and Inspection				$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
22	Laboratory				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
23	Field Activities	Use of tractor and tiller rental			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	Materials, Fuels and Treatment Media	Water requirements - 4 quarters per year			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
25	Reporting/Deliverables				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
26	Modeling				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
27	Total OM&M Costs (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
28	**Subtotal**				**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**
29	**Project Closure**				hould be filled with $ 0's, numbers or equations.																			
30	Assessments	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
32	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
33	**Project Management**[3]																							
34	During Implementation	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	During OM&M	Assumed			$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200
	During Closure	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
35	**Subtotal**				**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**				**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**
37	**Contingencies**	**Implementation**	**OM&M**	**Closure**																				
38	Scope (10 to 25%)	12.2%	15%	25%																				
39	Bid (10 to 20%)	10%	10%	20%																				
40	**Subtotal**																							
41	**GRAND TOTAL COST**																							
42																								
43																								
44	**ESCALATED CASH FLOW COSTS (20 YEARS)**				**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

Escalation Factor																				
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.
Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by
Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed leve
Subtotal or Grand Total lines

LOE	Level Of Effort
LS	Lump Sum
NPV	Net Present Value
NRDs	Natural Resource Damages
OM&M	Operational, Maintenance & Monitoring
UC	Unit Cost
V	Vendor
%	Percent

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: MRC Block H

LEVEL OF ESTIMATE: **Screening ☐ or Detailed ☐**

A	B	C	D	E	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI
4	Element	Description (Explain Element as necessary)																						
5					25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
6	**Remedial Design**																							
7	Bench/Pilot Testing	Bench-scale testing to ascertain amendment dose.			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Field Investigation				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	Modeling	n/a			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	Reporting/Deliverables				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
13	**Remedy Implementation**																							
14	Mobilization				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
15	Implementation				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control																							
	Demolition of Concrete/Asphalt Slab	Concrete slab size																						
	Disposal of Concrete/Asphalt Slab	6-inch thick																						
	Application of Amendments - Nutrients and possibly bacterial consortium (if required).	based on RRA																						
	Procurement and Installation of Irrigation System (Tanks, pumps and sprinkler system)																							
	Pre-remedial Sampling	VOCs + SVOCs + Metals ; 1 sample per 10,000 SF																						
	Soil Sampling and Analysis	Analytical - PAHs: 1 sample per 20 CY																						
	Replacement of Concrete/Asphalt Slab	6-inch thick																						
	Deed restrictions and legal/administrative costs																							
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost																						
17	Third Party Payments				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Bonds	2%																						
	Insurance	0.50%																						
18	NRDs				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
19	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
20	**OM&M**																							
21	IC Monitoring and Inspection				$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
22	Laboratory				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
23	Field Activities	Use of tractor and tiller rental			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	Materials, Fuels and Treatment Media	Water requirements - 4 quarters per year			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
25	Reporting/Deliverables				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
26	Modeling				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
27	Total OM&M Costs (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
28	**Subtotal**				**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**
29	**Project Closure**																							
30	Assessments	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
32	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
33	**Project Management[3]**																							
34	During Implementation	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	During OM&M	Assumed			$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200
	During Closure	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
35	**Subtotal**				**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**				**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**
37	**Contingencies**	**Implementation**	**OM&M**	**Closure**																				
38	Scope (10 to 25%)	12.2%	15%	25%																				
39	Bid (10 to 20%)	10%	10%	20%																				
40	**Subtotal**																							
41	**GRAND TOTAL COST**																							
42																								
43																								
44	**ESCALATED CASH FLOW COSTS (20 YEARS)**				**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

Escalation Factor																				
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

	No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.
	Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by
	Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed leve
	Subtotal or Grand Total lines
LOE	Level Of Effort
LS	Lump Sum
NPV	Net Present Value
NRDs	Natural Resource Damages
OM&M	Operational, Maintenance & Monitoring
UC	Unit Cost
V	Vendor
%	Percent

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: MRC Block H

LEVEL OF ESTIMATE: **Screening ☐ or Detailed ☐**

A	B	C	D	E	BJ	BK	BL	BM	BN	BO
4	Element	Description (Explain Element as necessary)								
5					45	46	47	48	49	50
6	**Remedial Design**									
7	Bench/Pilot Testing	Bench-scale testing to ascertain amendment dose.			$0	$0	$0	$0	$0	$0
8	Field Investigation				$0	$0	$0	$0	$0	$0
9	Modeling	n/a			$0	$0	$0	$0	$0	$0
10	Reporting/Deliverables				$0	$0	$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0
12	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
13	**Remedy Implementation**									
14	Mobilization				$0	$0	$0	$0	$0	$0
15	Implementation				$0	$0	$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control									
	Demolition of Concrete/Asphalt Slab	Concrete slab size								
	Disposal of Concrete/Asphalt Slab	6-inch thick								
	Application of Amendments - Nutrients and possibly bacterial consortium (if required).	based on RRA								
	Procurement and Installation of Irrigation System (Tanks, pumps and sprinkler system)									
	Pre-remedial Sampling	VOCs + SVOCs + Metals ; 1 sample per 10,000 SF								
	Soil Sampling and Analysis	Analytical - PAHs: 1 sample per 20 CY								
	Replacement of Concrete/Asphalt Slab	6-inch thick								
	Deed restrictions and legal/administrative costs									
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built			$0	$0	$0	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost								
17	Third Party Payments				$0	$0	$0	$0	$0	$0
	Bonds	2%								
	Insurance	0.50%								
18	NRDs				$0	$0	$0	$0	$0	$0
19	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
20	**OM&M**									
21	IC Monitoring and Inspection				$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
22	Laboratory				$0	$0	$0	$0	$0	$0
23	Field Activities	Use of tractor and tiller rental			$0	$0	$0	$0	$0	$0
24	Materials, Fuels and Treatment Media	Water requirements - 4 quarters per year			$0	$0	$0	$0	$0	$0
25	Reporting/Deliverables				$0	$0	$0	$0	$0	$0
26	Modeling				$0	$0	$0	$0	$0	$0
27	Total OM&M Costs (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0
28	**Subtotal**				**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**
29	**Project Closure**									
30	Assessments	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0
32	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
33	**Project Management**[3]									
34	During Implementation	Assumed			$0	$0	$0	$0	$0	$0
	During OM&M	Assumed			$200	$200	$200	$200	$200	$200
	During Closure	Assumed			$0	$0	$0	$0	$0	$0
35	**Subtotal**				**$200**	**$200**	**$200**	**$200**	**$200**	**$200**
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**				**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**
37	**Contingencies**	**Implementation**	**OM&M**	**Closure**						
38	Scope (10 to 25%)	12.2%	15%	25%						
39	Bid (10 to 20%)	10%	10%	20%						
40	**Subtotal**									
41	**GRAND TOTAL COST**									
42										
43										
44	**ESCALATED CASH FLOW COSTS (20 YEARS)**				**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

	Escalation Factor	100%	100%	100%	100%	100%	100%

	No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.
	Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by
	Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed leve
	Subtotal or Grand Total lines
LOE	Level Of Effort
LS	Lump Sum
NPV	Net Present Value
NRDs	Natural Resource Damages
OM&M	Operational, Maintenance & Monitoring
UC	Unit Cost
V	Vendor
%	Percent

TEMPLATE 6.3

SITE: MRC Block H

Alternative-6: In situ stabilization of impacted soils based on the RRA to the groundwater table, and institutional controls

DATE: _____August, 2012____________

LEVEL OF ESTIMATE: Screening ☐ or Detailed ☐

DISCOUNT RATE: 7%

COST ESTIMATES FOR REM ON

ESCALATION RATE:

BACKUP REFERENCE[2]: __________________

A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	Q	R	S	T	U
4	Element	Description (Explain Element as necessary)			Qty	Units (Select as appropriate)	$/Unit	Cost Extension $ (F x H)	Cost in Current Dollars (Add costs that have been distributed over 50 years)				Cost in NPV Dollars (NPV costs that have been distributed over 50 years)			Years[1]			
5									Implementation	OM&M	Closure	TOTAL (O+P+Q)	Implementation	OM&M	Closure	1	2	3	4
6	**Remedial Design**															Note: Make sure there are no blanks in these cells. All sh			
7	Bench/Pilot Testing	Bench-scale testing to ascertain stabilization amendment mix			1	LS or V	$15,000	$15,000	$15,000			$15,000	$15,000			$15,000	$0	$0	$0
8	Field Investigation				0	LS or UC and LOE		$0	$0			$0	$0			$0	$0	$0	$0
9	Modeling	n/a			0	LS		$0	$0			$0	$0			$0	$0	$0	$0
10	Reporting/Deliverables				0	LS		$0	$0			$0	$0			$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				15%	%	Of Remedy Implementation (Excluding NRDs)	$49,642.76	$49,643			$49,643	$49,643			$49,643	$0	$0	$0
12	Subtotal							$64,642.764	$64,642.764			$64,643	$64,643			$64,643	$0	$0	$0
13	**Remedy Implementation**															Note: Make sure there are no blanks in these cells. All sh			
14	Mobilization				1	LS or %	$14,893	$14,893	$14,893			$14,893	$14,893			$14,893	$0	$0	$0
15	Implementation					V or UC		$0	$0			$0	$0			$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control				1	LS	$20,000	$20,000	$20,000			$20,000	$20,000			$20,000			
	Demolition of Concrete/Asphalt Slab	Concrete slab size			3335	SF	$6	$20,010	$20,010			$20,010	$20,010			$20,010			
	Disposal of Concrete/Asphalt Slab	6-inch thick			62	CY	$150	$9,264	$9,264			$9,264	$9,264			$9,264			
	Impacted soils (surface and subsurface) stabilization including mixing.	based on RRA			332	CY	$100	$33,189	$33,189			$33,189	$33,189			$33,189			
	Procurement & transportation of Cement.	Assume soils to cement ration of 7:1 by weight			71	Ton	$200	$14,224	$14,224			$14,224	$14,224			$14,224			
	Procurement & transportation - Amendment	other amendments 0.5% by weight			2	Ton	$2,000	$4,978	$4,978			$4,978	$4,978			$4,978			
	Water for stablization	assume 10% by weight			11942	gallons													
	Pre-remedial Sampling	VOCs + SVOCs + Metals ; 1 sample per 10,000 SF			31	Sample	$2,000	$62,360	$62,360			$62,360	$62,360			$62,360			
	Post stabilization attainment sampling	VOCs + SVOCs + Metals ; 1 sample per 50 CY			7	Sample	$1,000	$7,000	$7,000			$7,000	$7,000			$7,000			
	Replacement of Concrete/Asphalt Slab	6-inch thick			371	SY	$50	$18,528	$18,528			$18,528	$18,528			$18,528			
	Deed restrictions and legal/administrative costs				1	LS	$105,440	$105,440	$105,440			$105,440	$105,440			$105,440			
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built			1	LS or LOE	$2,857.29	$2,857	$2,857			$2,857	$2,857			$2,857	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost			1	LS or LOE	$18,208.75	$18,209	$18,209			$18,209	$18,209			$18,209			
17	Third Party Payments					UC		$0	$0			$0	$0			$0	$0	$0	$0
	Bonds	2%			1	%	$5,957	$5,957	$5,957			$5,957	$5,957			$5,957			
	Insurance	0.50%			1	%	$1,489	$1,489	$1,489			$1,489	$1,489			$1,489			
18	NRDs					LS		$0	$0			$0	$0			$0	$0	$0	$0
19	Subtotal							$338,398	$338,398			$338,398	$338,398			$338,398	$0	$0	$0
20	**OM&M**				Annual											Note: Make sure there are no blanks in these cells. All sh			
21	IC Monitoring and Inspection				1	%, V, or LOE	$125,000	$125,000		$125,000		$36,917		$36,917		$2,500	$2,500	$2,500	$2,500
22	Laboratory					UC		$0		$0		$0		$0		$0	$0	$0	$0
23	Field Activities					UC and LOE		$0		$0		$0		$0		$0	$0	$0	$0
24	Materials, Fuels and Treatment Media					UC or V		$0		$0		$0		$0		$0.00	$0.00	$0	$0
25	Reporting/Deliverables					LS or LOE		$0		$0		$0		$0		$0	$0	$0	$0
26	Modeling					LOE		$0		$0		$0		$0		$0	$0	$0	$0
27	Total OM&M Costs (Alternative to above sub-topics)				LOE Attached Work Sheet					$0		$0		$0		$0	$0	$0	$0
28	Subtotal									$125,000		$36,917		$36,917		$2,500	$2,500	$2,500	$2,500
29	**Project Closure**															Note: Make sure there are no blanks in these cells. All sh			
30	Assessments	Assume 5% of Design+Implementation			1	V or UC and LOE	$20,152	$20,152			$20,152	$18,834			$18,834	$0	$20,152	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			1	LS, % or V	$20,152	$20,152			$20,152	$18,834			$18,834	$0	$20,152	$0	$0
32	Subtotal							$40,304			$40,304	$37,667			$37,667	$0	$40,304	$0	$0
33	**Project Management[3]**																		
34	During Implementation	Assumed			8%	%	Of Remedial Design & Remedy Implementation	$32,243	$32,243			$32,243	$32,243			$32,243	$0	$0	$0
	During OM&M	Assumed			8%	%	Of OM&M	$10,000.00		$10,000		$2,953		$2,953		$200	$200	$200	$200
	During Closure	Assumed			8%	%	Of Closure	$3,224.33			$3,224	$3,013			$3,013	$0	$3,224	$0	$0
35	Subtotal								$32,243	$10,000	$3,224	$38,210	$32,243	$2,953	$3,013	$32,443	$3,424	$200	$200
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**								$435,284	$135,000	$43,528	$515,835	$435,284	$39,870	$40,681	$437,984	$46,228	$2,700	$2,700
37	**Contingencies**	**Implementation**	**OM&M**	**Closure**															
38	Scope (10 to 25%)	12.2%	15%	25%					$53,105	$20,250	$10,882	$69,255	$53,105	$5,981	$10,170				
39	Bid (10 to 20%)	10%	10%	20%					$43,528	$13,500	$8,706	$55,652	$43,528	$3,987	$8,136				
40	Subtotal								$96,633	$33,750	$19,588	$124,907	$96,633	$9,968	$18,306				
41	**GRAND TOTAL COST**								$531,917	$168,750	$63,116		$531,917	$49,838	$58,987				
42									$763,783			$640,742		$640,742					
43																			
44	ESCALATED CASH FLOW COSTS (20 YEARS)											$532,812				$437,984	$46,228	$2,700	$2,700
	Escalation Factor															100%	100%	100%	100%

No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.

For use in the CDP analysis
Capital Cost = $590,904 NPV

TEMPLATE 6.3

(green)	Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by equation.
(yellow)	Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed level estimates.
(grey)	Subtotal or Grand Total lines

OM&M Cost = **$49,838 NPV**

COST ESTIMATES FOR REMEDY SELECTION

LOE	Level Of Effort
LS	Lump Sum
NPV	Net Present Value
NRDs	Natural Resource Damages
OM&M	Operational, Maintenance & Monitoring
UC	Unit Cost
V	Vendor
%	Percent

NOTES:

1 Fill in costs in years that they will occur, costs not required for all 50 years if remedy is completed earlier.
2 Reference to worksheets, etc. that provide any detailed backup.
3 Formulas are set up to calculate project management costs during implementation and OM&M as a percentage of these latter costs. In the event annual costs vary and have been separately estimated, they should be entered directly into the appropriate cells for each year.

TEMPLATE 6.3

SITE: MRC Block H

LEVEL OF ESTIMATE: Screening ☐ or Detailed ☐

COST ESTIMATES FOR REMEDY SELECTION

A	B	C	D	E	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO
4	Element	Description (Explain Element as necessary)																						
5					5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
6	**Remedial Design**				ould be filled with equations linking to, and distributing the appropriate total costs in column I, or with zeros.																			
7	Bench/Pilot Testing	Bench-scale testing to ascertain stabilization amendment mix			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Field Investigation				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	Modeling	n/a			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	Reporting/Deliverables				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
13	**Remedy Implementation**				ould be filled with equations linking to, and distributing the appropriate total costs in column I, or with zeros.																			
14	Mobilization				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
15	Implementation				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control																							
	Demolition of Concrete/Asphalt Slab	Concrete slab size																						
	Disposal of Concrete/Asphalt Slab	6-inch thick																						
	Impacted soils (surface and subsurface) stabilization including mixing.	based on RRA																						
	Procurement & transportation of Cement.	Assume soils to cement ration of 7:1 by weight																						
	Procurement & transportation - Amendment	other amendments 0.5% by weight																						
	Water for stablization	assume 10% by weight																						
	Pre-remedial Sampling	VOCs + SVOCs + Metals ; 1 sample per 10,000 SF																						
	Post stabilization attainment sampling	VOCs + SVOCs + Metals ; 1 sample per 50 CY																						
	Replacement of Concrete/Asphalt Slab	6-inch thick																						
	Deed restrictions and legal/administrative costs																							
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost																						
17	Third Party Payments				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Bonds	2%																						
	Insurance	0.50%																						
18	NRDs				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
19	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
20	**OM&M**				ould be filled with $ 0's, numbers or equations.																			
21	IC Monitoring and Inspection				$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
22	Laboratory				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
23	Field Activities				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	Materials, Fuels and Treatment Media				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
25	Reporting/Deliverables				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
26	Modeling				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
27	Total OM&M Costs (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
28	**Subtotal**				**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**
29	**Project Closure**				ould be filled with $ 0's, numbers or equations.																			
30	Assessments	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
32	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
33	**Project Management**[3]																							
34	During Implementation	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	During OM&M	Assumed			$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200
	During Closure	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
35	**Subtotal**				**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**				**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**
37	**Contingencies**	**Implementation**	**OM&M**	**Closure**																				
38	Scope (10 to 25%)	12.2%	15%	25%																				
39	Bid (10 to 20%)	10%	10%	20%																				
40	**Subtotal**																							
41	**GRAND TOTAL COST**																							
42																								
43																								
44	**ESCALATED CASH FLOW COSTS (20 YEARS)**				**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**
	Escalation Factor				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

	Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by
	Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed leve
	Subtotal or Grand Total lines
LOE	Level Of Effort
LS	Lump Sum
NPV	Net Present Value
NRDs	Natural Resource Damages
OM&M	Operational, Maintenance & Monitoring
UC	Unit Cost
V	Vendor
%	Percent

TEMPLATE 6.3

SITE: MRC Block H

LEVEL OF ESTIMATE: Screening ☐ or Detailed ☐

COST ESTIMATES FOR REMEDY SELECTION

A	B	C	D	E	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI
4	Element	Description (Explain Element as necessary)																						
5					25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
6	**Remedial Design**																							
7	Bench/Pilot Testing	Bench-scale testing to ascertain stabilization amendment mix			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Field Investigation				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	Modeling	n/a			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	Reporting/Deliverables				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	Subtotal				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
13	**Remedy Implementation**																							
14	Mobilization				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
15	Implementation				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control																							
	Demolition of Concrete/Asphalt Slab	Concrete slab size																						
	Disposal of Concrete/Asphalt Slab	6-inch thick																						
	Impacted soils (surface and subsurface) stabilization including mixing.	based on RRA																						
	Procurement & transportation of Cement.	Assume soils to cement ration of 7:1 by weight																						
	Procurement & transportation - Amendment	other amendments 0.5% by weight																						
	Water for stablization	assume 10% by weight																						
	Pre-remedial Sampling	VOCs + SVOCs + Metals ; 1 sample per 10,000 SF																						
	Post stabilization attainment sampling	VOCs + SVOCs + Metals ; 1 sample per 50 CY																						
	Replacement of Concrete/Asphalt Slab	6-inch thick																						
	Deed restrictions and legal/administrative costs																							
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost																						
17	Third Party Payments				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Bonds	2%																						
	Insurance	0.50%																						
18	NRDs				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
19	Subtotal				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
20	**OM&M**																							
21	IC Monitoring and Inspection				$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
22	Laboratory				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
23	Field Activities				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	Materials, Fuels and Treatment Media				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
25	Reporting/Deliverables				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
26	Modeling				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
27	Total OM&M Costs (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
28	Subtotal				$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
29	**Project Closure**																							
30	Assessments	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
32	Subtotal				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
33	**Project Management[3]**																							
34	During Implementation	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	During OM&M	Assumed			$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200
	During Closure	Assumed			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
35	Subtotal				$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**				$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700
37	**Contingencies**	Implementation	OM&M	Closure																				
38	Scope (10 to 25%)	12.2%	15%	25%																				
39	Bid (10 to 20%)	10%	10%	20%																				
40	Subtotal																							
41	**GRAND TOTAL COST**																							
42																								
43																								
44	ESCALATED CASH FLOW COSTS (20 YEARS)				$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700	$2,700
	Escalation Factor				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

	Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by
	Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed leve
	Subtotal or Grand Total lines
LOE	Level Of Effort
LS	Lump Sum
NPV	Net Present Value
NRDs	Natural Resource Damages
OM&M	Operational, Maintenance & Monitoring
UC	Unit Cost
V	Vendor
%	Percent

TEMPLATE 6.3

SITE: MRC Block H

LEVEL OF ESTIMATE: Screening ☐ or Detailed ☐

COST ESTIMATES FOR REMEDY SELECTION

A	B	C	D	E	BJ	BK	BL	BM	BN	BO
4	Element	Description (Explain Element as necessary)								
5					45	46	47	48	49	50
6	**Remedial Design**									
7	Bench/Pilot Testing	Bench-scale testing to ascertain stabilization amendment mix			$0	$0	$0	$0	$0	$0
8	Field Investigation				$0	$0	$0	$0	$0	$0
9	Modeling	n/a			$0	$0	$0	$0	$0	$0
10	Reporting/Deliverables				$0	$0	$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0
12	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
13	**Remedy Implementation**									
14	Mobilization				$0	$0	$0	$0	$0	$0
15	Implementation				$0	$0	$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control									
	Demolition of Concrete/Asphalt Slab	Concrete slab size								
	Disposal of Concrete/Asphalt Slab	6-inch thick								
	Impacted soils (surface and subsurface) stabilization including mixing.	based on RRA								
	Procurement & transportation of Cement.	Assume soils to cement ration of 7:1 by weight								
	Procurement & transportation - Amendment	other amendments 0.5% by weight								
	Water for stablization	assume 10% by weight								
	Pre-remedial Sampling	VOCs + SVOCs + Metals ; 1 sample per 10,000 SF								
	Post stabilization attainment sampling	VOCs + SVOCs + Metals ; 1 sample per 50 CY								
	Replacement of Concrete/Asphalt Slab	6-inch thick								
	Deed restrictions and legal/administrative costs									
16	Reporting/Deliverables	Contractor submittals, pre/post-construction surveying, as-built			$0	$0	$0	$0	$0	$0
	Sale Tax	Maryland sales tax (6%) applied to Remedy Implementation excluding disposal cost								
17	Third Party Payments				$0	$0	$0	$0	$0	$0
	Bonds	2%								
	Insurance	0.50%								
18	NRDs				$0	$0	$0	$0	$0	$0
19	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
20	**OM&M**									
21	IC Monitoring and Inspection				$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
22	Laboratory				$0	$0	$0	$0	$0	$0
23	Field Activities				$0	$0	$0	$0	$0	$0
24	Materials, Fuels and Treatment Media				$0	$0	$0	$0	$0	$0
25	Reporting/Deliverables				$0	$0	$0	$0	$0	$0
26	Modeling				$0	$0	$0	$0	$0	$0
27	Total OM&M Costs (Alternative to above sub-topics)				$0	$0	$0	$0	$0	$0
28	**Subtotal**				**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**
29	**Project Closure**									
30	Assessments	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0
31	Decommissioning	Assume 5% of Design+Implementation			$0	$0	$0	$0	$0	$0
32	**Subtotal**				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
33	**Project Management[3]**									
34	During Implementation	Assumed			$0	$0	$0	$0	$0	$0
	During OM&M	Assumed			$200	$200	$200	$200	$200	$200
	During Closure	Assumed			$0	$0	$0	$0	$0	$0
35	**Subtotal**				**$200**	**$200**	**$200**	**$200**	**$200**	**$200**
36	**SUBTOTAL COST OF ELEMENT ESTIMATES**				**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**
37	**Contingencies**	**Implementation**	**OM&M**	**Closure**						
38	Scope (10 to 25%)	12.2%	15%	25%						
39	Bid (10 to 20%)	10%	10%	20%						
40	**Subtotal**									
41	**GRAND TOTAL COST**									
42										
43										
44	**ESCALATED CASH FLOW COSTS (20 YEARS)**				**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**
	Escalation Factor				100%	100%	100%	100%	100%	100%

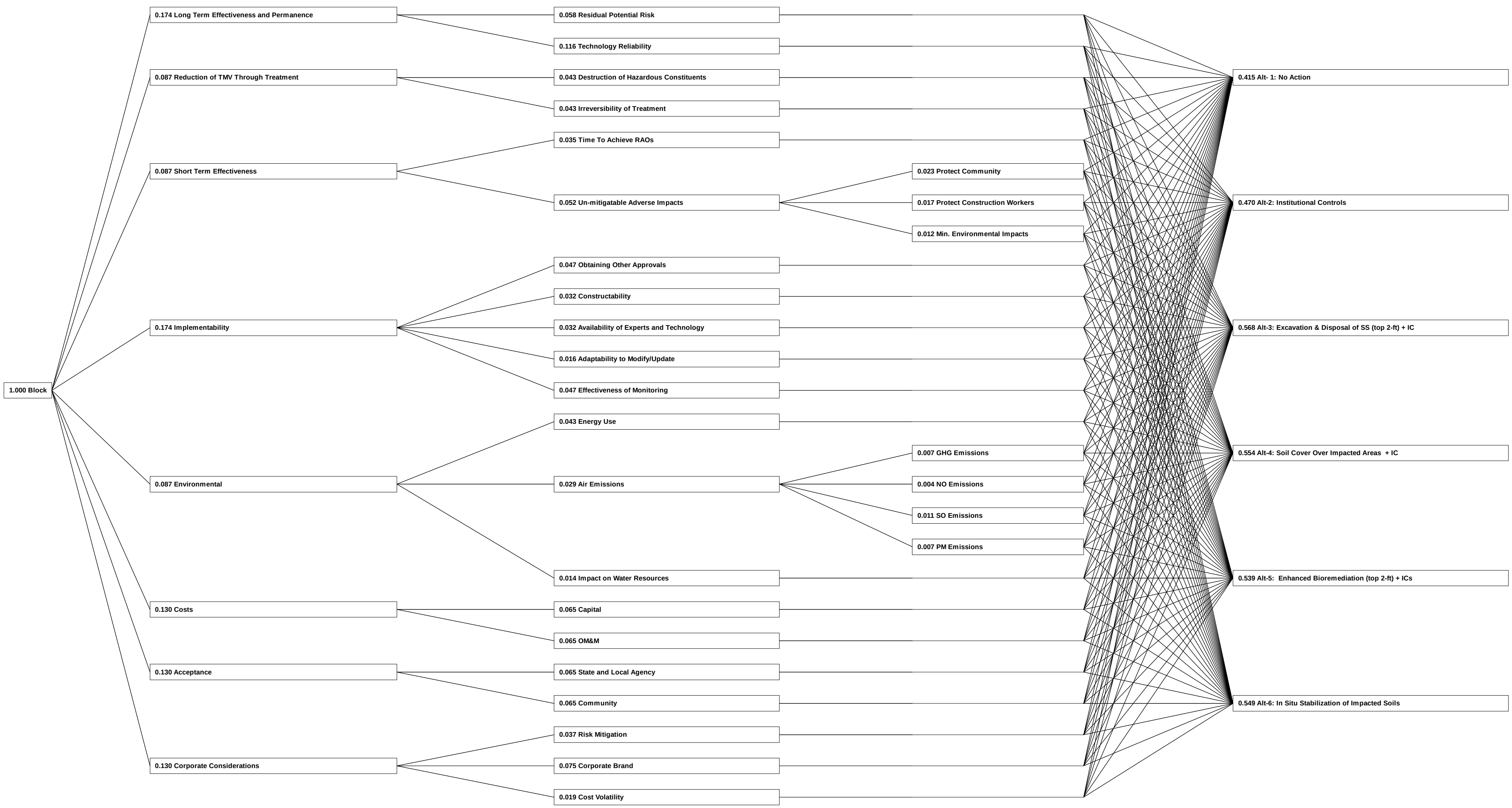
No shading indicates a cell that does NOT need to be changed and contains a standard formula and value.

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

	Cells that require input for specific site; either entered directly into the cell or pulled in from an attached worksheets by
	Items that will only be included if cost is significantly different for the various Alternatives and only for the detailed leve
	Subtotal or Grand Total lines
LOE	Level Of Effort
LS	Lump Sum
NPV	Net Present Value
NRDs	Natural Resource Damages
OM&M	Operational, Maintenance & Monitoring
UC	Unit Cost
V	Vendor
%	Percent

APPENDIX I—*CRITERIUM® DECISIONPLUS®* ANALYSIS

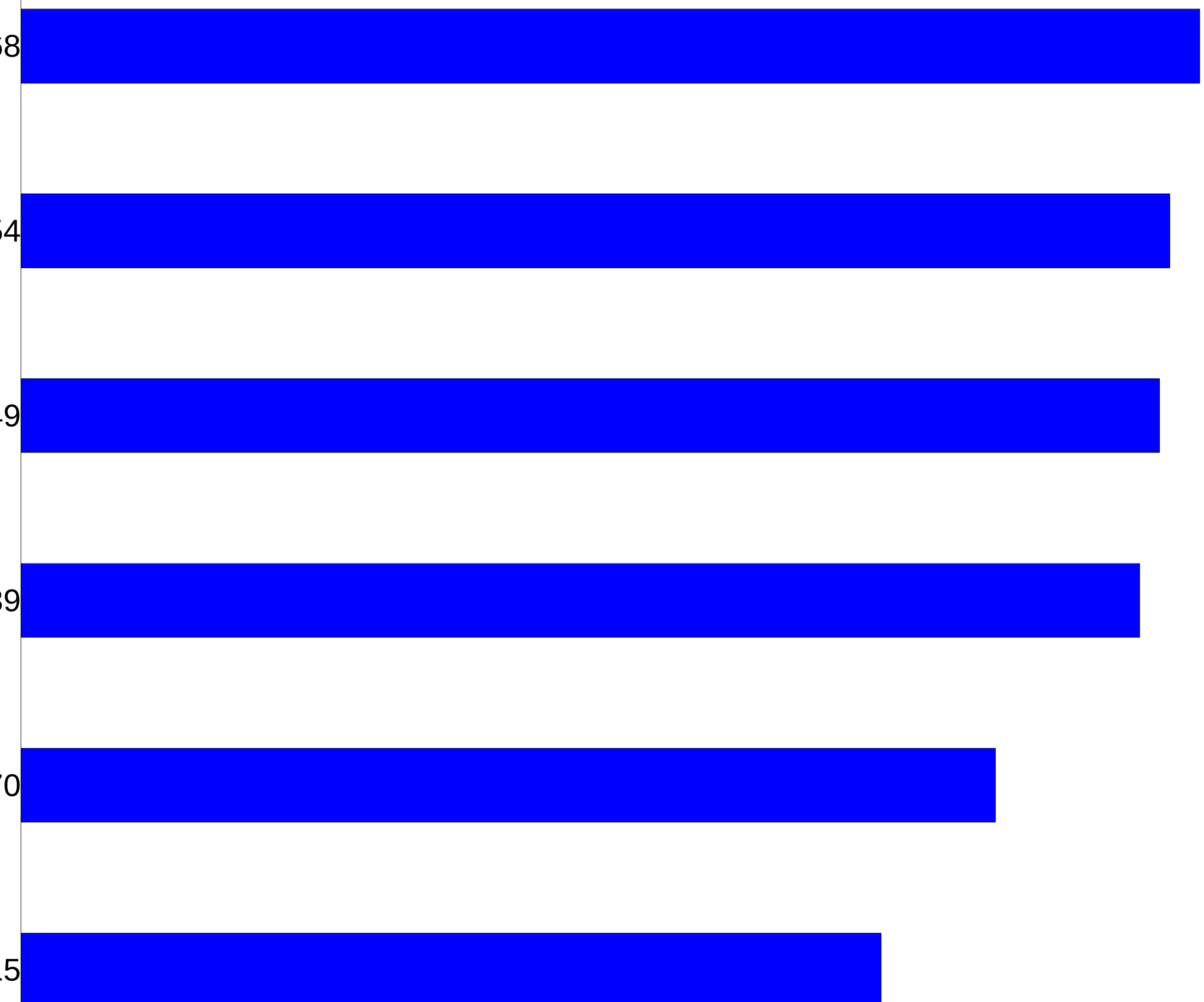

1.000 Block
0.174 Long Term Effectiveness and Permanence
0.087 Reduction of TMV Through Treatment
0.087 Short Term Effectiveness
0.174 Implementability
0.087 Environmental
0.130 Costs
0.130 Acceptance
0.130 Corporate Considerations
0.058 Residual Potential Risk
0.116 Technology Reliability
0.043 Destruction of Hazardous Constituents
0.043 Irreversibility of Treatment
0.035 Time To Achieve RAOs
0.052 Un-mitigatable Adverse Impacts
0.023 Protect Community
0.017 Protect Construction Workers
0.012 Min. Environmental Impacts
0.047 Obtaining Other Approvals
0.032 Constructability
0.032 Availability of Experts and Technology
0.016 Adaptability to Modify/Update
0.047 Effectiveness of Monitoring
0.043 Energy Use
0.029 Air Emissions
0.007 GHG Emissions
0.004 NO Emissions
0.011 SO Emissions
0.007 PM Emissions
0.014 Impact on Water Resources
0.065 Capital
0.065 OM&M
0.065 State and Local Agency
0.065 Community
0.037 Risk Mitigation
0.075 Corporate Brand
0.019 Cost Volatility
0.415 Alt- 1: No Action
0.470 Alt-2: Institutional Controls
0.568 Alt-3: Excavation & Disposal of SS (top 2-ft) + IC
0.554 Alt-4: Soil Cover Over Impacted Areas + IC
0.539 Alt-5: Enhanced Bioremediation (top 2-ft) + ICs
0.549 Alt-6: In Situ Stabilization of Impacted Soils

Goal Level	Weights	Rating Set	No Level Name	Weights	Rating Set
Block H	100.00	Long Term Effectiveness and Per	Long Term Effectiveness and Per	50.00	Residual Potential Risk
	50.00	Reduction of TMV Through Treat		100.00	Technology Reliability
	50.00	Short Term Effectiveness	Reduction of TMV Through Treat	50.00	Destruction of Hazardous Con
	100.00	Implementability		50.00	Irreversibility of Treatment
	50.00	Environmental	Short Term Effectiveness	50.00	Time To Achieve RAOs
	75.00	Costs		75.00	Un-mitigatable Adverse Impacts
	75.00	Acceptance	Implementability	75.00	Obtaining Other Approvals
	75.00	Corporate Considerations		50.00	Constructability
				50.00	Availability of Experts and Tec
				25.00	Adaptability to Modify/Update
				75.00	Effectiveness of Monitoring
			Environmental	75.00	Energy Use
				50.00	Air Emissions
				25.00	Impact on Water Resources
			Costs	50.00	Capital
				50.00	OM&M
			Acceptance	50.00	State and Local Agency
				50.00	Community
			Corporate Considerations	50.00	Risk Mitigation
				100.00	Corporate Brand
				25.00	Cost Volatility

Level 2	Weights	Rating Set	Attributes	Alt- 1: No Acti	Alt-2: Institutional	Alt-3: Excavation
Residual Potential Risk		Alternatives	Residual Potential Risk	0.00	3.00	7.00
Technology Reliability		Alternatives	Technology Reliability	0.00	7.00	9.00
Destruction of Hazardous Con		Alternatives	Destruction of Hazardous Con	0.00	0.00	0.00
Irreversibility of Treatment		Alternatives	Irreversibility of Treatment	0.00	0.00	8.00
Time To Achieve RAOs		Alternatives	Time To Achieve RAOs	0.00	0.00	9.00
Un-mitigatable Adverse Impacts	100.00	Protect Community	Protect Community	10.00	10.00	5.00
	75.00	Protect Construction W	Protect Construction Workers	10.00	10.00	3.00
	50.00	Min. Environmental Imp	Min. Environmental Impacts	10.00	10.00	3.00
Obtaining Other Approvals		Alternatives	Obtaining Other Approvals	10.00	8.00	6.00
Constructability		Alternatives	Constructability	10.00	10.00	8.00
Availability of Experts and Tec		Alternatives	Availability of Experts and Tec	10.00	10.00	10.00
Adaptability to Modify/Update		Alternatives	Adaptability to Modify/Update	10.00	10.00	8.00
Effectiveness of Monitoring		Alternatives	Effectiveness of Monitoring	0.00	2.00	6.00
Energy Use		Alternatives	Energy Use	10.00	9.70	1.60
Air Emissions	50.00	GHG Emissions	GHG Emissions	10.00	9.60	4.20
	25.00	NO Emissions	NO Emissions	10.00	10.00	9.90
	75.00	SO Emissions	SO Emissions	10.00	10.00	0.00
	50.00	PM Emissions	PM Emissions	10.00	10.00	0.00
Impact on Water Resources		Alternatives	Impact on Water Resources	10.00	10.00	10.00
Capital		Alternatives	Capital	10.00	1.90	1.50
OM&M		Alternatives	OM&M	10.00	6.40	0.90
State and Local Agency		Alternatives	State and Local Agency	0.00	3.00	8.00
Community		Alternatives	Community	0.00	0.00	7.00
Risk Mitigation		Alternatives	Risk Mitigation	0.00	2.00	4.00
Corporate Brand		Alternatives	Corporate Brand	0.00	1.00	6.00
Cost Volatility		Alternatives	Cost Volatility	10.00	10.00	5.00

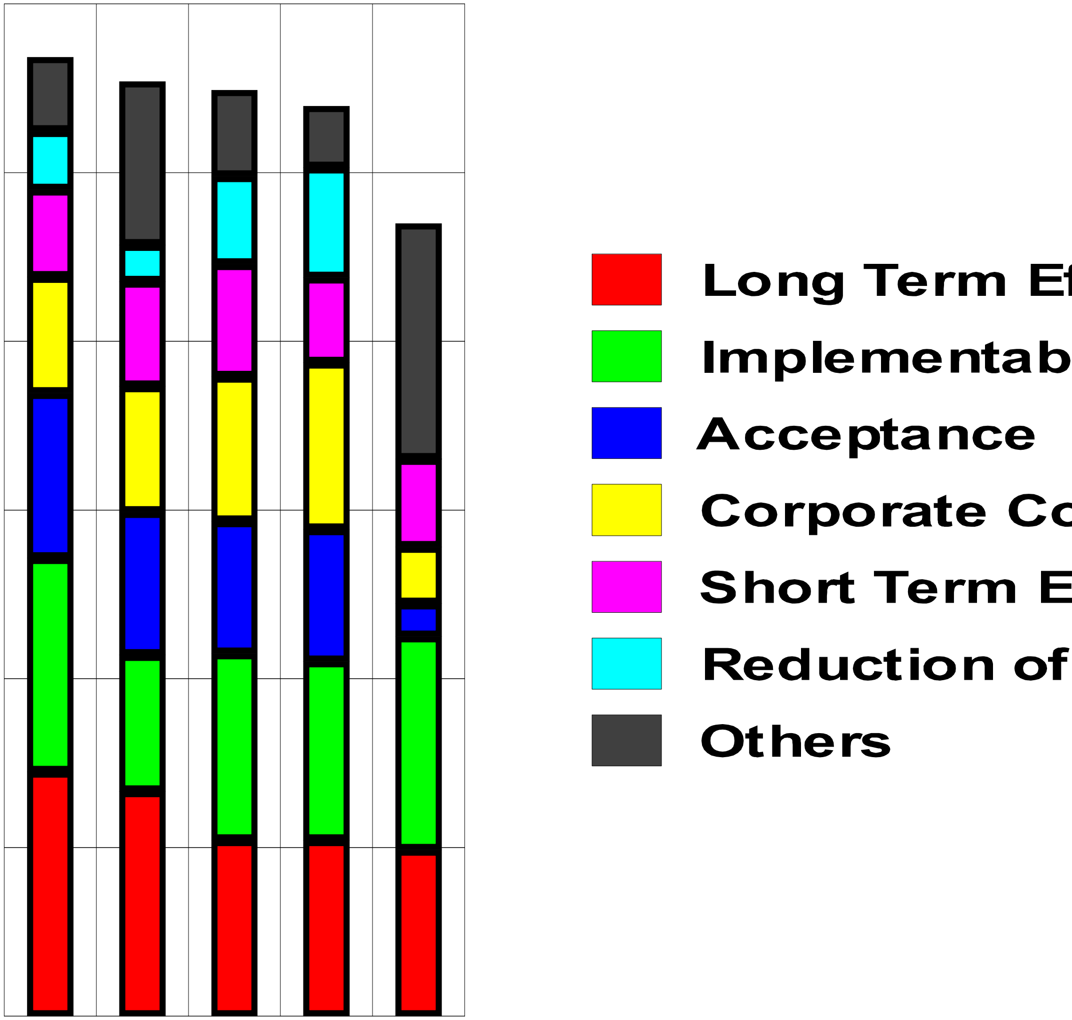
Alt-4: Soil Cover O	Alt-5: Enhanced B	Alt-6: In Situ Stabil
5.00	6.00	6.00
9.00	6.00	6.00
0.00	7.00	7.00
5.00	8.00	5.00
9.00	4.00	8.00
7.00	7.00	8.00
5.00	7.00	7.00
5.00	7.00	7.00
3.00	6.00	7.00
3.00	7.00	7.00
10.00	5.00	5.00
4.00	7.00	7.00
4.00	6.00	6.00
7.40	5.50	0.00
7.10	6.10	0.00
9.90	0.00	10.00
4.50	4.20	5.80
3.70	4.80	4.90
10.00	0.00	7.90
2.80	0.00	2.80
2.40	0.00	1.20
8.00	6.00	6.00
5.00	6.00	6.00
4.00	8.00	7.00
6.00	8.00	6.00
8.00	5.00	8.00

Alternatives	Value	Decision Scores
Alt-3: Excavation & Dis	0.568	
Alt-4: Soil Cover Over I	0.554	
Alt-6: In Situ Stabilizati	0.549	
Alt-5: Enhanced Biore	0.539	
Alt-2: Institutional Contr	0.470	
Alt- 1: No Action	0.415	



Attribute	Alt- 1: No Acti	Alt-2: Instituti	Alt-3: Excavat	Alt-4: Soil Co	Alt-5: Enhanc	Alt-6: In Situ	Model Weights
Impact on Water Resources	1.000	1.000	1.000	1.000	0.000	0.790	0.014
Energy Use	1.000	0.970	0.160	0.740	0.550	0.000	0.043
Constructability	1.000	1.000	0.800	0.300	0.700	0.700	0.032
Obtaining Other Approvals	1.000	0.800	0.600	0.300	0.600	0.700	0.047
NO Emissions	1.000	1.000	0.990	0.990	0.000	1.000	0.004
Availability of Experts and Technology	1.000	1.000	1.000	1.000	0.500	0.500	0.032
Irreversibility of Treatment	0.000	0.000	0.800	0.500	0.800	0.500	0.043
State and Local Agency	0.000	0.300	0.800	0.800	0.600	0.600	0.065
Residual Potential Risk	0.000	0.300	0.700	0.500	0.600	0.600	0.058
Cost Volatility	1.000	1.000	0.500	0.800	0.500	0.800	0.019
GHG Emissions	1.000	0.960	0.420	0.710	0.610	0.000	0.007
Adaptability to Modify/Update	1.000	1.000	0.800	0.400	0.700	0.700	0.016
Community	0.000	0.000	0.700	0.500	0.600	0.600	0.065
Min. Environmental Impacts	1.000	1.000	0.300	0.500	0.700	0.700	0.012
PM Emissions	1.000	1.000	0.000	0.370	0.480	0.490	0.007
OM&M	1.000	0.640	0.090	0.240	0.000	0.120	0.065
Time To Achieve RAOs	0.000	0.000	0.900	0.900	0.400	0.800	0.035
Capital	1.000	0.190	0.150	0.280	0.000	0.280	0.065
Risk Mitigation	0.000	0.200	0.400	0.400	0.800	0.700	0.037
Technology Reliability	0.000	0.700	0.900	0.900	0.600	0.600	0.116
SO Emissions	1.000	1.000	0.000	0.450	0.420	0.580	0.011
Destruction of Hazardous Constituents	0.000	0.000	0.000	0.000	0.700	0.700	0.043
Corporate Brand	0.000	0.100	0.600	0.600	0.800	0.600	0.075
Protect Community	1.000	1.000	0.500	0.700	0.700	0.800	0.023
Effectiveness of Monitoring	0.000	0.200	0.600	0.400	0.600	0.600	0.047
Protect Construction Workers	1.000	1.000	0.300	0.500	0.700	0.700	0.017
Results	0.415	0.470	0.568	0.554	0.539	0.549	

Contributions to Block H from Level:



APPENDIX J—PERMITS

Regulation/Statute	Permit	Applicability	Permit Process	Cost	Approval Time	Duration	Link	Agency	Contact
Section 404 Clean Water Act (33 United States Code [USC] 1344) United States Army Corps of Engineers (USACE) Regulations 33 Code of Federal Regulations (CFR) Part 320-330	Maryland State Programmatic General Permit (MDSPGP-4) or Individual Department of the Army (DA) Permit - Note: Part of "Joint Federal/State Application for the Alteration of any Floodplain, Waterway, Tidal or Nontidal Wetland in Maryland" application.	Fill of Waters of the U.S. including non-tidal wetlands and waters and tidal wetlands and waters including all areas below the Mean High Water or landward extent of tidal wetlands	Complete the Joint Application for alteration "of any Floodplain, Waterway, Tidal or Nontidal Wetland in Maryland" application. 2) Mail the original plus four copies of the application, plans, vicinity maps and any supporting documentation to: Regulatory Services Coordination (RSC) Office Maryland Department of the Environment (MDE), Water Management Administration 1800 Washington Boulevard, Suite 430 Baltimore, Maryland 21230-1708 3) Upon receipt of the application package, the RSC will determine what type of permit is necessary and will forward the application to the appropriate governmental agencies. The RSC receives applications for the Nontidal Wetlands and Waterways Division, Tidal Wetlands Division, and Dam Safety Division of the Maryland Department of the Environment, as well as the USACE. The Department conducts the review in cooperation with local, state, and federal agencies. Although the Department often coordinates with local governments on specific applications, it is the applicant's responsibility to obtain all local approvals for the project. 4) Depending on the nature of the project, it may be advertised for comment and an opportunity for a public informational hearing. The applicant may be required to notify adjacent property owners. 5) The Department may perform a site evaluation. 6) At the conclusion of the review process, the Department will make a decision on the application. Upon receipt of final construction plans, a permit or license is issued by the Department. In some instances, a license may be issued by the Maryland Board of Public Works (BPW) based on a recommendation from the Department	No Fee	Minor projects - 6 to 9 months Major projects - 12 months Minor Projects: Projects that involve less than 1 acre and/or 2,000 lf of stream for non-tidal and less than 1/2 acre and less than 400 cy of fill in tidal wetlands/waters. Minor projects are not placed on public notice. Major Projects: Projects that propose permanent impacts to: construct, reconstruct a reservoir, dam or other waterway obstruction; construct a waterway; or, dredge, fill, bulkhead or change the shoreline. Major projects are placed on public notice.	Maximum of five years and may be extended for an additional five years. Construction must be initiated within three years.	http://www.nab.usace.army.mil/Wetlands%20Permits/permits.htm	United States Army Corps of Engineers (USACE) and United States Environmental Protection Agency (USEPA)	Jon Romeo (410) 962-6079 or jon.romeo@usace.army.mil
USACE – Section 10 Rivers and Harbors Act - 33 USC 401, et seq	Maryland State Programmatic General Permit (MDSPGP-4) or Individual DA Permit - Note: Part of "Joint Federal/State Application for the Alteration of any Floodplain, Waterway, Tidal or Nontidal Wetland in Maryland" application.	Impacts including dredge and fill of navigable waters from Mean High Water Line Seaward	See above	No Fee	See above	See above	http://www.nab.usace.army.mil/Wetlands%20Permits/permits.htm	USACE and EPA	Jon Romeo (410) 962-6079 or jon.romeo@usace.army.mil

Appendix J
Permit List
Block H Soil Remedial Action Plan
Lockheed Martin Middle River Complex, Middle River, Maryland

Regulation/Statute	Permit	Applicability	Permit Process	Cost	Approval Time	Duration	Link	Agency	Contact
MDE Tidal Wetlands Protection Act – Environment Article 16 of the Annotated Code of Maryland Regulation (COMAR) 26.24	Maryland State Programmatic General Permit (MDSPGP-4) or Tidal Wetland License - Note: Part of "Joint Federal/State Application for the Alteration of any Floodplain, Waterway, Tidal or Nontidal Wetland in Maryland" application.	The following activities in tidal wetlands/waters are regulated by the Department: • Filling of open water and vegetated wetlands • Construction of piers, bulkheads, revetments • Dredging • Marsh establishmentAlteration of Non-tidal Wetlands and other Jurisdictional Waters of the State	See above	A fee of up to $1000 may be assessed by the BPW, depending on the purpose of the project.	See above	Maximum of 3 years	http://www.mde.state.md.us/programs/Water/WetlandsandWaterways/PermitsandApplications/Pages/Programs/WaterPrograms/Wetlands_Waterways/permits_applications/tidal_permits.aspx	MDE Wetlands/Waterways Division	Robert Rushlow - 410-537-4023
Section 106 of the National Historic Preservation Act (Public Law 89-665; 16 U.S.C. 470 et seq)	Maryland Heritage Trust (MHT) Review and Approval is required to comply with the conditions of the MDSPGP-4 or Individual DA Permit	Section 106 regulates any direct or indirect effects on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register	Section 404 permitting triggers the need for review of the project by the Maryland Heritage Trust. If the MHT determineds that the project will have "no effect" on listed or eligible sites no further action will be required. If the MHT determines that an impact would occur avoidance, minimization, or potential mitigation measures will need to be employed	No Fee	Approximately one month	3 years	http://mht.maryland.gov/projectreview.html	Maryland Heritage Trust	Beth Cole (410) 514-7631 bcole@mdp.state.md.us
Section 7 of the Federal Endangered Species Act (ESA)	United States Fish and Wildlife Service (USFWS) review and (potentially) consultation is required to comply with the conditions of the MDSPGP-4 or Individual DA Permit	Section 7 of the ESA requires federal agencies to evaluate potential impacts on listed species and/or habitat as a result of issuance of a federal permit including a Section 404 MDSPGP-4 or Individual DA permit	Review request letter is submitted to the USFWS to request information on listed species/habitat in the proejct area. If the USACE/Lockheed determine that there is potential impacts on listed species/habitat an evaluation and preliminary determination of affect is prepared and submitted to the USFWS for concurrence. If the project will have either a "no affect" or "may affect, but not likely to adversely affect" determination then informal consultation is concluded and no further action is required. If the project will have an adverse affect formal consultation with the USFWS must be initiated to acquire an incidental take permit	No Fee	3 months for informal consultation and up to 18 months for formal consultation	5 years	http://www.fws.gov/chesapeakebay/EndSppWeb/ELEMENTS/ProjReview.html	United States Fish and Wildlife Service	Cherry Keller 410/573 4532 cherry_keller@fws.gov
NOAA Fisheries review Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act	NOAA Fisheries review and (potentially) consultation is required to comply with the conditions of the MDSPGP-4 or Individual DA Permit	MSA requires federal agencies to evaluate potential impacts on listed species and/or habitat as a result of issuance of a federal permit including a Section 404 MDSPGP-4 or Individual DA permit	Review request letter is submitted to National Oceanic and Atmospheric Administration (NOAA) Fisheries to request information on listed species and EFH in the proejct area. If NOAA/Lockheed determine that there is potential impacts on listed species/habitat an evaluation and preliminary determination of affect is prepared and submitted to NOAA for concurrence. If the project will have either a "no affect" or "may affect, but not likely to adversely affect" determination then informal consultation is concluded and no further action is required. If the project will have an adverse affect formal consultation with NOAA must be initiated to acquire approval	No Fee	3 months for informal consultation and up to 18 months for formal consultation	5 years		NOAA Fisheries	

Regulation/Statute	Permit	Applicability	Permit Process	Cost	Approval Time	Duration	Link	Agency	Contact
Maryland Nongame and Endangered Species Conservation Act (Annotated Code of Maryland 10-2A-01; also, Code of Maryland Regulations 08.03.08	Maryland Department of Natural Resources (DNR) Review and Approval to comply with the requirements of the MDSPGP-4 or Individual DA Permit	Potential impacts to state listed species need to be evaluated as part of the Joint Permit Application review process	Review request letter is submitted to DNR to request information on listed species in the proejct area. If DNR/Lockheed determine that there is potential impacts on listed species/habitat an evaluation and preliminary determination of affect is prepared and submitted to DNR for concurrence. If the project will have either a "no affect" determination then the review is concluded and no further action is required. If the project will have an adverse affect avoidance, minimization, and possibly mitigation measures may be required to acquire approval	No Fee	3 months	N/A	http://www.dnr.state.md.us/wildlife/Habitat/er.asp	Maryland Department of Natural Resources	Lori Byrne Phone: 410-260-8573
Chesapeake Bay Critical Area Act, Title 8, Subtitle 18 of the Natural Resources Article of the Annotated Code of Maryland – Also, Maryland Critical Area Regulations for Development in the Critical Area Resulting from State Programs are found in Title 27, Subtitle 02 of the Code of Maryland Regulations (COMAR).	Critical Area Plan and Notification	Chesapeake Bay Critical Area consists of all land within 1,000 feet of mean high tidal waters or the edge of tidal wetlands. Land use must follow criteria specific to that category of land. Furthermore, land within 100 feet of mean high tidal waters or the edge of tidal wetlands is considered to be the Tidal Buffer, {COMAR 27.01.09.01}. Impacts to regulated features within the critical area such as the Tidal Buffer or forested areas must be mitigated as necessary. At the conclusion of the review process, the Department will make a decision on the application	"Prior to submission of a project to the Critical Area Commission ,the following requirements must be completed: Public notice of the project was published for one business day in a newspaper of general circulation in the geographic area in which the proposed development would occur; At least 14 days were provided for public comment in the local jurisdiction in which the proposed development would occur; and The affected land was posted in accordance with the posting requirements in COMAR 27.03.01.03 D.Critical Area Project Notification Applications are submitted for review and approval by the BC DEPRM. A Critical Area Project Notification Application must be submitted for sites wholly or partially within IDAs in which the land disturbance is at least15,000 square feet .Necessary Critical Area Project Notification Application content includes the application, site plans with Buffer areas and other Habitat Protection Features shown (as applicable) on each plan,site maps with Critical Area and 100-year floodplain boundaries indicated, acreage of IDA, LDA, RCA areas, acreage of disturbed area, pre- and post-work impervious surface area, and pre- and post-work woodland/trees area."	No Fee	A Critical Area Project Notification Application will be sent for BC DEPRM review at the same time that the Erosion and Sediment Control Plan and Stormwater Management Plan are submitted for review. The time of review by the BC DEPRM is expected to be similar to the review periods for the Erosion and Sediment Control Plan and Stormwater Management Plans.	Two years plus any applicable extension	http://www.baltimorecountymd.gov/Agencies/environment/eir/index.html	Baltimore County Department of Environmental Protection and Sustainability Environmental Impact Review	Regina Esslinger 410-887-3980
Utility Clearance	N/A	Miss Utility for Maryland will be notified (1- 800-257-7777, www.missutility.net) at least 48 hours, but not more than 10 working days, before any excavation or well drilling activities are conducted	N/A	No Fee	N/A	10 Working Days		N/A	Miss Utility of Maryland 800-257-7777

Regulation/Statute	Permit	Applicability	Permit Process	Cost	Approval Time	Duration	Link	Agency	Contact
MDE/Baltimore County – Well Construction Permit		A well construction permit is required before installing any well that will explore for water, obtain or monitor ground water, or inject water into any underground formation from which ground water may be produced. The well construction permit is obtained by the well driller from the local health department	Permits are obtained through a well driller licensed in the State of Maryland	Environment Article Section 9-1307 allows up to $160 per permit. Each county establishes the fee, but may not exceed $160 per permit. Baltimore County indicates cost of $80 per permit.	30 days (This may vary depending on the local health department.)				MDE - Barry Glotfelty Delegated Program Section bglotfelty@mde.state.md.us (410) 537-3784
Baltimore County – Building Permits	Baltimore County – Building Permits	A well construction permit is required before installing any well that will explore for water, obtain or monitor ground water, or inject water into any underground formation from which ground water may be produced. The well construction permit is obtained by the well driller from the local health department" "Any time a building greater than 100 square feet in size is erected, altered, added to, or demolished, a permit is required. Building permits also are required for piers, bulkheads, retaining walls, swimming pools over 250 square feet, fences over 42 inches high, and accessory buildings	Develop and submit a site plan (two to ten copies, depending on the type of work) drawn to scale and showing what is to be built and how it is to be situated on the property. Construction plans (two sets) are required for buildings over 1,000 square feet and additions over 600 square feet. Commercial permit applications require a Plan Review Data Sheet (three copies). Major work and commercial work requires these plans be sealed by an architect or engineer. The tax account number of the property will also be required		Up to 30 days				Building Permit Processing Bureau 410-887-3900

Regulation/Statute	Permit	Applicability	Permit Process	Cost	Approval Time	Duration	Link	Agency	Contact
Section 402 Clean Water Act (33 U.S.C. 1342) and 40 CFR 122.26; Maryland Environment Article, Title 9, Subtitle 3: COMAR 26.08.04	Notice of Intent for Coverage under the Construction General Permit for Stormwater	Required for all construction activity in Maryland with a planned total disturbance of 1 acre or more. Conditions of the permit include compliance with approved erosion/sediment control and stormwater management plans, compliance with water quality standards and TMDLs, self-monitoring and record keeping.	1) Obtain an application form for an individual permit at the website below or by calling the Department at (410)537-3510. Complete the form and mail with payment to: MDE, Water Management Administration P.O. Box 2057 Baltimore, MD 21203-2057 The individual permit can be submitted any time prior to the start of construction activity, but note that the permit issuance process takes 60 to 90 days, and may take longer in some instances. 2) The Department reviews the application to insure completion. 3) The Department then places the NOI on the publicly available database. 4) Following the public database posting period and submission to the department of the approval for erosion and sediment control from the SCD, the Department then sends the applicant a package which includes a letter verifying coverage and issuing the project a unique permit number, a copy of the individual permit, and a receipt card which must be posted at the site.	1 to less than 10 acres - $100 10 to less than 15 acres - $500 15 to less than 20 acres - $1,500 20 acres or more - $2,500	At least 60 to 90 days	Expires five years from the date the permit is issued to the project or until a Notice of Termination has been completed	http://www.mde.state.md.us/programs/Permits/WaterManagementPermits/WaterDischargePermitApplications/Pages/permits/watermanagementpermits/water_applications/gp_construction.aspx	Maryland Department of the Environment	Karen Smith ksmith@mde.state.md .us Phone: (410) 537-3510
Section 1.04 of the Code of the Baltimore County Regulations (COBAR) Baltimore County Grading Permit (Baltimore County Code 33-4 and 33-5; COMAR 26.17.01 and 26.17.02)	Grading Plan approval. Also requires approval or variance from stormwater management from Baltimore County and approval of E&S plans from Baltimore County Soil Conservation District	If the proposed grading disturbs over 5,000 square feet of surface area or over 100 cubic yards of fill material is utilized, a permit is required. As a condition of grading permit issuance, a Stormwater Management Plan (see below) will be submitted to Baltimore County for review and approval as well as erosion and sediment control approval from SCD.	To acquire the grading permit for the MRC site, a combined Grading Plan and Erosion and Sediment Control Plan will be submitted for review and approval by the Baltimore County Soil Conservation District (BC SCD). Per BCC 33-5-202(b)(1) and COMAR 26.17.01.05F, the grading permit application must include the approved Grading Plan and the approved Erosion and Sediment Control Plan. Additionally, a grading permit may notbe issued for any site unless a performance security has been posted, an environmental agreement has been executed, and a Stormwater Management Plan has either been approved or an exemption, waiver, or variance for the Stormwater Management Plan has been granted (BCC 33-4-108).Necessary grading plan content includes the site plan and vicinity maps, limits of disturbance, existing and proposed contours reflecting changes made to topography and surface finishes, and changes in the site impervious area. Separate proposed contours maps will not be necessary for the MRC site because post construction site grades will match pre-construction grades and post-construction surface finishes will be the same as preconstruction site	$0.002 per square foot of land on which grading activities occur. The minimum fee is $40 and the maximum fee is $5,000. In addition, a performance security equal to $0.05 per square foot of land area to be disturbed, not to exceed $30,000,	An estimate of the average review time is approximately 3-6 months.	Two years from the date of issuance with an option to request an extension of up to one additional year upon written request	http://www.baltimorecountymd.gov/Agencies/environment/stormwater/index.html	Baltimore County EPS Stormwater Engineering and Baltimore County Soil Conservation District	Al Wirth/Ed Schmaus with Baltimore County Grading and Stormwater Engineering 410-887-3768 eschmaus@baltimorecountymd.gov rwirth@baltimorecountymd.gov
Baltimore County - Erosion/Sediment Control Plan	Baltimore County – Erosion/Sediment Control Plan Approvals	Erosion/Sediment Control Plan approval is required for any construction activity that disturbs 5,000 square feet or more of soil or results in the excavation of 100 cubic yards or more of soil.	An erosion and sediment control plan will be prepared in accordance with the 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control (MDE, 1994), the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control, and the Baltimore County Urban Policy and Guidelines Manual; draft standards and specifications published in early 2010 will also be considered. An initial submittal will be made that will include signed/sealed plan sheets, plan information sheet, drainage area maps, and the calculated fee. The review process will then follow the 3 stage review procedure for the stormwater management and grading plan process including concept, development, and final plan review.	Flat rate of $0.004 per square foot of disturbed area with a maximum fee of $3,000.	An estimate of the average review time is approximately 6 weeks	2 years from date of issuance	http://www.mascd.net/BCSCD/	Baltimore County Soil Conservation District	Dave Bachman with Baltimore County Soil Conservation District (410) 527-5920, ext. 115 dbachman@baltimorecountymd.gov

Regulation/Statute	Permit	Applicability	Permit Process	Cost	Approval Time	Duration	Link	Agency	Contact
Section 402 Clean Water Act (33 U.S.C. 1342) and 40 CFR 122.26; Environment Article, Title 4, Subtitle 1 for erosion and sediment control and Subtitle 2 for stormwater management (COMAR 26.17.01 and 26.17.02); Article 33 Title 4 of the Code of the Baltimore County Regulations (COBAR) Baltimore County Stormwater Management	Stormwater Management Variance from Baltimore County	General stormwater discharges to waters of the US and state (Federal NPDES program adminstered by MDE); In Baltimore County this includes new stormwater discharges; Development or redevelopment of land for residential, commercial, industrial, institutional, or governmental use	A Stormwater Management Plan is required to be submitted to the Baltimore County Department of Environmental Protection and Sustainability for review and approval before a grading permit can be issued and soil response action activities can commence unless an exemption, waiver, or variance has been granted. The Stormwater Management Plan will be designed in accordance with the "2000 Maryland Stormwater Design Manual, Volumes I and II," revised in 2009.	Flat rate of $50.00 per acre of disturbed area with a minimum fee of $50.00 and a maximum fee of $450	An estimate of the average review time is approximately 6 weeks.	2 years from date of issuance	http://www.baltimorecountymd.gov/Agencies/environment/stormwater/index.html	Baltimore County EPS Stormwater Engineering	Al Wirth/Ed Schmaus with Baltimore County Grading and Stormwater Engineering 410-887-3768 eschmaus@baltimorecountymd.gov rwirth@baltimorecountymd.gov